

SUBSISTENCE

Publications

(FILE 1)

managed for the purpose of protecting their suitability for wilderness designation pending revision of the initial plans; and

(4) unless expressly authorized by Congress the Department of Agriculture shall not conduct any further statewide roadless area review and evaluation of National Forest System lands in the State of Alaska for the purpose of determining their suitability for inclusion in the National Wilderness Preservation System.

TITLE VIII—SUBSISTENCE MANAGEMENT AND USE

FINDINGS

16 USC 3111. **Sec. 801.** The Congress finds and declares that—

(1) the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives, on the public lands and by Alaska Natives on Native lands is essential to Native physical, economic, traditional, and cultural existence and to non-Native physical, economic, traditional, and social existence;

(2) the situation in Alaska is unique in that, in most cases, no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses;

(3) continuation of the opportunity for subsistence uses of resources on public and other lands in Alaska is threatened by the increasing population of Alaska, with resultant pressure on subsistence resources, by sudden decline in the populations of some wildlife species which are crucial subsistence resources, by increased accessibility of remote areas containing subsistence resources, and by taking of fish and wildlife in a manner inconsistent with recognized principles of fish and wildlife management;

43 USC 1601
note.

(4) in order to fulfill the policies and purposes of the Alaska Native Claims Settlement Act and as a matter of equity, it is necessary for the Congress to invoke its constitutional authority over Native affairs and its constitutional authority under the property clause and the commerce clause to protect and provide the opportunity for continued subsistence uses on the public lands by Native and non-Native rural residents; and

(5) the national interest in the proper regulation, protection, and conservation of fish and wildlife on the public lands in Alaska and the continuation of the opportunity for a subsistence way of life by residents of rural Alaska require that an administrative structure be established for the purpose of enabling rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska.

POLICY

16 USC 3112. **Sec. 802.** It is hereby declared to be the policy of Congress that—

(1) consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands; consistent with management of fish and wildlife in accordance with recognized

scientific principles and the purposes for each unit established, designated, or expanded by or pursuant to titles II through VII of this Act, the purpose of this title is to provide the opportunity for rural residents engaged in a subsistence way of life to do so; *Ante, p. 2377.*

(2) nonwasteful subsistence uses of fish and wildlife and other renewable resources shall be the priority consumptive uses of all such resources on the public lands of Alaska when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population, the taking of such population for nonwasteful subsistence uses shall be given preference on the public lands over other consumptive uses; and

(3) except as otherwise provided by this Act or other Federal laws, Federal land managing agencies, in managing subsistence activities on the public lands and in protecting the continued viability of all wild renewable resources in Alaska, shall cooperate with adjacent landowners and land managers, including Native Corporations, appropriate State and Federal agencies, and other nations.

DEFINITIONS

SEC. 803. As used in this Act, the term "subsistence uses" means the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade. For the purposes of this section, the term— *16 USC 3113.*

(1) "family" means all persons related by blood, marriage, or adoption, or any person living within the household on a permanent basis; and

(2) "barter" means the exchange of fish or wildlife or their parts, taken for subsistence uses—

(A) for other fish or game or their parts; or

(B) for other food or for nonedible items other than money if the exchange is of a limited and noncommercial nature.

PREFERENCE FOR SUBSISTENCE USES

SEC. 804. Except as otherwise provided in this Act and other Federal laws, the taking on public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. Whenever it is necessary to restrict the taking of populations of fish and wildlife on such lands for subsistence uses in order to protect the continued viability of such populations, or to continue such uses, such priority shall be implemented through appropriate limitations based on the application of the following criteria: *16 USC 3114.*

(1) customary and direct dependence upon the populations as the mainstay of livelihood;

(2) local residency; and

(3) the availability of alternative resources. *Priority criteria.*

LOCAL AND REGIONAL PARTICIPATION

16 USC 3115.

Sec. 805. (a) Except as otherwise provided in subsection (d) of this section, one year after the date of enactment of this Act, the Secretary in consultation with the State shall establish—

(1) at least six Alaska subsistence resource regions which, taken together, include all public lands. The number and boundaries of the regions shall be sufficient to assure that regional differences in subsistence uses are adequately accommodated;

(2) such local advisory committees within each region as he finds necessary at such time as he may determine, after notice and hearing, that the existing State fish and game advisory committees do not adequately perform the functions of the local committee system set forth in paragraph (3)(D)(iv) of this subsection; and

(3) a regional advisory council in each subsistence resource region.

Regional advisory council, authority.

Each regional advisory council shall be composed of residents of the region and shall have the following authority:

(A) the review and evaluation of proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife within the region;

(B) the provision of a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife within the region;

(C) the encouragement of local and regional participation pursuant to the provisions of this title in the decisionmaking process affecting the taking of fish and wildlife on the public lands within the region for subsistence uses;

Annual report to Secretary.

(D) the preparation of an annual report to the Secretary which shall contain—

(i) an identification of current and anticipated subsistence uses of fish and wildlife populations within the region;

(ii) an evaluation of current and anticipated subsistence needs for fish and wildlife populations within the region;

(iii) a recommended strategy for the management of fish and wildlife populations within the region to accommodate such subsistence uses and needs; and

(iv) recommendations concerning policies, standards, guidelines, and regulations to implement the strategy. The State fish and game advisory committees or such local advisory committees as the Secretary may establish pursuant to paragraph (2) of this subsection may provide advice to, and assist, the regional advisory councils in carrying out the functions set forth in this paragraph.

(b) The Secretary shall assign adequate qualified staff to the regional advisory councils and make timely distribution of all available relevant technical and scientific support data to the regional advisory councils and the State fish and game advisory committees or such local advisory committees as the Secretary may establish pursuant to paragraph (2) of subsection (a).

(c) The Secretary, in performing his monitoring responsibility pursuant to section 806 and in the exercise of his closure and other administrative authority over the public lands, shall consider the report and recommendations of the regional advisory councils concerning the taking of fish and wildlife on the public lands within their respective regions for subsistence uses. The Secretary may choose not to follow any recommendation which he determines is not supported

by substantial evidence, violates recognized principles of fish and wildlife conservation, or would be detrimental to the satisfaction of subsistence needs. If a recommendation is not adopted by the Secretary, he shall set forth the factual basis and the reasons for his decision.

(d) The Secretary shall not implement subsections (a), (b), and (c) of this section if within one year from the date of enactment of this Act, the State enacts and implements laws of general applicability which are consistent with, and which provide for the definition, preference, and participation specified in, sections 803, 804, and 805, such laws, unless and until repealed, shall supersede such sections insofar as such sections govern State responsibility pursuant to this title for the taking of fish and wildlife on the public lands for subsistence uses. Laws establishing a system of local advisory committees and regional advisory councils consistent with section 805 shall provide that the State rulemaking authority shall consider the advice and recommendations of the regional councils concerning the taking of fish and wildlife populations on public lands within their respective regions for subsistence uses. The regional councils may present recommendations, and the evidence upon which such recommendations are based, to the State rulemaking authority during the course of the administrative proceedings of such authority. The State rulemaking authority may choose not to follow any recommendation which it determines is not supported by substantial evidence presented during the course of its administrative proceedings, violates recognized principles of fish and wildlife conservation or would be detrimental to the satisfaction of rural subsistence needs. If a recommendation is not adopted by the State rulemaking authority, such authority shall set forth the factual basis and the reasons for its decision.

Implementation.

(e)(1) The Secretary shall reimburse the State, from funds appropriated to the Department of the Interior for such purposes, for reasonable costs relating to the establishment and operation of the regional advisory councils established by the State in accordance with subsection (d) and the operation of the State fish and game advisory committees so long as such committees are not superseded by the Secretary pursuant to paragraph (2) of subsection (a). Such reimbursement may not exceed 50 per centum of such costs in any fiscal year. Such costs shall be verified in a statement which the Secretary determines to be adequate and accurate. Sums paid under this subsection shall be in addition to any grants, payments, or other sums to which the State is entitled from appropriations to the Department of the Interior.

Reimbursement to States.

(2) Total payments to the State under this subsection shall not exceed the sum of \$5,000,000 in any one fiscal year. The Secretary shall advise the Congress at least once in every five years as to whether or not the maximum payments specified in this subsection are adequate to ensure the effectiveness of the program established by the State to provide the preference for subsistence uses of fish and wildlife set forth in section 804.

Report to Congress.

FEDERAL MONITORING

SEC. 806. The Secretary shall monitor the provisions by the State of the subsistence preference set forth in section 804 and shall advise the State and the Committee on Interior and Insular Affairs and on Merchant Marine and Fisheries of the House of Representatives and the Committees on Energy and Natural Resources and Environment and Public Works of the Senate annually and at such other times as

Report to congressional committees.
16 USC 3116.

he deems necessary of his views on the effectiveness of the implementation of this title including the State's provision of such preference, any exercise of his closure or other administrative authority to protect subsistence resources or uses, the views of the State, and any recommendations he may have.

JUDICIAL ENFORCEMENT

Civil actions.
16 USC 3117.

Sec. 807. (a) Local residents and other persons and organizations aggrieved by a failure of the State or the Federal Government to provide for the priority for subsistence uses set forth in section 804 (or with respect to the State as set forth in a State law of general applicability if the State has fulfilled the requirements of section 805(d)) may, upon exhaustion of any State or Federal (as appropriate) administrative remedies which may be available, file a civil action in the United States District Court for the District of Alaska to require such actions to be taken as are necessary to provide for the priority. In a civil action filed against the State, the Secretary may be joined as a party to such action. The court may grant preliminary injunctive relief in any civil action if the granting of such relief is appropriate under the facts upon which the action is based. No order granting preliminary relief shall be issued until after an opportunity for hearing. In a civil action filed against the State, the court shall provide relief, other than preliminary relief, by directing the State to submit regulations which satisfy the requirements of section 804; when approved by the court, such regulations shall be incorporated as part of the final judicial order, and such order shall be valid only for such period of time as normally provided by State law for the regulations at issue. Local residents and other persons and organizations who are prevailing parties in an action filed pursuant to this section shall be awarded their costs and attorney's fees.

Hearing.

(b) A civil action filed pursuant to this section shall be assigned for hearing at the earliest possible date, shall take precedence over other matters pending on the docket of the United States district court at that time, and shall be expedited in every way by such court and any appellate court.

(c) This section is the sole Federal judicial remedy created by this title for local residents and other residents who, and organizations which, are aggrieved by a failure of the State to provide for the priority of subsistence uses set forth in section 804.

PARK AND PARK MONUMENT SUBSISTENCE RESOURCE COMMISSIONS

16 USC 3118.

Sec. 808. (a) Within one year from the date of enactment of this Act, the Secretary and the Governor shall each appoint three members to a subsistence resources commission for each national park or park monument within which subsistence uses are permitted by this Act. The regional advisory council established pursuant to section 805 which has jurisdiction within the area in which the park or park monument is located shall appoint three members to the commission each of whom is a member of either the regional advisory council or a local advisory committee within the region and also engages in subsistence uses within the park or park monument. Within eighteen months from the date of enactment of this Act, each commission shall devise and recommend to the Secretary and the Governor a program for subsistence hunting within the park or park monument. Such program shall be prepared using technical information and other pertinent data assembled or produced by necessary field studies or

Subsistence
hunting pro-
gram.

investigations conducted jointly or separately by the technical and administrative personnel of the State and the Department of the Interior, information submitted by, and after consultation with the appropriate local advisory committees and regional advisory councils, and any testimony received in a public hearing or hearings held by the commission prior to preparation of the plan at a convenient location or locations in the vicinity of the park or park monument. Each year thereafter, the commission, after consultation with the appropriate local committees and regional councils, considering all relevant data and holding one or more additional hearings in the vicinity of the park or park monument, shall make recommendations to the Secretary and the Governor for any changes in the program or its implementation which the commission deems necessary.

(b) The Secretary shall promptly implement the program and recommendations submitted to him by each commission unless he finds in writing that such program or recommendations violates recognized principles of wildlife conservation, threatens the conservation of healthy populations of wildlife in the park or park monument, is contrary to the purposes for which the park or park monument is established, or would be detrimental to the satisfaction of subsistence needs of local residents. Upon notification by the Governor, the Secretary shall take no action on a submission of a commission for sixty days during which period he shall consider any proposed changes in the program or recommendations submitted by the commission which the Governor provides him.

(c) Pending the implementation of a program under subsection (a) of this section, the Secretary shall permit subsistence uses by local residents in accordance with the provisions of this title and other applicable Federal and State law.

Program and
recommendation
implementation.

COOPERATIVE AGREEMENTS

SEC. 809. The Secretary may enter into cooperative agreements or otherwise cooperate with other Federal agencies, the State, Native Corporations, other appropriate persons and organizations, and, acting through the Secretary of State, other nations to effectuate the purposes and policies of this title.

16 USC 3119.

SUBSISTENCE AND LAND USE DECISIONS

SEC. 810. (a) In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency—

16 USC 3120.

(1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;

(2) gives notice of, and holds, a hearing in the vicinity of the area involved; and

Hearing.

(3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

Notice and hearings.
42 USC 4332.

(b) If the Secretary is required to prepare an environmental impact statement pursuant to section 102(2)(C) of the National Environmental Policy Act, he shall provide the notice and hearing and include the findings required by subsection (a) as part of such environmental impact statement.

48 USC note prec. 21.
43 USC 1601 note.

(c) Nothing herein shall be construed to prohibit or impair the ability of the State or any Native Corporation to make land selections and receive land conveyances pursuant to the Alaska Statehood Act or the Alaska Native Claims Settlement Act.

(d) After compliance with the procedural requirements of this section and other applicable law, the head of the appropriate Federal agency may manage or dispose of public lands under his primary jurisdiction for any of those uses or purposes authorized by this Act or other law.

ACCESS

16 USC 3121.

SEC. 811. (a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.

(b) Notwithstanding any other provision of this Act or other law, the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation.

RESEARCH

16 USC 3122.

SEC. 812. The Secretary, in cooperation with the State and other appropriate Federal agencies, shall undertake research on fish and wildlife and subsistence uses on the public lands; seek data from, consult with and make use of, the special knowledge of local residents engaged in subsistence uses; and make the results of such research available to the State, the local and regional councils established by the Secretary or State pursuant to section 805, and other appropriate persons and organizations.

PERIODIC REPORTS

Submittal to Speaker of House and President of Senate.
16 USC 3123.

SEC. 813. Within four years after the date of enactment of this Act, and within every three-year period thereafter, the Secretary, in consultation with the Secretary of Agriculture, shall prepare and submit a report to the President of the Senate and the Speaker of the House of Representatives on the implementation of this title. The report shall include—

- (1) an evaluation of the results of the monitoring undertaken by the Secretary as required by section 806;
- (2) the status of fish and wildlife populations on public lands that are subject to subsistence uses;
- (3) a description of the nature and extent of subsistence uses and other uses of fish and wildlife on the public lands;

(4) the role of subsistence uses in the economy and culture of rural Alaska;

(5) comments on the Secretary's report by the State, the local advisory councils and regional advisory councils established by the Secretary or the State pursuant to section 805, and other appropriate persons and organizations;

(6) a description of those actions taken, or which may need to be taken in the future, to permit the opportunity for continuation of activities relating to subsistence uses on the public lands; and

(7) such other recommendations the Secretary deems appropriate.

A notice of the report shall be published in the Federal Register and the report shall be made available to the public.

Publication in
Federal Register.

REGULATIONS

SEC. 814. The Secretary shall prescribe such regulations as are necessary and appropriate to carry out his responsibilities under this title.

16 USC 3124.

LIMITATIONS, SAVINGS CLAUSES

SEC. 815. Nothing in this title shall be construed as—

16 USC 3125.

(1) granting any property right in any fish or wildlife or other resource of the public lands or as permitting the level of subsistence uses of fish and wildlife within a conservation system unit to be inconsistent with the conservation of healthy populations, and within a national park or monument to be inconsistent with the conservation of natural and healthy populations, of fish and wildlife. No privilege which may be granted by the State to any individual with respect to subsistence uses may be assigned to any other individual;

(2) permitting any subsistence use of fish and wildlife on any portion of the public lands (whether or not within any conservation system unit) which was permanently closed to such uses on January 1, 1978, or enlarging or diminishing the Secretary's authority to manipulate habitat on any portion of the public lands;

(3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on the public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law; or

(4) modifying or repealing the provisions of any Federal law governing the conservation or protection of fish and wildlife, including the National Wildlife Refuge System Administration Act of 1966 (80 Stat. 927; 16 U.S.C. 668dd-jj), the National Park Service Organic Act (39 Stat. 535; 16 U.S.C. 1, 2, 3, 4), the Fur Seal Act of 1966 (80 Stat. 1091; 16 U.S.C. 1187), the Endangered Species Act of 1973 (87 Stat. 884; 16 U.S.C. 1531-1543), the Marine Mammal Protection Act of 1972 (86 Stat. 1027; 16 U.S.C. 1361-1407), the Act entitled "An Act for the Protection of the Bald Eagle", approved June 8, 1940 (54 Stat. 250; 16 U.S.C. 742a-754), the Migratory Bird Treaty Act (40 Stat. 755; 16 U.S.C. 703-711), the Federal Aid in Wildlife Restoration Act (50 Stat. 917; 16 U.S.C. 669-669i), the Fishery Conservation and Management Act of 1976 (90 Stat. 331; 16 U.S.C. 1801-1882), the Federal

Aid in Fish Restoration Act (64 Stat. 430; 16 U.S.C. 777-777K), or any amendments to any one or more of such Acts.

CLOSURE TO SUBSISTENCE USES

16 USC 3126.

SEC. 816. (a) All national parks and park monuments in Alaska shall be closed to the taking of wildlife except for subsistence uses to the extent specifically permitted by this Act. Subsistence uses and sport fishing shall be authorized in such areas by the Secretary and carried out in accordance with the requirements of this title and other applicable laws of the United States and the State of Alaska.

(b) Except as specifically provided otherwise by this section, nothing in this title is intended to enlarge or diminish the authority of the Secretary to designate areas where, and establish periods when, no taking of fish and wildlife shall be permitted on the public lands for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population. Notwithstanding any other provision of this Act or other law, the Secretary, after consultation with the State and adequate notice and public hearing, may temporarily close any public lands (including those within any conservation system unit), or any portion thereof, to subsistence uses of a particular fish or wildlife population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population. If the Secretary determines that an emergency situation exists and that extraordinary measures must be taken for public safety or to assure the continued viability of a particular fish or wildlife population, the Secretary may immediately close the public lands, or any portion thereof, to the subsistence uses of such population and shall publish the reasons justifying the closure in the Federal Register. Such emergency closure shall be effective when made, shall not extend for a period exceeding sixty days, and may not subsequently be extended unless the Secretary affirmatively establishes, after notice and public hearing, that such closure should be extended.

Publication in
Federal Register.

TITLE IX—IMPLEMENTATION OF ALASKA NATIVE CLAIMS SETTLEMENT ACT AND ALASKA STATEHOOD ACT

SUBMERGED LANDS STATUTE OF LIMITATION

43 USC 1631.

SEC. 901. (a) Notwithstanding any other provision of law, the ownership by a Native Corporation or Native Group of a parcel of submerged land conveyed to such Corporation or Group pursuant to the Alaska Native Claims Settlement Act or this Act, or a decision by the Secretary of the Interior that the water covering such parcel is not navigable, shall not be subject to judicial determination unless a civil action is filed in the United States District Court within five years after the date of execution of the interim conveyance if the interim conveyance was executed after the date of enactment of this Act, or within seven years after the date of enactment of this Act if the interim conveyance was executed on or before the date of enactment of this Act. If a parcel of submerged land was conveyed by a patent rather than an interim conveyance, the civil action described in the preceding sentence shall be filed within five years after the date of execution of the patent if the patent was executed after the date of enactment of this Act, or within seven years after the date of enactment of this Act if the patent was executed on or before the date of enactment of this Act. The civil action described in this

43 USC 1601
note.

(B) The purposes for which the Kodiak National Wildlife Refuge is established and shall be managed include—

- (i) to conserve fish and wildlife populations and their natural diversity including, but not limited to, Kodiak brown bears, salmonoids, sea otters, sea lions and other marine mammals and migratory birds;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

(6) TOGIAK NATIONAL WILDLIFE REFUGE.—(A) The Togiak National Wildlife Refuge shall consist of the existing Cape Newenham National Wildlife Refuge, including lands, waters, and interests therein, which shall be redesignated as a unit of the Togiak National Wildlife Refuge, and an addition of approximately three million eight hundred and forty thousand acres of public lands, as generally depicted on the map entitled "Togiak National Wildlife Refuge", dated April 1980.

(B) The purposes for which the Togiak National Wildlife Refuge is established and shall be managed include—

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, salmonoids, marine birds and mammals, migratory birds and large mammals (including their restoration to historic levels);
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

(7) YUKON DELTA NATIONAL WILDLIFE REFUGE.—(A) The Yukon Delta National Wildlife Refuge shall consist of the existing Clarence Rhode National Wildlife Range, Hazen Bay National Wildlife Refuge, and Nunivak National Wildlife Refuge, including lands, waters, interests, and whatever submerged lands, if any, were retained in Federal ownership at the time of statehood, which shall be redesignated as units of the Yukon Delta National Wildlife Refuge and the addition of approximately thirteen million four hundred thousand acres of public lands, as generally depicted on the map entitled "Yukon Delta National Wildlife Refuge", dated April 1980.

(B) The purposes for which the Yukon Delta National Wildlife Refuge is established and shall be managed include—

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, shorebirds, seabirds, whistling swans, emperor, white-fronted and Canada geese, black brant and other migratory birds, salmon, muskox, and marine mammals;

(ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;

(iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and

(iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

(C) Subject to such reasonable regulations as the Secretary may prescribe, reindeer grazing, including necessary facilities and equipment, shall be permitted within areas where such use is, and in a manner which is, compatible with the purposes of this refuge.

(D) Subject to reasonable regulation, the Secretary shall administer the refuge so as to not impede the passage of navigation and access by boat on the Yukon and Kuskokwim Rivers.

ADMINISTRATION OF REFUGES

Sec. 304. (a) Each refuge shall be administered by the Secretary, subject to valid existing rights, in accordance with the laws governing the administration of units of the National Wildlife Refuge System, and this Act.

(b) In applying section 4(d) of the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd) with respect to each refuge, the Secretary may not permit any use, or grant easements for any purpose described in such section 4(d) unless such use (including but not limited to any oil and gas leasing permitted under paragraph (2)) or purpose is compatible with the purposes of the refuge. The Secretary shall prescribe such regulations and impose such terms and conditions as may be necessary and appropriate to ensure that activities carried out under any use or easement granted under any authority are so compatible.

(c) All public lands (including whatever submerged lands, if any, beneath navigable waters of the United States (as that term is defined in section 1301(a) of title 43, United States Code) were retained in Federal ownership at the time of statehood) in each National Wildlife Refuge and any other National Wildlife Refuge System unit in Alaska are hereby withdrawn, subject to valid existing rights, from future selections by the State of Alaska and Native Corporations, from all forms of appropriation or disposal under the public land laws, including location, entry and patent under the mining laws but not from operation of mineral leasing laws.

(d) The Secretary shall permit within units of the National Wildlife Refuge System designated, established, or enlarged by this Act, the exercise of valid commercial fishing rights or privileges obtained pursuant to existing law and the use of Federal lands, subject to reasonable regulation, for campsites, cabins, motorized vehicles, and aircraft landings directly incident to the exercise of such rights or privileges: *Provided*, That nothing in this section shall require the Secretary to permit the exercise of rights or privileges or uses of the Federal lands directly incident to such exercise, which he determines, after conducting a public hearing in the affected locality, to be inconsistent with the purposes of a unit of the National Wildlife Refuge System as described in this section and to be a significant

Refuge use or easements

Regulations

Commercial fishing rights or privileges

16 USC 668dd
note

16 USC 668dd
note

(3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

(b) If the Secretary is required to prepare an environmental impact statement pursuant to section 102(2)(C) of the National Environmental Policy Act, he shall provide the notice and hearing and include the findings required by subsection (a) as part of such environmental impact statement.

(c) Nothing herein shall be construed to prohibit or impair the ability of the State or any Native Corporation to make land selections and receive land conveyances pursuant to the Alaska Statehood Act or the Alaska Native Claims Settlement Act.

(d) After compliance with the procedural requirements of this section and other applicable law, the head of the appropriate Federal agency may manage or dispose of public lands under his primary jurisdiction for any of those uses or purposes authorized by this Act or other law.

ACCESS

SEC. 811. (a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.

(b) Notwithstanding any other provision of this Act or other law, the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation.

RESEARCH

SEC. 812. The Secretary, in cooperation with the State and other appropriate Federal agencies, shall undertake research on fish and wildlife and subsistence uses on the public lands; seek data from, consult with and make use of, the special knowledge of local residents engaged in subsistence uses; and make the results of such research available to the State, the local and regional councils established by the Secretary or State pursuant to section 805, and other appropriate persons and organizations.

PERIODIC REPORTS

SEC. 813. Within four years after the date of enactment of this Act, and within every three-year period thereafter, the Secretary, in consultation with the Secretary of Agriculture, shall prepare and submit a report to the President of the Senate and the Speaker of the House of Representatives on the implementation of this title. The report shall include—

(1) an evaluation of the results of the monitoring undertaken by the Secretary as required by section 806;

(2) the status of fish and wildlife populations on public lands that are subject to subsistence uses;

(3) a description of the nature and extent of subsistence uses and other uses of fish and wildlife on the public lands;

Submittal to
Speaker of
House and Presi-
dent of Senate.
16 USC 3123

(4) the role of subsistence uses in the economy and culture of rural Alaska;

(5) comments on the Secretary's report by the State, the local advisory councils and regional advisory councils established by the Secretary or the State pursuant to section 805, and other appropriate persons and organizations;

(6) a description of those actions taken, or which may need to be taken in the future, to permit the opportunity for continuation of activities relating to subsistence uses on the public lands; and

(7) such other recommendations the Secretary deems appropriate.

A notice of the report shall be published in the Federal Register and the report shall be made available to the public.

Publication in
Federal Regis-
ter

REGULATIONS

SEC. 814. The Secretary shall prescribe such regulations as are necessary and appropriate to carry out his responsibilities under this title.

16 USC 3124

LIMITATIONS, SAVINGS CLAUSES

SEC. 815. Nothing in this title shall be construed as—

16 USC 3125

(1) granting any property right in any fish or wildlife or other resource of the public lands or as permitting the level of subsistence uses of fish and wildlife within a conservation system unit to be inconsistent with the conservation of healthy populations, and within a national park or monument to be inconsistent with the conservation of natural and healthy populations, of fish and wildlife. No privilege which may be granted by the State to any individual with respect to subsistence uses may be assigned to any other individual;

(2) permitting any subsistence use of fish and wildlife on any portion of the public lands (whether or not within any conservation system unit) which was permanently closed to such uses on January 1, 1978, or enlarging or diminishing the Secretary's authority to manipulate habitat on any portion of the public lands;

(3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on the public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law; or

(4) modifying or repealing the provisions of any Federal law governing the conservation or protection of fish and wildlife, including the National Wildlife Refuge System Administration Act of 1966 (80 Stat. 927; 16 U.S.C. 668dd-jj), the National Park Service Organic Act (39 Stat. 535, 16 U.S.C. 1, 2, 3, 4), the Fur Seal Act of 1966 (80 Stat. 1091; 16 U.S.C. 1187), the Endangered Species Act of 1973 (87 Stat. 884; 16 U.S.C. 1531-1543), the Marine Mammal Protection Act of 1972 (86 Stat. 1027; 16 U.S.C. 1361-1407), the Act entitled "An Act for the Protection of the Bald Eagle", approved June 8, 1940 (54 Stat. 250; 16 U.S.C. 742a-754), the Migratory Bird Treaty Act (40 Stat. 755; 16 U.S.C. 703-711), the Federal Aid in Wildlife Restoration Act (50 Stat. 917; 16 U.S.C. 669-669i), the Fishery Conservation and Management Act of 1976 (90 Stat. 331; 16 U.S.C. 1801-1882), the Federal

Aid in Fish Restoration Act (64 Stat. 430; 16 U.S.C. 777-777K), or any amendments to any one or more of such Acts.

CLOSURE TO SUBSISTENCE USES

Sec. 816. (a) All national parks and park monuments in Alaska shall be closed to the taking of wildlife except for subsistence uses to the extent specifically permitted by this Act. Subsistence uses and sport fishing shall be authorized in such areas by the Secretary and carried out in accordance with the requirements of this title and other applicable laws of the United States and the State of Alaska.

(b) Except as specifically provided otherwise by this section, nothing in this title is intended to enlarge or diminish the authority of the Secretary to designate areas where, and establish periods when, no taking of fish and wildlife shall be permitted on the public lands for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population. Notwithstanding any other provision of this Act or other law, the Secretary, after consultation with the State and adequate notice and public hearing, may temporarily close any public lands (including those within any conservation system unit), or any portion thereof, to subsistence uses of a particular fish or wildlife population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population. If the Secretary determines that an emergency situation exists and that extraordinary measures must be taken for public safety or to assure the continued viability of a particular fish or wildlife population, the Secretary may immediately close the public lands, or any portion thereof, to the subsistence uses of such population and shall publish the reasons justifying the closure in the Federal Register. Such emergency closure shall be effective when made, shall not extend for a period exceeding sixty days, and may not subsequently be extended unless the Secretary affirmatively establishes, after notice and public hearing, that such closure should be extended.

TITLE IX—IMPLEMENTATION OF ALASKA NATIVE CLAIMS SETTLEMENT ACT AND ALASKA STATEHOOD ACT

SUBMERGED LANDS STATUTE OF LIMITATION

SEC. 901. (a) Notwithstanding any other provision of law, the ownership by a Native Corporation or Native Group of a parcel of submerged land conveyed to such Corporation or Group pursuant to the Alaska Native Claims Settlement Act or this Act, or a decision by the Secretary of the Interior that the water covering such parcel is not navigable, shall not be subject to judicial determination unless a civil action is filed in the United States District Court within five years after the date of execution of the interim conveyance if the interim conveyance was executed after the date of enactment of this Act, or within seven years after the date of enactment of this Act if the interim conveyance was executed on or before the date of enactment of this Act. If a parcel of submerged land was conveyed by a patent rather than an interim conveyance, the civil action described in the preceding sentence shall be filed within five years after the date of execution of the patent if the patent was executed after the date of enactment of this Act, or within seven years after the date of enactment of this Act if the patent was executed on or before the date of enactment of this Act. The civil action described in this

48 USC 1601

48 USC 1601 note

Published in Federal Register

subsection shall be a de novo determination of the ownership of the parcel which is the subject of the action.

(b) No agency or board of the Department of the Interior other than the Bureau of Land Management shall have authority to determine the navigability of water covering a parcel of submerged land selected by a Native Corporation or Native Group pursuant to the Alaska Native Claims Settlement Act unless a determination by the Bureau of Land Management that the water covering a parcel of submerged land is not navigable was validly appealed to such agency or board prior to the date of enactment of this Act. The execution of an interim conveyance or patent (whichever is executed first) by the Bureau of Land Management conveying a parcel of submerged land to a Native Corporation or Native Group shall be the final agency action with respect to a decision by the Secretary of the Interior that the water covering such parcel is not navigable, unless such decision was validly appealed prior to the date of enactment of this Act to an agency or board of the Department of the Interior other than the Bureau of Land Management.

(c) If the court determines that a parcel of submerged land which is the subject of a civil action described in subsection (a) is owned by the Native Corporation or Native Group to which it was conveyed pursuant to the Alaska Native Claims Settlement Act or this Act, each defendant Native Corporation and Native Group shall be awarded a money judgment against the plaintiffs in an amount equal to its costs and attorney's fees, including costs and attorney's fees incurred on appeal.

(d) No Native Corporation or Native Group shall be determined to have been conveyed its acreage entitlement under the Alaska Native Claims Settlement Act until—

(1) the statutes of limitation set forth in subsection (a) have expired with respect to every parcel of submerged land conveyed to such Corporation or Group; and

(2) a final judgment or order not subject to an appeal has been obtained in every civil action filed pursuant to subsection (a).

(e) Whenever a parcel of submerged land to be conveyed to a Native Corporation or Native Group is located outside the boundaries of a conservation system unit such Corporation or Group and the State of Alaska may mutually agree that such parcel may be selected by and conveyed to the State under the provisions of section 9(b) of the Alaska Statehood Act

(2) In any instance in which the State could have selected a parcel of submerged land pursuant to an agreement between the State and a Native Corporation or Native Group pursuant to paragraph (1) if such parcel had not previously been conveyed to such Corporation or Group, such Corporation or Group is authorized to reconvey such parcel to the Secretary, and the Secretary shall accept such reconveyance. If the surface estate and subsurface estate of such parcel are owned by different Native Corporations or Native Groups, every Corporation and Group with an interest in such parcel shall reconvey its entire interest in such parcel to the Secretary.

(3) In any agreement made between a Native Corporation or Native Group and the State of Alaska pursuant to paragraph (1), and in any reconveyance executed by a Native Corporation or Native Group pursuant to paragraph (2), each affected Corporation or Group shall disclaim its interest in the parcel which is the subject of the agreement or reconveyance. If such parcel underlies a lake having a surface area of fifty acres or greater or a stream having a width of three chains or greater, the Secretary shall determine the acreage

48 USC 1601 note

Costs and attorney fees

48 USC 1601 note

Agreements or reconveyances with State

48 USC 1601 note

✓ S. Rep. No. 413, 96th Cong., 1st Sess. (Nov. 14, 1979)

the area's existing pulp and saw mills. Some 10 mmbl. of State lands timber annually may also have impact.

Set forth below in tabular form is a summary of the Committee's action last year relative to timber availability and wilderness designation in the Tongass. While some of the base data has changed slightly since the completion of the TLUMP, the assumptions and approach employed by the Committee in designating wilderness in Southeast Alaska are still valid.

	Million board feet
Estimated Timber Yield Available for Harvest Each Year:	
Total potential sustained yield from all classifications (excludes State or Native timber)	1,180
Unregulated (reserved, small parcels, 75-plus percent slopes, soil hazards)	-200
Other reserved and not available (various timber retention factors applied for resource protection)	-172
Total potential sustained yield less unregulated and other reserved	718
Marginal (available but subject to economic or technical restraints)	-158
Net total sustained annual yield of standard and special categories or "available average annual harvest"	560
Estimated Effect of Committee Wilderness Package:	
Total annual potential yield less what is reserved, non-harvestable, or marginal "A-base"	600
10,000,000 per year investment for increased timber yield and \$5,000,000 loan fund	60
Impact of Native timber	38
Estimated allowable cut before deductions	658
Additional reduction for Proposed Wilderness Designation	-80
Additional reduction for possible relocation of Native timber on Admiralty Island	-7
Annual allowable cut less wilderness and Native timber relocation	560
<small>Includes the "A base" Alternative from the Tongass Land Use Management Plan in a \$1,600,000 investment for pregrading into selected areas.</small>	

Thus, it appears that the Committee recommendations will indeed protect the existing timber industry in Southeast while providing wilderness designation for several key areas.

The Committee realizes that there is some disagreement regarding the figures presented above relative to timber availability, potential yield investment opportunities, etc. During its deliberations, the Committee was unable to obtain a consistent set of data from the Forest Service regarding these factors. However, the Committee feels that the numbers employed in the calculations above are fair estimates of the effect the Committee actions will have on timber supply levels from the Tongass.

TITLE VIII—SUBSISTENCE MANAGEMENT AND USE

OVERVIEW

Alaska's more than 200 rural villages are unique in that they are the last communities in the United States in which a substantial number of residents are still dependent upon the harvest of renewable re-

sources on the public lands for their sustenance. The importance of subsistence uses of such resources to the physical, economic and cultural well-being of Alaska Natives and other rural residents has been exhaustively chronicled in testimony presented at hearings, town meetings and workshops held by the committee during consideration of both the Alaska Native Claims Settlement Act and the Alaska National Interest Lands Conservation Act. The committee notes that the report of the Committee on Interior and Insular Affairs of the House of Representatives on H.R. 39 (House Report No. 95-1045, Part I, pp. 181-187) documents the importance of such uses in considerable detail.

HISTORY OF CONCERN

The Committee has had a long-standing concern for the protection of subsistence resources and uses in Alaska. In Section 21 of S. 35, the Senate version of the Alaska Native Claims Settlement Act, the Secretary was directed to establish subsistence zones on the public lands, and, in circumstances in which subsistence resources or uses were threatened, to exercise his closure authority by prohibiting all consumptive uses of such resources within a zone except for subsistence uses by Alaska Natives. The conferees failed to adopt this provision in the conference report; however, the statement of the managers clearly established the intent of the Congress that the Secretary exercise his closure authority in a manner consistent with the purposes of Section 21:

The conference committee, after careful consideration believes that all Native interest in subsistence resource lands can and will be protected by the secretary through the exercise of his existing withdrawal authority. The secretary could, for example, withdraw appropriate lands and classify them in a manner which would protect native subsistence needs and requirements by closing appropriate lands to entry by non-residents when the subsistence resources of these lands are in short supply or otherwise threatened. The conference committee expects both the secretary and the state to take any action necessary to protect the subsistence needs of the natives.

In 1973, the committee adopted, and the Congress enacted, provisions in the Trans-Alaska Oil Pipeline Act (P.L. 93-153) which provided for strict liability of the pipeline right-of-way holder for "fish, wildlife, biotic or other natural resources relied upon by Alaska Natives, Native organizations, or others for subsistence or economic purposes" and required stipulations in all oil and gas pipeline right-of-way permits to protect the "interests of individuals living in the general area of the right-of-way permit who rely on the fish, wildlife, and biotic resources of the area for subsistence purposes." Other Acts of Congress also have recognized the unique dependence of rural Alaskans on subsistence resources. For example, the Marine Mammal Protection Act includes a subsistence exemption for Native residents of coastal villages in Alaska (16 U.S.C. 1371(b)). Similarly, subsistence uses by Alaska Natives and other residents of Native villages are exempted from coverage of the Endangered Species Act (10 U.S.C. 1530(o)).

COMMITTEE AMENDMENT

The subsistence management provisions of S. 0 as introduced reflect a delicate balance between the traditional responsibility of the State of Alaska for the regulation of fish and wildlife populations within the State and the responsibility of the Federal Government for the attainment of national interest goals, including the protection of the traditional lifestyle and culture of Alaska Natives.

The Committee amendment differs from Title VII of H.R. 30, as passed by the House of Representatives in two respects. The first relates to subsistence hunting by local residents within national parks and monuments. Under the Committee amendment, parks and monuments are closed to all forms of hunting unless subsistence uses are permitted by this Act. Subsistence resources commissions are to be established to recommend a program for subsistence hunting in such parks and monuments.

The second major difference is the means for enforcement of the subsistence preference. The House bill requires the Secretary to take certain administrative actions if he determines that the State has failed to establish a subsistence program or to implement such a program in a manner which adequately satisfies the preference for subsistence uses. While the committee has retained broad Federal guidelines to ensure the adequate implementation of the subsistence preference on the public lands and the Secretary's ongoing responsibility to monitor the State's implementation of such preference, the Committee believes that the responsibility of the Secretary to ensure the protection of subsistence uses and the satisfaction of subsistence needs of Alaska Natives and other rural residents can best be met by providing legal representation for such residents before the United States District Court in appropriate instances in which the Secretary has determined, after consultation with the State, that the State has not timely or adequately provided for the preference for subsistence uses. Although it is the intent of the committee to neither enlarge nor diminish any existing authority of the Secretary to take appropriate administrative action to protect subsistence uses and satisfy subsistence needs of rural residents of Alaska, the committee believes that the responsibilities and authorities of the Secretary and the United States District Court set forth in section 804-807 ensure the protection of subsistence activities and the discharge of Federal responsibilities.

During consideration of Alaska National Interest Lands legislation, the Committee adopted several changes to the subsistence management and use title in S. 0 which clarify the Committee's intent and improve the workability of the subsistence management system.

Major changes adopted by the Committee include:

The Conservation of Healthy Populations of Fish and Wildlife

Long-term protection of fish and wildlife populations is necessary to ensure the continuation of the opportunity for a subsistence way of life. Consequently, subsistence uses on the public lands must be conducted in a manner consistent with "the conservation of healthy populations of fish and wildlife", an approach emphasized by the Committee in a series of amendments to incorporate that concept into the language of Sections 802(1), 808(b), and 815 (1) and (3). It also

should be noted that a recommendation of a regional council pursuant to Section 805 would not be supported by substantial evidence if the recommendation is inconsistent with the conservation of healthy populations of fish and wildlife. The Committee intends the phrase "the conservation of healthy populations of fish and wildlife" to mean the maintenance of fish and wildlife resources and their habitats in a condition which assures stable and continuing natural populations and species mix of plants and animals in relation to their ecosystems, including recognition that local rural residents engaged in subsistence uses may be a natural part of that ecosystem; minimizes the likelihood of irreversible or long-term adverse effects upon such populations and species; and ensures maximum practicable diversity of options for the future. The greater the ignorance of the resource parameters, particularly of the ability and capacity of a population or species to respond to changes in its ecosystem, the greater the safety factor must be. Thus, in order to insure that subsistence uses are compatible with the maintenance of healthy populations of fish and wildlife, it must be recognized that the likelihood of irreversible or long-term adverse effects to a population or species must be proportional to the magnitude of the risks caused by a proposed use of such population or species.

The Committee recognizes that the management policies and legal authorities of the National Park System and the National Wildlife Refuge System may require different interpretations and application of the "healthy population" concept consistent with the management objectives of each system. Accordingly, the Committee recognizes that the policies and legal authorities of the managing agencies will determine the nature and degree of management programs affecting ecological relationships, population dynamics, and manipulation of the components of the ecosystem.

Definition of "Subsistence Uses"

Although many residents of cities such as Ketchikan, Juneau, Anchorage, and Fairbanks harvest renewable resources from the public lands for personal or family consumption, by its very nature a "subsistence use" is something done only by Native and non-Native residents of "rural" Alaska. The Committee adopted an amendment to clarify this point by limiting application of the definition to areas of "rural" Alaska including communities such as Dillingham, Bethel, Nome, Kotzebue, Barrow, and other Native and non-Native villages scattered throughout the State. However, the Committee does not intend to imply that the rural nature of such communities is a static condition; the direction of the economic development and rural character of such communities may change over time. It should be emphasized that this amendment is not intended to impose a "durational" rural residency requirement in the definition or impede the traditional movement of Alaska residents between the rural areas and the major population centers and vice versa. Nor does the amendment prohibit the taking of fish and wildlife on certain public lands by normal residents. Rather, nonsubsistence uses may continue in accordance with existing law but do not enjoy any preference on the public lands, and, consequently, may be restricted pursuant to Section 804 when necessary to protect subsistence resources or to ensure the satisfaction of the subsistence needs of rural residents.

The definition has been modified to eliminate the "for personal or family consumption" limitation upon the taking of wild, renewable resources for "customary trade". The Committee does not intend that "customary trade" be construed to permit the establishment of significant commercial enterprises under the guise of "subsistence uses". The Committee expects the Secretary and the State to closely monitor the "customary trade" component of the definition and promulgate regulations consistent with the intent of the subsistence title.

Local And Regional Participation

An amendment to section 805 clarifies that regardless of whether the regional council system is established by the Secretary or the State, the relationship between the regional councils and the Secretary or the State is the same; that is, either the Secretary or the State may choose not to follow a recommendation made by a council if the recommendation is not supported by substantial evidence, violates recognized principles of fish and wildlife conservation, or would be detrimental to the satisfaction of subsistence needs. Another important amendment clarifies that if the State enacts and implements laws of general applicability which satisfy the requirements of Sections 803, 804, and 805, then, unless and until repealed, such State laws shall supersede Sections 803, 804, and 805 insofar as such sections govern State responsibility for the taking of fish and wildlife on the public lands for subsistence uses.

Judicial Enforcement

The major amendment to Section 807 clarifies that while the Secretary is not required to hold a hearing (either informal or pursuant to formal procedures set forth in the Administrative Procedures Act) prior to bringing a civil action against the State on behalf of a local committee or regional council, he is required, prior to bringing such action, to make a determination in writing setting forth substantial evidence that the State has failed to make adequate and timely provision of the subsistence preference after having been provided a reasonable opportunity to do so, and that such failure threatens the ability of local residents to satisfy their subsistence needs.

Subsistence and Land-Use Decisions

The Committee adopted two important technical amendments to Section 810. The first substitutes the well-recognized legal standard of "reasonable" in place of "adequate" to describe the steps which the head of a Federal agency must take to minimize adverse impacts on subsistence uses prior to permitting a withdrawal, reservation, lease, permit, or other use, occupancy, or disposition of the public lands which would significantly restrict subsistence uses, although it should be recognized that steps which are "inadequate" to minimize adverse impacts will rarely be "reasonable" within the meaning of this section. The second amendment clarifies that the requirements of Section 810 are "procedural" in that until the requirements of the section have been satisfied the proposed action may not proceed, but once the requirements of the section are satisfied and incorporated into existing land use planning processes the proposed action may proceed even though its effect may be adverse to subsistence uses.

Elimination of the 10-Year Level of Use

The Committee adopted an amendment to Section 815(1) which eliminated the 10-year standard of measurement on the level of subsistence uses on the public lands. In place of the 10-year standard the Committee substituted language to clarify that nothing in the subsistence management and use title is intended to permit the level of subsistence uses of fish and wildlife within a conservation system unit to be inconsistent with "the conservation of healthy populations, and within a national park or monument to be inconsistent with the conservation of natural and healthy populations, of fish and wildlife". The reference to "natural and healthy populations" with respect to national parks and monuments recognizes that the management policies of those units may entail methods of resource and habitat protection different from methods appropriate for other types of conservation system units.

Nonsubsistence Uses of Fish and Wildlife on the Public Lands

An amendment to Section 815(3) clarifies that the subsistence management and use title is not intended to restrict nonsubsistence uses of fish and wildlife permitted on the public lands except as necessary pursuant to Sections 804 and 810. Nonsubsistence uses also may be appropriately restricted in accordance with other applicable laws in addition to the subsistence title.

The amendments described above are the major clarifying amendments to the subsistence management and use title adopted by the Committee. However, the Committee also adopted a number of technical amendments which are consistent with the title developed last year and which improve the technical workability of the subsistence management system. It also should be noted that nothing in Sections 802, 804, or 807 is intended to affect the Secretary's closure authority pursuant to Section 810.

TITLE IX—IMPLEMENTATION OF THE ALASKA NATIVE CLAIMS SETTLEMENT ACT AND THE ALASKA STATEHOOD ACT

Title IX of S. 9, as introduced, established an expedited legislative conveyance procedure for Native land selections under the Alaska Native Claims Settlement Act and for State selections under the Alaska Statehood Act. Several other provisions designed to facilitate State and native land conveyances were also included in Title IX. The title was adopted by the Committee as a means, along with the designation of national interest lands in the remainder of the bill, to help resolve Alaska's uncertain land ownership status with respect to State and Native land selections and conveyances. Title IX contains the substantive provisions which follow from the finding in Title I, that a prompt and thorough resolution of the status of Alaska public lands is in the best interest of everyone in the Nation.

Several minor amendments to Title IX were agreed to by the Committee and are described in the discussion below.

H.R. 39, as passed by the House, contains language which is similar to the Committee amendment with respect to conveyances to village corporations and other provisions related to native lands, but does not include a provision comparable to Section 902 (other Conveyances to Native Corporations).

(page stop)

to exclude these lands from the park. This exclusion would also remove a trail that has been used in the past by miners who have worked these claims. The Committee notes that this is considered a unique situation.

The Committee recommends the establishment of a two-unit preserve within the overall management unit, in the northeast and southwest. The Committee recommends the establishment of the preserve (Cathedral Spires and Minchumina units) in order to provide for sport hunting, subsistence uses and continued trapping within the area. The preserves shall be managed in the same manner as the park, except that hunting, trapping and other subsistence activities shall be allowed. Subsistence uses shall be permitted within the preserve portion of the management unit, but not in the park.

Section 203: Administration

The consumptive use of wildlife resources for subsistence, recreational, and other purposes is a recognized and permitted use of such resources within National Park Preserves. Section 203 clarifies that such use of wildlife resources within areas designated by Sections 201 and 202 as National Park Preserves shall continue subject to reasonable regulation, including the provisions of title VIII.

Since the establishment of the National Park System in 1916, the consumptive use of wildlife resources within National Parks and National Monuments has been prohibited. Such units have traditionally been viewed as wildlife sanctuaries for the nonconsumptive enjoyment of the American public. However, when establishing new units of the National Park System the Congress has had a long-standing traditional practice of reviewing those values and activities within new units which, if immediately curtailed, might result in substantial hardships to the local residents of the area. Consequently, in appropriate instances certain grazing and inholder activities have been phased out of such units gradually, rather than terminated immediately at the time of establishment of the unit.

In other instances, because of their unique significance to the Nation the Congress has authorized the continuation of certain uses within new parks and monuments which would be prohibited under traditional National Park Service management policies. For example, in Hawaii Volcanoes National Park and the Big Cypress National Preserve certain types of subsistence activities are authorized to continue as a result of congressional recognition of their cultural significance. In both units subsistence activities within the park and preserve were specifically linked by the Congress to culturally distinct groups of people: Native Hawaiians at the Volcanoes Park, and the Miccosukee and Seminole Indian tribes of Florida in Big Cypress. The Congress also adopted a similar approach with respect to the continuation of local commercial fishing within the Virgin Islands National Park.

With respect to the situation of local residents in and near certain new national parks and monuments established by this Act, the Committee believes that the establishment of these units should protect the opportunity for local rural residents to continue to engage in a subsistence way of life. The Committee notes that the Alaska Native people have been living a subsistence way of life for thousands of

years, and that the Alaska Native way of life in rural Alaska may be the last major remnant of the subsistence culture alive today in North America. In addition, there is also a significant non-Native population residing in rural Alaska which in recent times has developed a subsistence lifestyle that also is a cultural value.

In addition to the cultural importance of the subsistence lifestyle, the Committee also is aware that curtailment of subsistence uses would impose major hardships upon many residents of rural Alaska. It is a combination of these factors which has led the Committee to conclude that there is a need to continue the opportunity for subsistence uses of renewable resources, including wildlife, within certain National Parks and Monuments by local rural residents who have, or are a member of a family which has, an established or historical pattern of subsistence uses within such units. The Committee believes that local rural residents who maintain their primary, permanent residence within or near such units should have the opportunity to decide for themselves the course, pace, and extent, if any, of their own lifestyle and community evolution.

It should be noted that in most new units of the National Park System the taking of wildlife by local rural residents for subsistence uses has not necessitated the use of aircraft as a means of access, but this concept is not absolute. For example, some years the caribou herds do not use the mountain passes near the village of Anaktuvuk Pass during their annual migration. Since this village has no alternative sources of food, the use of aircraft is essential for the continued survival of the Anaktuvuk Pass people. Similarly, residents of Yakutat have customarily used aircraft for access to the Malaspina Forelands in the Wrangell-St. Elias area for subsistence purposes, since traveling by boat, the only other possible means of transportation, can be extremely dangerous due to the violent storms that frequent the Gulf of Alaska. Although there may be similar situations in other areas of Alaska in which aircraft use for subsistence hunting may be appropriate and should be permitted to continue, the Committee believes that these types of situations are the exception rather than the rule and that only rarely should aircraft use for subsistence hunting purposes be permitted within National Parks and National Monuments. It is not the intent of this Committee to invite additional aircraft use.

In keeping with the philosophy and management policies described above, the Committee recognizes that local rural residents within or near the Gates of the Arctic National Park, Cape Krusenstern National Monument, and the Kobuk Valley National Park have depended for generations upon the subsistence use of wildlife within those units as the foundation of their lifestyle. The Committee intends, and section 203 authorizes, subsistence hunting within those three units by local rural residents to continue subject to reasonable regulation, including the provisions of title VIII. It should be emphasized that this modification of National Park Service policy is based upon the commitment of the Committee and the National Park Service to the protection and continuation of the lifestyle of local rural residents who have, or who are a member of a family which has, an established or historical pattern of subsistence hunting within the park or monument, during those periods of time during which such persons maintain their primary, permanent residence in or near the park or monument.

Consistent with the policy set forth in section 802(1), the Committee intends that communities which contain concentrations of local rural residents with established or historical patterns of subsistence use of wildlife within those units be identified and designated as "resident zones". Persons whose primary, permanent place of residence is within a zone should be permitted to harvest wildlife within the park or monument for subsistence uses without obtaining a National Park Service permit. Of course, such activities would continue to be regulated by the State of Alaska and the National Park Service pursuant to the provisions of title VIII and other State and Federal laws.

The Committee believes that designation of resident zones rather than National Park Service regulation of subsistence hunting by individual permit has a number of advantages. The National Park Service is spared the expense and administrative complications attendant in the implementation of a comprehensive permit system. The traditional movement of local rural residents between rural villages and Alaska's larger population centers can continue, consistent with unit values, without the interference of a complicated administrative structure. And most importantly, rural communities and cultures will not be burdened by implementation of a complex, and in many instances culturally disruptive, regulatory system, unless necessary in specific instances to protect and administer unit values.

In the latter regard, the Committee notes that the resident zone approach to subsistence hunting is consistent with the protection of park and monument values only so long as such zones remain composed primarily of concentrations of residents with an established or historical pattern of subsistence uses of wildlife within the units. The direction of the evolution of many rural communities within resident zones is as yet undetermined. As a result, the composition of residents within a particular community may alter substantially in the future. If so, the Committee expects, and section 203 and title VIII so authorize, the National Park Service to protect unit values by determining eligibility of residents of communities within previously designated resident zones for subsistence hunting purposes through implementation of an individual permit system.

The Committee also recognizes that there may come a time when wildlife available for subsistence uses may be insufficient to satisfy the subsistence needs of local rural residents who choose to continue the subsistence way of life. For example, pressures on a wildlife population may become sufficiently intense that in order to insure the perpetuation of a viable self-sustaining population within the park system unit there may be a need to restrict the subsistence take of such population by residents of communities properly within designated resident zones and by residents who engage in subsistence uses by permit. In such situations the Committee intends that local rural residents of communities or areas which are the most dependent upon the resource and which have the least access to alternative resources should be given a priority use of the population for subsistence purposes pursuant to the provisions of section 801. Priority among local rural residents within such communities or areas also should be established pursuant to the criteria set forth in section 801. The Committee expects the National Park Service to make such critical allocation

decisions in close consultation with the State of Alaska and affected communities and local rural residents.

In authorizing subsistence uses within National Parks, Monuments, Preserves, and National Recreational Areas, it is the intent of the Committee that certain traditional National Park Service management values be maintained. It is contrary to the National Park Service concept to manipulate habitat or populations to achieve maximum utilization of natural resources. Rather, the National Park System concept requires implementation of management policies which strive to maintain the natural abundance, behavior, diversity, and ecological integrity of native animals as part of their ecosystem, and the Committee intends that that concept be maintained. The National Park Service recognizes, and the Committee agrees, that subsistence uses by local rural residents have been, and are now, a natural part of the ecosystem serving as a primary consumer in the natural food chain. The Committee expects the National Park Service to take appropriate steps when necessary to insure that consumptive uses of fish and wildlife populations within National Park Service units not be allowed to adversely disrupt the natural balance which has been maintained for thousands of years. Accordingly, the Committee does not expect the National Park Service to engage in habitat manipulation or control of other species for the purpose of maintaining subsistence uses within National Park System units.

Several of the new park units established by this legislation, most notably the Gates of the Arctic, Wrangell-St. Elias, the Denali additions, and Lake Clark, encompass some of the most magnificent, remote and untouched mountain terrain in North America. Within these units, whole mountain ranges intersect in a spectacular jumble of unclimbed, uncharted peaks, with rugged spires, great glaciers and snow fields and deep, glacier-carved gorges. These features offer unparalleled opportunities for the whole range of climbing and mountaineering activities, from short day hikes and overnight trips to long treks and major expeditions in truly rugged and remote terrain. The Committee expects that future management of these areas for such purposes will allow such recreational uses with minimal formal regulatory requirements, and with recognition of the desire of such users for solitude, self-reliance and freedom of movement. These uses, and management practices, must be accomplished in a manner consistent with the purposes for which the areas are established and within the limits of sound management principles, including providing for visitor and resource protection.

Section 204: Native selections

Section 204 provides that valid Native selections or nominations of lands within the boundaries of the Wrangell-St. Elias National Park and Preserve are recognized and shall be honored and conveyed by the Secretary in accordance with the Alaska Native Claims Settlement Act and title IX of this bill. The Committee has determined that the fairest and most equitable means of resolving the dual withdrawal status of lands withdrawn both for Native selection under section 11 and for possible inclusion in one of the conservation systems pursuant to section 17(d)(2) of the Alaska Native Claims Settlement Act is to recognize and honor valid Native selections in the dual-withdrawn

VII. SECTION-BY-SECTION ANALYSIS

In general, the table of contents and the language of the Committee substitute speak for themselves. However, the language in title VII relative to the Special Management Areas and Forest Utilization Program; title VIII, Subsistence Management and Use; title IX, Implementation of Alaska Native Claims Settlement Act and Alaska Statehood Act; title X, Federal North Slope Lands Study Program; title XI, Transportation and Utility Systems In and Across, and Access Into, Conservation System Units; title XII, Federal State Cooperation; title XIII, Administrative Provisions; title XIV, Amendments to the Alaska Native Claims Settlement Act and Related Provisions; the title XV, National Need Mineral Activity Recommendation Process, is technical in nature and is therefore analyzed in greater detail in the following section of the report.

TITLE VII—NATIONAL WILDERNESS PRESERVATION SYSTEMS

Section 705: Designation of Special Management Areas Within the Tongass National Forest

This section designates nine areas of national forest land as "Special Management Areas" to protect the lands now and to provide management flexibility. Thus, the designation recognizes the important public values of these lands and the many existing uncertainties about future timber supply and demand in Southeastern Alaska.

Section 706: Management Rules for Special Management Areas

This section sets forth the management rules for special management areas. Under subsection 706(b) timber sales from these lands are prohibited for at least ten years after date of enactment. Despite this prohibition the timber volume on these lands will be included in determining the annual allowable sale quantity on the Tongass National Forest. This provision does not affect timber sales made prior to enactment of this Act.

The Committee intends that the special management areas will be managed so as not to preclude any land management options which Congress may consider in the future. No timber shall be sold from the special management areas without the approval of Congress. The Secretary may take certain steps to control disease, insects, and fire which might involve the harvesting of trees. In certain instances, it may also be desirable for the Secretary to authorize the harvest of wind thrown timber, when the harvest of such timber can contribute to the timber base without adversely affecting the other resource values of the special management area. The Committee does not intend that the Secretary would authorize the harvest of wind thrown timber in situations where the construction of roads or other developments would be necessary, or under any circumstances in which the scenic,

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cultural, or scientific resources of the special management area would be adversely affected.

Subsection 700(c) withdraws the land in special management areas from the operation of the United States Mining law. The provision for classification and opening of these lands are identical to those provided for national conservation areas established pursuant to Title IV. The Committee does not intend that these lands be managed as wilderness.

Subsection 700(d) directs the Secretary of Agriculture to monitor timber supply and demand in Southeastern Alaska. At any time after ten years after the date of enactment, the Secretary is directed to request a waiver of the prohibition on timber sales if he finds that timber in any special management area must be sold to maintain the supply to dependent industry at a rate of 520 million board feet per year.

Subsections 706 (e) and (f) provide an expedited procedure for a Congressional approval of any waiver request.

Subsection 706(g) gives the State of Alaska standing to seek a Federal Court Order directing the Secretary of Agriculture to make the finding required and transmit a proposed statutory waiver. The Committee included this provision so as to give the State an opportunity to challenge the Secretary's failure to seek a waiver if it believes that the Secretary of Agriculture should have made the finding required by subsection 706(d). Of course, the State would have to present evidence substantiating its claim and the Secretary of Agriculture would have the opportunity to rebut such evidence.

Section 707: National Forest Timber Utilization Program

Section 707 establishes a special timber utilization program for the Tongass National Forest. The program is designed to help make Federal timber available from marginal lands. The program includes construction and maintenance of forest development roads under subsection 707(a) and a special loan program to assist timber purchasers under subsection 707(b).

TITLE VIII—SUBSISTENCE MANAGEMENT AND USE

Section 801: Findings

The findings are based on the hearings, town meetings and workshops held by the committee in Alaska and Washington. The findings provide the factual and legal foundation for Congressional action to protect subsistence resources and uses on the public lands. The committee recognizes the importance of continued subsistence uses to the economy and lifestyle of rural Alaska, and particularly to the culture of the Alaska Natives. Alternative food sources generally are not available in most rural village to offset a diminution of the traditional subsistence harvest. However, the continuation of subsistence uses in rural Alaska is threatened by the rapid population growth of Anchorage, Fairbanks and other urban centers and the resultant pressure which urban residents engaged in subsistence and sports uses have placed upon important fish and wildlife populations in heretofore remote areas of the State. The subsistence management and use title is the culmination of Congressional action initiated

by Congress by the Alaska Native Claims Settlement Act to protect and provide for continued subsistence uses by Alaska Natives and other rural residents, and is based upon the constitutional authority of Congress over Native affairs and its authority under the Property Clause and the Commerce Clause. The committee also has determined that the protection of the subsistence way of life and the fish and wildlife populations upon which that lifestyle depends necessitates the establishment of an administrative structure which enables rural residents with personal knowledge of local conditions and requirements to have a meaningful role in the regulations and management of fish and wildlife and subsistence uses on the public lands.

Section 802: Policy

Based upon the findings in the preceding section, three basic policies have been established which shall guide the activities of the Federal government and the State on the public lands: that the utilization of the public lands is to cause the least adverse impact possible upon rural residents who depend upon subsistence uses for their economic and physical well-being and cultural vitality; the nonwasteful subsistence uses of fish, wildlife and other renewable resources, e.g., berries, timber, grasses, shall be the first priority consumptive use of such resources on the public lands, and when or where it is necessary to restrict the taking of such resources, taking for nonwasteful subsistence uses shall be given preference over other consumptive uses; and that the successful management of subsistence resources and activities requires long term cooperation between adjacent landowners and managers, including appropriate State and Federal agencies, Native corporations, and other nations.

Section 803: Definition

The committee has adopted a definition of "subsistence uses" based on the definition of that term set forth in section 15, ch. 151 SLA 1978 (A.S. 16.05.040) of the Alaska Statutes. In turn, the State definition was modeled on section 703 of the House bill. "Subsistence uses" are defined as the customary and traditional use in Alaska of fish, wildlife and other renewable resources for direct personal or family consumption, for the making and selling of handicraft articles from the non-edible by-products of fish and wildlife taken for direct personal or family consumption, and for customary trade, barter, or sharing for personal or family consumption. The definition of "family" recognizes extended family patterns common to all of Alaska's Native cultures. "Family" includes any person living in a household on a permanent basis as well as those persons living outside the household who are related by blood, marriage or adoption (legal or equitable). "Barter" means the exchange or trade of fish or wildlife, or their parts, for other fish or wildlife, or their parts, or for other food or nonedible items other than money if the exchange is of a limited and noncommercial nature. This definition of "barter" recognizes that in many rural villages the subsistence diet must be supplemented with other foods which may be available from the village store and other sources, and that the limited noncommercial barter of subsistence resources for nonedible items is an essential element of the rural subsistence lifestyle. The definition of "subsistence uses" is intended to include all

Alaska residents who utilize renewable resources for direct personal or family consumption.

However, the phrase "customary and traditional" is intended to place particular emphasis on the protection and continuation of the taking of fish, wildlife, and other renewable resources ~~in a way of and by persons (both Native and non-Native) resident in a part of Alaska~~ in which such uses have played a long established and important role in the economy and culture of the community and in which such uses incorporate beliefs and customs which have been handed down by word of mouth or example from generation to generation. The factors of local residency, economic dependence, and availability of alternative resources have been included in section 804 rather than in the definition. Although a truly comprehensive definition of "subsistence uses" must include a mix of those factors, the committee has determined that they should be incorporated through appropriate action by the State rulemaking authority in conjunction with the recommendations of the regional councils established pursuant to section 805 to implement the subsistence preference set forth in section 804. Sections 803-805 are intended to establish a dynamic process for the regulation of subsistence resources and uses which will enable rural people to participate in the decisionmaking process of the State rulemaking authority in the inclusion of the local residency, economic dependence, and availability of alternative resources factors into the definition of "subsistence uses" on a case-by-case basis to meet the needs of a particular management situation in a particular area.

Section 804: Preference for Subsistence Uses

This section requires both the State and the Federal government to accord nonwasteful subsistence uses a preference over the taking of such resources for other purposes on the public lands. Although the committee recognizes that only rarely will the failure to adequately provide for the preference result in the threat of literal starvation, in many instances the failure to obtain fish to dry for winter use or fresh meat to supplement other foods can engender considerable individual, community and cultural trauma and hardship. Consequently, this section envisions that governmental action affecting subsistence resources and uses shall be undertaken in a manner which adequately provides for the preference on an ongoing basis and not only when critical allocation decisions may be necessary because a particular subsistence resource may be threatened with depletion, so long as such action is conducted in a manner which is consistent with the protection of the continued viability of fish and wildlife populations which may be affected by such action. If a particular fish or wildlife population (e.g. salmon, moose or caribou) in a particular area is sufficient to sustain a harvest by all persons engaged in subsistence and other uses, the implementation of restrictions on taking set forth in this section need not be imposed by the State rulemaking authority. However, if the continued viability of a particular population or the ability of rural subsistence-dependent residents to satisfy their subsistence needs would be threatened by a harvest by all such persons, the State rulemaking authority, in conjunction with the recommendations of the regional council representing the affected area, is required by this section

to establish regulations which restrict the taking of such population to Alaska residents engaged in subsistence uses.

If "subsistence uses" must be further restricted to protect the continued viability of the population or to ensure the satisfaction of rural subsistence needs, the State rulemaking authority, in conjunction with the recommendations of the regional council, must limit such uses to local residents of the affected area, or, if necessary, only those local residents with the most customary and direct dependence on the population as the mainstay of livelihood and with the least access to alternative food supplies. In the latter situation, the committee believes that in making such difficult allocation decisions, the State rulemaking authority, in conjunction with the recommendations of the regional council, should endeavor to utilize the special knowledge of local conditions and requirements of the local advisory committees within the affected region. This section also requires the Secretary of the Interior and the Secretary of Agriculture to give subsistence uses preferential consideration in their management activities on the public lands which directly relate to the taking of fish and wildlife, and to take appropriate action to protect such uses and the continued viability of fish and wildlife populations upon which the continuation of such uses depend.

Section 805: Local and Regional Participation

The committee has determined that the opportunity for rural residents of Alaska with personal knowledge of local conditions and requirements to participate effectively in the management and regulation of subsistence resources on the public is important in order to assure both the continued viability of fish and wildlife populations of national importance and the ability of rural people engaged in a subsistence lifestyle to continue to do so. Although the State has indicated that it intends to provide greater support to its existing local advisory committees and establish a system of regional councils throughout the rural areas of the state which will have a major role in the State rulemaking authority's establishment of seasons, bag limits and the provision of the preference for subsistence uses in their respective areas, the State still is in the process of establishing such a system. Section 805 implements section 801 (5) by requiring the Secretary of the Interior to establish a regional council, and if necessary a local committee, system on the public lands if within one year from the date of enactment of this Act the State has not yet established a system for local and regional participation which satisfies the requirement of this section.

The State system of local and regional participation shall be in compliance with the requirements of this section and the Secretary shall not establish local committees or regional councils if the State: (1) divides the public lands into at least six regions. The number and boundaries of the regions must be sufficient to assure that regional differences in subsistence uses are adequately accommodated.

However, it is the intent of the Committee that the number and boundaries of the regions be established in a manner which does not permit the large urban population centers to dominate the regional council system and exercise control over the regulation of subsistence resources in the rural areas; (2) strengthens the existing State local

fish and game advisory committee system by adequately funding committee activities, assigning appropriate staff and distributing available support data to the committees, and encouraging the committees to work closely with the regional councils to develop a recommended strategy for the management of subsistence resources within each region and recommendations concerning policies, standards, guidelines, and regulations to implement the strategy; (3) establishes a regional council within each region composed of residents of the region with duties and responsibilities analogous to those set forth in section 805(a)(3), and assigns staff and distributes available support data to the councils; and (4) provides by statute or regulation that recommendations made by the regional councils to the State rulemaking authority concerning the taking of fish and wildlife populations on the public lands within their respective regions for subsistence uses shall be considered by the authority during the course of its administrative proceedings.

The rulemaking authority may choose not to follow a recommendation if it determines that based on the evidence presented during the course of the administrative proceedings of the board the recommendation is not supported by substantial evidence, violates recognized principles of fish and wildlife conservation, or would be detrimental to the satisfaction of subsistence needs. If the authority makes such a determination and chooses not to follow the recommendation it shall set forth the factual basis and the reasons for its decision.

So long as the State is in full compliance with the requirements of this section, the Secretary of the Interior shall reimburse the State for reasonable costs relating to the operation of the local committees and the establishment and operation of the regional councils. Such reimbursement may not exceed 50 per centum of such costs in any fiscal year, and total payments to the State shall not exceed the sum of \$5,000,000 in any one fiscal year.

If the Secretary determines, one year after the date of this Act and after notice and hearing, that the State is not in full compliance with the requirements of this section, he shall establish a regional council system, and if necessary a local committee system, on the public lands pursuant to the requirements of this section. In performing this monitoring responsibility pursuant to section 806 and in the exercise of his closure and other administrative authority over the public lands the Secretary of the Interior and the Secretary of Agriculture shall be guided by the annual report and advice of the regional councils established by the Secretary of the Interior pursuant to this section, and shall follow such advice unless he determines in writing that such evidence is not supported by substantial evidence, violates recognized principles of fish and wildlife conservation, or would be detrimental to the satisfaction of subsistence needs.

Section 806: Federal Monitoring

This section requires the Secretary of the Interior to monitor the State's provision of the preference for subsistence uses on the public lands including, in consultation with the Secretary of Agriculture, units of the National Forest System. Such monitoring responsibilities should include ongoing communication and cooperation between Federal land and resources managers and Alaska Department of Fish and

Game personnel, local fish and game advisory committees, regional councils, the State Board of Game and the State Board of Fisheries. In addition, the Secretary must develop a capability to monitor both the status of fish and wildlife populations on the public lands harvested for subsistence uses and State regulatory and enforcement activities to provide the preference for subsistence uses, particularly in the rural areas of Alaska. The monitoring capability must enable the Secretary to aid in the identification of potential problems before fish or wildlife populations become threatened with depletion with resultant hardship to rural subsistence-dependent residents, and communicate information about, and suggested recommendations for the solutions of, such problems to the State, the local committees, and the regional councils in a timely manner. However, such monitoring capability need not necessarily require the creation of a new or separate administrative structure within the Department of the Interior.

Section 807: Judicial Enforcement

In addition to his monitoring responsibilities set forth in section 806, this section requires the Secretary of the Interior to investigate any allegation made by a local committee or regional council established by the Secretary or the State pursuant to section 805 that the State is not adequately providing for the preference for subsistence uses within a particular area of the public lands, as to the taking of a particular fish or wildlife population on such lands, or in some other manner. The Secretary shall investigate and report publicly on the results of his investigation. After communicating the results of his investigation to the State, if the Secretary determines that the State still is not adequately providing for the preference after having had a reasonable opportunity to do so, he shall file a civil action against the State in the District Court on behalf and at the request of the local committee or regional council which made the allegation to require the State to take such actions as are necessary to adequately and timely provide such preference.

The failure to adequately restrict the harvest of a particular fish or wildlife population by persons engaged in subsistence or other uses in a particular area (e.g. salmon on the Copper River, moose on the lower Yukon, or caribou in the northwest arctic) pursuant to the criteria set forth in section 804 may threaten such population with immediate and irreparable harm and engender considerable hardship among residents of rural communities which are dependent upon such populations. Consequently, the committee believes that in many situations time may be of the essence to prevent such threat of harm to subsistence resources or human hardship and that temporary judicial relief may be necessary.

The committee also recognizes that because of the location of the Federal courts, inclement weather, poor communication and transportation systems, and the geographical, and in many instances cultural, isolation of many rural communities, timely and effective temporary relief may not be possible under normal judicial procedures. In recognition of these unusual circumstances, this section requires that upon the filing of the complaint, if the District Court makes appropriate findings based upon the pleadings as set forth in this section it shall issue an order to the State to show cause why relief requested in the

complaint should not be granted, and also requires the court to expand the action in every way. However, no order granting temporary relief shall be issued until the State has been provided an opportunity for hearing. Temporary relief may not be necessary in every case and should terminate upon the alleviation of the circumstances which required such relief. Based upon the circumstances of each situation, the court should endeavor to give due deference to the expertise of the Alaska Department of Fish and Game in regulating and conserving fish and wildlife populations in Alaska which are the subject of subsistence uses. Temporary relief should be limited to an order directing the State to issue an emergency regulation either closing a portion of the public lands to the taking of a particular fish or wildlife population except for subsistence uses by local residents of the affected area (or the most subsistence dependent residents of the area), or, less frequently, opening the harvest of such population to such residents. The taking of fish or wildlife for subsistence uses as directed in the order shall be conducted in conformance with applicable State regulations governing such taking which are not directly related to the regulations which have been superseded by the order, or are not in conflict with such order.

To the extent practicable the court should endeavor to fashion a temporary order which draws upon the expertise and special knowledge of the Alaska Department of Fish and Game. Permanent relief shall be limited to directing the State to submit new regulations to the court which adequately provide for the preference for subsistence uses in the situation which gave rise to the action. When, and if, the court determines that such regulations adequately provide for the preference such regulations shall be incorporated as part of the final order. Such final order shall terminate upon the expiration of the normal period of validity under State law (generally one year) of the regulations which were superseded by the regulations incorporated in the order. Although local committee or regional council may obtain immediate judicial review in State court of a determination of the Board of Game or Board of Fisheries that a regional recommendation should not be adopted because it is not supported by substantial evidence, violates recognized principles of fish and wildlife conservation or would be detrimental to the satisfaction of rural subsistence needs, this section shall be the sole Federal judicial remedy created by this title for a local committee or regional council which determines that the preference for subsistence uses has not been adequately provided by the State in its region. Consequently, such board or council could simultaneously seek judicial review in State court of the refusal of the Board of Game or Board of Fisheries to adopt a regional recommendation and request an investigation by the Secretary, and potentially the filing of a civil action, pursuant to this section.

Section 808: Park and Monument Resources Commissions

This section establishes a subsistence resources commission for each national park or monument within which subsistence uses are permitted by this Act. Each council shall be composed of nine members: Three members appointed by the Secretary of the Interior, three members appointed by the the Governor of Alaska, and three members

appointed by the regional council established by the Secretary or the State pursuant to section 805 which has jurisdiction within the area in which the park or monument is located. Members of the commission appointed by the regional council must be a member of either the regional council or a local committee within the region, and also a resident of a village within or adjacent to the park or monument or whose residents engage in subsistence uses within the park or monument. The commissions shall be established within one year from the date of enactment of this Act, and within eighteen months from the date of enactment of this Act shall devise and recommend a program which provides for subsistence uses of wildlife within the park or monument. Each commission should work closely with the local committees and regional boards in its region and with local communities whose residents are dependent upon the continuation of subsistence uses within the park or monument.

Each year thereafter each commission shall make recommendations to the Secretary and the Governor for any changes in the program or its implementation which it deems necessary, if any. The Secretary shall promptly implement the subsistence program, or yearly recommendations, unless he determines in writing that such program, or yearly recommendation, violates recognized principles of wildlife conservation, is contrary to the purposes for which the park or monument is established, or would be detrimental to the satisfaction of subsistence needs. Pending development and implementation of the subsistence program in each park or monument, the Secretary shall manage such park or monument to permit subsistence uses by local residents.

Section 809: Cooperative Agreements

This section authorizes and encourages the Secretary of the Interior and the Secretary of Agriculture to enter into cooperative agreements and otherwise cooperate with other Federal agencies, the State, Native corporations, and other appropriate persons and organizations, including other nations, to manage and protect fish and wildlife resources utilized for subsistence purposes and to otherwise effectuate the purposes and policies of this title.

Section 810: Subsistence and Land Use Decisions

This section requires all Federal land managers and Federal agencies with primary jurisdiction over the public lands, including conservation system unit managers and the Bureau of Land Management, to evaluate the effect on subsistence uses and needs in determining whether to withdraw, reserve, lease or otherwise permit the use, occupancy, or disposition of the public lands under any provision of law authorizing such actions. Prior to any withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses, the head of the appropriate Federal agency shall give notice to the appropriate State agency and local committees and regional councils, give notice to local residents of the area and hold a hearing in the vicinity of the area involved, and determine that such significant restriction of subsistence uses is necessary and consistent with sound management principles for the utilization of the public lands. That the proposed activity will involve the minimal amount of public lands necessary to accom-

plish the purposes of the proposed action, and that reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources. If the Secretary is also required to prepare an environmental impact statement pursuant to the National Environmental Policy Act as well as comply with the requirements of this section, he shall provide the notice and hearing as part of the preparation of, and include the findings required by this section in, such environmental impact statement. This section is not to be construed as prohibiting, impairing or in any manner affecting the selection by, and conveyance to the State of Alaska or any Native corporation of any portion of the public lands selected or conveyed pursuant to the Alaska Statehood Act or the Alaska Native Claims Settlement Act.

Section 811: Access

This section requires the Secretary of the Interior and Secretary of Agriculture to ensure that residents engaged in subsistence uses shall have appropriate access to subsistence resources on the public lands, and shall permit the taking of fish and wildlife for subsistence uses in areas of Alaska designated as national preserves, national conservation areas, national recreation areas, national parks and monuments in which subsistence uses specifically are permitted by this Act, and areas of the National Wildlife Refuge, National Forest, and Wild and Scenic Rivers Systems in accordance with the requirements of this title and other applicable laws of the United States and the State of Alaska.

The committee intends that access to fish and wildlife populations shall be provided to local residents engaged in subsistence uses regardless of where such populations may be located in the future (except that the section is not intended to permit the subsistence use of wildlife in national parks and monuments which are permanently closed to such uses). Traditional habitat and migration routes may be altered by transportation systems and development activities on the public lands. By focusing on access to the resource itself rather than on the particular portion of the public lands upon which the resources may presently be located, this section provides the flexibility necessary to ensure the continuation of subsistence uses in the future, subject to reasonable regulation.

This section also recognizes the importance of the use of snowmachines, motorboats, and other means of surface transportation traditionally employed for subsistence purposes on the public lands. Although aircraft are not included within the purview of this section, reference to means "traditionally employed" for subsistence purposes is not intended to foreclose the use of new, as yet unidentified means of surface transportation, so long as such means are subject to reasonable regulation necessary to prevent waste or damage to fish, wildlife or terrain.

Section 812: Research

This section requires the Fish and Wildlife Service and the National Park Service to work in close cooperation with each other and with the State of Alaska and other appropriate Federal agencies in conducting new and ongoing research on fish and wildlife populations utilized for subsistence purposes on the public lands, and on the subsistence use of such populations. The section requires both agencies to utilize the

special knowledge of local conditions and requirements of local residents engaged in subsistence uses in their area.

The expertise of the local committees and regional councils also is a valuable source of information about subsistence resources and uses and the committee expects all Federal agencies engaged in subsistence related research to inform the appropriate committees and council about research projects being planned or conducted in their respective areas and work closely with those organizations. The results and data obtained from research conducted pursuant to this section shall be made available to the State, the local committees and regional councils and other appropriate persons and organizations. The committee also respects that research conducted pursuant to this section will be undertaken in a manner which does not disrupt the traditional activities of rural residents engaged in subsistence uses, as well as the communities and cultures of which such residents may be a part.

Section 813: Periodic Reports

Four years after the date of enactment of this Act and every three years thereafter, the Secretary of the Interior, in consultation with the Secretary of Agriculture, shall prepare and submit a report to the Congress which shall include a description and evaluation of monitoring activities undertaken pursuant to section 806, the status of fish and wildlife populations on the public lands harvested for subsistence uses, a description of the nature and extent of subsistence and other uses of fish and wildlife on the public lands, a description of the role of subsistence uses in the economy and culture of rural Alaska, comments on the report by the State of Alaska, the local committees and regional councils and other appropriate persons and organizations, a description of those actions taken by the Secretary or the State, or which may need to be taken in the future to protect and continue subsistence uses on the public lands, and such other recommendations as the Secretary deems appropriate. A notice of the report shall be published in the Federal Register and the report made available to the public.

Section 814: Regulations

This section requires the Secretary of the Interior and the Secretary of Agriculture to prescribe such regulations as are necessary and appropriate to carry out their respective responsibilities under this title.

Section 815: Limitations; Savings Clauses

This section provides that nothing in this Act is intended to be construed as granting any property right in any subsistence resource on the public lands; permitting the level of subsistence uses to be inconsistent with the conservation of healthy populations of fish and wildlife, within a conservation system unit, and with the conservation of natural and healthy populations within a national park or monument; permitting any privilege which may be granted by the State to any person with respect to subsistence uses to be assigned; permitting any subsistence use of fish or wildlife on any portion of the public land which was permanently closed to such uses on January 1, 1978; vesting elsewhere than in the Secretary any authority to manipulate habitat on any portion of the public lands; enlarging or diminishing the responsibility and authority of the State of Alaska for the management

of fish and wildlife on the public lands except as specifically provided in this Act; amending the Alaska constitution; or modifying or repealing the provisions of any Federal law governing the conservation or protection of fish and wildlife.

Section 816: Closure to Subsistence Uses

This section provides that all national parks and monuments in Alaska shall be closed to the taking of wildlife except for subsistence uses to the extent specifically permitted by this Act. Subsistence and sport fishing shall be permitted in such areas in accordance with the provisions of this title and other applicable laws of the United States and the State of Alaska. Except as specifically provided in this section nothing in this title is intended to enlarge or diminish the authority of the Secretary under existing law including the Wildlife Refuge Administration Act, and the BLM Organic Act, to designate areas where, and establish periods when, no taking of fish or wildlife shall be permitted on the public lands for reasons of public safety, administration, to assure the continued viability of a particular fish or wildlife population or for other purposes. Thus, the Secretary remains empowered to authorize a more restrictive hunting season than is otherwise permitted by State law. However, in recognition of the importance of subsistence uses by rural residents of Alaska, notwithstanding any other provision of this Act or other law, subsistence uses of a particular fish or wildlife population on the public lands, and such uses by local residents within conservation system units which are open to subsistence uses (including national parks and monuments), may be prohibited on the public lands, or on any portion thereof, only temporarily for reasons of public safety, administration, or to assure the continued viability of such population.

Such a closure must be preceded by consultation with the State and adequate notice and hearing in the vicinity of the area of the closure, unless the Secretary determines that an emergency situation exists and that emergency measures must be taken to protect the public safety or the continued viability of a particular fish or wildlife population. In the latter situation, the Secretary may immediately close the public lands, or any portion thereof, to subsistence uses of a particular fish or wildlife population for a period not to exceed sixty days, which may not be subsequently extended unless the Secretary affirmatively establishes, after notice and hearing, that such an extension is justified. No closure for purposes of administration may be made prior to notice and hearing in the vicinity of the area of the closure. No closure order to the taking of a fish or wildlife population for subsistence uses authorized by this section shall extend longer than necessary to achieve the immediate purpose for the closure established at the hearing held prior to the issuance of such order.

Thus, for example, while the Secretary may prohibit the taking of wildlife for subsistence uses for reasons of public safety in a certain area surrounding a public campground, roadway or hiking trail, such a closure should not be limited to any arbitrary or inflexible time period. Rather, it should remain in effect only so long as reasonably necessary to provide for the public safety during normal periods of consistent public use, and only apply to the minimum portion of

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the public lands reasonably necessary to achieve this purpose. Although, this section authorizes the restriction of subsistence uses for purposes of administration, recognition of the importance of subsistence activities to most rural residents requires that this authority be utilized narrowly and with consistent restraint. In exercising its authority to protect the continued viability of a fish or wildlife population, it is not the intent of the Committee that actual depletion of a population or an emergency exist before a closure under this section may be justified. Continued subsistence uses by rural residents can only be maintained if the continued viability of fish and wildlife populations utilized for subsistence purposes can be maintained.

TITLE IX—IMPLEMENTATION OF ALASKA NATIVE CLAIMS SETTLEMENT ACT AND ALASKA STATEHOOD ACT

Section 901: Conveyances to Village Corporations

This section provides for the conveyance by legislative action of surface rights to eligible Village Corporations, and in some cases, subsurface rights to eligible Regional Corporations. All conveyances made by this section are subject to valid existing rights and may be subject to public easement reservations as provided in Section 903(a).

Subsection (a) provides that the provisions of this section shall be applicable only to Native corporations which elect to receive conveyance pursuant to this section within 180 days.

Subsection (b) legislatively conveys land to eligible Village Corporations where such land is mandated by ANCSA to be selected by the Village Corporation.

Paragraph (1) conveys to a Village Corporation, found eligible by the Secretary, the surface estate to public land in its "core" township or townships. A "core" township is that township which encloses all or part of the improved area constituting the Village. The conveyance is immediate, subject to valid existing rights, and must be otherwise consistent with provisions of the ANCSA such as acreage limitations, contiguity, and location in respect to Home Rule or First-class cities.

Where two or more Villages, by reason of locality, have claimed the same township, the conveyance is delayed until the Village Corporations involved agree to the division of the township, or such dispute is settled by arbitration (see subsection (c)).

Paragraph (2) conveys to a Village Corporation, found eligible by the Secretary, the surface estate to State of Alaska "selected" lands (such are not public lands under Section 3(e) of the ANCSA) in the "core" township. The conveyance procedures and criteria are the same as for paragraph (1) except that certain types of lands, currently in litigation or dispute, are not conveyed by this legislation. These types of land are those lands selected, but not yet patented to the State under the School or University Land Grants, the Mental Health Land Grant, or where the State had by December 18, 1971, conditionally granted title to a third party pursuant to the tentative approval authority of Section 6(g) of the Alaska Statehood Act. Should the results of the litigation or settlement of the disputes be in favor of the Native Corporation, the Secretary would be required to subsequently convey such lands under either the procedures of Section 902 or the ANCSA, as appropriate.

JUL 09 1985

NOTICE OF ADOPTION
OF EMERGENCY REGULATIONS

As required by AS 44.62.250, notice is given that, under authority vested by AS 16.05.255, AS 16.05.340, AS 16.05.346, AS 16.05.780, AS 16.05.920, and AS 16.05.930, the Alaska Board of Game adopted on this date, as emergency regulations, 5 AAC 78,001 - 5 AAC 78.600, 5 AAC 80.001 - 5 AAC 80.600, 5 AAC 82.001 - 5 AAC 82.600, 5 AAC 86.001 - 5 AAC 86.910, 5 AAC 88.001 - 5 AAC 88.910, 5 AAC 92.001 - 5 AAC 92.990, relating to the use or taking of game.

Regulations adopted as emergency regulations and emergency orders of repeal are as follows:

CHAPTER 78. SOUTHEAST ALASKA

- 5 AAC 78.001. DESCRIPTION OF SOUTHEAST ALASKA
- 5 AAC 78.002. APPLICATION OF REGULATIONS
- 5 AAC 78.005. DESCRIPTION OF GAME MANAGEMENT UNITS
- 5 AAC 78.015. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 78.020. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 78.030. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR DEER
- 5 AAC 78.040. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR GOAT
- 5 AAC 78.045. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 78.060. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 78.065. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME
- 5 AAC 78.070. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME
- 5 AAC 78.115. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 78.120. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 78.130. GENERAL HUNTING SEASONS AND BAG LIMITS FOR DEER
- 5 AAC 78.140. GENERAL HUNTING SEASONS AND BAG LIMITS FOR GOAT
- 5 AAC 78.145. GENERAL HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 78.160. GENERAL HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 78.165. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME
- 5 AAC 78.170. GENERAL HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME

- 5 AAC 78.210. PERMITS, PERMIT PROCEDURES, AND PERMIT CONDITIONS
- 5 AAC 78.300. AREAS CLOSED TO HUNTING
- 5 AAC 78.600. CLOSURES AND RESTRICTIONS ON STATE GAME REFUGES

CHAPTER 80. SOUTHCENTRAL ALASKA

- 5 AAC 80.001. DESCRIPTION OF SOUTHCENTRAL ALASKA
- 5 AAC 80.002. APPLICATION OF REGULATIONS
- 5 AAC 80.005. DESCRIPTION OF GAME MANAGEMENT UNITS
- 5 AAC 80.010. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BISON
- 5 AAC 80.015. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 80.020. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 80.025. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR CARIBOU
- 5 AAC 80.030. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR DEER
- 5 AAC 80.040. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR GOAT
- 5 AAC 80.045. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 80.055. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR SHEEP
- 5 AAC 80.060. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 80.065. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME
- 5 AAC 80.070. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME
- 5 AAC 80.115. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 80.120. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 80.125. GENERAL HUNTING SEASONS AND BAG LIMITS FOR CARIBOU
- 5 AAC 80.130. GENERAL HUNTING SEASONS AND BAG LIMITS FOR DEER
- 5 AAC 80.140. GENERAL HUNTING SEASONS AND BAG LIMITS FOR GOAT
- 5 AAC 80.145. GENERAL HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 80.155. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SHEEP
- 5 AAC 80.160. GENERAL HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 80.165. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME
- 5 AAC 80.170. GENERAL HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME

5 AAC 81.340 is repealed
5 AAC 81.350 is repealed
5 AAC 81.360 is repealed
5 AAC 81.400 is repealed
5 AAC 81.900 is repealed
5 AAC 81.910 is repealed
5 AAC 81.920 is repealed
5 AAC 81.930 is repealed

CHAPTER 82. SOUTHWEST ALASKA

5 AAC 82.001. DESCRIPTION OF SOUTHWEST ALASKA
5 AAC 82.002. APPLICATION OF REGULATIONS
5 AAC 82.005. DESCRIPTION OF GAME MANAGEMENT UNITS
5 AAC 82.015. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR BLACK BEAR
5 AAC 82.020. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR BROWN AND GRIZZLY BEAR
5 AAC 82.025. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR CARIBOU
5 AAC 82.030. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR DEER
5 AAC 82.035. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR ELK
5 AAC 82.040. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR GOAT
5 AAC 82.045. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR MOOSE
5 AAC 82.055. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR SHEEP
5 AAC 82.060. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR FUR ANIMALS
5 AAC 82.065. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR SMALL GAME
5 AAC 82.070. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS
FOR UNCLASSIFIED GAME
5 AAC 82.115. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
BLACK BEAR
5 AAC 82.120. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
BROWN AND GRIZZLY BEAR
5 AAC 82.125. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
CARIBOU
5 AAC 82.130. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
DEER
5 AAC 82.135. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
ELK
5 AAC 82.140. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
GOAT
5 AAC 82.145. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
MOOSE
5 AAC 82.155. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
SHEEP
5 AAC 82.160. GENERAL HUNTING SEASONS AND BAG LIMITS FOR
FUR ANIMALS

- 5 AAC 80.210. PERMITS, PERMIT PROCEDURES, AND PERMIT CONDITIONS
- 5 AAC 80.300. AREAS CLOSED TO HUNTING
- 5 AAC 80.400. CONTROLLED USE AREAS
- 5 AAC 80.500. MANAGEMENT AREAS
- 5 AAC 80.600. CLOSURES AND RESTRICTIONS ON STATE GAME REFUGES

CHAPTER 81. HUNTING

- 5 AAC 81.010 is repealed
- 5 AAC 81.013 is repealed
- 5 AAC 81.020 is repealed
- 5 AAC 81.021 is repealed
- 5 AAC 81.022 is repealed
- 5 AAC 81.030 is repealed
- 5 AAC 81.040 is repealed
- 5 AAC 81.055 is repealed
- 5 AAC 81.056 is repealed
- 5 AAC 81.057 is repealed
- 5 AAC 81.060 is repealed
- 5 AAC 81.072 is repealed
- 5 AAC 81.075 is repealed
- 5 AAC 81.080 is repealed
- 5 AAC 81.090 is repealed
- 5 AAC 81.110 is repealed
- 5 AAC 81.115 is repealed
- 5 AAC 81.125 is repealed
- 5 AAC 81.126 is repealed
- 5 AAC 81.130 is repealed
- 5 AAC 81.140 is repealed
- 5 AAC 81.145 is repealed
- 5 AAC 81.160 is repealed
- 5 AAC 81.170 is repealed
- 5 AAC 81.175 is repealed
- 5 AAC 81.180 is repealed
- 5 AAC 81.185 is repealed
- 5 AAC 81.200 is repealed
- 5 AAC 81.210 is repealed
- 5 AAC 81.215 is repealed
- 5 AAC 81.216 is repealed
- 5 AAC 81.218 is repealed
- 5 AAC 81.237 is repealed
- 5 AAC 81.238 is repealed
- 5 AAC 81.239 is repealed
- 5 AAC 81.240 is repealed
- 5 AAC 81.250 is repealed
- 5 AAC 81.260 is repealed
- 5 AAC 81.270 is repealed
- 5 AAC 81.280 is repealed
- 5 AAC 81.290 is repealed
- 5 AAC 81.300 is repealed
- 5 AAC 81.310 is repealed
- 5 AAC 81.320 is repealed
- 5 AAC 81.330 is repealed

- 5 AAC 82.165. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME
- 5 AAC 82.170. GENERAL HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME
- 5 AAC 82.210. PERMITS, PERMIT PROCEDURES, AND PERMIT CONDITIONS
- 5 AAC 82.230. SPECIAL PROVISIONS FOR GENERAL PERMIT HUNTS
- 5 AAC 82.240. PERMIT FOR ACCESS TO MCNEIL RIVER STATE GAME SANCTUARY
- 5 AAC 82.250. PERMIT FOR ACCESS TO WALRUS ISLANDS STATE GAME SANCTUARY
- 5 AAC 82.300. AREAS CLOSED TO HUNTING
- 5 AAC 82.400. CONTROLLED USE AREAS
- 5 AAC 82.600. CLOSURES AND RESTRICTIONS ON STATE GAME REFUGES

CHAPTER 84. TRAPPING

- 5 AAC 84.010 is repealed
- 5 AAC 84.020 is repealed
- 5 AAC 84.030 is repealed
- 5 AAC 84.040 is repealed
- 5 AAC 84.050 is repealed
- 5 AAC 84.060 is repealed
- 5 AAC 84.080 is repealed
- 5 AAC 84.110 is repealed
- 5 AAC 84.115 is repealed
- 5 AAC 84.120 is repealed
- 5 AAC 84.160 is repealed
- 5 AAC 84.170 is repealed
- 5 AAC 84.175 is repealed
- 5 AAC 84.280 is repealed
- 5 AAC 84.285 is repealed
- 5 AAC 84.300 is repealed

CHAPTER 86. WESTERN AND ARCTIC ALASKA

- 5 AAC 86.001. DESCRIPTION OF WESTERN AND ARCTIC ALASKA
- 5 AAC 86.002. APPLICATION OF REGULATIONS
- 5 AAC 86.005. DESCRIPTION OF GAME MANAGEMENT UNITS
- 5 AAC 86.015. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 86.020. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 86.025. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR CARIBOU
- 5 AAC 86.045. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 86.050. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR MUSK OXEN
- 5 AAC 86.055. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR SHEEP
- 5 AAC 86.060. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 86.065. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME

- 5 AAC 86.070. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME
- 5 AAC 86.115. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 86.120. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 86.125. GENERAL HUNTING SEASONS AND BAG LIMITS FOR CARIBOU
- 5 AAC 86.145. GENERAL HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 86.150. GENERAL HUNTING SEASONS AND BAG LIMITS FOR MUSK OXEN
- 5 AAC 86.155. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SHEEP
- 5 AAC 86.160. GENERAL HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 86.165. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME
- 5 AAC 86.170. GENERAL HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME
- 5 AAC 86.210. PERMITS, PERMIT PROCEDURES, AND PERMIT CONDITIONS
- 5 AAC 86.220. PERMIT FOR MUSK OXEN ON SEA ICE
- 5 AAC 86.225. BROWN AND GRIZZLY BEAR PERMITS
- 5 AAC 86.300. AREAS CLOSED TO HUNTING
- 5 AAC 36.400. CONTROLLED USE AREAS
- 5 AAC 86.500. MANAGEMENT AREAS
- 5 AAC 86.600. CLOSURES AND RESTRICTIONS ON STATE GAME REFUGES
- 5 AAC 86.910. ELIGIBILITY FOR HUNTING IN GATES OF THE ARCTIC NATIONAL PARK

CHAPTER 88. INTERIOR ALASKA

- 5 AAC 88.001. DESCRIPTION OF INTERIOR ALASKA
- 5 AAC 88.002. APPLICATION OF REGULATIONS
- 5 AAC 88.005. DESCRIPTION OF GAME MANAGEMENT UNITS
- 5 AAC 88.010. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BISON
- 5 AAC 88.015. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 88.020. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 88.025. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR CARIBOU
- 5 AAC 88.040. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR GOAT
- 5 AAC 88.045. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 88.055. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR SHEEP
- 5 AAC 88.060. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 88.065. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME

- 5 AAC 88.070. SUBSISTENCE HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME
- 5 AAC 88.115. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR
- 5 AAC 88.120. GENERAL HUNTING SEASONS AND BAG LIMITS FOR BROWN AND GRIZZLY BEAR
- 5 AAC 88.125. GENERAL HUNTING SEASONS AND BAG LIMITS FOR CARIBOU
- 5 AAC 88.140. GENERAL HUNTING SEASONS AND BAG LIMITS FOR GOAT

- 5 AAC 88.145. GENERAL HUNTING SEASONS AND BAG LIMITS FOR MOOSE
- 5 AAC 88.155. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SHEEP
- 5 AAC 88.160. GENERAL HUNTING SEASONS AND BAG LIMITS FOR FUR ANIMALS
- 5 AAC 88.165. GENERAL HUNTING SEASONS AND BAG LIMITS FOR SMALL GAME
- 5 AAC 88.170. GENERAL HUNTING SEASONS AND BAG LIMITS FOR UNCLASSIFIED GAME
- 5 AAC 88.210. PERMITS, PERMIT PROCEDURES, AND PERMIT CONDITIONS
- 5 AAC 88.300. AREAS CLOSED TO HUNTING
- 5 AAC 88.400. CONTROLLED USE AREAS
- 5 AAC 88.500. MANAGEMENT AREAS
- 5 AAC 88.600. CLOSURES AND RESTRICTIONS ON STATE GAME REFUGES
- 5 AAC 88.910. ELIGIBILITY FOR HUNTING IN GATES OF THE ARCTIC NATIONAL PARK

CHAPTER 90. GENERAL PROVISIONS

- 5 AAC 90.005 is repealed
- 5 AAC 90.010 is repealed
- 5 AAC 90.020 is repealed

CHAPTER 92. STATEWIDE PROVISIONS

- 5 AAC 92.001. APPLICATION OF THIS CHAPTER
- 5 AAC 92.002. LIABILITY FOR VIOLATIONS
- 5 AAC 92.005. POLICY FOR CHANGING BOARD AGENDA
- 5 AAC 92.010. HARVEST TICKETS AND REPORTS
- 5 AAC 92.012. LICENSES AND TAGS
- 5 AAC 92.014. BROWN AND GRIZZLY BEAR TAG FEE EXEMPTION
- 5 AAC 92.016. MUSK OXEN TAG FEE
- 5 AAC 92.018. WATERFOWL CONSERVATION TAG
- 5 AAC 92.020. APPLICATION OF PERMIT REGULATIONS AND PERMIT REPORTS

- 5 AAC 92.025. PERMIT FOR EXPORTING RAW SKINS
- 5 AAC 92.027. PERMIT FOR EXPORTING TROPHIES
- 5 AAC 92.029. PERMIT FOR POSSESSING LIVE GAME
- 5 AAC 92.031. PERMIT FOR SELLING SKINS AND TROPHIES
- 5 AAC 92.033. PERMIT FOR SCIENTIFIC, EDUCATIONAL, OR PROPAGATIVE PURPOSES
- 5 AAC 92.037. PERMIT FOR FALCONRY

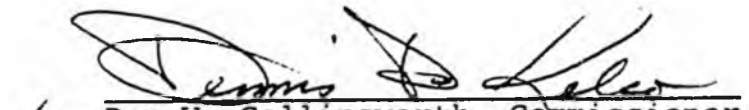
5 AAC 92.039. PERMIT FOR TAKING WOLVES FROM AIRCRAFT
 5 AAC 92.041. PERMIT TO TAKE BEAVERS TO CONTROL DAMAGE TO
 PROPERTY
 5 AAC 92.043. PERMIT FOR CAPTURING WILD FUR BEARERS FOR
 FUR FARMING
 5 AAC 92.045. PERMIT FOR HUNTING BLACK BEAR WITH DOGS
 5 AAC 92.050. REQUIRED PERMIT HUNT CONDITIONS AND
 PROCEDURES
 5 AAC 92.052. DISCRETIONARY PERMIT HUNT CONDITIONS AND
 PROCEDURES
 5 AAC 92.054. PRIORITY FOR SUBSISTENCE HUNTING
 5 AAC 92.056. POINT SYSTEM FOR CUSTOMARY AND DIRECT
 DEPENDENCE
 5 AAC 92.058. POINT SYSTEM FOR LOCAL RESIDENCY
 5 AAC 92.060. POINT SYSTEM FOR AVAILABILITY OF
 ALTERNATIVE RESOURCES
 5 AAC 92.075. LAWFUL METHODS OF TAKING GAME
 5 AAC 92.080. UNLAWFUL METHODS OF TAKING GAME
 5 AAC 92.085. UNLAWFUL METHODS OF HUNTING BIG GAME
 5 AAC 92.090. UNLAWFUL METHODS OF HUNTING FUR ANIMALS
 5 AAC 92.095. UNLAWFUL METHODS OF TRAPPING FUR BEARERS
 5 AAC 92.100. UNLAWFUL METHODS OF HUNTING WATERFOWL,
 SNIPE, AND CRANES
 5 AAC 92.105. LOCAL RESTRICTIONS ON TAKING GAME
 5 AAC 92.110. CONTROL OF PREDATION BY WOLVES
 5 AAC 92.120. WOLF PREDATION CONTROL PROGRAMS
 5 AAC 92.140. UNLAWFUL POSSESSION OR TRANSPORTATION OF
 GAME
 5 AAC 92.150. EVIDENCE OF SEX AND IDENTITY
 5 AAC 92.160. MARKED OR TAGGED GAME
 5 AAC 92.165. SEALING OF BEAR SKINS AND SKULLS
 5 AAC 92.170. SEALING OF MARTEN, LYNX, OTTER, WOLF OR
 WOLVERINE
 5 AAC 92.175. SEALING OF BEAVER
 5 AAC 92.200. PURCHASE AND SALE OF GAME
 5 AAC 92.210. GAME AS ANIMAL FOOD OR BAIT
 5 AAC 92.220. SALVAGE OF GAME MEAT, FURS, AND HIDES
 5 AAC 92.230. FEEDING OF GAME
 5 AAC 92.240. TRANSFER OF MUSK OXEN TO PRIVATE OWNERSHIP
 5 AAC 92.250. TRANSFER OF MUSK OXEN FOR SCIENTIFIC AND
 EDUCATIONAL PURPOSES
 5 AAC 92.260. TAKING CUB BEARS AND FEMALE BEARS WITH CUBS
 PROHIBITED
 5 AAC 92.400. EMERGENCY TAKING OF GAME
 5 AAC 92.410. TAKING OF GAME IN DEFENSE OF LIFE OR
 PROPERTY
 5 AAC 92.800. ENDANGERED SPECIES
 5 AAC 92.990. DEFINITIONS

It is estimated that this action will require increased appropriations as follows: FY 86, \$321,400; FY 87, \$37,500; FY 88, \$37,500; FY 89, \$37,500.

Copies of these regulations may be obtained by writing to the Alaska Board of Game, PO Box 3-2000, Juneau, Alaska, 99802, or may be inspected at any Department of Fish and Game regional office.

Notice is given that the Alaska Board of Game intends to make these regulations permanent under AS 44.62.240, and any person interested may present written statements or arguments relevant to the proposed action by writing to the Alaska Board of Game, PO Box 3-2000, Juneau, Alaska, 99802, so that comments are received no later than August 30, 1985.

DATE: July 5 1985
Juneau, Alaska


for Don W. Collinsworth, Commissioner
Alaska Dept. of Fish and Game

ADFG · Division of Boards
Box 3-2000
Juneau, Alaska 99802

OFFICIAL BUSINESS
STATE OF ALASKA

STATE PENALTY FOR
PRIVATE USE

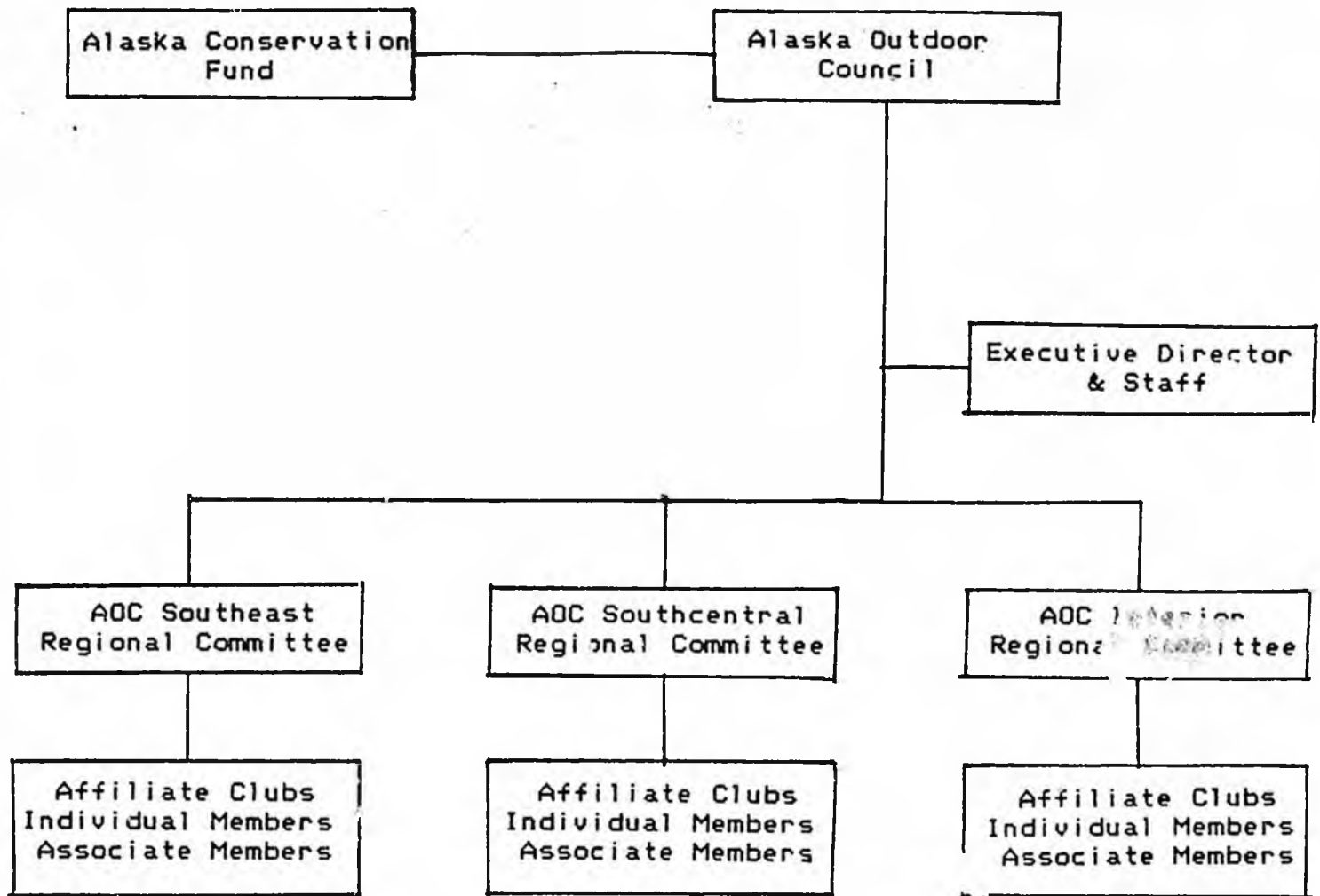


MAIL TO  SEN DON BENNETT
BOX 2801
FAIRBANKS AK 99707

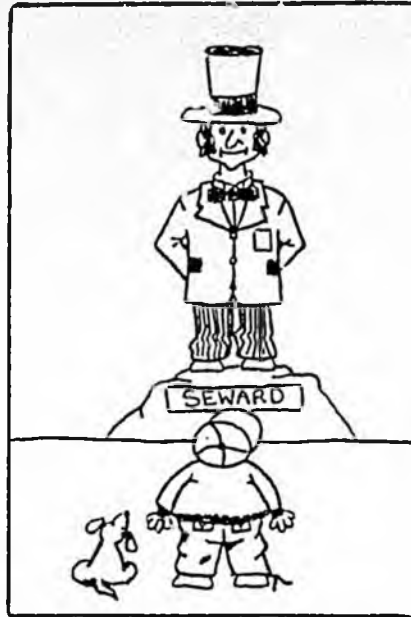
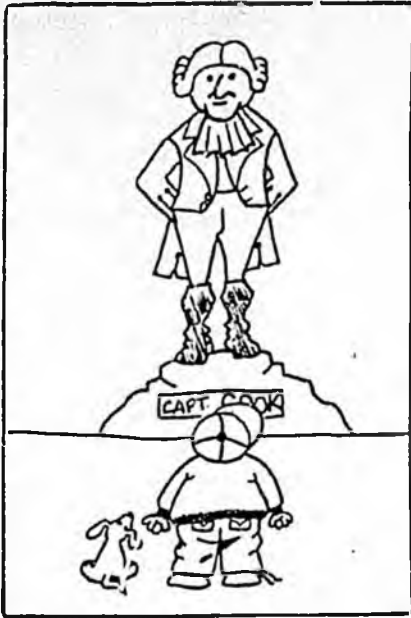
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FIRST CLASS MAIL

**Alaska Outdoor Council
&
Alaska Conservation Fund
Organizational Chart**



1. Board of Directors elected from membership.
2. Regional coordinating committees consisting of representatives from each affiliate organization and representatives at large.
3. Local clubs, other affiliates and individual members. Delegates from these organizations and representatives at large elect Board of Directors and establish policy guidelines for Board of Directors and the Executive Director.
4. Alaska Fish and Wildlife Conservation Fund Board of Directors elected by AOC Board of Directors. This is a tax deductible organization.



WELCOME... TO THE

*SOUTHCENTRAL
OUTDOOR
COALITION*

PROTECT YOUR:

- ACCESS rights
- HUNTING rights
- FISHING rights
- FIREARMS rights
- TRAPPING rights
- PUBLIC LAND USE rights

**PRESERVE ALASKA'S
NATURAL RESOURCES
and
CRITICAL HABITAT**

Join in a **TOTAL** commitment towards positive action!

ALASKA FISH & WILDLIFE FEDERATION AND OUTDOOR COUNCIL

WHAT AND WHO is the Alaska Fish and Wildlife Federation and Outdoor Council?

We are a nonprofit corporation, newly reorganized and revitalized, with a membership of 5,000 and growing.

We are a federation of concerned and active sportsmen and outdoor enthusiasts who want to help Alaska speak loudly and clearly with a strong effective voice on important matters involving fishing, hunting, trapping, outdoor recreation, and the right to keep and bear arms.

GOALS AND COMMITMENTS:

- Maintenance of Alaska's fish & wildlife resources;
- Preservation of critical wildlife habitat;
- Assurance of access to, and use of public resources;
- Perpetuation of the public's hunting, fishing, trapping & shooting rights;
- Equality among public resource users;
- Support of professional, state management of Alaska's wildlife and other natural resources;
- Dedication to continued public education on renewable resource management;
- Participation in regulatory, legislative, administrative, judicial policy-making decisions affecting Alaska's natural resources and their uses.



JOIN the Alaska Fish and Wildlife Federation & Outdoor Council. For more information, please write to address on this brochure.

I support the goals and commitments of the ALASKA FISH & WILDLIFE FEDERATION and OUTDOOR COUNCIL and wish to become a member. I enclose my donation of \$_____ of which \$15.00 covers my annual membership dues.

**ALASKA FISH
& WILDLIFE
FEDERATION &
OUTDOOR
COUNCIL**

3780 McGinnis Dr.
Juneau, AK
99801

NAME _____ DATE _____

HOME ADDRESS _____

_____ Hm. Phone # _____

BUSINESS ADDRESS _____

_____ Wk Phone # _____

Are you a member of an outdoor club?



_____ name of club

ATTENTION

The following is a list of suggestions for writing to Legislators:

1. Be polite/never threaten
2. Be as brief as possible
3. Describe your problem or complaint
(Subsistance or Tier Two)
4. Tell how it effects you
5. Tell how it affects your family
6. List your concerns: future generations, game management, separate classes of citizens, etc.
7. Ask for their response - how do they feel, can you support them, do they support you.

Remember: 50 Letters will get their attention and make it hard for them to ignore you.

Office of the Governor
Bill Sheffield, Governor
Third Floor, State Capitol
Pouch A, Juneau, Ak. 99811

Senators

Mitch Abood
3102 Northwood Dr.
Anchorage ,Ak. 99503

Jan Faiks
6060 Yukon Dr./SRA Box 62F
Anchorage, Ak. 99516

Vic Fischer
600 Barrow #603
Anchorage, Ak. 99501

Joe Josephson
1526 F St.
Anchorage, Ak. 99501

Jalmar Kerttula
Box Z
Palmer, Ak. 99567

Arliss Sturgulewski
2957 Sheldon Jackson
Anchorage, Ak. 99508

Edna DeVries
Box 321
Palmer, Ak. 99645

Paul Fischer
Box 784
Soldotna, Ak. 99669

Rick Halford
Box 66
Chugiak, Ak. 99567

Tim Kelly
283 Muldoon Rd. Station Box 76
Anchorage, 99504

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ALASKA OUTDOOR COUNCIL AFFILIATES

File: Council Member Clubs
 Report: Listing
 Club

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Club	Address	City/State	Zip
Alaska Alpine Rescue Group	3641 Sandvik	Fairbanks, AK.	99701
Alaska Boating Assoc.	6614 E .10th	Anchorage, AK.	99504
Alaska Ch/F.N.A.W.S.	PO Box 10-774	Anchorage, AK.	99511
Alaska Falconers Association	P.O. Box 55390	North Pole, AK	99705
Alaska Frontier Trappers Assoc.	P.O. Box 2856	Palmer, AK.	99645
Alaska Gun Collectors Assoc.	Box 10-1496	Anchorage, AK.	99511
Alaska Mycological Society	PO Box 1471	Soldotna, AK	99669
Alaska Prof. Hunters Assoc.	P.O. Box 441	Talkeetna, AK.	99676
Alaska Prof. Sportfishing Assoc.	P.O. Box 6748	Anchorage, AK.	99502
Alaska Sportfishing Assoc.	3605 Arctic Blvd. #	Anchorage, AK.	99503
Alaska Sports & Wildlife Club	P.O. Box 5122	Ketchikan, AK.	99901
Alaska Trappers Assoc.	P.O. Box 60418	Fairbanks, AK.	99706
Alaska Waterfowl Assoc.	3105A Lake Shore Dr	Anchorage, AK.	99503
Alaskan Alpine Club	3641 Sandvik	Fairbanks, AK.	99701
Alaskan Bowhunters Assoc. Inc.	P.O. Box 6629	Anchorage, AK.	99502
Alaskans Unite Slana Chapter	ST Box 350	Slana, Alaska	99586
Chitina Dipnetters	1002 Pioneer Road	Fairbanks, AK.	99701
College Cubs Rifle Club	469 NRA Lane	Fairbanks, AK.	99701
Delta Sportsmen's Asso	P.O. Box 1309	Delta Junction	99737
Eastern Brooks Rge. Guides Assoc	P.O. Box 72906	Fairbanks, AK.	99707
Fairbanks Practical Shooting Clu	579 University Ave.	Fairbanks, AK.	99701
Gold Nugget Skydivers	P.O. Box 82033	College, AK.	99708
Interior Trail Riders Assoc.	PO Box 10128	Fairbanks, AK.	99710
Interior Wildlife Assoc.	1426 Second Ave.	Fairbanks, AK.	99701
Juneau Rifle & Pistol Club	6001 North St.	Juneau, AK.	99801
Kenai R. Sportfishing Assoc.	2819 Dawson	Anchorage, AK.	99503
Ketchikan Marine Charters	PO Box 7896	Ketchikan, AK.	99901
Ketchikan Volunteer Rescue Squad	P.O. Box 5786	Ketchikan, AK.	99901
Kodiak Island Sportsmens Assoc.	P.O. Box 1098	Kodiak, AK.	99615
Matanuska Valley Sportsmen	P.O. Box 1875	Palmer, AK.	99645
McKinley Mountainmen	188 Citation	Eagle River, A	99577
Midnight Sun Moose Hiders & M. L	P.O. Box 80443	College, AK.	99708
Muskeg Muzzle Loaders Club	9951 Sprucewood #68	Juneau, AK.	99801
Petersburg Rod & Gun Club	Box 528	Petersburg, AK	99833
Safari Club International	8240 Hartzell	Anchorage, AK.	99509
Sitka Sportsmen's Assoc.	Box 1200	Sitka, AK.	99835
Snow Shoe Gun Club	P.O. Box 125	Kenai, AK.	99611
Tanana Valley Rifle & Pistol Clu	2801 Talkeetna	Fairbanks, AK.	99701
Tanana Valley Sportsmen Assoc.	P.O. Box 669	Fairbanks, AK.	99707
Territorial Sportsmen	3780 McGinnis Dr.	Juneau, AK.	99801
Tok Trap Club	c/o Box 134	Tok, AK.	99780
Ultralight Flyers of Alaska	SR 2 Box 4155	Chugiak, AK.	99567

SELECTED GENERAL PROVISIONS

(29) "processing" means completion of:

(A) cooking;

(B) canning;

(C) smoking;

(D) salting, which means uniformly mixing with a minimum salting level of at least 20% of the weight of the fish resources;

(E) drying, or

(F) freezing, which means to congeal and solidify the flesh of fish by abstraction of heat:

(30) "domicile" means the location of a person's primary residence; evidence of domicile may include, but is not limited to, the following:

(A) statements made to obtain a license to drive, hunt, fish, or engage in an activity regulated by a government entity;

(B) affidavit of the person, or of other persons who may know of that person's domicile;

(C) place of voter registration;

(D) location of residences owned, rented, or leased;

(E) location of storage of household goods;

(F) location of business owned or operated;

(G) residence of spouse and minor children or dependents;

(H) government to which taxes are paid; and

(I) whether the person has claimed residence in another location for the purpose of obtaining benefits provided by the government of that location.

Authority: AS 16.05.251
AS 16.05.940

(31) 'fishing site' means a structure or vessel used by a CFEC permit holder for providing shelter in support of the operation of stationary net gear;

(32) 'net gear site' means the in-water location of stationary net gear;

(33) 'seine vessel' means the largest vessel, as determined by keel length, used to operate a seine and the vessel from which the seine is set and retrieved to.

Authority: AS 16.05.251

SELECTED GENERAL PROVISIONS

5 AAC 39.997. ABBREVIATIONS AND SYMBOLS. (a) The abbreviations a.m. and p.m. indicate antemeridian and postmeridian respectively for either Standard Time or Daylight Saving Time in conformance with the official time in use for Alaska.

(b) The symbols °, ', " indicate degrees, minutes and seconds, respectively, of longitude or latitude, based on the North American datum of 1927.

(c) Lat. and long. indicate latitude and longitude, respectively.

(d) E. indicates east, N. indicates north, W. indicates west, and S. indicates south. All bearings and directions shall be construed to be true bearings and true directions.

(e) ADF&G is the abbreviation for Alaska Department of Fish and Game.

(f) CFEC is the abbreviation for the Commercial Fisheries Entry Commission.

Authority: AS 16.05.251(a)

ALASKA PUBLIC OPINION RESEARCH

SURVEY

ALASKAN FEDERATION OF NATIVES (AFN)

DECEMBER 1985

ALASKA PUBLIC OPINION RESEARCH SURVEY

DECEMBER 1985

Prepared for

ALASKAN FEDERATION OF NATIVES (AFN)

Prepared by

Marc E. Hellenthal, Director

HELLENTHAL & ASSOCIATES, INC.

2200 Vanderbilt Circle
Anchorage, Alaska 99508
(907) 276-1001 or
(907) 277-2315

* * * * *

The research and studies forming the basis for this report were conducted pursuant to a contract between Alaskan Federation of Natives and Hellenthal & Associates, Inc. The author and publisher are solely responsible for the accuracy of statements or interpretations contained therein.

HELLENTHAL & ASSOCIATES, INC.

INTRODUCTION AND METHODOLOGY

This report presents an analysis of a survey of Alaska statewide adults. The survey measured properties of Alaskan residents' demographics and attitudes toward subsistence. Research typically involves estimating the characteristics of a designated population. Because of the costs of conducting a census of all items in a population, and the adequacy of sample results, sample statistics were used to make statistical inferences concerning population parameters.

Five hundred and fifty five (555) Alaskan adults were interviewed between November 14th and 22nd, 1985. Interviewing was conducted by telephone on a random digit basis. All Alaskan adults who are accessible by telephone, had an equal chance of being interviewed.

The sample used for this survey was stratified by geographic areas. The following number of interviews were conducted by geographic region: Southeast (House Districts 1 through 4) = 25; Cordova, Valdez, Kenai Peninsula (House Districts 5,6, and 7) = 99; Anchorage (House Districts 8 through 15) = 204; Mat-Su and Greater Fairbanks (House Districts 16 and 17) = 100; Fairbanks (House Districts 18 through 21) = 100; and Rural (House Districts 22 through 27) = 26. The results presented in this report were weighted to reflect the actual population of each geographic region.

At a 95% confidence level, the empirical proportions presented in this report can be projected, within plus or minus 4.16%, to the entire Alaskan population of adults — aged 18 and over. This means one can be 95% sure that the frequencies reported in this survey are within 4.2% of the true Alaskan adult population proportions.

The following is a presentation of certain specialized tables concerning Alaskan adults' perception of subsistence.

QUESTIONNAIRE:
SUBSISTENCE, POLITICAL AND GENERAL
FREQUENCIES

ALASKA STATE'VIDE PUBLIC OPINION RESEARCH SURVEY

December 1985

HELLENTHAL & ASSOCIATES, INC.
2200 Vanderbilt Circle
Anchorage, Alaska 99508
(907) 276-1001 or
277-2315

Hello, I am _____ from HELLENTHAL & ASSOCIATES. We are conducting a State-wide public opinion research survey. Your telephone number was randomly selected. The questions I need to ask will take only 8 to 10 minutes. All of your responses will be completely confidential. (PAUSE AND PROCEED)

S1. Is this telephone number _____? (IF NO, TERMINATE WITH, "I'm sorry, I dialed the wrong number.")

S2. Is this a residence in which you live? (IF NO, TERMINATE INTERVIEW WITH, "I'm sorry, I need to talk with someone at a residence.")

S3. Are you 18 years old or older?

IF YES, THEN PROCEED TO QUESTION #1

IF NO, THEN ASK

Is there anyone home who is 18 years old or older?

IF YES, THEN ASK

May I speak with them? (PROCEED TO QUESTION #1 OR TERMINATE AND NOTE ON TELEPHONE CALL RECORD SHEET)

IF NO, THEN ASK

When will someone be home who is 18 or older? (TERMINATE AND NOTE ON TELEPHONE CALL RECORD SHEET)

1. What is the closest major intersection to your residence? (GET AS MUCH DETAIL AS POSSIBLE. LABEL EAST-WEST AND NORTH-SOUTH STREETS ON THE ANSWER SHEET AND PLACE AN 'X' IN THE PROPER QUADRANT.)

ASK IN ANCHORAGE AND FAIRBANKS ONLY

Do you live North or South of this intersection?
(ANCHORAGE: DOWNTOWN = NORTH; RABBIT CREEK = SOUTH)

Do you live East or West of this intersection?
(ANCHORAGE: MOUNTAINS = EAST; INLET = WEST)

AREA OF STATE	FREQUENCY	PERCENT
Southeast.....	81.....	14.6%
Valdez, Kenai, S. Anchorage.....	59.....	10.6%
Anchorage.....	224.....	40.4%
Mat-Su, Greater Fairbanks.....	50.....	9.0%
Fairbanks.....	76.....	13.7%
Rural.....	65.....	11.7%

HOUSE DISTRICT	FREQUENCY	PERCENT
One.....	21.....	3.9%
Two.....	14.....	2.5%
Three.....	11.....	2.0%
Four.....	35.....	6.2%
Five.....	33.....	6.0%
Six.....	11.....	2.0%
Seven.....	15.....	2.7%
Eight.....	43.....	7.7%
Nine.....	25.....	4.5%
Ten.....	30.....	5.3%
Eleven.....	25.....	4.6%
Twelve.....	25.....	4.6%
Thirteen.....	22.....	3.9%
Fourteen.....	25.....	4.6%
Fifteen.....	29.....	5.2%
Sixteen.....	43.....	7.8%
Seventeen.....	7.....	1.2%
Eighteen.....	17.....	3.1%
Nineteen.....	7.....	1.3%
Twenty.....	34.....	6.2%
Twenty-one.....	18.....	3.2%
Twenty-two.....	7.....	1.2%
Twenty-three.....	6.....	1.1%
Twenty-four.....	8.....	1.4%
Twenty-five.....	8.....	1.4%
Twenty-six.....	22.....	3.9%
Twenty-seven.....	15.....	2.7%

2. Are you presently registered to vote in the State of Alaska?

REGISTERED TO VOTE	FREQUENCY	PERCENT
Yes.....	447.....	80.5%
No.....	108.....	19.5%

3. Are you registered to vote as a (IF THEY ARE NOT REGISTERED TO VOTE, ASK "If you were to register to vote, would you register as a")

PARTY AFFILIATION	FREQUENCY	PERCENT
Democrat,.....	120.....	21.6%
Republican,.....	145.....	26.1%
Libertarian, or did you indicate.....	17.....	3.0%
No Party Affiliation (Non-Partisan)?.....	273.....	49.3%

4. In 1982, three years ago, did you vote in either the August 24th Primary or November 2nd General State Elections?

VOTE IN 1982 ELECTIONS	FREQUENCY	PERCENT
Yes.....	362.....	65.2%
No.....	193.....	34.8%

5. In 1984, last year, did you vote in either the August 28th Primary or November 6th General State Elections?

VOTE IN 1984 ELECTIONS	FREQUENCY	PERCENT
Yes.....	373.....	67.3%
No.....	182.....	32.7%

6. Do you consider yourself to be

RESPONDENT'S IDEOLOGY	FREQUENCY	PERCENT
1. Very Liberal.....	16.....	3.0%
2. Liberal,.....	112.....	20.2%
3. Moderate,.....	237.....	42.7%
4. Conservative, or.....	172.....	31.0%
5. Very Conservative.....	18.....	3.2%

(MEAN = 3.112)

7. Would you say that you generally are

INTEREST IN CAMPAIGNS	FREQUENCY	PERCENT
1. Very interested,.....	119.....	21.4%
2. Somewhat interested, or.....	319.....	57.6%
3. Not very interested in political campaigns?.....	117.....	21.4%

(MEAN = 1.997)

8. I am going to read to you a list of names of organizations. Please tell me whether your feelings toward each of them is VERY POSITIVE, POSITIVE, NEUTRAL, NEGATIVE, or VERY NEGATIVE — or if you don't know what they are. Are your feelings toward _____ (FILL IN ORGANIZATION) very positive, positive, neutral, negative, or very negative — or don't you know what it is?

ORGANIZATION	4 VERY POSITIVE	3 POSITIVE	2 NEUTRAL	1 NEGATIVE	0 VERY NEGATIVE	WHO?	MEAN
Alaskans for Sensible Fish and Game Management.....	7.3%	36.2%	17.2%	4.2%	0.9%	34.3%	2.682
Alaska State Department of Fish and Game.....	14.0%	51.5%	20.8%	9.2%	2.3%	2.2%	2.672
Oil Companies in Alaska.....	10.6%	50.0%	29.3%	7.2%	1.2%	1.7%	2.626
Alaska Sports Fisherman Association.....	8.2%	44.9%	21.3%	8.4%	0.7%	16.6%	2.616
Alaskans for Equal Hunting and Fishing Rights.....	9.4%	38.0%	19.2%	6.9%	1.9%	24.7%	2.612
Alaska Outdoors Council.....	6.9%	25.1%	15.2%	4.8%	0.9%	47.2%	2.611
Rural Alaska Community Action Program or RuralCap.....	3.0%	22.4%	19.3%	3.2%	0.3%	51.8%	2.512
Alaska Native Foundation (ANF).....	7.1%	32.8%	28.2%	10.1%	1.7%	20.1%	2.418
Alaskan Federation of Natives (AFN).....	6.1%	30.1%	32.1%	10.1%	1.4%	20.3%	2.370
Womens' Political Groups, such as NOW, in Alaska.....	5.5%	34.1%	30.2%	12.4%	3.1%	14.7%	2.311
United Tribes of Alaska (UTA).....	4.6%	20.5%	28.3%	9.5%	0.6%	36.6%	2.298
The Republican Party in Alaska.....	4.6%	28.0%	53.9%	10.0%	1.9%	1.6%	2.238
The Democratic Party in Alaska.....	1.9%	26.3%	52.1%	13.4%	3.4%	2.9%	2.101
Unions in Alaska.....	4.4%	23.3%	29.1%	27.5%	11.0%	4.6%	1.818
The Alaska Association of White Men.....	1.5%	7.4%	10.6%	10.6%	6.0%	63.9%	1.663

9. There is presently a bill before the Legislature that defines subsistence use as providing a priority for rural Alaskans, over urban Alaskans, in the taking of fish and game for personal consumption as food, clothing, fuel, or tools. Do you favor or oppose providing a priority for rural Alaskans in the taking of fish and game for subsistence use?

PRIORITY FOR RURAL ALASKANS	FREQUENCY	PERCENT
Favor.....	315.....	56.7%
Oppose.....	203.....	36.5%
DON'T KNOW.....	38.....	6.8%

10. Do you favor or oppose Alaskan Natives being allowed to regulate fish and game in their own areas?

NATIVES REGULATE IN OWN AREAS	FREQUENCY	PERCENT
Favor.....	222.....	40.4%
Oppose.....	269.....	48.4%
DON'T KNOW.....	64.....	11.6%

11. Do you favor or oppose Alaskan Native efforts for tribal self-government?

TRIBAL SELF-GOVERNMENT	FREQUENCY	PERCENT
Favor.....	266.....	48.0%
Oppose.....	195.....	35.1%
DON'T KNOW.....	94.....	16.9%

12. Do you favor or oppose Alaskan Native efforts for sovereignty?

NATIVE SOVEREIGNTY	FREQUENCY	PERCENT
Favor.....	160.....	28.8%
Oppose.....	282.....	50.9%
DON'T KNOW.....	113.....	20.3%

13a. Think now about the overall quality of hunting and fishing in Alaska during the last three years. Do you think the quality of hunting and fishing in Alaska has improved, stayed the same, or gotten worse over the past three years?

QUALITY OF HUNTING/FISHING	FREQUENCY	PERCENT
Improved.....	75.....	13.6%
Stayed the Same.....	236.....	42.5%
Gotten Worse.....	244.....	43.9%

13b. (IF "WORSE", ASK) Which of the following reasons do you think are most responsible for this change for the worse?

REASONS	FREQUENCY	PERCENT
There are more fishermen.....	186.....	33.5%
There are more hunters.....	179.....	32.2%
There are fewer animals.....	140.....	25.3%
There are more outside trophy hunters.....	137.....	24.6%
There are more restrictions on where one can hunt....	135.....	24.3%
There are more restrictions on where one can fish....	135.....	24.3%
There are fewer fish.....	100.....	18.0%

14a. Do you feel there is enough fish and game in Alaska for everyone to go hunting and fishing for whatever amount they want, or do you feel there should be regulations limiting the amount of fish and game any individual can take?

NON-REGULATION VS REGULATION	FREQUENCY	PERCENT
Whatever Amount They Want.....	28.....	5.0%
Regulations Limiting Amount.....	515.....	92.7%
DON'T KNOW.....	12.....	2.2%

14b. If a fish stock or game population is not large enough to allow everyone to fish or hunt, should rules limiting the amount of fish and game people can take be based on

REASONS	FREQUENCY	PERCENT
The customary and traditional uses of fish and game for personal consumption?.....	337.....	60.7%
Income or economic status of the household?.....	240.....	43.2%
Rural residency?.....	247.....	44.5%
How much people depend on fish and game?.....	402.....	72.5%
A person's race?.....	28.....	5.1%

15. Alaska's fish and game resources are used in three ways: subsistence use which is personal consumption by rural Alaskans for food, clothing, fuel, or tools; sports and recreational use; and commercial use. Please tell me which of these fish and games uses is most important for Alaska? How about 2nd most important? And least (3rd) important?

FISH AND GAME USES	1ST	2ND	3RD	DON'T KNOW	MEAN
Subsistence.....	47.7%....	29.5%....	20.8%....	2.0%....	1.725
Sports and Recreation.....	12.6%....	31.6%....	52.9%....	2.8%....	2.415
Commercial.....	37.9%....	36.0%....	23.4%....	2.7%....	1.851

16. How important would you say subsistence hunting and fishing by rural Alaskan residents for personal consumption is to the economies of rural communities? Would you say it is very important, somewhat important, neither important or unimportant, somewhat unimportant, or very unimportant?

IMPORTANCE OF SUBSISTENCE	FREQUENCY	PERCENT
Very Important.....	275.....	49.6%
Somewhat Important.....	166.....	29.9%
Neither Important or Unimportant.....	39.....	7.0%
Somewhat Unimportant.....	36.....	6.5%
Very Unimportant.....	16.....	2.9%
DON'T KNOW.....	23.....	4.1%

17. There has been some discussion in Alaska concerning subsistence fishing and hunting. Some people believe, if there is not enough fish or game for all Alaskan residents, a priority for the taking of fish and game should be given to rural Alaskans. Other people believe subsistence is not that important anymore and that all Alaskan residents should be treated the same. Do you think rural Alaskan residents should be given a priority or do you think all Alaskan residents should be treated the same?

RURAL VS ALL RESIDENTS	FREQUENCY	PERCENT
Rural Alaskan Residents.....	265.....	47.8%
All Alaskan Residents.....	275.....	49.5%
DON'T KNOW.....	15.....	2.7%

18. Some people say it is fair for rural subsistence uses of fish and game to be considered more important than commercial and recreational uses of fish and game? Do you think it is fair or not fair for rural subsistence uses to be considered more important than commercial and recreational uses?

RURAL VS OTHER USES	FREQUENCY	PERCENT
Fair.....	301.....	54.3%
<u>Not</u> Fair.....	225.....	40.6%
DON'T KNOW.....	28.....	5.1%

19. Now I am going to read you a short series of statements. Please tell me if you STRONGLY AGREE, MILDLY AGREE, MILDLY DISAGREE, OR STRONGLY DISAGREE with each of the following statements: (IF AGREE OR DISAGREE SAY, "Is that strongly agree/disagree or just mildly agree/disagree?")

STATEMENTS	1	2	4	5	3	MEAN
	STRONGLY AGREE	MILDLY AGREE	MILDLY DISAGREE	STRONGLY DISAGREE	DON'T KNOW	
In Alaska there are people who need to hunt and fish in order to live.....	55.0%	35.8%	6.0%	2.7%	0.4%	1.656
In Alaska the supply of fish and game is limited and <u>no</u> Alaskan should be allowed to catch all the fish or take all the game they want.....	55.8%	27.6%	9.0%	4.1%	3.5%	1.780
People in Rural Alaska are more dependent on fish and game than Urban Alaskans.....	39.8%	40.0%	12.3%	4.1%	3.7%	2.10
Both Alaska natives and Alaska non-natives need to hunt and fish in order to live.....	32.5%	38.1%	19.3%	8.4%	1.7%	2.329
<u>Not</u> providing a subsistence priority for rural Alaskans harms those who want to live off the land.....	18.3%	37.0%	28.9%	6.1%	9.7%	2.675
<u>Not</u> providing a subsistence priority for rural Alaskans harms rural people who live off the land to the benefit of urban sports fishermen.....	16.5%	35.6%	25.4%	6.5%	16.0%	2.697

STATEMENTS (CONTINUED)	1 STRONGLY AGREE	2 MILDLY AGREE	4 MILDLY DISAGREE	5 STRONGLY DISAGREE	3 DON'T KNOW	MEAN
Rural Alaskans <u>should</u> have a priority to fish and hunt over Urban Alaskans.....	24.9%	28.7%	24.8%	16.4%	5.2%	2.790
<u>Not</u> providing a subsistence priority for rural Alaskans only invites the federal government to come into Alaska to regulate fish and game on federal land in Alaska.....	16.0%	29.2%	26.2%	11.1%	17.5%	2.872
All Alaskans are equal and no Alaskan should have a hunting and fishing priority over any other Alaskan.....	22.4%	27.6%	30.6%	15.8%	3.7%	2.899
<u>Not</u> providing a subsistence priority for rural Alaskans is a direct attack on Alaska tradition and Native Alaska Culture.....	17.9%	27.0%	30.6%	14.6%	9.7%	2.972
Unimproved land owned by Native Corporations should <u>remain</u> exempt from local property taxes.....	12.6%	23.0%	31.8%	20.9%	11.8%	3.253
Alaska natives receive a greater share of State Revenues than they should.....	10.1%	13.6%	36.0%	16.2%	24.0%	3.347
Alaska natives take more fish and game than they really need.....	9.2%	20.3%	27.7%	23.7%	19.1%	3.364
Those groups and people presently fighting subsistence laws are partially, at least, racially motivated against Alaskan Natives.....	6.3%	22.0%	29.5%	22.9%	19.4%	3.407
Alaska natives, in this day and age, no longer need to fish and hunt in order to survive.....	6.1%	19.6%	39.1%	32.1%	3.2%	3.714
Improved land owned by Native Corporations <u>should be</u> exempt from local property taxes.....	5.6%	10.4%	33.9%	38.0%	12.1%	3.883

20. Now that you have heard some of the reasons for and against providing a subsistence priority for rural Alaskans. Let me ask you again, do you favor or oppose providing a priority for rural Alaskans in the taking of fish and game for subsistence use?

PRIORITY FOR RURAL ALASKANS #2	FREQUENCY	PERCENT
Favor.....	338	60.9%
Oppose.....	178	32.1%
DON'T KNOW.....	39	7.0%

21. Do you know any rural Alaska residents who live off the land by fishing and hunting?

KNOW ANYONE LIVES OFF LAND	FREQUENCY	PERCENT
Yes.....	290.....	52.2%
No.....	265.....	47.8%

22. Have you ever lived in rural, remote, primarily native areas of Alaska?

LIVED IN RURAL ALASKA	FREQUENCY	PERCENT
Yes.....	189.....	34.0%
No.....	366.....	66.0%

23. During the past 12 months, how many times did you, or someone else in your household, go hunting or trapping for game?

HUNTING LAST 12 MONTHS	FREQUENCY	PERCENT
1 to 3 Times.....	110.....	19.7%
4 to 10 Times.....	79.....	14.2%
11 or More Times.....	80.....	14.4%
NO HUNTER IN HOUSEHOLD/NONE.....	288.....	51.7%

24a. During a typical 12 month period or year, how many times do you, or someone else in your household, go hunting or trapping for game?

HUNTING TYPICAL 12 MONTHS	FREQUENCY	PERCENT
1 to 3 Times.....	123.....	22.2%
4 to 10 Times.....	92.....	16.6%
11 or More Times.....	102.....	18.4%
NO HUNTER IN HOUSEHOLD/NONE.....	237.....	42.8%

24b. Typically, do you, or someone else in your household hunt or trap

GAME	FREQUENCY	PERCENT
Duck or Geese?.....	126.....	22.7%
Moose, Caribou, bear, sheep, goat, Ptarmigan, rabbit, fox, etc.?.....	264.....	47.6%

24c. Typically, when you, or someone else in the household, goes hunting or trapping, do you hunt or trap

AREAS	FREQUENCY	PERCENT
In the Matanuska-Susitna Borough Anchorage or Chugach Mountain area?.....	117.....	21.1%
On the Kenai Peninsula?.....	100.....	18.0%
In the Fairbanks or Brooks Range area of Northern Alaska?..	94.....	16.9%
In Southeast Alaska?.....	84.....	15.1%
In Western Alaska or west of the Alaska Range?.....	66.....	11.9%
In Kodiak or the Aleutians Islands?.....	58.....	10.5%
In the Copper River, Wrangell, or Valdez area?.....	54.....	9.7%

25. During the past 12 months, how many times did you, or someone else in your household, go fishing?

FISHING LAST 12 MONTHS	FREQUENCY	PERCENT
1 to 5 Times.....	147.....	26.4%
6 to 10 Times.....	72.....	12.9%
11 to 20 Times.....	94.....	16.9%
21 or More Times.....	130.....	23.8%
NO FISHERMEN IN HOUSEHOLD/NONE.....	113.....	20.4%

26a. During a typical 12 month period or year, how many times do you, or someone else in your household, go fishing?

FISHING TYPICAL 12 MONTHS	FREQUENCY	PERCENT
1 to 5 Times.....	139.....	25.1%
6 to 10 Times.....	92.....	16.5%
11 to 20 Times.....	110.....	19.7%
21 or More Times.....	142.....	25.4%
NO FISHERMEN IN HOUSEHOLD/NONE.....	74.....	13.3%

26b. Typically, when you, or someone else in the household, goes fishing, do you fish

AREAS	FREQUENCY	PERCENT
On the Kenai Peninsula?.....	248.....	44.7%
In the Matanuska-Susitna Bourough, Anchorage or Chugach Mountain area?..	197.....	35.5%
In Southeast Alaska?.....	127.....	22.8%
In the Fairbanks or Brooks Range area of Northern Alaska?.....	97.....	17.4%
In the Copper River, Wrangell, or Valdez area?.....	73.....	13.2%
In Kodiak or the Aleutians Islands?.....	62.....	11.1%
In Western Alaska or west of the Alaska Range?.....	59.....	10.6%

27. In 1971, the U.S. Congress passed a law which set up village and regional corporations whose stock is owned only by Alaska natives. Under the current law, in 1991, village and regional corporation stock may be bought by non-natives. Alaska natives want to ammend the law so that the native shareholders of each corporation, by a majority vote, may decide whether the corporation's stock can be sold to non-natives after 1991. Do you favor or oppose amending the law to allow village and regional corporation shareholders to decide whether stock can be sold to non-natives after 1991?

AMENDING STOCK LAW	FREQUENCY	PERCENT
Favor.....	357.....	64.4%
Oppose.....	156.....	28.1%
DON'T KNOW.....	42.....	7.5%

28. What type of residence do you live in? Is it a... ..

HOUSING TYPE	FREQUENCY	PERCENT
Single family,.....	358.....	64.6%
Apartment, or a.....	86.....	15.4%
Duplex,.....	50.....	9.1%
Mobile home?.....	32.....	5.7%
Zero lot line,.....	11.....	2.0%
Condominium,.....	10.....	1.7%
Townhouse,.....	8.....	1.5%

29. Does someone in your household own your home, or do you rent it?

EQUITY STATUS	FREQUENCY	PERCENT
Own.....	373.....	67.2%
Rent.....	182.....	32.8%

30. In what year were you born? (COMPUTED TO AGE BY SUBTRACTING FROM 85)

AGE OF RESPONDENT	FREQUENCY	PERCENT
18 - 24.....	74.....	13.4%
25 - 29.....	91.....	16.4%
30 - 34.....	93.....	16.8%
35 - 39.....	91.....	16.5%
40 - 49.....	113.....	20.4%
50 plus.....	92.....	16.6%
(n = 555)		
(MEAN = 37.603)		
(MEDIAN = 35.034)		

31. How many total years and months have you lived in Alaska?

ALASKAN RESIDENCY	FREQUENCY	PERCENT
1982 - 1985.....	87.....	15.7%
1976 - 1981.....	129.....	23.3%
1967 - 1975.....	144.....	26.0%
Before 1967.....	194.....	34.9%
(n = 555)		
(MEAN = 16.400)		
(MEDIAN = 12.967)		

32. How many total years and months have you lived in the _____ area?
(FILL IN AREA CALLING AND WRITE NUMBER OF YEARS AND MONTHS ON ANSWER SHEET)

LOCAL RESIDENCY	FREQUENCY	PERCENT
1982 - 1985.....	160.....	28.9%
1976 - 1981.....	149.....	26.8%
1967 - 1975.....	124.....	22.3%
Before 1967.....	122.....	22.0%
(n = 555)		
(MEAN = 11.766)		
(MEDIAN = 7.330)		

33. Are you, or is any member of your household (living at home), a veteran?

VETERAN IN HOUSEHOLD	FREQUENCY	PERCENT
Yes.....	250.....	45.1%
No.....	305.....	54.9%

34. Are you, or is any member of your household (living at home), a member of a union?

UNION MEMBER IN HOUSEHOLD	FREQUENCY	PERCENT
Yes.....	182.....	32.8%
No.....	373.....	67.2%

35. Are you married, separated, divorced, widowed, never married and living with another adult, or never married and living alone?

MARITAL STATUS	FREQUENCY	PERCENT
Married.....	370.....	66.7%
Divorced.....	67.....	12.1%
Never Married and Living with Another Adult.....	63.....	11.3%
Never Married and Living Alone.....	35.....	6.4%
Widowed.....	11.....	2.0%
Separated.....	8.....	1.4%

(COMPUTED FROM MARITAL STATUS AND GENDER QUESTIONS)

MARITAL STATUS BY GENDER	FREQUENCY	PERCENT
Married Males.....	185.....	33.2%
Married Females.....	185.....	33.4%
Single Males.....	110.....	19.8%
Single Females.....	75.....	13.5%

(COMPUTED FROM AGE, CHILDREN, GENDER, AND MARITAL STATUS QUESTIONS)

FAMILY STATUS	FREQUENCY	PERCENT
Mature Family.....	127.....	22.9%
Young Family.....	101.....	18.2%
Mature Couple.....	97.....	17.4%
Young Single.....	76.....	13.8%
Adult Single.....	57.....	10.2%
Single Parent.....	52.....	9.3%
Young Couple.....	45.....	8.1%

36. Do you or does anyone in your household (living at home) work for the federal, state or local government? IF YES, ASK, "Which level of government? Is it the"

GOVERNMENT EMPLOYEE	FREQUENCY	PERCENT
NO GOVERNMENT EMPLOYEE.....	319.....	57.4%
State, or.....	135.....	24.3%
Federal,.....	56.....	10.2%
Municipal Government?.....	45.....	8.1%

The last few questions are being collected purely for statistical purposes.

37a. How many total people, including children and adults, live in your household?

HOUSEHOLD SIZE	FREQUENCY	PERCENT
One.....	68.....	12.2%
Two.....	164.....	29.5%
Three.....	118.....	21.2%
Four.....	122.....	22.0%
Five or More.....	84.....	15.1%
	(n = 555)	
	(MEAN = 3.079)	
	(MEDIAN = 2.392)	

37b. Of the people in your household, living at home, how many are adults — aged 18 and older?

NUMBER OF ADULTS	FREQUENCY	PERCENT
One.....	87.....	15.6%
Two.....	361.....	65.1%
Three.....	85.....	15.4%
Four or More.....	22.....	3.9%
	(n = 555)	
	(MEAN = 2.082)	
	(MEDIAN = 1.528)	

37c. How many are children or adolescents under 18 years old?

CHILDREN IN HOUSEHOLD	FREQUENCY	PERCENT
NONE.....	275.....	49.5%
One.....	111.....	20.0%
Two or More.....	169.....	30.4%
	(n = 555)	
	(MEAN - ALL HOUSEHOLDS = 0.997)	
	(MEDIAN - ALL HOUSEHOLDS = 0.025)	
	(MEAN - HOUSEHOLDS WITH CHILDREN = 1.976)	
	(MEDIAN - HOUSEHOLDS WITH CHILDREN = 1.266)	

38. How many total years of education have you completed? (FORMAL ATTENDANCE IN SCHOOL) (EIGHTH GRADE = 8; HIGH SCHOOL = 12; TRADE SCHOOL = 13; COLLEGE GRADUATE — BA OR BS = 16; MASTERS DEGREE = 18; LAWYER, DOCTOR, PH.D = 19)

YEARS OF EDUCATION	FREQUENCY	PERCENT
12 Grade or Less.....	194.....	34.9%
1 - 2 Years College.....	170.....	30.6%
3 - 4 Years College.....	124.....	22.3%
Post Graduate.....	68.....	12.2%
	(n = 555)	
	(MEAN = 13.941)	
	(MEDIAN = 13.055)	

39. Are you seasonally employed, annually employed, unemployed and looking for work, not looking for work, or retired?

EMPLOYMENT STATUS	FREQUENCY	PERCENT
Annually Employed.....	341.....	61.5%
Seasonally Employed.....	74.....	13.3%
Not Looking for Work.....	66.....	11.9%
Retired.....	39.....	7.0%
Unemployed and Looking for Work.....	35.....	6.4%

40a. How many individuals in your household are presently working fulltime 35 or more hours per week? How many part-time, 34 or less hours?

(COMBINES WAGE EARNERS COMPUTED FROM THE PRECEEDING TWO QUESTIONS)

TOTAL WAGE EARNERS	FREQUENCY	PERCENT
Under One.....	52.....	9.4%
One.....	185.....	33.4%
One and One-half.....	77.....	14.0%
Two.....	176.....	31.6%
Over Two.....	65.....	11.6%

(n = 555)
(MEAN = 1.545)
(MEDIAN = 1.259)

41a. Including only those living at home, what was your total household income for 1984 before taxes and other deductions were made? Please tell me the figure to the nearest thousand dollars.

41b. We don't need the exact dollar figure; could you tell me which of these broad categories it falls in...

- Less than 16,000 dollars,
- Between 16,000 and 25,000 dollars,
- Between 26,000 and 35,000 dollars,
- Between 36,000 and 45,000 dollars,
- Between 46,000 and 55,000 dollars,
- Between 56,000 and 65,000 dollars,
- Between 66,000 and 75,000 dollars, or
- More than 75,000 dollars?

(COMPUTED INCOME FROM THE PRECEEDING TWO QUESTIONS)

1985 HOUSEHOLD INCOME	FREQUENCY	PERCENT
\$ 0 - \$15,999.....	73.....	14.5%
\$16,000 - \$25,999.....	67.....	13.3%
\$26,000 - \$35,999.....	74.....	14.6%
\$36,000 - \$45,999.....	93.....	18.5%
\$46,000 - \$65,999.....	96.....	19.1%
\$66,999 or More.....	101.....	20.0%

(n = 504)
(MEAN = \$46,132)
(MEDIAN = \$39,889)

(COMPUTED FROM WAGE AND INCOME QUESTIONS)

INCOME PER WAGE EARNER	FREQUENCY	PERCENT
\$ 0 - \$15,999.....	133.....	26.4%
\$16,000 - \$25,999.....	116.....	23.0%
\$26,000 - \$35,999.....	104.....	20.7%
\$36,000 - \$49,999.....	80.....	15.9%
\$50,000 or More.....	71.....	14.0%

(n = 504)
(MEAN = \$30,595)
(MEDIAN = \$25,777)

42. Is your telephone number.....

TELEPHONE LISTING	FREQUENCY	PERCENT
Listed or.....	483.....	87.0%
Unlisted.....	72.....	13.0%

43. SEX.....

GENDER OF RESPONDENT	FREQUENCY	PERCENT
Male.....	295.....	53.1%
Female.....	260.....	46.9%

THIS COMPLETES THE SURVEY, THANKYOU VERY MUCH FOR HELPING US — GOODBYE

SUBSISTENCE PRIORITY FOR RURAL ALASKANS

BY

POLITICAL AND GENERAL DEMOGRAPHICS

SUBSISTENCE PRIORITY	FREQUENCY	PERCENT
FAVOR	338	60.9%
OPPOSE	178	32.1%
DON'T KNOW	39	7.0%

DEMOGRAPHICS	n	FAVOR	OPPOSE	DON'T KNOW	TOTAL % OF ADULTS
AREA OF STATE: (Row %)					p = 0.0190
Valdez-Kenai-S. Anc	59	59.3%	33.7%	7.0%	10.6%
Anchorage	224	60.2%	34.4%	5.4%	40.4%
Mat Su/Grtr Fbks	50	54.2%	39.9%	5.9%	9.0%
Fairbanks	76	47.9%	43.0%	9.1%	13.7%
Southeast-Rural Alaska	146	71.7%	19.7%	8.6%	26.3%
REGISTERED TO VOTE: (Row %)					p = 0.4858
Yes	447	59.9%	33.3%	6.8%	80.5%
No	108	64.8%	27.4%	7.8%	19.5%
PARTY AFFILITATION: (Row %)					p = 0.0007
Democrat	120	73.8%	19.4%	6.9%	21.6%
Republican	145	66.1%	31.4%	2.5%	26.1%
Libertarian	17	63.5%	29.9%	6.6%	3.0%
Independent	273	52.3%	38.3%	9.4%	49.3%
VOTED IN 1982, NOVEMBER: (Row %)					p = 0.2295
Yes	362	59.0%	34.6%	6.4%	65.2%
No	193	64.4%	27.6%	8.0%	34.8%
VOTED IN 1984, NOVEMBER: (Row %)					p = 0.1290
Yes	373	58.1%	34.8%	7.1%	67.3%
No	182	66.7%	26.6%	6.8%	32.7%
IDEOLOGY OF RESPONDENT: (Row %)					p = 0.0461
Liberal	128	70.5%	23.4%	6.1%	23.2%
Moderate	237	59.4%	32.0%	8.6%	42.7%
Conservative	190	56.3%	38.3%	5.5%	34.2%
INTEREST IN STATE CAMPAIGNS: (Row %)					p = 0.7837
Very Interested	119	56.4%	36.5%	7.0%	21.4%
Somewhat Interested	319	61.3%	31.5%	7.2%	57.6%
Not very Interested	117	64.3%	29.4%	6.3%	21.0%
ADULT MARKET SHARE		60.9%	32.1%	7.0%	100.0%

HISTORICAL CHANGES IN HUNTING AND FISHING
PATTERNS IN THE COPPER RIVER BASIN, ALASKA

by

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Paper presented at the symposium Modern Hunting and Fishing Adaptations
in Northern North America at the 84th Annual Meeting of the American
Anthropological Association, Washington, D.C., December 7, 1985.

NOV 27 1985

ALASKA DEPARTMENT OF FISH & GAME

ABSTRACT

This paper examines contemporary subsistence hunting and fishing in the Copper River basin, southcentral Alaska. This 24,000 square mile region had a population of 3,228 in 1983; about 20 percent were Ahtna Athapaskans. Data collected in 1981 through 1984 include harvest quantities, breadth of harvests, and participation rates for Ahtna and non-native households. Ethnohistorical information, and comparisons with other regions of Alaska, illustrate the effects on traditional subsistence patterns of demographic change, competition with recreational hunters and fishermen, commercialization of resources, and a road system connecting the basin with urban centers.

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ACKNOWLEDGEMENTS

This paper could not have been written without the fine research of Lee Stratton, Susan Georgette, and Dan Foster of the Division of Subsistence, Alaska Department of Fish and Game. Dan and Susan also prepared the figures. In addition we thank the Copper Basin Native Association, National Park Service, and the Glennallen and Anchorage staffs of the Alaska Department of Fish and Game. Especially, the division is grateful to the many residents of the Copper basin, the users of the Copper River subsistence fisheries, and the Nelchina caribou hunters, for their time and information.

I. Introduction

The viability of communities with hunting and fishing economies in northern North America is dependent upon healthy wildlife populations and upon government management programs that provide these communities with reasonable opportunities to harvest fish and game resources. This paper focuses on the effects of the growth of urban hunting and fishing pressures and commercialization on the traditional wild resource uses of communities of the Copper River basin region of southcentral Alaska (Fig. 1).

Recent research (e.g. Wolfe and Ellanna 1983; Wolfe et al. 1984) has demonstrated that in Alaska there are communities with "mixed, subsistence-based socioeconomic systems." These systems have successfully integrated cash and cash-related pursuits so as to support subsistence hunting and fishing. Typical of these communities are large subsistence harvests of fish and game, high levels of participation in hunting and fishing activities, a stable seasonal round of resource harvests, kin-based subsistence production, wide non-commercial networks of distribution and exchange, seasonal wage employment, commercial fishing, and investment of cash into subsistence production.

An Alaska statute adopted in 1978 and federal legislation passed in 1980 contain provisions regarding fish and game management in Alaska which are intended to protect traditional subsistence activities from competing commercial and recreational uses of wild resources. These statutes require the state to adopt regulations allowing subsistence hunting and fishing. In times of resource shortage, subsistence uses have a priority over other uses of fish and game. The state law also created the Division of Subsistence within the Alaska Department of Fish and Game.

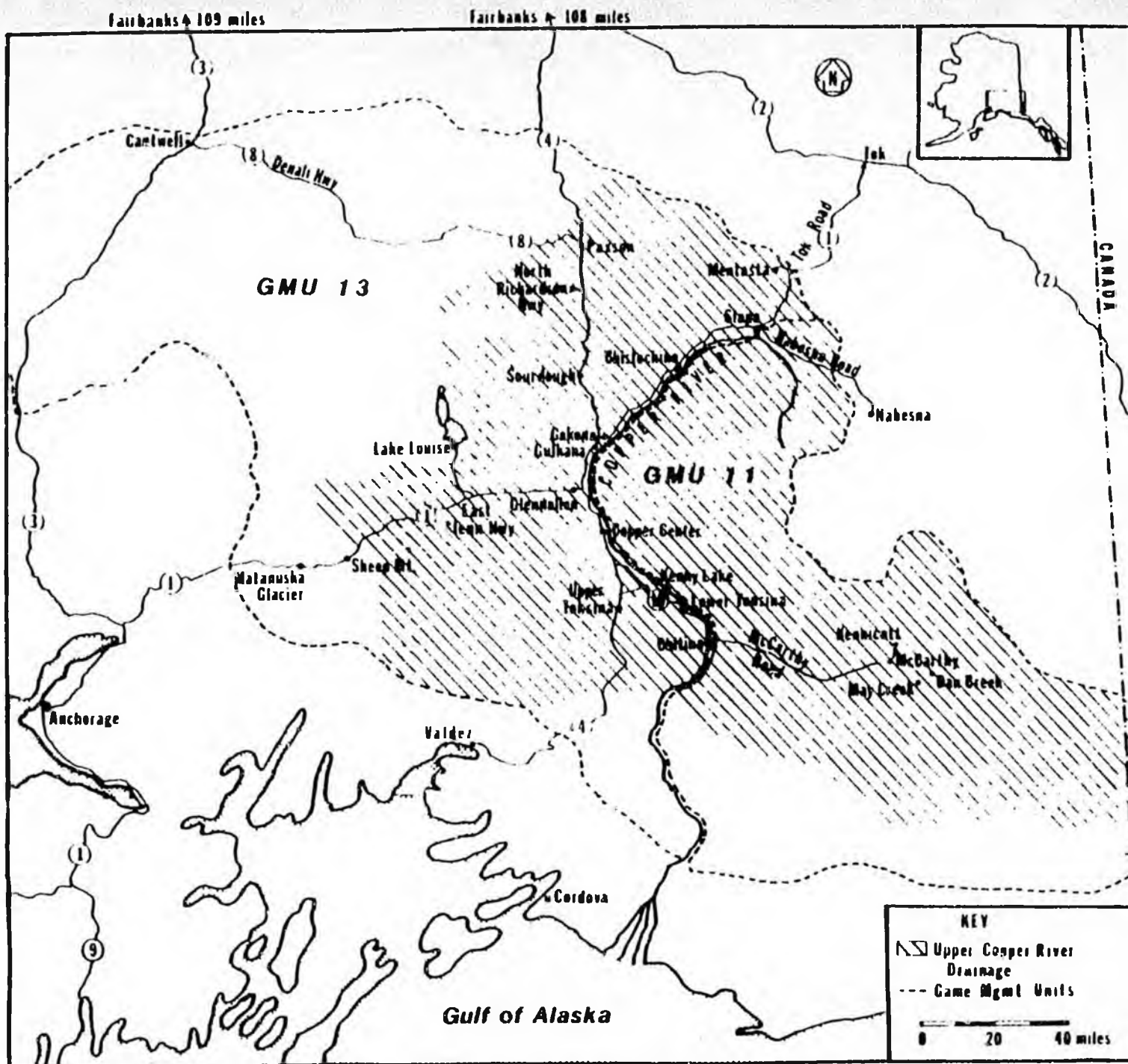


Fig. 1. The Copper Basin Area, Southeastern Alaska.

The division is a social science research agency charged with collecting data on all aspects of subsistence hunting and fishing by Alaska residents. These data are used by the regulatory Board of Fisheries and Board of Game to assess hunting and fishing management plans.

The purpose of research conducted by the Division of Subsistence in the Copper basin region from 1981 through 1984 was to describe the role of hunting, fishing, and gathering wild resources in the Copper basin communities of the early 1980s, to compare these patterns with those of communities in other parts of Alaska, and to identify the factors which have shaped Copper basin hunting and fishing patterns today. To a much greater extent than more isolated communities of western and northern Alaska, the Copper basin and its resources have been subject to pressures from Alaska's growing population and commercial harvesting for most of the 20th century. This pressure has been facilitated by the basin's accessibility by road. Therefore, the Copper Basin is a good case example of the effects on traditional subsistence patterns of regional population growth, competition with recreational hunters and fishermen, commercialization of resources, and a road system connecting rural areas with urban centers.

II. Research Methods and Data Sources

As defined in this paper, the Copper River basin area includes Alaska Game Management Units (GMU) 11 and 13. This includes the entire Copper River drainage above its delta plus most of the upper Susitna River and upper Matanuska River drainages. This area generally coincides with the traditional territory of the Ahtna Athapaskan Indians. Sources on the

traditional ethnography and history of the Copper River basin include Allen (1887), Strong (1976), de Laguna and McClellan (1981), Hanable (1982), and Reckord (1983a). Published sources on contemporary resource use and socioeconomic patterns include Reckord (1979) and Reckord (1983b).

Table 1 summarizes the research efforts of the Division of Subsistence in the Copper River basin area from 1979 through 1985. The division has utilized a variety of data gathering methods, including mailed questionnaires, key respondent interviews, surveys of randomly selected households, participant observation, and resource use area mapping. Early projects were designed to collect information about particular resources which were the focus of regulatory issues, such as caribou and salmon. In order to provide a broader perspective, in 1983 the division conducted structured interviews with 431 households in 24 communities and sample areas in and adjacent to the Copper River basin. Two of these communities, Chickaloon and North Wrangell Mountains, are outside the basin as defined in this paper, resulting in a sample size of 408.

Random samples were selected in the larger communities of Copper Center, East Glenn Highway, Glennallen, Kenny Lake, Matanuska Glacier, North Richardson Highway, Sheep Mountain, Upper Tonsina, and Tok Road. For the other areas, a goal of 100 percent was sought. Table 2 summarizes the sample characteristics. In addition, another 62 of the remaining 10% Alaska Native households in the larger communities were interviewed, but were not, except where noted, included in the data analysis. Interview questions concerned household harvest and use quantities of wild resources for a 12 month study period from June 1982 to May 1983. Demographic and employment data were also collected. Harvest quantities were converted from numbers of animals or fish to pounds

TABLE 1. DIVISION OF SUBSISTENCE, ALASKA DEPARTMENT OF FISH AND GAME,
RESEARCH IN THE COPPER RIVER BASIN

<u>Year</u>	<u>Subject</u>	<u>Data gathering methods and sample size</u>	<u>Reference</u>
1979	Copper River fishwheel & dipnet subsistence fisheries	Mailed questionnaires to 3,025 permit holders; 704 (23.3%) returned	Stickney & Cunningham 1979
1981	Nelchina Caribou herd use	Mailed questionnaires to 1,791 permit holders; 650 (36.6%) returned. Key respondent inter- views with 53 former caribou hunters	Stratton 1982a
1982	Copper River fishwheel and dipnet subsistence fisheries	Key respondent interviews with 81 (13.2%) fishwheel permittees, and 93 (1.5%) dipnet permittees	Stratton 1982b; Fall & Stratton 1984
1982-83	Uses of Nelchina & Mentasta caribou herds	Mailed questionnaires to 2,100 permit holders; 1,044 (49.7%) useable questionnaires returned	Stratton 1983
1984	Wild fish, game, & plant use of Copper basin communities	Structured interviews with sample of 431 (40.8%) households ¹	Stratton & Georgette 1984; Fall & Stratton 1984
1985	Resource use areas of Copper basin communities	Mapping sessions with 278 households (27.7%)	Stratton & Georgette 1985; ADFG 1985a

¹ Included 23 households (out of 36) in Chickaloon and North Wrangell Mountains,
which are outside the Copper basin as defined in this paper.

TABLE 2. COPPER RIVER BASIN POPULATION AND SAMPLE SIZES, 1983

<u>Community/Area</u>	<u>Estimated population</u>	<u># of households</u>	<u>Interview sample</u>	<u>Data analysis sample</u>	<u>Mean household size</u>
Cantwell	136	47	43 (91.5%)	43	2.9
Chistochina	65	27	21 (77.8%)	22 ^a	2.7
Chitina	43	24	23 (95.8%)	23	1.8
Copper Center	439	129	27 (20.9%)	27	3.4
East Glenn Highway	182	65	15 (23.1%)	15	2.8
Gakona	79	24	21 (87.5%)	23 ^a	3.2
Glennallen	861	269	51 (19.0%)	51	3.2
Gulkana	115	41	35 (85.4%)	36 ^a	3.0
Kenny Lake	357 ^b	68 ^b	12 ^b (17.6%)	12	3.2
Lake Louise	39	15	13 (86.7%)	13	2.6
Lower Tonsina	35	9	8 (88.9%)	8	3.9
Matanuska Glacier	179	64	30 (46.9%)	30	2.8
McCarthy Road	52	18	13 (72.2%)	13	2.9
Mentasta	67	19	16 (84.2%)	19 ^a	3.6
Nabesna Road	37	10	8 (80.0%)	8	4.4
North Richardson Hwy.	32	16	4 ^c (25.0%)	-	-
Paxson-Sourdough	27	9	7 (77.8%)	10 ^a	2.5
Sheep Mountain	59	19	9 (47.4%)	9	3.1
Slana	43	17	14 (82.4%)	16 ^a	2.7
South Wrangell Mts	32	16	15 (93.8%)	15	2.1
Upper Tonsina Area	228	76	15 (19.7%)	15	3.0
Tok Road	121	39	8 ^c (20.5%)	-	-
TOTAL	3,228	1,021	408 (40%)	408	

a Includes households from road samples.

b Population includes two cooperatives which are excluded from number of households. One cooperative that was interviewed was excluded from data analysis.

c Included in neighboring communities for data analysis.

Source: Stratton and Georgette 1984: 11, 13, 27.

dressed weight using standard conversion factors (Stratton and Georgette 1984:7-15).

Another source of information about wild resource harvests in the Copper basin are the reports and files of the Alaska Department of Fish and Game, Division of Commercial Fisheries, which manages the subsistence fishery, and the Division of Game. These often contain the best available data on harvest sizes and fishing and hunting effort. Early data, however, should be viewed as rough estimates because reporting of harvests, especially those occurring illegally, was often unreliable. More recent data, especially permit data, are probably more accurate.

III. Natural Environment

The Copper River flows 287 miles south from its source in the Wrangell Mountains and drains an area of 24,000 square miles before cutting through the coastal Chugach Mountains to empty into the Gulf of Alaska near the town of Cordova. The river is laden with glacial silt. Its major tributaries include the Chitina, Tonsina, Klutina, Tazlina, Gulkana, Gakona, Sanford, Chistochina, and Slana rivers.

The basin is surrounded on all sides by massive mountains; the Alaska Range rises on the north, the Chugach Mountains bound the basin on the west and south, the Talkeetna Mountains define the western boundary, and the Wrangell Mountains form a barrier to the east. Tundra, along with rock and ice, covers the mountains above 4,000 feet. Below the tundra grow dwarf birch and willow, which give way at lower elevations to forests of white and black spruce, balsam poplar, aspen, and birch. The continental climate of the basin is characterized by great extremes of temperature,

with cold, dry winters and warm summers (Selkregg 1974).

The Copper basin's wildlife is diverse. Two major caribou herds, the Nelchina and the Mentasta, roam the northern and western basin. Dall sheep and mountain goats are found in the mountains. Moose, brown and black bear, and a typical assemblage of boreal forest small game and furbearers are also present. The latter include spruce grouse, ptarmigan, hare, porcupine, beaver, marten, mink, land otter, wolverine, lynx, red fox, and wolf. Beginning in June, sockeye (red) and chinook (king) salmon ascend the Copper River to spawn, followed in August and September by small runs of coho (silver) salmon and steelhead trout. Freshwater fish present in basin river and lakes include rainbow and lake trout, grayling, whitefish, and burbot (Selkregg 1974).

IV. Traditional Ethnography and History

The aboriginal inhabitants of the Copper River basin, the Athapaskan-speaking Ahtna Indians, have probably occupied this drainage area for at least the last 1000 years (Workman 1976). In the 19th century, the Ahtna were organized into eight regional bands, each with its distinctive dialect, fishing sites, and hunting grounds. Each Ahtna belonged to one of about 11 matrilineal, exogamous clans, which were grouped into moieties. The most significant social unit in resource production was the local band. The members of each band were linked through kinship and marriage, and occupied the same winter village near productive salmon fishing sites (de Laguna and McClellan 1981).

In the foraging economic system of the Ahtna, each local band followed a seasonal round which included fishing for salmon each summer with funnel

traps and spears in clear water streams, and with weirs, willow dip nets, and dipnetting platforms in the Copper River itself. Fishwheels were introduced to the Copper River subsistence fishery around 1910 and rapidly replaced the aboriginal fishing technology. The salmon were preserved, mostly by drying, and stored in caches at each winter village. Certainly, sockeye and chinook salmon were the most important food for most Ahtna, for the risk of starvation was great if adequate supplies of this seasonally abundant resource were not prepared each summer (de Laguna and McClellan 1981).

In fall, hunting for large and small game took place from mountain hunting camps. Caribou and moose were taken in snares, often placed in long brush fences. Caribou and moose were also speared and taken with bows and arrows. After fall hunting, people remained at their villages throughout a portion of the winter, supplementing their stored foods with ice fishing. Often, supplies ran low in late winter and spring. Then, families left the village to hunt for game. June brought the return of salmon and seasonal abundance (de Laguna and McClellan 1981).

In 1793, the Russians discovered the mouth of the Copper River, but their repeated attempts to explore the Copper River valley were largely failures. However, the Ahtna became involved in the Euroamerican fur trade during the Russian era of Alaska history (1741-1867). European-introduced diseases caused severe reductions of the basin's Indian population in the 19th and early 20th centuries (de Laguna and McClellan 1981:643; Ketz 1983:6-45).

Following the 1867 purchase of Alaska by the United States, in 1885 Lt. Henry Allen of the U.S. Army led the first successful non-native expedition through the Copper River basin to the Tanana River valley

(Allen 1887). The population of the basin in 1880 was 250 (Table 3).

The next several decades were a period of rapid change. In 1889, a commercial salmon fishery targeting Copper River stocks began on the Copper River delta (Strong 1976:187). In 1898 and 1899, thousands of prospectors bound for the Klondike goldfields passed through the Copper River valley. Hundreds overwintered at the present site of Copper Center. Beginning in 1899, a trail was constructed from Valdez on Prince William Sound into the basin. By 1905, this forerunner of the Richardson Highway was open to travel to Fairbanks by horse-drawn wagons. By 1927, the highway was open to automobile traffic. Many of today's basin communities grew around road houses along this route. Former native villages were abandoned as the Ahtna were drawn to the roadhouses for imported trade goods and temporary wage employment as a cash economy developed. The presence of schools and missions also attracted people to these centers. Development of the Kennecott copper mines near McCarthy on the Chitina River drainage in the early 1900s resulted in the construction of the Copper River and Northwestern Railway between the mine and Cordova, and the growth of the community of Chitina. Both the mines and the railway were abandoned by 1938 (de Laguna and McClellan 1981:643; Hanable 1982:65).

Market hunting for the roadhouses and mines began in the early 20th century. By 1910, game laws were enforced in the Chitina area. By 1927, hunting throughout the basin was regulated by federal authorities, although enforcement was rare because of the large area involved (Reckord 1983b:46,50-51).

By the 1920s, a mixed, subsistence-based economy had evolved in the Ahtna villages in the basin. Hunting and subsistence fishing remained major sources of food along with imported items purchased in local stores. Fur trapping was the major source of cash in the 1920s, but declined with

TABLE 3. ALASKA AND COPPER RIVER BASIN POPULATION, 1880-1983

<u>Year</u>	<u>Alaska</u>	<u>Copper River Basin¹</u>
1880	33,426	250
1890	32,052	n.a.
1900	63,592	n.a.
1910	64,356	553
1920	55,036	511
1930	59,278	729
1940	72,524	759
1950	128,643	875
1960	226,167	1,469 ²
1970	302,583	1,914 ²
1980	401,851	3,213 ²
1983	510,554	3,511 ²
1983	-	3,228 ³

¹ Copper River basin includes the following census data: 1880, "Atnah Villages"; 1910-1920, Copper Center District; 1930-1950, Chitina District, plus Cantwell; 1960, District 8 minus Valdez, Whittier, and Tatitlek, plus Cantwell; 1970, Valdez-Chitina, Whittier district, minus Valdez, Tatitlek, and Whittier, plus Cantwell; 1980-1983, Valdez-Cordova District, minus Valdez, Cordova, Whittier, and Tatitlek, plus Cantwell.

² May contain small number of people living outside of the Copper River basin and outside city limits of Valdez and Cordova.

³ Division of Subsistence research in the summer of 1983 identified 1,021 households with an approximate population of 3,228 within the Copper River basin as defined in this paper.

Source: Rollins 1978, Alaska Department of Labor 1984; U.S. Department of Commerce 1984, Stratton & Georgette 1984:27.

the drop in world fur prices after 1929 (Reckord 1979:43-46).

American involvement in World War II resulted in the construction of the Glenn Highway between Anchorage and the basin. Also the Richardson Highway was linked with the new Alaska Highway, which ran through Canada to the rest of the continental United States. Again, this "boom" period in the Copper basin was followed by a period of reduced economic activity.

Settlement and demographic patterns changed in the 1950s. Government officials pressured the Ahtna to send their children to school. This forced Indian families to relocate to communities along the road system (Reckord 1983b:54-55). Also, many Ahtna left the region to find jobs in urban centers, especially Anchorage (Reckord 1979:49).

Statehood in 1959 brought growth to the service and government sectors of the local economy. The population of the basin gradually rose as newcomers arrived and by 1970 had reached 1,914. Some were attracted by new wage employment opportunities, others by the basin's natural resources and way of life (Reckord 1979:7, 1983b:181).

With the passage of the Alaska Native Claims Settlement Act in 1971 came the formation of the Ahtna, Inc., the regional corporation. Ahtna Inc., along with the Copper Basin Native Association, a service-oriented organization, became the largest employers of Alaska Natives in the basin (Reckord 1979:14).

Between 1973 and 1977, the construction of the trans-Alaska oil pipeline again brought renewed opportunities for wage employment; more newcomers arrived in the basin. Many Ahtna who had left the villages for Anchorage or Fairbanks in search of employment also returned home during this period (Reckord 1979:9). This growth spurt, too, was temporary, although many who moved or returned to the basin during the pipeline's construction

chose to remain and seek other means of livelihood. Thus, the basin's population jumped 68 percent to 3,213 in 1980. In part, wage employment opportunities have arisen in local businesses serving the tourists, hunters, and fishermen who visit from other parts of Alaska, as well as from other states and foreign countries. The several highways now crossing the region provide these groups access to the basin (Stratton and Georgette 1984). The establishment of the Wrangell-St. Elias National Park in the area in 1980 has also brought recent attention to the area and has attracted additional visitors.

As illustrated in Figure 2, the population of Alaska rose from 226,167 in 1960 to 510,554 in 1983. About 72.8 percent (372,000 people) had road access to the Copper River basin. This population growth has placed increasing demand on the natural resources of the Copper basin. Not only has the expansion of urban centers appropriated wildlife habitat to development, but the remaining hunting and fishing areas close to these centers have received increasingly heavy use. Thus urban residents have traveled increasingly greater distances to harvest wild resources. Improvements in the road system to and within the Copper Basin over the last 20 years have facilitated access to the region from Alaska's population centers (Stratton and Georgette 1984:24-25).

V. Current Demographic and Economic Conditions

According to Division of Subsistence research (Stratton and Georgette 1984; Table 4), in 1983 the population of 22 communities and areas in the Copper River basin was 3,228 in 1,021 households. About 24 percent of these were Alaskan Native households. In only five communities (Chistochina,

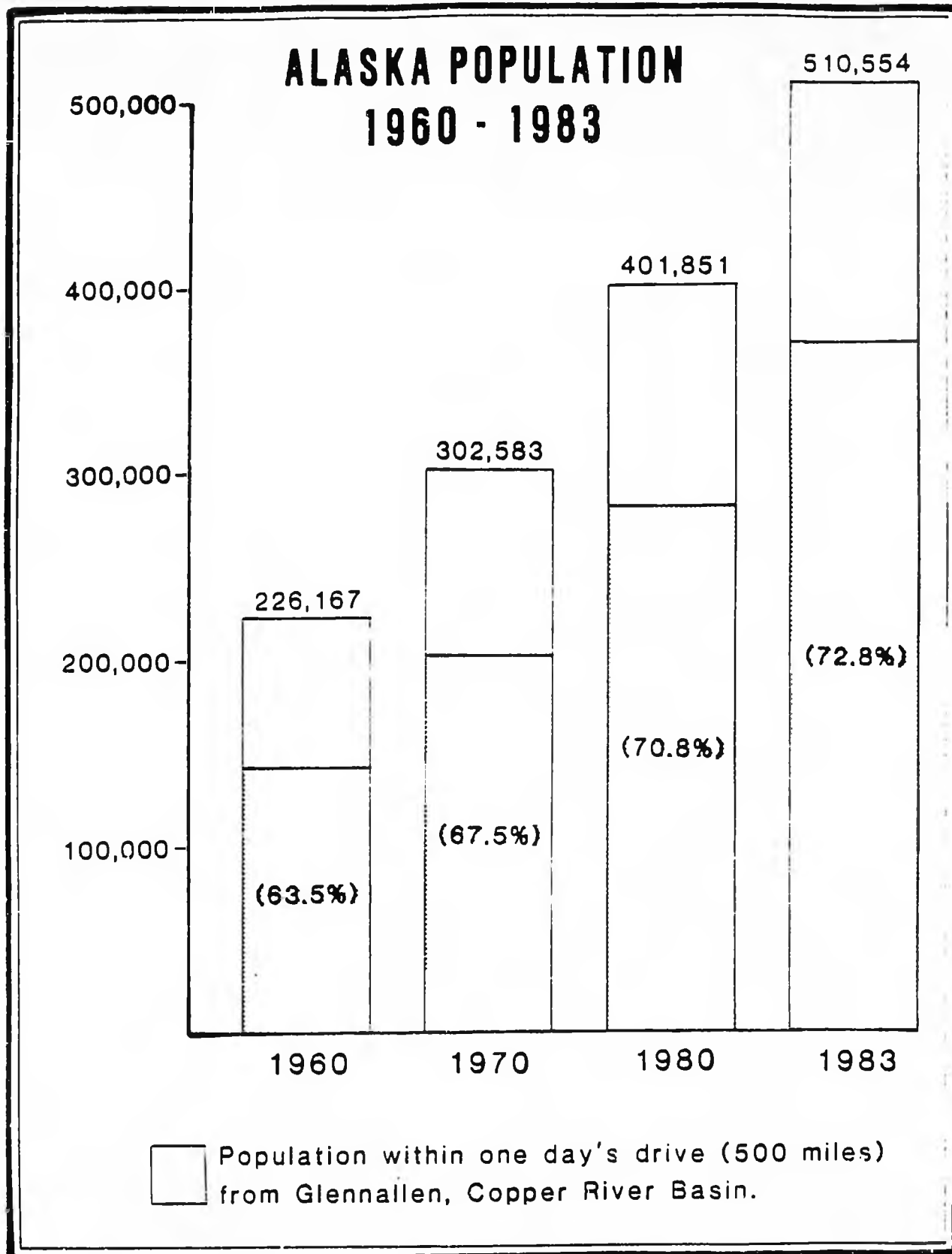


Fig. 2. Growth of Alaska Population and Population Along Roads, 1960-1983.

TABLE 4. COPPER RIVER BASIN DEMOGRAPHIC & EMPLOYMENT CHARACTERISTICS, 1982-83

<u>Community/ Sample</u>	<u>House- holds Surveyed</u>	<u>% of House- holds with Ak Native</u>	<u>Mean Length of Residency, Copper River Basin, H.H. Head</u>	<u>Mean # of Months Household Head Employed</u>
Cantwell	43	16	19.2	6.6
Chistochina	22	55	28.2	5.1
Chitina	23	24	21.2	6.6
Copper Center	27	48	32.8	7.9
E. Glenn Highway	15	7	18.6	6.0
Gakona	23	4	16.5	8.3
Glennallen	51	10	14.4	10.9
Gulkana	36	49	31.4	8.0
Kenny Lake	12	17	12.0	7.1
Lake Louise	12	8	11.8	9.5
Lower Tonsina	8	75	31.7	2.9
Matanuska Glacier	30	0	10.0	7.0
McCarthy Road	13	8	13.7	4.7
Mentasta	19	90	41.3	4.2
Nabesna Road	8	38	32.8	4.1
Paxson-Sourdough	10	0	13.3	10.1
Sheep Mountain	9	11	10.4	10.4
Slana	16	6	17.5	8.8
South Wrangell Mts.	15	0	10.1	3.9
Upper Tonsina Area	15	20	13.3	7.6

Source: Stratton & Georgette 1984:30-31, 34

Copper Center, Gulkana, Lower Tonsina, and Mentasta) did Native households comprise about half or more of the population. Three samples (Matanuska Glacier, Paxson-Sourdough, and South Wrangell Mountains) contained no Alaska Natives.

The 1983 Alaska state census, using slightly different boundaries than the division's study, counted 3,422 residents in the basin. According to the results of the 1980 U.S. census (U.S. Department of Commerce 1984:33), 549 (18.9 percent) of the 2,956 residents of the area served by Ahtna, Inc., the regional native corporation, were Alaska Natives. There were 486 Indians, 57 Eskimos, and 6 Aleuts.

Almost all of the basin's population lives along roads. Service centers have developed at Glennallen and Copper Center, which are also the population centers of the basin. Other community centers occur at major highway intersections, at former roadhouse sites, and at Native villages. However, many of the basin's households reside along the highways outside any recognizable community center.

In 1983, wage employment in the basin was largely limited to jobs in government, construction, travel/service, and native corporations. Many of these jobs were seasonal or part time. As shown in Table 4, in 16 communities, the mean length of employment for household heads was less than nine months. Generally, households in or near service centers such as Glennallen (mean 10.9 months) were more likely to hold year round jobs than were households in smaller, more remote communities such as Chistochina (5.1 months) or McCarthy Road (4.7 months).

Table 4 also reports the mean length of residency for household heads in each of the 20 samples. Generally, communities with the highest percentages of Native households had the highest means. These data

demonstrate that many basin households have a long history of residence in their communities, in particular those communities with traditional locations along the river system. It is also evident that immigration from other parts of the state or from outside the state has been significant in the last several decades. Research in 1983 found that 21.8 percent of the sampled household heads had been born in the Copper River basin, while 7.2 percent had been born elsewhere in Alaska and 71 percent were from other states or foreign countries (Stratton and Georgette 1984:29).

VI. Patterns of Wild Resource Use in the Copper River Basin in the 1980s

Research conducted with a sample of 408 households in 20 Copper Basin communities in 1983 found a diversity of wild resource uses among basin residents. Most households reported fish, game, or plant harvests, but annual harvests ranged from a few pounds to thousands of pounds of wild foods. Mean household harvests for each community (Table 5) ranged from a low of 225 pounds in Sheep Mountain to a high of 1,233 pounds per household in the Nabesna Road sample. Twelve communities (60 percent) ranged between 290 and 406 pounds per household.

Also, Table 5 shows that during the 1982-1983 study period, fish provided the majority of the wild resource harvests for 11 of the 20 basin communities. In all but five communities, fish provided over 40 percent of the wild food. For communities adjacent to the Copper River, the bulk of the fish taken was sockeye salmon (see below). Game harvests were usually highest in communities in the northern portion of the basin, such as Mentasta (63 percent of harvest), Slana (46 percent), Nabesna Road (47 percent), and Cantwell (73 percent). In part, this more common

TABLE 5. MEAN HOUSEHOLD HARVESTS AND PER CAPITA HARVESTS OF WILD RESOURCES, POUNDS DRESSED WEIGHT, COPPER RIVER REGION, 1982-1983

	<u>Mean Household harvest</u>	<u>Rank</u>	<u>Per Capita Harvest</u>	<u>Rank</u>	<u>% Fish</u>	<u>% Game</u>	<u>% Plants</u>
Cantwell	378	12	130	10	24	73	3
Chistochina	311	15	115	12	45	44	12
Chitina	342	13	190	5	65	29	7
Copper Center	383	11	113	14	83	13	5
E. Glenn Highway	404	9	144	8	56	37	7
Gakona	614	3	192	4	69	28	3
Glennallen	227	19	71	20	54	42	4
Gulkana	320	14	114	13	62	34	5
Kenny Lake	248	18	78	18	44	49	7
Lake Louise	448	5	172	6	51	34	15
Lower Tonsina	468	4	120	11	69	24	7
Matanuska Glacier	290	17	104	16	33	57	10
McCarthy Road	406	7	140	9	43	51	6
Mentasta	393	10	109	15	23	63	14
Nabesna Road	1,233	1	280	1	52	47	1
Paxson-Sourdough	441	6	164	7	28	61	5
Sheep Mountina	225	20	73	19	61	36	4
Slana	679	2	252	2	49	46	5
South Wrangell Mts.	406	7	203	3	28	67	5
Upper Tonsina Area	305	16	102	17	58	35	6

Source: Stratton & Georgette 1984:37

harvest of game was due to the greater accessibility of big game, particularly caribou, to these communities.

As shown in Table 5 and Figure 3, per capita harvests in the Copper basin study communities ranged from a low of 71 pounds in Glennallen, the regional center, to 280 pounds in Nabesna Road, a sample primarily composed of big game guides, outfitters, and trappers. Fourteen communities (70 percent) had per capita harvests between 100 and 200 pounds. Figure 3 also illustrates that these reported harvests are greater than those of more urbanized areas such as Anchorage (10 lbs per capita), Fairbanks (22 lbs), Juneau (34 lbs), and the Kenai Peninsula (63 lbs). However, Copper basin subsistence harvests were considerably lower than those of many small, mostly non-road connected, predominately Native communities in western, interior, and northern Alaska, such as six Kodiak villages (473 lbs per capita), eight southwest Alaska villages (654 lbs), nine western Alaska villages (725 lbs), and six Yukon-Kuskokwim (957 lbs). This suggests that subsistence harvests by Copper basin communities have declined since the 1920s and 1930s.

This decline in per capita harvests is not simply the result of the arrival of a non-native population in the basin. Table 6 presents harvest data for Native and non-native households in each community. In several communities, such as Cantwell, Chistochina, Chitina, Glennallen, Kenny Lake, and Nabesna Road, Native per capita harvests substantially exceeded non-native harvests. In a few communities, such as Gulkana and Upper Tonsina, non-native harvests were greater. In Copper Center, the per capita harvests were almost identical. For the other communities, the Native and non-native samples were too small to allow comparisons.

For the entire sample (including non-randomly selected households),

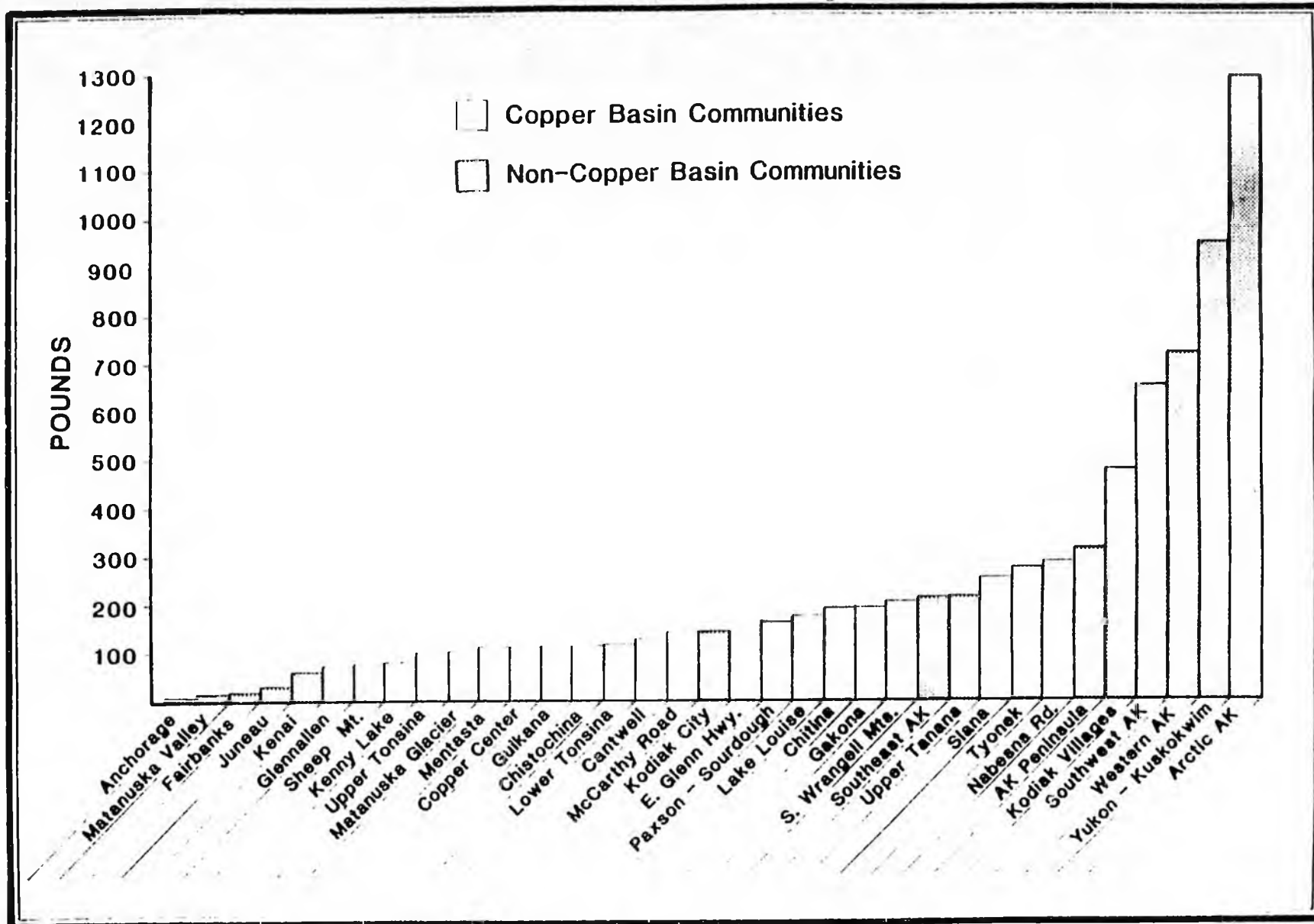


Fig. 3. Per Capita Harvests of Fish and Wildlife Resources by Copper Basin Communities and Selected Alaska Communities and Regions.

TABLE 6. COMPARISON OF NATIVE & NON-NATIVE RESOURCE HARVESTS, BY COMMUNITY, COPPER RIVER BASIN, 1982-83

<u>Community</u>	<u>N A T I V E</u>				<u>N O N- N A T I V E</u>			
	<u>House Holds</u>	<u>Mean H.H. Size</u>	<u>Mean H.H. Harvest</u>	<u>Per Capita Harvest</u>	<u>House-Holds</u>	<u>Mean H.H. Size</u>	<u>Mean H.H. Harvest</u>	<u>Per Capita Harvest</u>
Cantwell	7	2.9	472.3	162.9	36	2.9	359.9	124.1
Chistochina	12	2.3	561.9	244.3	10	3.2	386.0	120.6
Ciitina	5	3.8	821.8	216.3	16	1.2	193.1	160.9
Copper Center	40	2.6	278.4	107.1	14	3.7	403.9	109.2
Gakona	1	13.0	1597.0	122.8	22	2.7	684.1	253.4
E. Glenn Highway	1	4.0	1336.0	334.0	14	2.7	328.1	121.5
Glennallen	27	3.2	557.3	174.2	46	3.2	171.8	53.7
Gulkana	17	2.8	256.1	91.4	18	3.0	377.3	125.8
Kenny Lake	16	3.4	341.1	100.3	10	3.4	136.4	40.1
Lake Louise	1	2.0	622.0	311.0	12	2.7	433.3	160.5
Lower Tonsina	6	4.2	462.2	110.0	20	3.0	486.0	162.0
Matanuska Glacier	0	0	0	0	30	2.8	290.0	104.0
McCarthy Road	1	4.0	616.0	154.0	12	2.8	1365.4	130.5
Mentasta	17	2.7	321.0	118.9	2	3.0	1003.5	334.5
Nabesna Road	3	4.5	2230.3	495.6	5	3.4	633.8	186.4
Paxson	0	0	0	0	7	2.5	441.0	164.0
Sheep Mountain	1	4.0	768	192.0	8	3.0	156.8	52.3
Slana	1	1.0	1366.0	1366.0	13	2.8	633.5	226.3
South Wrangell Mtns.	0	0	0	0	15	2.0	406.0	203.0
Upper Tonsina Area	3	4.7	287.0	61.1	12	2.6	309.0	118.8
TOTAL	<u>159</u>		<u>454.3</u>	<u>148.6</u>	<u>304</u>		<u>355.5</u>	<u>126.1</u>

Source: Alaska Department of Fish and Game 1983

the mean harvest by Native households was 454.3 pounds dressed weight, and the per capita harvest was 148.6 pounds. This harvest was larger than the non-native mean household harvest of 355.5 pounds and the per capita harvest of 126.1 pounds. As illustrated in Table 7, Native households in communities near the Copper River harvested more salmon than did sampled non-native households, and salmon comprised a larger percentage of the mean household harvest as well. Nevertheless, these harvests were generally lower than those of more remote areas of the state.

TABLE 7. HARVESTS OF SALMON AND OTHER RESOURCES BY NATIVE AND NON-NATIVE HOUSEHOLDS, COPPER RIVER BASIN

	<u>n</u> ¹	<u>Mean # salmon</u>	<u>Mean lbs, salmon</u>	<u>Mean lbs, all resources</u>
Native	89	47.5	199.5 (41% of harvest)	490.2
Non-native	274	19.7	82.7 (24% of harvest)	345.1
Missing	4			

¹Excludes Cantwell, Chickaloon, and North Wrangell Mountains.

SOURCE: Alaska Department of Fish and Game 1983

Patterns of resource use within the Copper River basin area, and factors which have shaped that use over time, can be best understood by discussing three resources that contribute large portions of the harvests in most basin communities. These are caribou, moose, and sockeye salmon. These resources have been subject to increasing harvest pressures from outside the basin, and consequently have been of regulatory concern.

VII. Caribou

As noted above, caribou was a major resource of the Ahtna bands of the 19th century. As shown in Table 8, caribou continue to be an important component of most Copper basin communities' wildlife harvests. During the 12 month study period in 1982-83, caribou was used by over 25 percent of the households in 17 communities, and comprised at least 10 percent of the resources used in 13 communities. However, harvests in all communities were less than one caribou per household, which is probably a substantial reduction of the historic use. In part, this reduction is the consequence of hunting pressure from outside the region, reduced caribou populations, and consequent restrictive regulations.

In the early 1980s, two major caribou herds occupied portions of the Copper River basin. The Nelchina herd, with a population of 25,000 animals in 1983, was the largest. During the summer and early fall, this herd occupies much of the Nelchina River basin and the eastern slopes of the Talkeetna Mountains. In winter, it ranges from the Lake Louise Flats eastward into the western slopes of the Wrangell Mountains, primarily, but not entirely within Game Management Unit (GMU) 13. This herd is very accessible by road to Alaska's population centers around Fairbanks and Anchorage. The Mentasta herd was smaller, numbering between 2,000 and 3,000 animals in 1983. It ranges from the Mentasta Mountains to the western slopes of the Wrangell Mountains, primarily within GMU 11 (Alaska Department of Fish and Game 1984:1-2; Skoog 1968:292-301).

As illustrated in Figure 4 and Table 9, reported harvests of Nelchina caribou rose rapidly from an average of 419 animals for the period 1948-1952, to an average of 6,191 for the period 1959 to 1972. This harvest increase

TABLE 8. CARIBOU HARVEST AND USE, COPPER RIVER BASIN, 1982-1983

	H A R V E S T			U S E		
	<u>%</u> <u>har-</u> <u>vesting</u>	<u>Mean</u> <u>household</u> <u>harvest, lbs.</u>	<u>%</u> <u>of</u> <u>total</u>	<u>%</u> <u>using</u>	<u>Mean</u> <u>household</u> <u>use, lbs.</u>	<u>%</u> <u>of</u> <u>total</u>
Cantwell	30	97	26	33	98	22
Chistochina	18	47	15	27	71	15
Chitina	9	11	3	26	15	4
Copper Center	22	42	11	44	54	11
E. Glenn Highway	33	61	15	53	80	12
Gakona	30	57	9	61	77	11
Glennallen	14	28	12	51	36	15
Gulkana	14	22	7	33	65	16
Kenny Lake	8	22	9	17	21	8
Lake Louise	31	50	11	77	73	14
Lower Tonsina	38	64	14	50	62	13
Matanuska Glacier	10	17	6	33	26	7
McCarthy Road	0	0	0	8	4	1
Mentasta	16	21	5	58	60	10
Nabesna Road	63	54	12	75	161	12
Paxson-Sourdough	20	39	9	30	40	9
Sheep Mountain	11	14	6	22	17	3
Slana	25	49	7	56	87	13
South Wrangell Mts.	7	9	2	27	18	4
Upper Tonsina Area	13	36	12	53	44	11

Source: Stratton & Georgette 1984

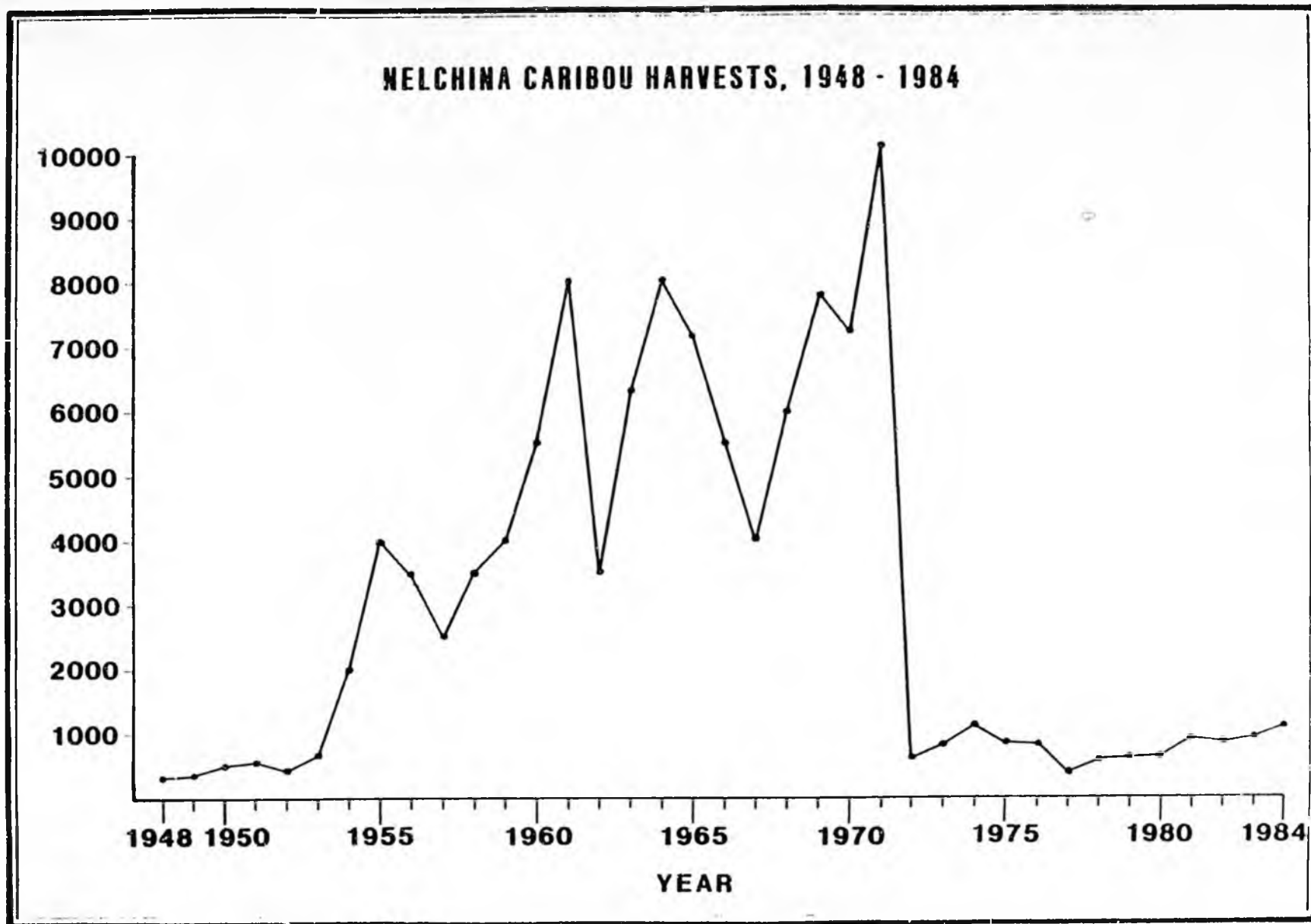


Fig. 4. Nelchina Caribou Herd Harvests, 1948-1984.

TABLE 9. NELCHINA CARIBOU HARVESTS, 1948-1984

<u>Year</u>	<u>Number of hunters or permit applicants</u>	<u>Total harvest</u>	<u>Harvest by holders of subsistence permits</u>	<u>Herd size</u>
1948-49		300		4,500-5,000
1949-50		350		
1950-51		500		5,000-5,500
1951-52		525		
1952-53		450		7,600
1953-54		700		13,200
1954-55		2,000		40,000
1955-56		4,000		36,000
1956-57		3,500		
1957-58		2,500		
1958-59		3,500		
1959-60	1,118	4 000		
1960-61	5,209	5,500		
1961-62	3,694	8,000		
1962-63	5,702	3,500		71,000
1963-64	6,699	6,300		
1964-65	5,052	8,000		
1965-66	3,088	7,100		
1966-67	2,799	5,500		
1967-68	2,977	4 000		61,000
1968-69	2 065	6,000		
1969-70	6,487 ¹	7,800		
1970-71	3,167 ²	7,247		
1971-72	6,967	10,131		
1972-73	1,586	555		7,842
1973-74	1,982	810		7,693
1974-75	2,550	1,193		
1975-76	1,991	806		
1976-77	1,807	822		8,081
1977-78 ⁴	750 ⁵ (1,383) ⁶	360		13,936
1978-79	1,000 (2,775)	539		18,891
1979-80	1,300 (5,600)	630		18,580
1980-81	1,300 (6,841)	621		18,713
1981-82	1,655 (6,874)	880	37	20,694
1982-83	1,750 (9,327)	861	209	21,112
1983-84	1,750 (9,720)	969	207	24,825
1984-85	1,900 (12,516)	1,063	286	24,095

- 1 188 of these hunters (3%) were Copper Basin residents
- 2 101 of these hunters (2.8%) were Copper Basin residents
- 3 First year harvest tickets required
- 4 First year of drawing hunt
- 5 Number of available permits
- 6 Number of permit applicants

Source: Alaska Department of Fish and Game 1981, 1985b

coincided with rapid growth of the herd and liberalized hunting regulations (Table 10). For example, in 1971 regulations allowed the taking of four caribou by each hunter and the season stretched from August 10 to March 31. Significantly, this increase in harvest also coincided with the population growth of Anchorage, Fairbanks, and the Matanuska-Susitna Valley. These non-basin residents were responsible for the majority of the harvest and hunting effort during the peak harvest years. For example, in 1969, only three percent (188) of the 6,487 hunters were Copper basin residents.

After a record harvest of 10,131 in 1971, the herd size plummeted to 7,842 in 1972. The causes of this decline were complex, but can be attributed to range deterioration due to caribou overpopulation, high winter calf mortality in 1971-72, and large harvests, especially those occurring when the herd was near roads in October through December (Johnson 1971). Restrictive regulations were adopted, including an August 10 to September 20 season and a one caribou limit, which reduced the harvest in 1972 to 555 animals by 1,586 hunters. In 1976, however, 1,807 hunters took 822 caribou, exceeding the harvest goal in just five days. The season was closed by emergency order. Therefore, in 1977 the Board of Game placed Nelchina caribou hunting on a drawing permit basis, with permits awarded by chance. Any person was allowed to apply; a \$5.00 fee was required. Since the inception of the permit system, harvest has been tightly controlled. The herd has grown in size. Consequently, the number of available permits has increased, but the number of applicants has far exceeded the supply (Fig. 5). In 1984, a record 12,516 people applied for the 1,900 available permits. The vast majority of the applicants, and therefore the permit winners, live in urban Alaska. For example, in 1982, 57 percent of the permit holders were from Anchorage, 18 percent lived in the Palmer-Wasilla

TABLE 10. CARIBOU HUNTING REGULATIONS, GAME MANAGEMENT UNIT 13

<u>Year</u>	<u>Season</u>	<u>Bag limits</u>	<u>Conditions</u>
1946-48	Aug 20-Sept 30, Dec 1-15	2	Non Alaskans: 1 caribou limit
1948-54	Aug 10-Sept 30, Dec 1-15	1	1952-54 branch antlered males only
1954-55	Aug 10-Sept 30, Nov 20-30	1	
1955-56	same	2	
1956-57	Aug 10-Dec 31	2	
1957-63	same	3	
1963-64	Aug 10-Mar 31	3	
1964-65	same	4	
1965-70	same	3	
1970-71	Aug 10-Sept 30, Nov 1-Mar 31	3	
1971-72	Aug 10-Mar 31	4	
1972-74	Aug 10-Sept 20	1	
1975	Sept 5- Sept 20	1	
1976	Sept 5-Sept 10	1	
1977	Sept 1-20	1	750 permits
1978	same	1	1,000 permits
1979-80	Aug 20-Sept 20	1	1,300 permits
1981	Aug 20-Sept 20, Jan 1-Feb 28 (subsistence only)	1	1,450 general permits, up to 150 subsistence permits
1982-83	Aug 20-Sept 20, Jan 1-Mar 31 (subsistence only)	1	1,300 general 450 subsistence
1984-85	same	1	1,400 general 500 subsistence

Source: McIlroy 1972, Alaska Department of Fish and Game 1981

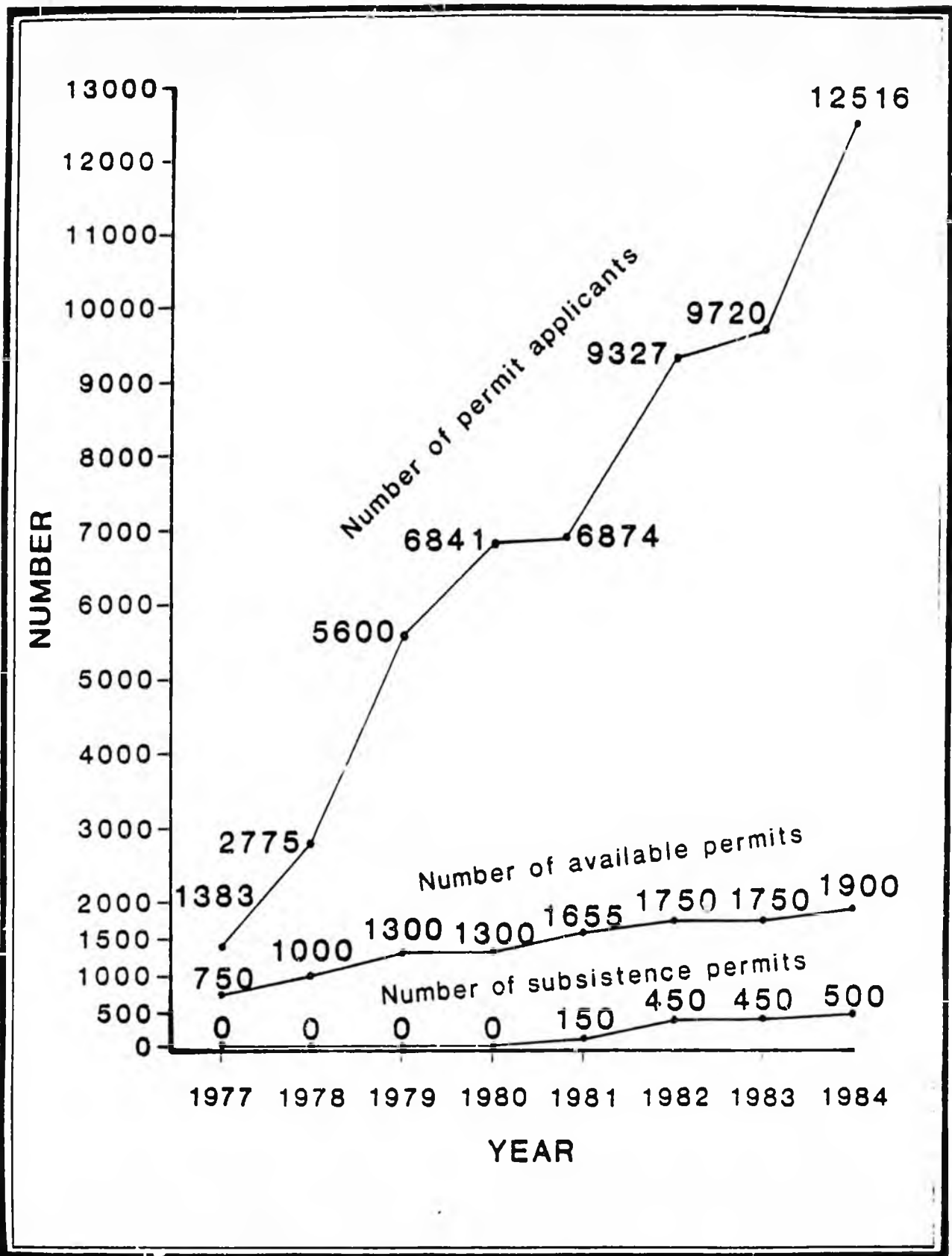


Fig. 5. Number of Permit Applicants and Number of Available Permits, Nelchina Caribou Herd, 1977-1984.

area, 11 percent were from Fairbanks, and six percent lived on military bases (Stratton 1983:8).

For the first four years of the permit system, there were no special provisions for Copper basin residents in the drawing. As they were far outnumbered by applicants from other areas, many long term Copper basin caribou users ceased applying for permits, for they had only a small chance of winning one. Some turned to other resources, while an unknown number hunted illegally without permits. The relative inaccessibility of the caribou and the lack of snow cover in the August-September season also created difficulties for local caribou hunters. Then, in 1980, a Gulkana hunter was charged with taking caribou out of season. The defendant argued that regulations did not adequately provide for his subsistence uses of caribou as required by the 1978 state subsistence statute. This defense was successful and the defendant was acquitted.

In response, the Board of Game adopted a permit system designed to provide for subsistence uses of Nelchina caribou. Research conducted by the Division of Subsistence in 1981 and 1982 demonstrated that Copper basin caribou hunters, or former hunters, displayed a different set of socioeconomic characteristics than caribou hunters from outside the basin who hunted Nelchina caribou in the early 1980s. In contrast to non-basin residents, these local hunters had long histories of use of the species, had lower monetary incomes, and used other Copper basin fish and game resources extensively. Their historical use of Nelchina caribou had been disrupted because of the random draw permit system, shortened seasons, and the caribou population decline (Stratton 1982a).

Consequently, the Board of Game in 1981 made 150 subsistence permits available to basin residents meeting certain criteria, including monetary

income of \$12,000 or less. Permits were still awarded by chance. Subsistence permit holders could hunt in the general August 20 to September 10 season, or during a special winter season (January through February in 1982; January through March in 1983-1985). The income limit was omitted in 1982 and the number of available permits raised to 450. In 1981 through 1983, the supply of permits exceeded demand, but in 1984, 718 Copper basin residents applied for 500 permits. In 1985, the Board adopted a registration permit system and harvest guideline for the subsistence caribou hunt, but a decision by the Alaska Supreme Court in February 1985 resulted in a single drawing system again, whereby all Alaskans were classified as subsistence users and were individually ranked according to three criteria: traditional use, availability of alternative resources, and local residency. Preliminary results show that of the 1,800 permits available under this system, 677 (38 percent) went to basin residents.

Since the institution of the subsistence hunt in 1981, non-basin hunters have continued to harvest the bulk of the caribou (Fig. 6). They also still comprise most of the hunters, and continue to compete with local residents for the limited caribou resources. Nevertheless, recent regulatory changes have improved the opportunity to hunt caribou for Copper basin residents, resulting in an increased share of the resource over the last few years.

Like the Nelchina Caribou herd, the Mentasta caribou hunt in Game Management Unit 11 has also drawn increasing numbers of permit applicants since 1977, but for a constant number of available permits (350) (Table 11). The number of permit applicants rose from 227 in 1977 to 731 in 1984. Again, most of this increase is from non-basin residents. Also similar to the Nelchina pattern, non-basin hunters take the majority of the Mentasta harvest. In 1984, for example, non-basin residents took 91

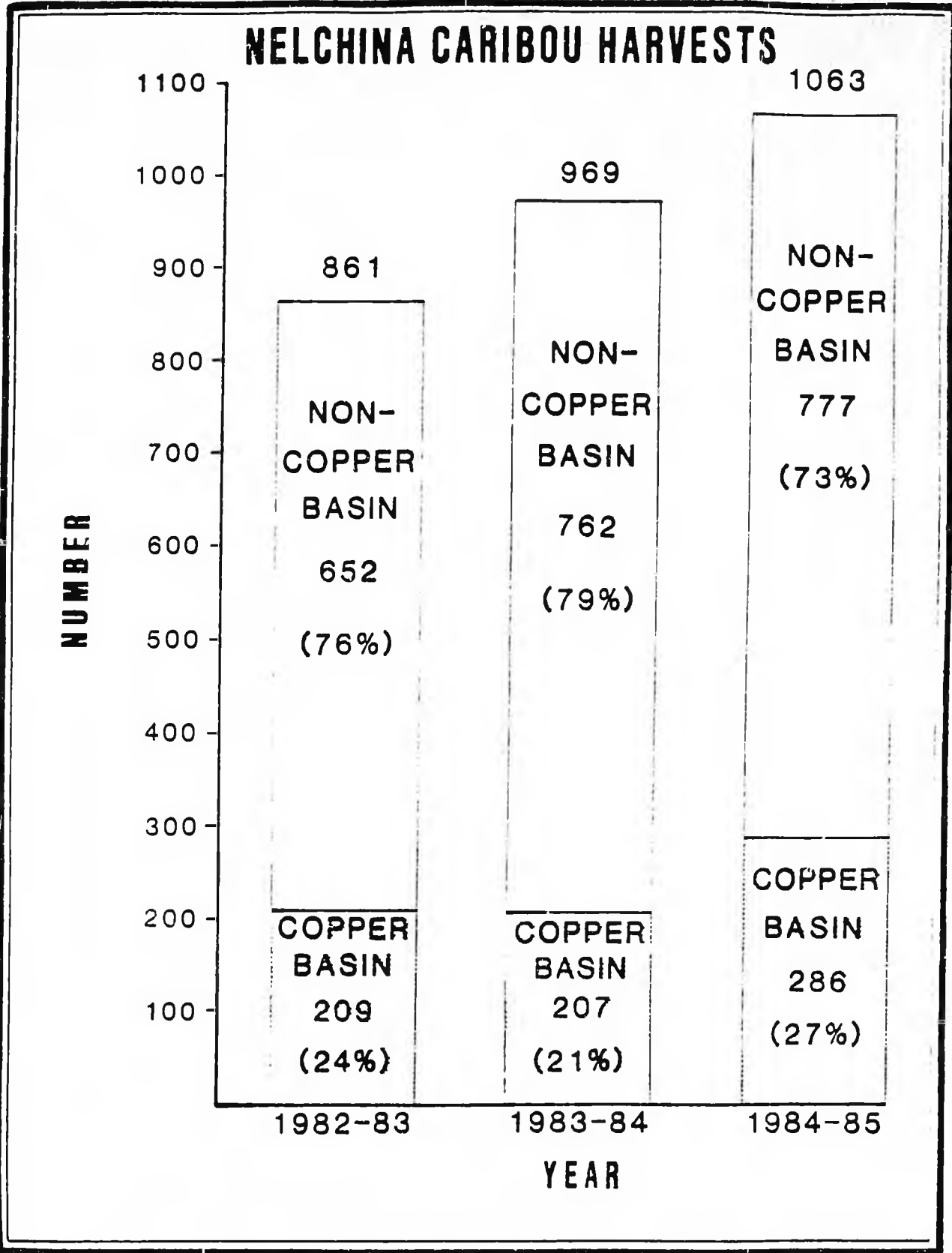


Fig. 6. Nelchina Caribou Herd Harvests, 1982-1985.

TABLE 11. NUMBER OF HUNTERS AND HARVEST LEVELS, MENTASTA CARIBOU HERD (GMU 11), 1977-1984

	<u>Applicants</u>	<u>Available permits</u>	<u>Harvest</u>	<u>Residency of Winners</u>	
				<u>Copper Basin</u>	<u>Non-Copper Basin</u>
1977	277	150	52	--	--
1978	363	350	149	--	--
1979	408	350	99	--	--
1980	421	350	144	--	--
1981	619	350	135	148 (43%)	202 (57%)
1982	732	350	141	128 (37%)	220 (63%)
1983	757	350	90	99 (28%)	251 (72%)
1984	731	350	118	59 (17%)	291 (83%)

Source: Alaska Department of Fish and Game 1985b

caribou, 77 percent of the total take. Unlike the Nelchina hunt, until 1985 regulations did not provide Copper basin hunters with an advantage over non-local residents in the drawing system.

VIII. Moose

As shown in Table 12, moose comprised a substantial portion of the harvest and use quantities of most Copper River basin communities in 1982-83, usually second only to salmon. Harvests of Copper basin moose display some similarities with those of Nelchina caribou. For example, most hunters of moose in GMUs 11 and 13 arrive in the Copper River basin along roads from Alaska's population centers of Anchorage, the Matanuska-Susitna Borough, or the Fairbanks area. As shown in Figure 7 and Table 13, in 1984 only 671 (18 percent) of the GMU 11 and 13 moose hunters were Copper basin residents. Hunter numbers peaked in 1971 at 5,427. Seven percent (390) of these were basin residents. Hunter numbers dropped sharply over the next few years. This was probably the result of shortened moose hunting seasons (Table 14) and the reduction in caribou seasons and limits after 1971, which discouraged non-local residents from using the area to hunt. However, since 1977, the reported number of hunters has increased from 2,445 to 3,650, a gain of 49 percent. During that same period, the number of Copper basin moose hunters jumped from 278 to , for a 141 percent gain. This increase was in part the result of a regulatory change that established a subsistence permit hunt in 1983 (see below).

As with caribou, the moose harvest within the Copper River basin is mostly taken by non-local hunters (Fig. 8). The harvest peaked in 1971, with non-Copper basin hunters taking 1,807 (93 percent) of 1,939 moose in

TABLE 12. MOOSE HARVEST AND USE COPPER RIVER BASIN 1982-1983

	H A R V E S T			U S E		
	<u>% har-vesting</u>	<u>Mean house-hold har-vest, lbs.</u>	<u>% of total</u>	<u>% using</u>	<u>Mean household use, lbs</u>	<u>% of total</u>
Cantwell	28	150	40	61	210	48
Chistochina	14	68	22	64	121	25
Chitina	4	65	19	65	104	29
Copper Center	0	0	0	48	73	15
E. Glenn Highway	13	50	12	67	168	25
Gakona	13	65	11	44	93	14
Glennallen	12	59	26	39	54	22
Gulkana	14	69	22	28	115	29
Kenny Lake	8	83	33	25	65	24
Lake Louise	15	77	17	54	113	21
Lower Tonsina	0	0	0	13	2	*
Matanuska Glacier	20	133	46	63	188	47
McCarthy Road	15	77	19	46	51	12
Mentasta	32	158	40	90	187	32
Nabesna Road	38	313	25	75	383	28
Paxson-Sourdough	40	200	45	70	232	50
Sheep Mountain	11	56	25	67	195	37
Slana	44	219	32	56	231	35
South Wrangell Mts.	40	178	44	80	190	41
Upper Tonsina Area	7	53	17	40	120	30

Source: Stratton & Georgette 1984

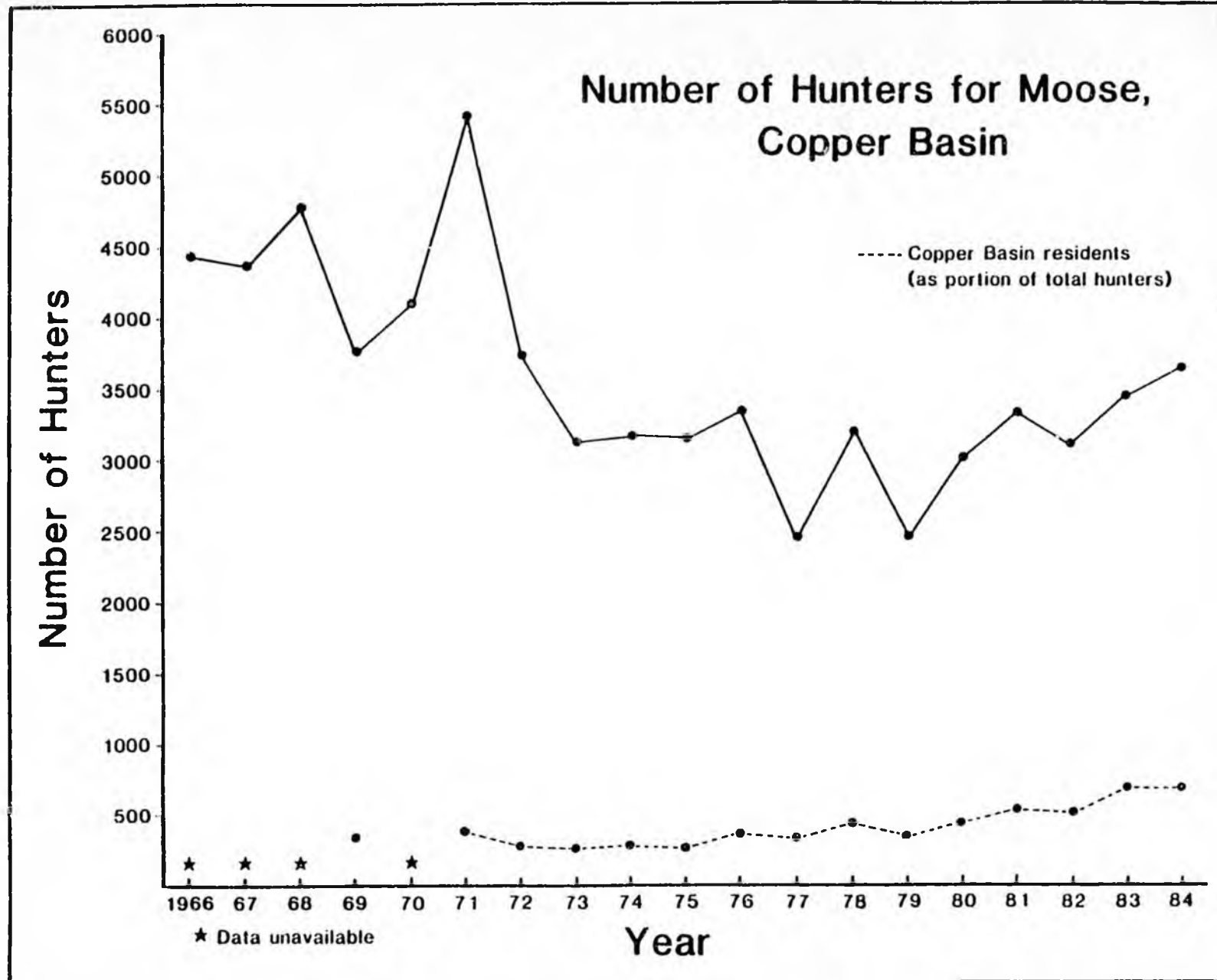


Fig. 7. Number of Moose Hunters, Copper River Basin, Game Management Units 11 and 13, 1966-1984.

TABLE 13. NUMBER OF MOOSE HUNTERS AND MOOSE HARVESTS,
GAME MANAGEMENT UNITS 11 and 13, 1966-1984

<u>Year</u>	<u>Total Hunters</u>	<u>Hunters from Copper Basin</u>	<u>Total Harvest</u>	<u>Harvest by Copper Basin Residents</u>
1966	4,426	n.a.	n.a.	n.a.
1967	4,374	n.a.	1,746	n.a.
1968	4,776	n.a.	1,804	n.a.
1969	3,759	315	1,386	103
1970	4,097	n.a.	1,571	n.a.
1971	5,427	390	1,939	132
1972	3,724	287	858	66
1973	3,107	254	805	85
1974	3,167	274	917	70
1975	3,142	249	755	55
1976	3,318	344	780	75
1977	2,445	278	733 ¹	72 ¹
1978	3,191	423	903	109
1979	2,449 ¹	335	869	109
1980	3,010	434	599	95
1981	3,315	520	869	133
1982	3,097	503	665	84
1983	3,438	671	952	166 ²
1984	3,650	671	880	149 ²

¹ Artificially low: no reminder letters sent.

² Includes special subsistence hunt: 32 in 1983 and 20 in 1984

Source: Alaska Department of Fish and Game n.d.

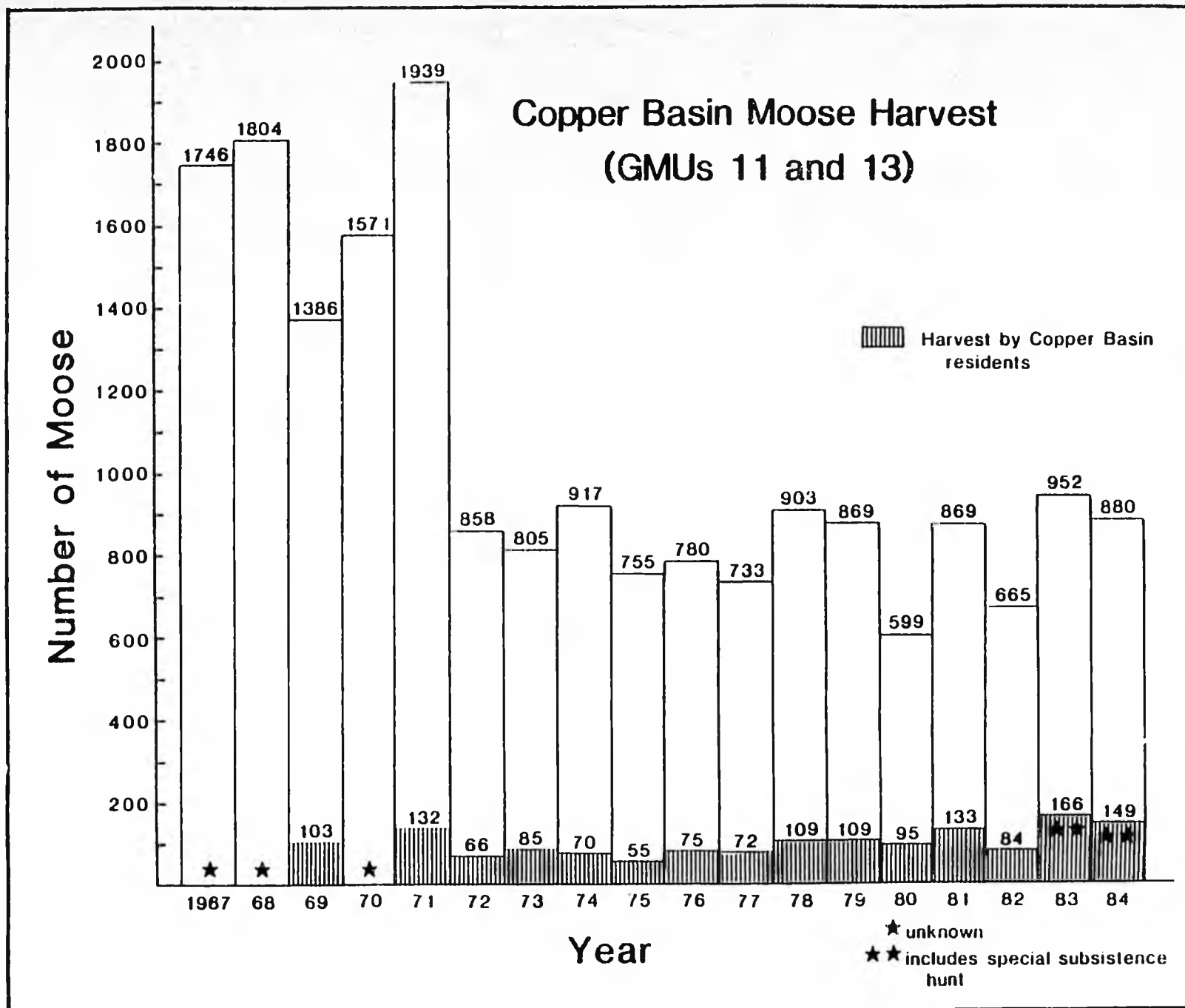


Fig. 8. Copper Basin Moose Harvests, Game Management Units 11 and 13, 1966-1984.

TABLE 14. MOOSE HUNTING REGULATIONS, GAME MANAGEMENT UNIT 13

<u>Year</u>	<u>Season</u>	<u>Bag Limit</u>	<u>Comment</u>
1959	Aug 20-Sept 30, Nov 20-30	1 bull	
1960-66	Aug 20-Sept 30, Nov 1-30	1 bull	Antlerless moose seasons in 1962 (Nov 1-7), 1963-4 (Sept 24-30), 1966 (Sept 29-30)
1967-71	Aug 20-Sept 30, Nov 1-20	1 bull	Antlerless moose seasons in 1967 Sept 29-30, 1968 (Sept 28-30), 1970 (Aug 20-Sept 30, Dec 5-13: 700 permits), 1971 (Aug 20-Sept 30, Nov 1-30: 700 permits)
1972	Aug 20-Sept 10, Nov 1-7	1 bull	
1973	Aug 20-Sept 10	1 bull	No open season in GMU 13C
1974-79	Aug 20-Sept 10	1 bull	
1980-82	Sept 1-20	1 bull having antler spread of at least 36" or at least 3 brow tines on at least one antler	
1983-84	Sept 1-20	1 bull with antler spread of at least 36"; however qualified subsistence users may take one bull without antlerless restriction by subsistence drawing permit only. 100 permits will be issued.	
1985	Sept 1-20	same, except 200 subsistence permits available	

Source: Alaska Department of Fish and Game n.d.

GMUs 11 and 13. Since 1972, total moose harvests have averaged 814 animals, with an average of 98 (12 percent) taken by basin residents and 716 (88 percent) by non-local residents.

As a consequence of increasing hunting pressures by Alaska's growing urban population, moose hunting regulations in GMU 11 and 13 have become increasingly restrictive. The taking of antlerless moose has been prohibited since 1972. In 1973, the November season was dropped, leaving an open period of 20 days in August and September (Table 14). Beginning in 1980, hunters could only take bull moose with antler spreads of at least 36 inches in a season running from September 1 to September 20.

Not until 1983 did regulations provide Copper basin residents with a preference in moose hunting opportunities. In that year, 100 subsistence permits for taking any bull moose in portions of Unit 13 were awarded by random draw. Only residents of GMU 13 were eligible. There were 230 applicants for these permits in 1983, and 372 in 1984. Unsuccessful applicants could, of course, still hunt for 36 inch bulls in the general hunt. As a consequence of this subsistence hunt, the number of basin moose hunters increased, since the opportunity for a successful hunt had improved. The portion of the moose harvest taken by basin residents in 1983 and 1984 rose to 17 percent of the total harvests. This was five percentage points higher than the previous 13 year average. However, the heavy hunting pressure from urban areas remains, keeping moose populations low and perhaps driving moose to less accessible areas. Also, most local residents must still hunt under the more restrictive general regulations.

IX. Sockeye Salmon

As shown in Table 15, sockeye salmon comprise a large portion of the harvests of most Copper River basin communities. With the exception of communities relatively distant from the river (Cantwell, Lake Louise, Matanuska Glacier, Mentasta, Paxson, Sheep Mountain, and South Wrangell Mountains), mean household harvests contained at least 25 percent sockeye salmon. Likewise, as illustrated in Figure 9, mean household harvests of sockeyes declined with distance from the river.

Copper basin subsistence fishermen and commercial fishermen at the river's mouth have had a history of conflict over salmon. When a commercial salmon fishery began the Gulf of Alaska near the mouth of the Copper River in 1889, Copper River residents expressed concern about the effects of this fishery on upriver subsistence catches (Strong 1976:187).

Before 1915, the average commercial catch was approximately 250,000 sockeye and had little effect on the runs. But in 1915, intensive commercial salmon fishing began in the Copper River itself. A cannery was built 40 miles from the river's mouth near Abercrombie Canyon. Employees of the cannery took salmon with dipnets and gillnets (Roberson 1976). A rapid increase in the number of canneries and gear occurred. The commercial harvest jumped to 653,402 in 1915, and rose to 1,253,129 in 1919 (Gilbert 1921). Consequently, escapements upriver were extremely low and Ahtna fishermen had extreme difficulties in catching adequate supplies of salmon with their fishwheels. According to reports from the Copper basin, the local population faced starvation because of the depleted runs (Miller 1916, Bourke 1917). In addition, the health of the runs themselves was in grave danger (Gilbert 1921).

TABLE 15. SOCKEYE SALMON HARVEST AND USE, COPPER RIVER BASIN, 1982-1983

	H A R V E S T			U S E		
	<u>% Har-vesting</u>	<u>Mean house-hold har-vest, lbs.</u>	<u>% of total</u>	<u>% Using</u>	<u>Mean household use, lbs</u>	<u>% of total</u>
Cantwell	7	3	1	7	3	*
Chistochina	23	100	32	77	188	39
Chitina	48	146	43	87	125	34
Copper Center	63	177	46	78	192	39
E. Glenn Highway	47	99	25	87	166	25
Gakona	74	225	37	96	239	35
Glennallen	45	69	30	71	74	30
Gulkana	61	103	32	69	102	25
Kenny Lake	83	74	30	92	82	30
Lake Louise	31	9	2	54	12	2
Lower Tonsina	88	245	52	100	256	53
Matanuska Glacier	33	26	9	63	47	12
McCarthy Road	31	116	29	85	166	38
Mentasta	16	60	15	84	140	24
Nabesna Road	50	341	28	100	365	27
Paxson-Sourdough	20	14	3	60	31	7
Sheep Mountain	33	17	8	44	24	5
Slana	75	265	39	88	202	30
South Wrangell Mts.	40	67	17	93	78	17
Upper Tonsina Area	53	126	41	67	124	31

* less than 1%

Source: Stratton & Georgette 1984

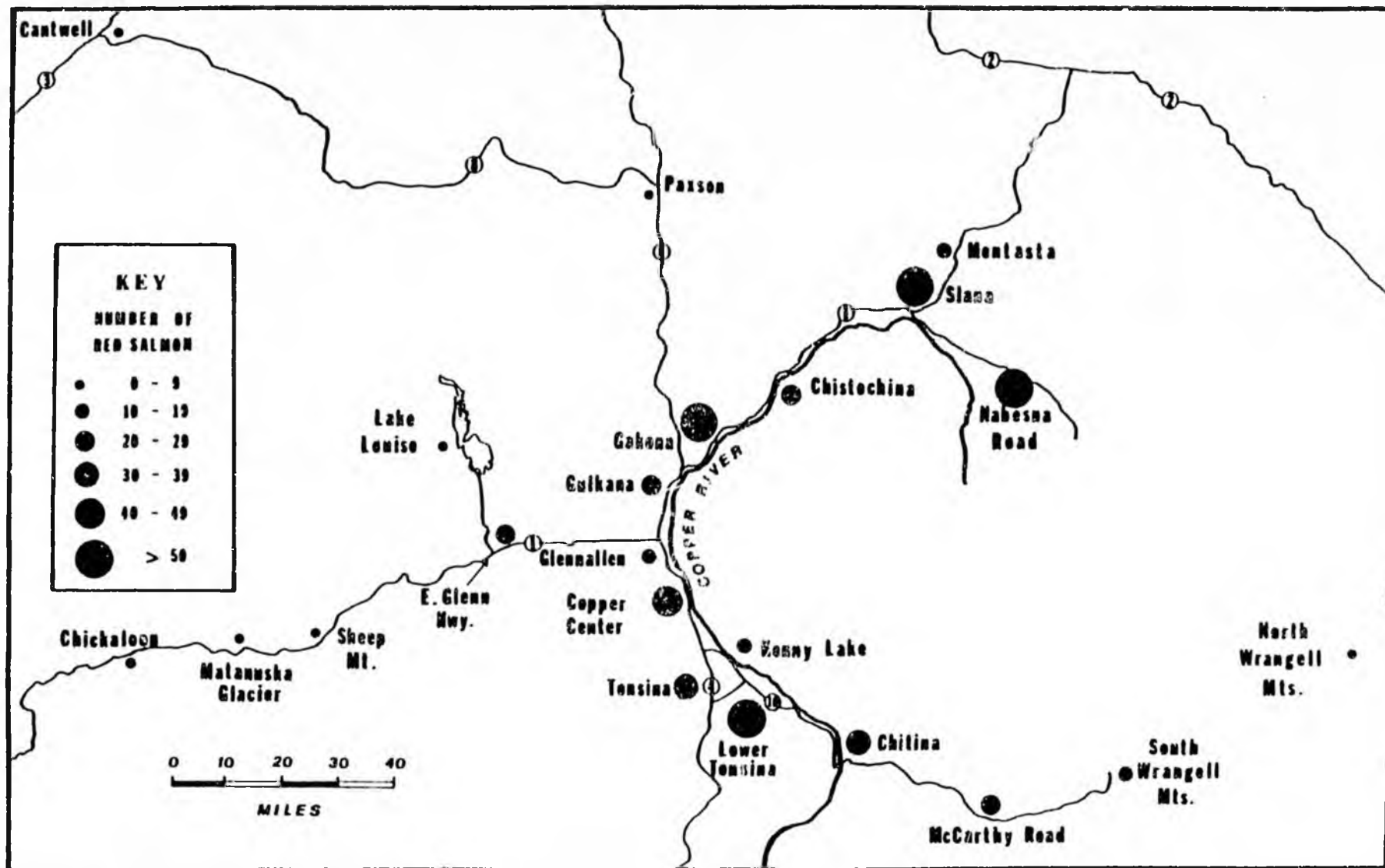


Fig. 9. Mean Number of Sockeye Salmon Harvested per Household, Copper Basin Communities, June 1982-May 1983.

Despite the reports of extremely low subsistence catches, the U.S. Department of Commerce was reluctant to restrict the commercial fishery within the Copper River because, "the fisheries companies have rights that are to be respected and there is the broad question of policy as to whether a fishery enterprise which produces food for the world at large must be made to suffer in order that 300 Indians can secure a supply of fish easily" (Redfield 1917a). Nevertheless, the imminent destruction of the runs was well documented (Gilbert 1921) and regulations partially closing the Copper River to commercial fishing were adopted for the 1918 season (Redfield 1917b). Stocks were still depressed in 1921, however (Gilbert 1921), and in that year the entire river was closed to commercial fishing. The fishery in the Gulf of Alaska remained open (Roberson 1976:8).

A harvest survey conducted by the Bureau of Fisheries of the U.S. Department of Commerce in 1921 (Table 16) recorded a subsistence harvest of 23,793 sockeye salmon by about 170 fishwheel operators, for a per capita catch for the basin of 196 pounds. These catches were reported to be lower than those prior to the growth of the commercial fishery in 1915, but had improved over the year before (Baker 1921). This was probably the consequence of the low commercial catch at the mouth that year, the result of the unfavorable weather during the commercial season (Gilbert 1921).

According to records of the U.S. Bureau of Commercial Fisheries (the management agency for Alaskan fisheries before statehood), in the late 1940s and 1950s approximately 5,000 sockeye salmon were taken annually by residents of the Copper River basin. The bureau estimated that about "100 individuals and families, mostly of Indian origin," operated 25 fishwheels and 25 dipnets to take salmon for subsistence use (Pirtle 1971).

TABLE 16. SALMON HARVESTS, COPPER BASIN 1921

<u>Place</u>	<u># of fishwheel operators</u>	<u>Sockeyes</u>	<u>Kings</u>	<u>Silvers</u>
Chitina	76	3,900	234	0
Mouth of Tonsina River	1	360	80	40
Copper Center	31	3,932	1,408	0
Mouth of Tazlina River	1	75	17	0
Mouth of Gulkana River	3	461	182	0
Paxson Lake	2	565	225	0
Mentasta, Batzulnetas, Suslata, Tanada	50-60	14,500 ¹	-	-
TOTAL	<u>164-174</u>	<u>23,793</u>	<u>2,146</u>	<u>40</u>
Pounds, dressed weight		99,930.6 lbs	38,842.6 lbs	244 lbs
Per capita harvest ²		195.6 lbs	76.0 lbs	.3 lbs

¹ 14,000 - 15,000, mostly reds

² Based on population of 511 reported by 1920 U.S. Census.

Source: Baker 1921

Since the state assumed management of the Copper River fishery in 1960, regulations have allowed the taking of salmon for subsistence purposes with dipnets in a five mile section of the Copper River below Chitina (the Chitina Subdistrict), and with fishwheels from Chitina upriver to Slana, a distance of about 120 river miles. Through 1983, any Alaska resident could obtain a subsistence permit for either gear type.

Since statehood, subsistence fishing regulations for the Copper River have generally become more restrictive. For the first time, all tributary streams and the main river above Slana were closed to subsistence fishing. These remained open to sport fishing with hook and line gear. Until 1977, harvests in the dipnet fishery were limited to 20 salmon for a one person household and 40 salmon for households with two or more members. Since then, the limits have been 15 salmon and 30 salmon. Until 1981, limits for the fishwheel fishery were the same as the dipnet fishery. However, households with incomes under \$6,000 could qualify for an allocation of up to 500 salmon. Beginning in 1981, fishwheel limits were 30 for one person, 60 for a household of two, and 10 for each additional household member. The income limit for a higher allocation was raised to \$12,000.

As shown in Figure 10 and Table 17, participation in the Copper River subsistence fisheries, as measured by the number of permits issued, rose steadily from 1960 to 1969, and very rapidly in the early 1970s. Catches increased as well (Fig. 11). Almost all of the increase in the 1960s was caused by residents of the growing urban centers of Anchorage and Fairbanks driving to the basin and fishing with dipnets at Chitina. Harvests by basin residents did not increase during this period (Table 18, Fig. 11).

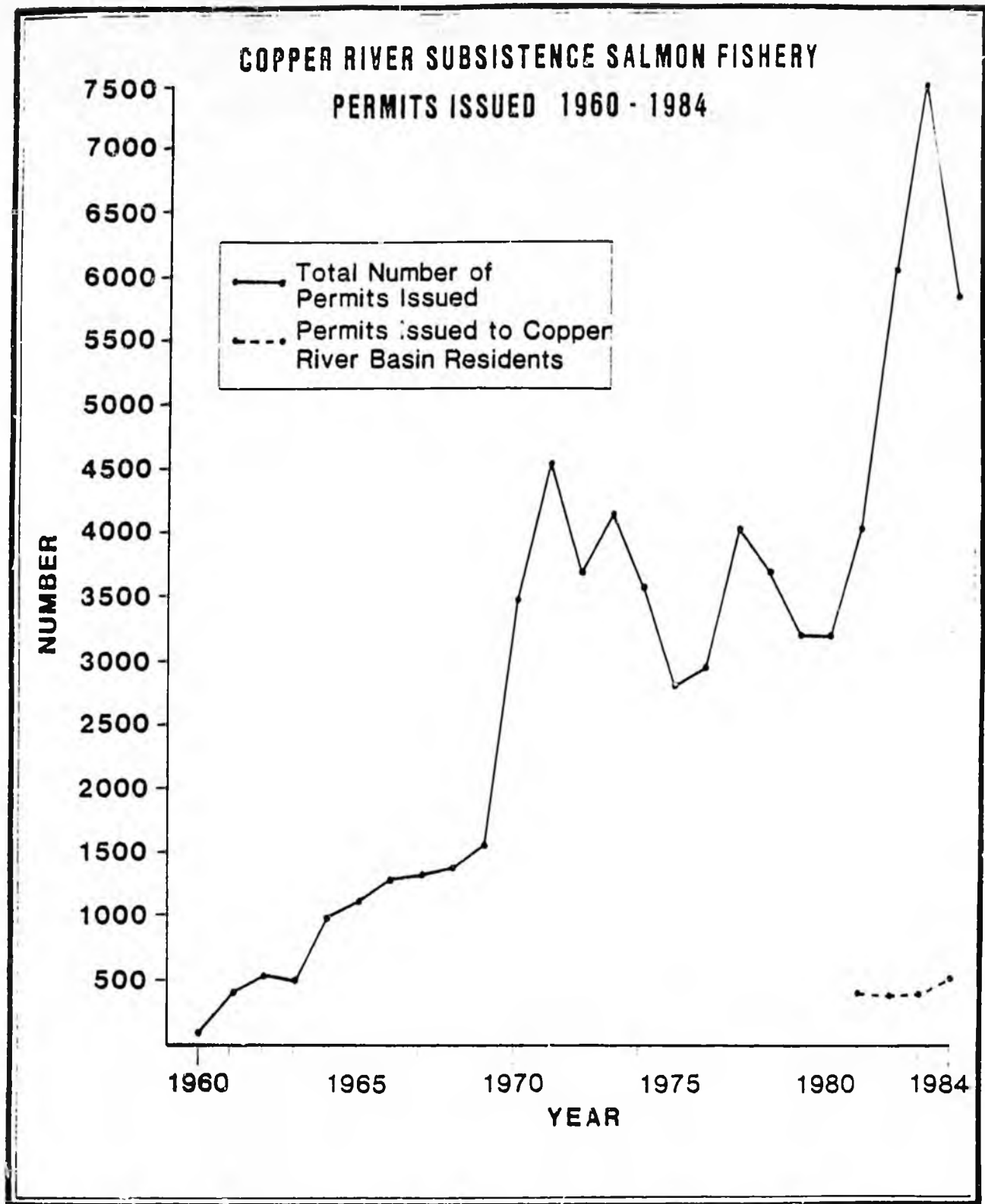


Fig. 10. Copper River Subsistence Salmon Fishery, Permits Issued, 1960-1984.

TABLE 17. PARTICIPATION IN COPPER RIVER SUBSISTENCE FISHERY, AND HARVESTS BY GEAR TYPE 1948-1984

YEAR	REPORTED CATCH		PERMITS ISSUED			CATCH BY SPECIES			ESTIMATED TOTAL CATCH
	DIP NET	FISHWHEEL	DIP NET	FISHWHEEL	TOTAL	SOCKEYE	CHINOOK	COHO	
1948	5,100								
1949	5,500								
1952	2,136		Species Combined, and Gear			1,601	535		
1954	3,145		Combined			3,057	88		
1955	2,086					1,767	319		
1957	7,753					7,241	281	108	
1958	13,263					12,909	354		
1960	1,179	5,660	32	26	58	6,739	136	25	8,803
1961	1,777	12,419	307	59	366	15,472	388	550	18,206
1962	3,203	11,101	435	117	552	14,543	848	381	18,486
1963	2,124	12,395	514	110	624	14,055	464	558	18,287
1964	4,133	7,749	794	158	952	11,915	725	103	16,340
1965	7,215	5,813	982	115	1,097	12,760	644	52	16,818
1966	7,452	9,188	1,132	110	1,242	16,718	555		21,896
1967	6,146	8,360	1,166	125	1,291	14,457	419		19,007
1968	8,040	6,071	1,235	112	1,347	14,819	644	233	20,283
1969	18,054	6,220	1,415	113	1,528	27,604	719	224	29,266
1970	22,700	9,886	3,220	267	3,487	36,500	427	554	42,757
1971	28,115	9,370	4,168	374 ^a	4,542	37,517	1,363	363	48,449
1972	18,996	7,854	3,485	205	3,690	26,850	1,501	248 ^b	32,468
1973	16,407	10,943	3,840	305	4,145	27,350	1,856	51 ^c	29,428
1974	15,143	7,657	3,305	288	3,593	22,800	1,141	163 ^d	26,001
1975	7,694	5,626	2,452	350	2,802	13,320	1,705		15,357
1976	12,130	8,321	2,512	451	2,963	20,451	2,017	17	23,623
1977	22,612	12,751	3,526	540	4,066	35,363	2,171	454	41,815
1978	12,569	6,638	3,313	392	3,705	19,207	2,050	633	22,029
1979	11,887	10,251	2,730	470	3,200	22,138	2,372	705	30,963
1980	14,661	9,716	2,804	399	3,203	21,437	2,256	636	35,081
1981	28,872	26,924	3,555	523	4,078	53,008	1,913	849	68,746
1982	62,614	38,120	5,475	615	6,090	96,799	2,532	1,246	110,006
1983	72,257	35,971	6,911	630	7,541	100,995	5,421	1,690	118,728
1984 ^e	47,306	20,597	5,415	475	5,890	65,078	2,007	789	73,033 ^f

^a Last use of Dip Net/Fishwheel Combination permits.

^b First issue of permits at Chitina

^c Last year permits were denied fishermen who failed to return their previous year permits.

^d Issue of permits at Chitina and Glennallen only.

^e Combined subsistence and personal use.

^f Preliminary totals, based on returns as of 1/28/85.

Source: Randall, et al, 1985:39

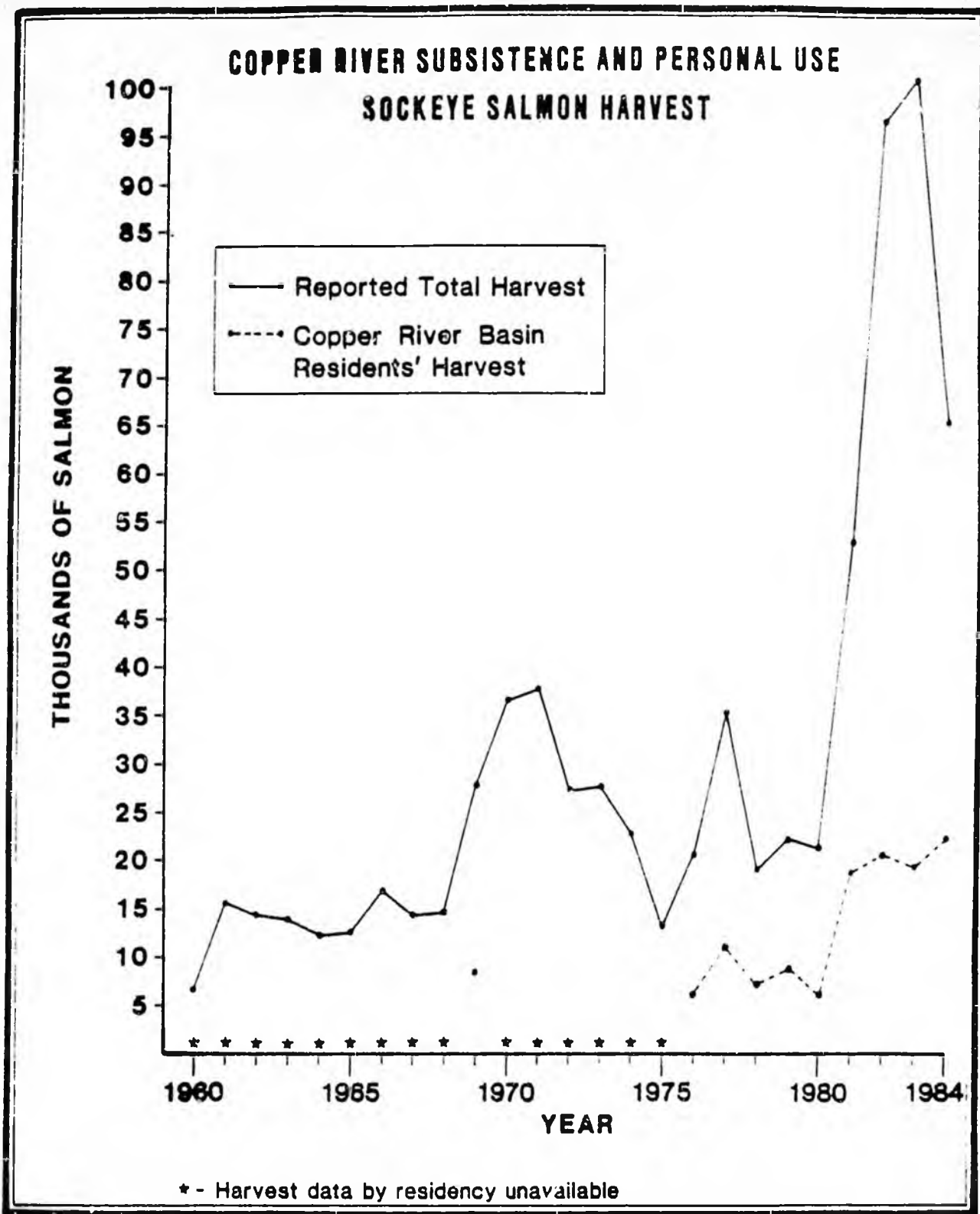


Fig. 11. Copper River Subsistence and Personal Use Sockeye Salmon Harvests, 1960-1984.

TABLE 18. COPPER RIVER SOCKEYE SALMON HARVESTS, 1969-1984

<u>Year</u>	<u>Commercial Catch</u>	<u>S U B S I S T E N C E C A T C H¹</u>		<u>Total Reported Harvest</u>
		<u>Copper Basin Res.</u>	<u>Non-Copper Basin Res.</u>	
1969	696,836	8,813	18,791	724,440
1970	1,115,695		36,500	1,152,195
1971	616,801		37,517	654,318
1972	727,144		26,850	753,994
1973	332,816		27,350	360,166
1974	607,766		22,820	630,566
1975	335,687		13,320	349,007
1976	865,195	6,035	14,416	885,646
1977	619,140	10,902	24,461	654,503
1978	249,872	6,980	12,227	269,079
1979	80,528	8,778	13,360	102,666
1980	18,908	6,217	15,220	40,345
1981	477,662	18,662	35,404	530,670
1982	1,177,632	18,933	70,091	1,266,656
1983	633,010	20,359	87,869	741,238
1984	899,776	20,999	44,079	964,854

¹ Residence data unavailable for some years.

Source: Roberson, 1969, 1976, 1977, 1979, 1980; Roberson & Williams 1979;
Fall and Stratton 1984:28; Randall et. al 1985:39

In 1970, the Department of Fish and Game expressed concern over the growth of the Copper River subsistence fishery. Management personnel recommended that its growth be halted to protect the salmon runs:

The recent rapid expansion of the subsistence fishery has more than doubled the effort and catch to become a serious threat to the red salmon spawning escapement. In view of this fact, any curtailment in effort or catch should be borne by the subsistence fishery (Pirtle 1971).

The management report recommended that a quota of 36,000 sockeyes be established for the subsistence fishery, and that each permittee be limited to a catch of 10 salmon. In 1970, the commercial fishery took 1,115,695 sockeyes, 97 percent of the total harvest. Probably, about one third of the subsistence harvest of 36,500 was taken by Copper basin residents. This quota was not adopted.

In the early 1970s, the dipnet fishery leveled off. However, the number of fishwheels and fishwheel permittees began to increase. This was the result of the development of portable fishwheels, which urban residents brought to the Copper River on trailers. None of the 33 fishwheels used in the Copper River in 1972 were portable. But in 1977, 25 portable wheels (out of a total of 72), were operated in the river (Roberson 1977:5). Non-basin residents placed their wheels in concentrated areas that could be reached by public roads, especially at Chitina (Stratton 1982b). Thus, the fishwheel fishery, always dominated by basin residents, began to change.

Participation in the Copper River subsistence fishery was relatively stable during the 1970s, probably because of reduced runs of sockeye salmon. In some years, such as 1978, 1979, and 1980, because of low escapements, the subsistence fisheries were restricted to shortened and closed fishing periods (Roberson 1978, 1979, 1980). Under the Copper River Subsistence

Salmon Management Plan of 1980, Copper basin residents were given a preference over non-basin residents in times of low projected escapements (Fall and Stratton 1984:3).

In the 1980s, the vast majority of the Copper River sockeye salmon harvest was still taken by the commercial drift net fleet near the river mouth (Fig. 12). For example, from 1981 to 1984, out of an average harvest of 876,119 sockeyes, 91 percent were taken by the commercial fishery, and nine percent by upriver subsistence fisheries.

However, rapid growth in the subsistence fisheries resumed between 1980 and 1983, from 3,203 permits in 1980 to 7,540 permits in 1983. Most of this growth can be attributed to participation by non-basin residents who drove to the basin to fish with dipnets. With strengthened runs, the reported sockeye catches for the fishery jumped from 21,437 in 1980 to 100,995 in 1983 (Fig. 11). Basin residents' catches jumped from 6,217 in 1980 to 18,662 in 1981. This probably reflects the population increase in the basin during the 1970s and the strengthened runs. After this jump, the number of permits issued to basin residents remained stable: 409 in 1981, 400 in 1982, and 397 in 1983. Subsistence catches by basin residents also remained relatively constant, with 18,662 in 1981, 18,933 in 1982, and 20,359 in 1983.

In 1984, the Board of Fisheries again changed the management plan to bring it into compliance with state subsistence statutes. This change was precipitated by the concern of the commercial fishermen about the still rapidly growing harvests by the Chitina dipnet fishery. As a result of these regulatory changes, subsistence permits for either fishwheels or dipnets were available only to residents of the Copper basin and certain Upper Tanana River basin communities. These permit holders could

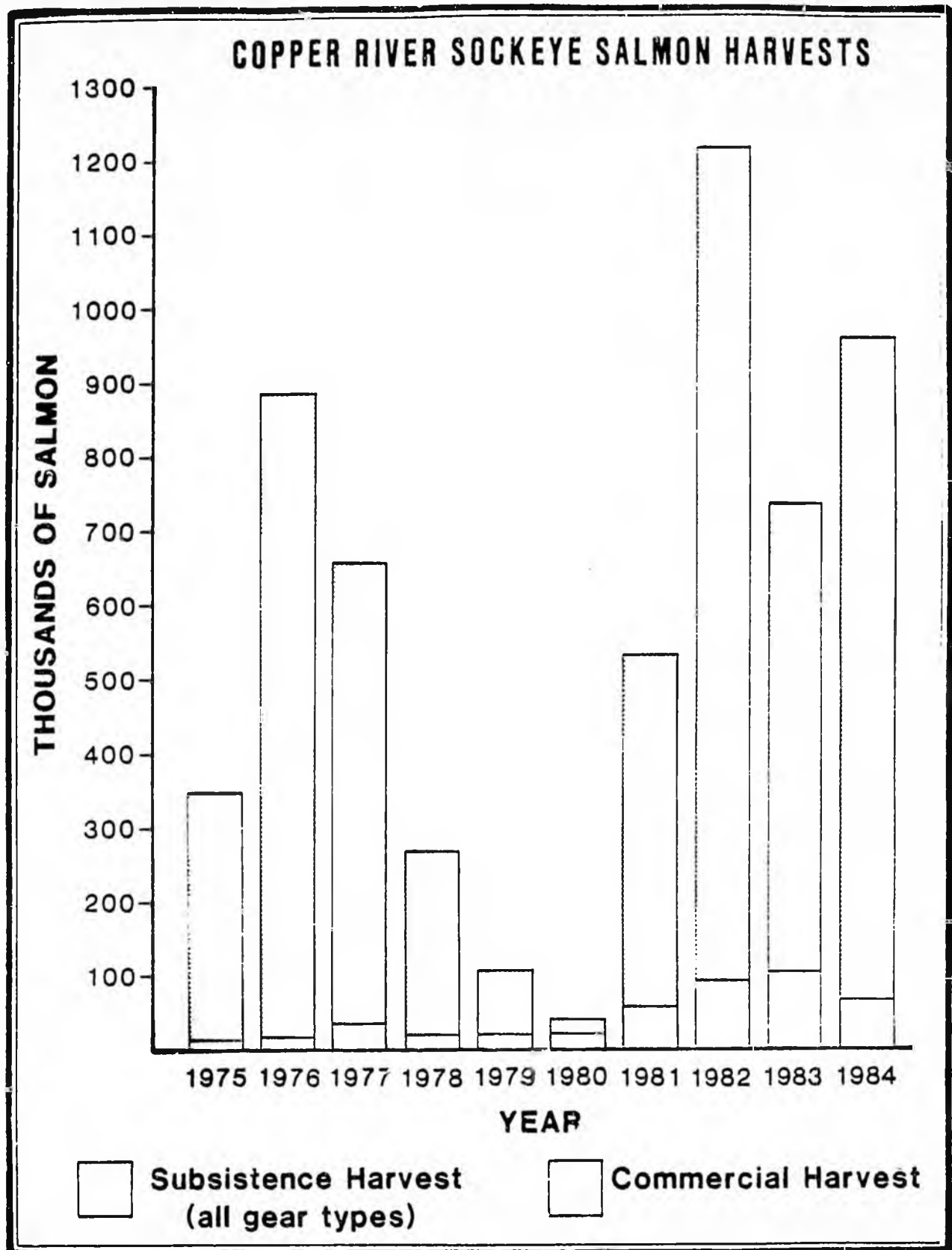


Fig. 12. Copper River Commercial and Subsistence Sockeye Salmon Harvests, 1975-1984.

fish from Chitina north to Slana. They could obtain permits for up to 500 salmon regardless of income. All other Alaskans were eligible for a "personal use" fishery using fishwheels (in a very limited area) or dipnets in the Chitina Subdistrict with the limits similar to those of the previous dipnet fishery. Partly as a consequence of this change, participation by non-basin residents dropped in 1984. However, a decision by the Alaska Supreme Court in February 1985 declared all Alaskans eligible to participate in subsistence fisheries. Thus in 1985 the Board returned to the 1983 regulatory system, except that fishwheel operators could obtain permits for 500 salmon upon request, regardless of income or residency.

Despite major changes in the Copper River subsistence salmon fishery since 1960, local Copper basin residents generally display a pattern of subsistence salmon fishing very different from non-local residents. For example, dip nets are the overwhelming choice of fishing gear of non-basin permit holders. In 1983, 96 percent of the 7,144 Copper River subsistence permits issued to non-basin residents were dipnet permits. Only 102 (four percent) of the non-basin participants held fishwheel permits. Overall, about 99 percent of all dipnetters and 48 percent of all fishwheel users resided outside the Copper River basin in 1983 (Fall and Stratton 1984:40). Fairbanks (35.7 percent), Anchorage (35.2 percent), and military bases (14 percent) were the most common origin of Copper River dipnet fishermen (Fall and Stratton 1984:42). Research in 1982 found that about 60 percent of a sample of dipnet fishermen had participated in the fishery for two years or less (Stratton 1982b:55).

Dipnets were chosen by non-basin residents because of their ease of operation in comparison with fishwheels. Also, these new participants

lacked knowledge of fishwheel construction and operation. Many had no access to suitable fishwheel sites, most of which were reached across private property or were occupied by basin fishermen. Long distance transport of wheels also discouraged their use by this group. Many non-basin residents who used fishwheels operated equipment belonging to basin residents (Fall and Stratton 1984:43).

In contrast, in the early 1980s, Copper River basin residents harvested salmon primarily with fishwheels. For example, in 1981, about 83 percent of the 409 basin households which held subsistence permits used fishwheels. In 1982, 79 percent, and in 1983, 83 percent, operated fishwheels.

Division of Subsistence research found that a large portion of all households in Copper River basin communities participate in the fishwheel fishery. For example, almost 60 percent of a random sample of Copper Center households harvested salmon with fishwheels during a 12 month study period in 1982-83. Only 7 percent of this sample took salmon with rod and reel, and none used dipnets. Most communities bordering the Copper River from Chitina to Slana displayed similar patterns (Fall and Stratton 1984:26).

In part, the efficiency of fishwheels for harvesting salmon over dipnets and rod and reel explains the preference local residents exhibit for this gear type. Building a fishwheel requires knowledge about construction techniques, and a relatively high initial investment of time and money for constructing the wheel and installing it at a fishing site. However, once operating, a fishwheel is capable of harvesting salmon rapidly in a fairly short amount of time, under favorable water and salmon run conditions. Local residents, many of whom have lived in the area for years, know the

best fishing sites and access routes; through networks of relatives and friends, they may also gain permission to place a wheel on privately-owned land or share the use of a fishwheel. The few basin residents who utilize dipnets do so because they lack the time to invest in building and maintaining a fishwheel; opt to harvest a few salmon quickly using inexpensive gear; or have temporarily lost their access to the fishwheels they have used in the past (Stratton 1982b:54-55).

Fishwheel owners normally place their wheels in the same general area each year. Many fishwheels are operated from private property. Other wheels are placed at sites that are recognized by long term basin residents as "belonging" to certain families. This right to use a particular site appears to be inherited through lines of kinship (Reckord 1983b:102). In 1982, about 104 fishwheels were operated in 13 distinct areas along the Copper River. These areas were used because of ease of access, proximity to communities, and a history of past use (Stratton 1982b:13).

In 1982, many Ahtna tended to operate their fishwheels from camps with permanent facilities for processing the salmon. Fishers using the "Old Village" cluster of ten wheels near Copper Center provide an example of this technique. Other basin residents transported their catch to their permanent residences, where processing and storage occurred. Among basin residents, fishing groups tended to be composed of kin (Stratton 1982b:20).

In 1982, most basin fishwheel operators used a combination of methods to preserve their salmon catch, including canning (63 percent), freezing (59 percent), smoking (52 percent), drying (45 percent), kippering (13 percent), and salting (11 percent). Ahtna residents of the basin were much more likely to dry their salmon than other fishwheel operators. Drying requires a great deal of time, special storage conditions, and

knowledge of how to prepare the product (Stratton 1982b:68).

Research conducted in 1982 by the division found that many basin fishwheel operators had a long history of involvement in the fishery. For example, over 50 percent of interviewed fishwheel operators from basin communities had used fishwheels for over 20 years. Only five percent were using fishwheel for the first time. Local people were likely to have begun participating in the fishery as children with their parents, aunts, and uncles (Stratton 1982b:67).

Another characteristic of the basin residents who used fishwheels was their high level of use of other fish and game resources. In 1982, almost all of these activities took place within the Copper River basin (Stratton 1982b:62).

It is evident, therefore, why sockeye salmon continue to be the most commonly harvested and used wild resource in most Copper River basin communities. Although competition with commercial fisheries and non-local fishermen has been high, salmon have been a fairly reliable resource, and are seasonally abundant. Given adequate gear, knowledge of fishing techniques, access, and favorable river conditions, they can be taken in large numbers. Good fishing sites are reasonably accessible to basin residents. Because of their knowledge of fishwheel use and their access to traditional sites, basin residents still hold an advantage over non-basin residents in the operation of this gear type.

X. Discussion

Recent research in four communities of southwest Alaska (Quinhagak, Goodnews Bay, Togiak, and New Stuyahok) has identified several socio-

economic conditions which have supported the successful integration of [redacted] into the subsistence-based economies of these villages (Wolfe et al. 1984:555-560). These conditions include: 1) healthy fish and game resources; 2) low population densities relative to the wild resource base; 3) limited external competition for land and other resources; 4) local labor and technology used for extracting wild resources; 5) no legal barriers to overly restrict local harvests; 6) limited government expropriation of local income; and 7) limited in-migration of persons with non-traditional beliefs, values, and food preferences related to wild resources. Typical of such communities are stable seasonal rounds of resource harvests, high levels of participation in resource use activities, and high subsistence harvests of fish and wildlife.

This paper has shown that resource harvests in contemporary Copper basin communities are higher than those of Alaska's urban centers, but are much lower than the subsistence production of communities of southwest and western Alaska. In the Copper basin today, the population is diverse, and there is a range of resource uses with communities and between communities. While fishing and hunting remain important, it is clear that resource harvest quantities have declined since the early 20th century.

The reasons for this decline are complex. For example, changes in settlement patterns have occurred. Communities are now located almost exclusively along roads because of the availability of services. People rarely occupy seasonal hunting and trapping camps. Also, emigration to cities in the 1950s through the early 1970s drained the basin's population of many young adults who thereby no longer played a role in subsistence harvesting. More recently, new settlers have changed the composition of the basin's population. Especially in the regional centers of Glennallen

and Copper Center, many of these newcomers arrive without a value system that emphasizes the use of wild foods. In addition, other economic alternatives have developed, such as employment with Native corporations, local service businesses, or state and federal agencies. However these opportunities remain limited compared to urban centers.

Also, this paper has demonstrated the major impact of urban population growth and the development of transportation systems on Copper basin communities' fish and game harvests. As summarized in Figure 13, in 1984 most resources produced within the Copper basin were harvested by commercial fishermen and non-local residents, including 73.5 percent of the caribou, 85.5 percent of the moose, and 97.9 percent of the sockeye salmon. Copper basin residents took 22 percent of the non-commercial harvest (pounds dressed weight) of sockeye salmon, caribou, and moose in 1984. This has resulted in competition for local resources, reduced availability of fish and game, and restrictive regulations. Thus, several of the conditions critical to the functioning of mixed, subsistence-based economies -- limited external competition for resources and no legal barriers that overly restrict local harvests -- do not obtain in the Copper basin today.

In addition, it is clear that this competition and restriction are not recent developments. In the 1910s, overfishing by commercial fisheries severely reduced Copper basin subsistence harvests, and limited them again in the 1970s. Monetary income was used as a device to limit household allocations of subsistence salmon for almost 25 years. Increases in catches by non-local dipnet and fishwheel fishermen led to proposed restrictions on local harvests while the commercial fishery harvested most of the salmon. Presently, the commercial fishery takes the vast majority of the sockeye salmon produced by the Copper River system, thereby reducing

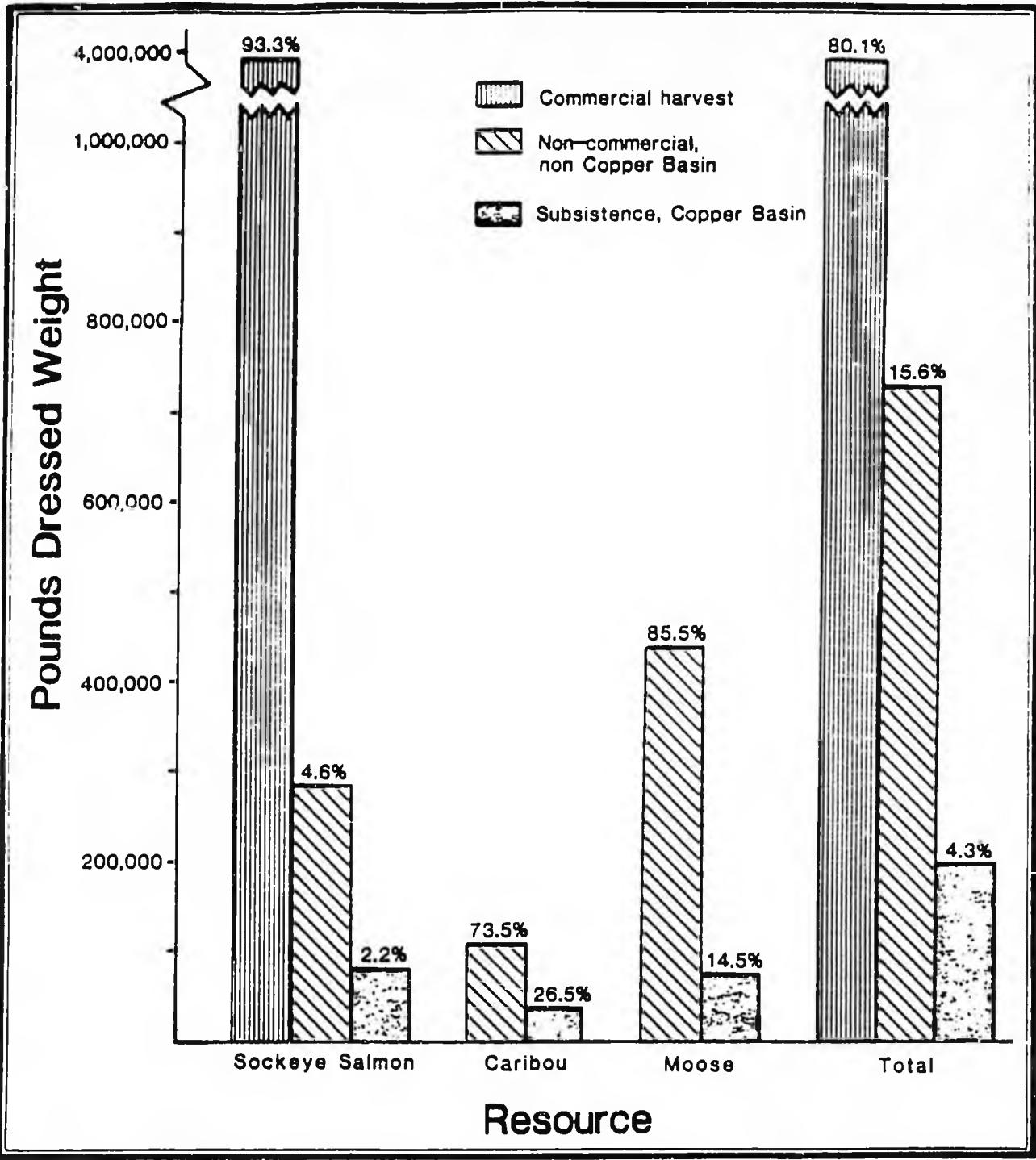


Fig. 13. Harvests of Copper Basin Resources by Commercial and Non-commercial Users, 1984.

the availability of this resource to subsistence fishermen.

Nevertheless, Copper basin residents, especially the Ahtna population, have maintained a distinctive subsistence fishwheel fishery. They use seasonal camps, traditional sites and preservation methods, and a kin-based system of production and distribution. Sockeye salmon continue to play a major economic and sociocultural role in the life of many Copper basin communities.

As demonstrated above, the availability of game resources has been especially impacted by non-basin hunting pressures. High demands for caribou and moose have led to limited hunting opportunities and shortened seasons. In the 1980s, state and federal laws have been used to change regulations to provide more opportunities to Copper basin residents. Consequently, the percentage of caribou and moose taken by local residents has increased slightly since 1981. However, most of this harvest still leaves the basin, and competition remains high.

In conclusion, the case of the Copper basin demonstrates the impacts that regional population growth and the development of transportation systems may exert on hunting and fishing economies in northern North America. The paper has also shown that despite reduced harvests, hunting and fishing remain important, both economically and culturally, to Copper basin communities. This is evidenced by continued use of fish and wildlife by most basin households, and by the efforts by Copper basin residents to use the legal system to change regulations which inhibit their traditional uses of fish and game resources.

REFERENCES CITED

Alaska Department of Fish and Game (ADF&G)

1981 Nelchina Caribou Report 1981. Division of Game, Anchorage.

1983 Unpublished Data on Native and Non-Native Harvests, Copper River Basin. Division of Subsistence, Anchorage.

1984 Nelchina Caribou Herd Status: Report to the Board of Game. Division of Game. Anchorage

1985a Alaska Habitat Management Guide, Southcentral Region. Volume II: Distribution, Abundance, and Human Use of Fish and Wildlife. Division of Habitat. Juneau.

1985b Nelchina and Mentasta Caribou Herds; Report to the Board of Game, Division of Game. Anchorage

n.d. Big Game Data Index Files. Moose Harvests and Regulations in Game Management Units 11 and 13. Division of Game. Anchorage.

Alaska Department of Labor

1984 Alaska Population Overview. Research and Analysis Section. Juneau.

Allen, Henry T

1887 Report of an Expedition to the Copper, Tanana, and Koyukuk Rivers, in the Territory of Alaska, in the Year 1885. Washington: U.S. Government Printing Office.

Baker Shirley A

1921 Report to Commissioner, Bureau of Fisheries, Washington D.C., 11/10/21. Reports of the Bureau of Fisheries Agents, 1917-1935. Records of the Division of Alaska Fisheries. U.S. Fish and Wildlife Service. National Archives, Washington D.C.

Bourke, Joseph A.

1917 Letter to Governor J.F. Strong, Juneau. 4/16/1917. Alaska Salmon Fisheries. Office of Territories. National Archives. Washington D.C.

de Laguna, Frederica and Catharine McClellan

1981 Antna. In Handbook of North American Indians. Volume 6: Subarctic. June Helm, ed., pp 641-663. Washington: Smithsonian Institute.

Fall, James and Lee Stratton

1984 The Harvest and Use of Copper River Salmon: A Background Report. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 96. Juneau.

Gilbert, C.H.

1921 Letter to Dr. H. M. Smith, Commissioner of Fisheries 11/19/1921.
Reports and Related Records 1869-1937. Records of Division of Alaska
Fisheries. U.S. Fish and Wildlife Service. National Archives.
Washington D.C.

Hanable, William

1982 Alaska's Copper River: The 18th and 19th Century. Anchorage:
The Alaska Historical Society

Johnson Loyal

1971 Caribou Survey-Inventory Progress Report - 1971. Game Management
Unit 13-Nelchina Basin (Nelchina Herd). Alaska Department of Fish and
Game, Division of Game. Anchorage

Ketz, James

1983 Paxson Lake: Two Nineteenth Century Ahtna Sites in the Copper
River Basin, Alaska. Occasional Paper No. 33, Cooperative Park Studies
Unit, University of Alaska, Fairbanks.

McIlroy, Carl

1972 Caribou Survey-Inventory Progress Report-1972. Game Management
Unit 13-Nelchina Basin (Nelchina Herd). Alaska Department of Fish and
Game, Division of Game. Anchorage.

Miller, Arthur H.

1916 Supplement to Annual Report of Arthur H. Miller, Teacher of the
United States Public Schools, Copper Center, Alaska June 30, 1916. Alaska
Salmon Fisheries, 1908-1940. Office of Territories. National Archives.
Washington D.C.

Pirtle, Ralph B

1971 Review of the Copper River Red Salmon Subsistence Fishery-1970.
Alaska Department of Fish and Game, Division of Commercial Fisheries.
Cordova.

Randall, Richard, Peter Fridgen, James Brady, Michael McCurdy, and Kenneth
Roberson

1985 Prince William Sound Area Annual Department of Fish and Game,
Division of Commercial Fisheries. Cordova.

Reckord, Holly

1979 Case Study of Copper Center, Alaska. Alaska OCS Socioeconomic Studies
Program, Technical Report No. 7, U.S. Bureau of Land Management Alaska Outer
Continental Shelf Office. Anchorage

1983a Where Raven Stood: Cultural Resources of the Ahtna Region.
Occasional Paper No. 35, Cooperative Park Studies Unit. University
of Alaska Fairbanks.

1983b That's the Way We Live: Subsistence in the Wrangell-St. Elias National
Park and Preserve. Occasional Paper No. 34. Cooperative Park Studies Unit.
University of Alaska Fairbanks.

Redfield, William

1917a Letter to Secretary of Interior Washington D.C. 5/12/1917. Alaska Salmon Fisheries 1908-1940. Office of Territories, National Archives. Washington D.C.

1917b Order Regulating Salmon Fishery of Copper River Drainage, 12/29/1917. Alaska Salmon Fisheries, 1908-1940. Office of the Territories National Archives. Washington D.C.

Roberson Kenneth

1969 Copper River Subsistence Fishery. Report to the Board of Fish and Game 1969. Alaska Department of Fish and Game, Division of Commercial Fisheries Glennallen.

1976 A Review of the Fisheries of the Copper River, 1976. Alaska Department of Fish and Game, Division of Commercial Fisheries. Glennallen.

1977 A Review of the Fisheries of the Copper River, 1977. Alaska Department of Fish and Game, Division of Commercial Fisheries. Glennallen.

1978 A Review of Progress on the Copper River Salmon Project. Alaska Department of Fish and Game, Division of Commercial Fisheries. Glennallen

1979 Report of Copper River Salmon Fisheries Management and Research with Emphasis on the Subsistence Fishery 1979. Appendix A: 1979 Subsistence Fishery Support Data Alaska Department of Fish and Game Division of Commercial Fisheries. Glennallen

1980 Copper River Subsistence Salmon Fishery Management and Research. Alaska Department of Fish and Game Division of Commercial Fisheries. Glennallen

Roberson Kenneth, and Fred Williams

1979 Report of Subsistence Fishery Data and Proposed Management Plan for Dip Net Fishery, 1979. Alaska Department of Fish and Game Division of Commercial Fisheries. Glennallen

Rollins, Alden M., compiler

1978 Census Alaska: Number of Inhabitants, 1792-1970. University of Alaska Anchorage Library.

Selkregg, Lidia

1974 Alaska Regional Profile: Southcentral Region. Fairbanks: University of Alaska Arctic Environment Information and Data Center.

Skoog, Ronald

1968 Ecology of the Caribou (Rangifer tarandus granti) in Alaska. Ph.D. dissertation, University of California, Berkeley.

Stickney, Alice and Paul Cunningham

1979 Report on the Survey of Permitholders in the Copper River Subsistence Fishery 1979. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 36. Juneau.

Stratton, Lee

1982a Patterns of the Nelchina Caribou Herd. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper 38. Anchorage.

1982b 1982 Dipnet and Fishwheel Fisheries of the Copper River, 1982 Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 37. Anchorage.

1983 1983 Copper Basin Caribou Use; A Research Update. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 75. Anchorage.

Stratton, Lee and Susan Georgette

1984 The Use of Fish and Game by Communities in the Copper River Basin, Alaska: A Report on a 1983 Household Survey. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 107. Anchorage.

1985 Copper Basin Resource Use Map Index and Methodology Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 124. Anchorage.

Strong, B. Stephen

1976 Historical Sequence of the Patterns of Production of the Ahtna Athabaskan Indians of the Upper Copper Valley Alaska: The Development of Capitalism in Alaska. Ph.D. dissertation. McGill University. Montreal.

United States Department of Commerce

1984 American Indian Areas and Alaska Native Villages; 1980. 1980 Census of Population Supplementary Report PC 80-S1-13. Bureau of the Census. Washington: Government Printing Office.

Wolfe, Robert J.

1985 Unpublished data on per capita fish and wildlife harvests of Alaska communities. Alaska Department of Fish and Game, Division of Subsistence. Juneau.

Wolfe, Robert J., and Linda J. Ellanna, compilers

1983 Resource Use and Socioeconomic Systems: Case Studies of Fishing and Hunting in Alaskan Communities. Alaska Department of Fish and Game Division of Subsistence. Technical Paper No. 61. Juneau.

Wolfe, Robert J, Joseph J Gross, Steven J. Langdon, John M. Wright, George Sherrod, Linda J. Ellanna, Valerie Sumida, and Peter J. Usher

1984 Subsistence Based Economies in Coastal Communities of Southwest Alaska. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 89. Juneau.

Workman, William

1976 Ahtna Archaeology: A Preliminary Statement. Paper presented at the 9th Annual Conference of the University of Calgary Archaeology Association.

by Congress by the Alaska Native Claims Settlement Act to protect and provide for continued subsistence uses by Alaska Natives and other rural residents, and is based upon the constitutional authority of Congress over Native affairs and its authority under the Property Clause and the Commerce Clause. The committee also has determined that the protection of the subsistence way of life and the fish and wildlife populations upon which that lifestyle depends necessitates the establishment of an administrative structure which enables rural residents with personal knowledge of local conditions and requirements to have a meaningful role in the regulations and management of fish and wildlife and subsistence uses on the public lands.

Section 808: Policy

Based upon the findings in the preceding section, three basic policies have been established which shall guide the activities of the Federal government and the State on the public lands: that the utilization of the public lands is to cause the least adverse impact possible upon rural residents who depend upon subsistence uses for their economic and physical well-being and cultural vitality; the nonwasteful subsistence uses of fish, wildlife and other renewable resources, e.g., berries, timber, grasses, shall have the first priority consumptive use of such resources on the public lands, and when or where it is necessary to restrict the taking of such resources, taking for nonwasteful subsistence uses shall be given preference over other consumptive uses; and that the successful management of subsistence resources and activities requires long term cooperation between adjacent landowners and managers, including appropriate State and Federal agencies, Native corporations, and other nations.

Section 809: Definition

The committee has adopted a definition of "subsistence uses" based on the definition of that term set forth in section 15, ch. 151 SLA 1978 (A.S. 16.05.040) of the Alaska Statutes. In turn, the State definition was modeled on section 703 of the House bill. "Subsistence uses" are defined as the customary and traditional use in Alaska of fish, wildlife and other renewable resources for direct personal or family consumption, for the making and selling of handi-craft articles from the non-edible by-products of fish and wildlife taken for direct personal or family consumption, and for customary trade, barter, or sharing for personal or family consumption. The definition of "family" recognizes extended family patterns common to all of Alaska's Native cultures. "Family" includes any person living in a household on a permanent basis as well as those persons living outside the household who are related by blood, marriage or adoption (legal or equitable). "Barter" means the exchange or trade of fish or wildlife, or their parts, for other fish or wildlife, or their parts, or for other food or nonedible items other than money if the exchange is of a limited and noncommercial nature. This definition of "barter" recognizes that in many rural villages the subsistence diet must be supplemented with other foods which may be available from the village store and other sources, and that the limited noncommercial barter of subsistence resources for nonedible items is an essential element of the rural subsistence lifestyle. The definition of "subsistence uses" is intended to include all

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Claims Settlement Act to protect subsistence uses by Alaska Natives and on the constitutional authority of the authority under the Property Rights Committee also has determined the way of life and the fish and game lifestyle depends necessitates the structure which enables rural local conditions and requirements regulations and management of fish on public lands.

In this section, three basic policies guide the activities of the Federal on public lands: that the utilization of subsistence uses have diverse impact possible upon rural subsistence uses for their economic and health; the nonwasteful subsistence-renewable resources, e.g., berries, game, and priority consumptive use of such resources or where it is necessary to restrict such use for nonwasteful subsistence uses; and that the management of subsistence resources and activities requires the participation of local landowners and managers, State and Federal agencies, Native corpora-

tion of "subsistence uses" based on the definition in section 15, ch. 161 SLA 1978. In turn, the State definition of "subsistence uses" in the subsistence bill. "Subsistence uses" are defined as the personal use in Alaska of fish, wildlife, and aircraft articles from the nonwasteful subsistence-renewable resources taken for direct personal or family consumption, barter, or sharing for the definition of "family" recognizes all of Alaska's Native cultures. Subsistence uses include those used in a household on a permanent basis outside the household who are related (legal or equitable). "Barter" includes the exchange of fish, wildlife, or their parts, for other food or nonedible items of a limited and noncommercial nature. The State recognizes that in many rural villages, subsistence is supplemented with other food sources and other sources, and the management of subsistence resources for the benefit of the rural subsistence lifestyles" is intended to include all

Alaska residents who utilize renewable resources for direct personal or family consumption.

However, the phrase "customary and traditional" is intended to place particular emphasis on the protection and continuation of the taking of fish, wildlife, and other renewable resources in areas of, and by persons (both Native and non-Native) resident in, areas of Alaska in which such uses have played a long established and important role in the economy and culture of the community and in which such uses incorporate beliefs and customs which have been handed down by word of mouth or example from generation to generation. The factors of local residency, economic dependence, and availability of alternative resources have been included in section 804 rather than in the definition. Although a truly comprehensive definition of "subsistence uses" must include a mix of those factors, the committee has determined that they should be incorporated through appropriate action by the State rulemaking authority in conjunction with the recommendations of the regional councils established pursuant to section 803 to implement the subsistence preferences set forth in section 804. Sections 803-805 are intended to establish a dynamic process for the regulation of subsistence resources and uses which will enable rural people to participate in the decisionmaking process of the State rulemaking authority in the inclusion of the local residency, economic dependence, and availability of alternative resources factors into the definition of "subsistence uses" on a case-by-case basis to meet the needs of a particular management situation in a particular area.

Section 804: Preference for Subsistence Uses

This section requires both the State and the Federal government to accord nonwasteful subsistence uses a preference over the taking of such resources for other purposes on the public lands. Although the committee recognizes that only rarely will the failure to adequately provide for the preference result in the threat of literal starvation, in many instances the failure to obtain fish to dry for winter use or fresh meat to supplement other foods can engender considerable individual, community and cultural trauma and hardship. Consequently, this section envisions that governmental action affecting subsistence resources and uses shall be undertaken in a manner which adequately provides for the preference on an ongoing basis and not only when critical allocation decisions may be necessary because a particular subsistence resource may be threatened with depletion, so long as such action is conducted in a manner which is consistent with the protection of the continued viability of fish and wildlife populations which may be affected by such action. If a particular fish or wildlife population (e.g. salmon, moose or caribou) in a particular area is sufficient to sustain a harvest by all persons engaged in subsistence and other uses, the implementation of restrictions on taking set forth in this section need not be imposed by the State rulemaking authority. However, if the continued viability of a particular population or the ability of rural subsistence-dependent residents to satisfy their subsistence needs would be threatened by a harvest by all such persons, the State rulemaking authority, in conjunction with the recommendations of the regional council representing the affected area, is required by this section

...the population cannot safely sustain a harvest by all user groups, then the State must adopt regulations establishing subsistence uses as the priority uses of such population. All genuine subsistence uses must be met before the State may permit taking of the population for any type of non-subsistence uses.

For example, if residents of the villages in a particular area normally harvest five hundred moose for subsistence uses, and fly-in hunters from outside the local area normally harvest five hundred moose from the same herd, but the biologists determine that the herd can safely sustain a total harvest of only six hundred moose, the subsistence priority in section 804 requires that only one hundred moose be made available for harvest by persons other than residents of the local area engaged in subsistence uses. This result could be achieved by opening the moose season to the residents of the game management units in which the moose herd is located for hunting without a permit to obtain moose for subsistence uses, and then allocating access to the remaining one hundred moose to non-residents of the area by lottery.

If in the previous example the moose herd is only capable of sustaining a total harvest of four hundred moose, then not only must no hunting of the herd be permitted by persons not resident of the local area, but the State must also establish priorities for access to the herd by the rural residents of the local area as well, based upon the three criteria set forth in the subsistence preference: local residency, availability of alternative resources, and dependence upon the resource. Only at this stage of the regulatory process, when dependence upon the resource as the mainstay of livelihood for the first time becomes a permissible allocation criteria, does the income of individual rural residents become a permissible factor in the allocation process. The availability of alternative resources criteria is intended to focus on alternative subsistence or other food resources, not money. For example, if caribou are reduced in some villages better able to withstand the hardship than others because they have more access to seals or moose?

As long ago as August of 1977 Governor Hammond testified to the importance to resource protection that one management system, and one manager, be in control of fish and wildlife resources throughout their range. This is particularly important with Ebery resources. Consequently, it has always been our intent to apply the subsistence preference to all fish stocks in the waters of Alaska. This result enables the State of Alaska to continue its lead in fisheries management without unnecessary disruption. It also should be stressed that if for any reason the State should ever repeal its subsistence statute, this preemptive section would continue the subsistence preference for fish throughout the waters of Alaska. For the purposes of section 804, the reference to "fish populations" is intended to mean any species, sub-species, race, geographical grouping, population, run, or other category of fish characterized by similar morphological, meristic, or life history traits, or which is

...the judicial enforcement approach was developed by the Senate Energy and Natural Resources Committee during the 95th Congress. Senators Abourezk, Ford, and Durkin were three of the members of that committee who were particularly involved in the development of the Senate subsistence title. Their supplemental views detailing the responsibility and authority of the Secretary to exercise his administrative authority over the public lands and the waters of Alaska to protect subsistence uses in appropriate instances are the basis of my interpretation of the effect of section 806 of the Senate bill. Since section 806 is intended to be the remedy of only the local committees and regional councils, obviously rural residents engaged in subsistence uses and other persons who are directly affected by State implementation of the subsistence preference are entitled to have the Secretary take appropriate action if the State fails to do so, and, consequently, will be entitled to mandamus such action from the appropriate Secretary if he should fail to fulfill his duty to manage the public lands and the waters of Alaska in a manner consistent with the management standards established by the Congress in this legislation.

Lastly, Mr. Speaker, I would like to briefly discuss the manner in which subsistence hunting by local residents is to be managed within new national parks and national park monuments and within the additions to those national parks and national park system monuments which were established prior to December 1, 1978. As you know, hunting of any kind generally is not permitted within national parks in the United States. However, during the development of the Department of the Interior's legislative proposal to the Congress, it became obvious to the Secretary of the Interior and to the National Park Service that much of the acreage within the large parks and monuments desired by the National Park Service included acreage which customarily and traditionally has been used, and is now being used, by Alaska Natives and other rural residents for subsistence hunting. Application of the traditional no hunting policy to these proposed areas would result either in significant disruption of subsistence hunting activities and resultant community hardship, or would require the cutting back of the boundaries of the proposed park units to accommodate subsistence activities.

In recognition of this uniquely Alaskan situation, the Department of the Interior represented to the residents of the affected villages and to Native village and regional corporations representing the same residents, that subsistence hunting within all of the new parks and within the additions to existing parks would be statutorily guaranteed. And it was as a result of this agreement, Mr. Speaker, that most local communities and village and regional corporations have supported, or at least not opposed, the creation of new parks and monuments within their regions.

Mr. Speaker, consistent with their promise

...the continuation of subsistence hunting by local residents that subsistence hunting of the same areas be continued within all parks and monuments established or expanded by this legislation, other than the Kenai Fjords National Park. Consistent with this recommendation, the Antiquities Act proclamations signed by President Carter on December 1, 1979 not only guaranteed the continuation of subsistence hunting by local residents, but specifically recognize subsistence hunting as an important value of each monument, other than the Kenai Fjords.

Consistent with the Secretary's recommendation and the language of the monument proclamations, both the version of H.R. 20 passed by the House in 1978 and the Udall-Anderson bill passed last year establish subsistence uses by local residents, including subsistence hunting, as a purpose of each new park and park monument, other than the Kenai Fjords, and of the additions to parks and monuments established prior to December 1, 1978.

The Alaska Lands bill passed by the Senate (and which we today concur in) statutorily guarantees that subsistence hunting by local residents will be permitted within all of the same areas as are open to such uses in the Udall-Anderson bill, but regrettably does not designate subsistence uses as a purpose of each new area and addition. However, Mr. Speaker, I would note that sections 201 and 202 indicate that the purposes of each new park and addition set forth in the legislation are not intended to be all inclusive. I would strongly suggest that in establishing regulations for the management of each of these areas, the Secretary of the Interior designate subsistence uses by local residents as a specific purpose of each park and park preserve. To do any less would be inconsistent with the longstanding representations which the Secretary, the National Park Service, and the House Interior Committee, have made to the Alaska Native residents of areas within or adjacent to these new areas.

It also should be noted Mr. Speaker, that with respect to several of the new parks, the Senate bill intends to permit subsistence hunting only within certain subsistence zones within the park. I have reservations about this concept because I am uncertain if data presently exists which is definitive enough to enable the National Park Service to say with any degree of confidence that subsistence hunting has or has not traditionally taken place within a certain area. Consequently, if the subsistence zone concept is to be applied to any park area, fundamental fairness seems to require that the designation and boundaries of those zones be made by the subsistence resource commissions established by section 808, rather than by park planners and researchers, and that if there is any doubt as to whether subsistence hunting should be permitted within a particular area, that the decision be made on the basis that subsistence hunting should be permitted rather than restricted. Finally with respect to this issue Mr. Speaker I would like to assure the Alaska Native people that the House Interior Committee intends to closely follow the implementation of the subsistence hunting program in the parks over the years ahead to make sure that our representations to the Alaska Native people on this critical issue do not take their place in the litany of other forgotten or broken promises made by the Federal government to Indian people when convenient to accomplish the goals of those with a different agenda.

Mr. Speaker, this discussion has touched upon only a few of the many important concepts embodied in the subsistence management system established by the Senate bill.

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*KODIAK ISLAND AREA LOCAL FISH
AND GAME RESOURCE GUIDE*



**TRINITY
ISLANDS**

PREPARED BY:
THE KODIAK AREA
NATIVE ASSOCIATION
WITH ASSISTANCE FROM THE
DEPARTMENT OF FISH AND GAME
DIVISION OF SUBSISTENCE

DECEMBER 1983

ACKNOWLEDGEMENTS

The Kodiak Area Fish and Game Resource Guide was developed by the Kodiak Area Native Association (KANA) with the assistance of the Alaska Department of Fish and Game, Division of Subsistence. Funding to produce the Guide was obtained by the Association from the U.S. Department of Interior, Bureau of Indian Affairs.

The Kodiak Area Native Association expresses sincerest gratitude to the following individuals, without whose valuable assistance the collection of the information contained in the Guide would not have been possible: Jim Fall, Katie Howard, Bob Schroeder, and Carol Seamann of the Alaska Division of Subsistence; Marlene Aga, Frank Carlson, Connie Chya, Sonja Delgado, David Eluska, Mel Gloria, Pat Lukin, and Dorothy Pestrikoff, all of whom were survey technicians for the Kodiak Area Native Association.

We also thank all the residents of Kodiak Island communities who generously gave of their time and knowledge while participating in the research upon which the Guide is based.

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I. INTRODUCTION

The purpose of this Guide is to provide an overview of contemporary patterns of non-commercial harvest and use of fish and game resources by the inhabitants of the Kodiak Island area. In addition, the Guide presents certain issues and concerns of the residents of Kodiak rural and urban communities about the management of wildlife for future use.

The data contained in this Guide are the product of a six (6) month research project involving the most comprehensive resource use survey ever conducted in the Kodiak Island area. Harvest and use information on wild fish, game, and plant resources was collected in house to house surveys, conducted in all six (6) rural communities, the City of Kodiak and road-connected residential areas, and the U.S. Coast Guard Base.

KANA sincerely hopes that the Guide will be used as a tool by those involved with the management of wildlife resources and development of policies concerning their use. It is important to note that the Guide does not present interpretation or extensive analysis of the research data. The purpose of the report is simply to present some of the results of the survey and other background data. The degree or level of interpretation is left to each reader's discretion.

All of the information contained in this Guide will be incorporated into the Southwest Alaska Regional Habitat Guide currently being prepared by the Alaska Department of Fish and Game. Further information about wildlife harvests and uses for the area will be found in that document, which will be completed in 1984.

II. PHYSIOGRAPHY AND CLIMATE

The physiographic areas included in the region are: Kodiak Island, Afognak Island, the Barren Islands, and the Trinity Islands (Figure 1). The Kodiak Island group, the Barren Islands, and the Trinity Islands are formed by the Kodiak Mountains, which are the structural continuation of the Kenai-Chugach Mountains. The Kodiak Mountains retain some glaciers. Summit altitudes are between 2,000 and 4,000 feet. Kodiak Island has a rugged northeast-trending divide, having horns and aretes from which broadsmooth ridges extend northeasterly grain-normal to the drainage.

The coastline is extremely irregular, having many fjords and islands. The northern part of Afognak Island is a hilly lowland, and the western part of Kodiak Island has many broad valleys. The islands of the Kodiak group are drained mostly by swift, clear streams that are less than ten miles long. Two rivers, each about twenty-five miles long, drain much of southwestern Kodiak Island.

There are several lakes more than a mile long in the southwestern part of Kodiak Island and on Afognak Island. Small ponds are scattered over the glacially sculptured topography. The glaciated valleys heading in the small divide have chains of lakes.

Two natural catastrophies have hit this region during historic times: the eruption of Mt. Katmai in 1912 and the great earthquake of 1964. The Katmai eruption deposited volcanic ash eighteen inches deep over the region, and its effects on the people, flora, and fauna were not overcome for several years. The 1964 earthquake generated tsunami waves that caused great devastation to the fishing fleet, shore facilities, and communities throughout the region. Recovery is now essentially complete.

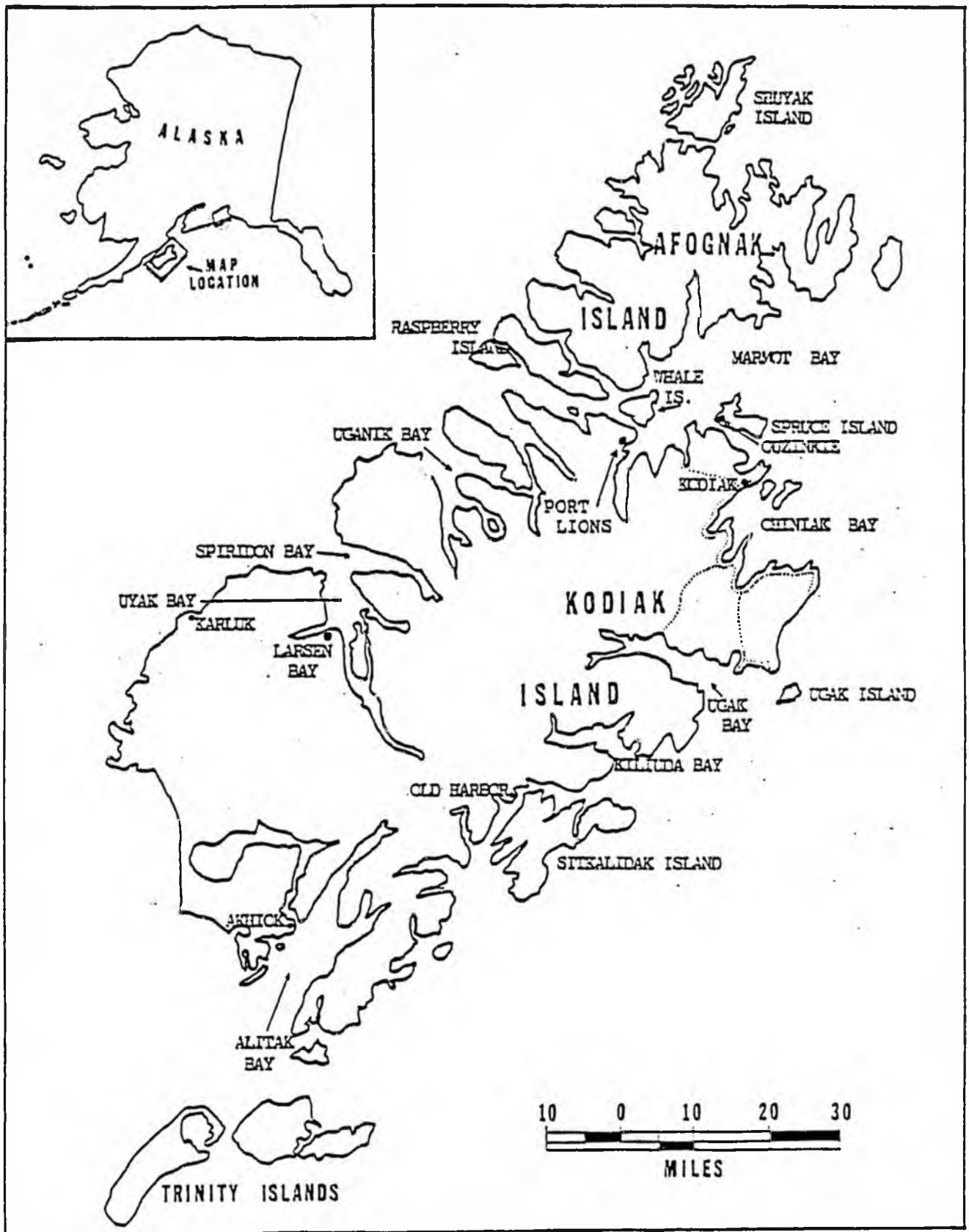


Figure 1. Kodiak Island Region

The northern part of Kodiak Island, as well as Afognak Island, Shuyak Island, and Spruce Island support spruce forests, but most other islands are treeless. Willow and alder are common species in those parts of the region that support woody vegetation. Grass and herbaceous plants dominate most of the region lying below the alpine zone.

The Kodiak region has a maritime climate which is usually considered favorable for agriculture. Annual precipitation averages fifty to sixty inches. Temperature records at Kodiak show that the months of December through March average 31° F and August averages 54.8° F. The highest recorded temperature is 86° F, and -12° F is the record low.

III. REGIONAL HISTORY

The term "Koniag" has been applied to the indigenous inhabitants of the Kodiak Archipelago since the earliest times known to Europeans. The Koniags were, and are, a distinct ethnic group, speaking a language related to the Central Yup'ik language of Bristol Bay and the Yukon-Kuskokwim Delta.

The Russians began operating in the Aleutians in 1741 and by 1784 had reached Kodiak Island under Gregorii Shelikov. The Koniags numbered over 8,000 when the Russian occupation began, but the Russians brought war, epidemic disease, and conquest. In addition, in the last ten years of the eighteenth century, a series of earthquakes and tidal waves decimated many of the Native villages.

The Russians quickly turned Kodiak Island into the center of trade and commerce in Alaska. The Russian American Company established a monopoly over the whole area, and by 1802 had harvested over 18,000 sea otter pelts. The American whaling fleet began operating in the area in 1835 and remained active until 1869. In the late 1850s the Russian adventure in the New World had become unprofitable and politically impractical, and in 1867 Alaska was purchased by the United States.

Kodiak prospered from 1799 until the end of the nineteenth century, but whaling declined after the 1860s and the sea otter became practically extinct around 1890. In 1900, the Island turned to commercial salmon fishing, with several canneries being established in Karluk Lagoon. In 1906, the U.S. Government established a cattle herd on the Island, but in 1912 the eruption of Mt. Katmai destroyed this industry along with the salmon spawning streams. Finally, in the 1920s, salmon and halibut fisheries

again regained importance. The U.S. Government initiated a massive military buildup in the area during World War II. The population of the Island increased tremendously during this period.

In 1949, the king crab industry was started and has been an important element of the economic base of the region to the present time.

During the period of recorded history, the number of settlements on Kodiak has fluctuated widely, being variously reported as forty-five (45) and fifty-seven (57) at different times. At present, there are seven (7) occupied, legally designated communities on the Island, including the City of Kodiak.

IV. CONTEMPORARY SOCIOECONOMIC SETTING

KODIAK ISLAND

Kodiak Island is the largest island in Alaska, being about one hundred and ten miles long and sixty miles across. It has a land area of 4500 square miles, or about the size of Connecticut.

The Island is in the western Gulf of Alaska, south of Lower Cook Inlet. There is a tremendous continental shelf area surrounding Kodiak Island, which not only produces rich fishing harvests, but also has potential for oil and gas exploration. The Federal Government leased thirteen offshore oil and gas tracts to Chevron U.S.A. in the lower Cook Inlet/Shelikof Strait region (Lease Sale #60) in September 1981. Another Lease Sale is scheduled to occur in the same area (Lease Sale #88) in October 1984.

Most of Kodiak Island Borough's approximately twelve thousand (12,000) inhabitants live on Kodiak Island, giving it a population density of 2.2 persons per square mile.

Kodiak is isolated from the mainland of Alaska, and transportation is limited to airplanes and watercraft. The Island itself has over 100 miles of road; most of which is in and around the City of Kodiak and does not connect with any of the villages on the Island.

The Kodiak Island has a Coast Guard base that serves the entire Northern Pacific Rim. The base has 1,370 military personnel and 2,500 dependents. There are extensive facilities on the base, including a fifteen bed hospital, a theater, restaurant, bowling alley, post exchange, and a commissary.

The Kodiak Island Borough owns a medium sized hospital. In addition, there is a Public Health Nurse Clinic, a Kodiak Aleutian Mental Health Center, and three alcoholism treatment facilities operated by the Kodiak Council on Alcoholism. Ambulance service is provided by the City Fire Department.

The Kodiak Island Borough School District has established primary and secondary grade schools in the six villages in the Kodiak area. The village schools provide State required curriculum and, from time to time, instructional programs concerning employment opportunities.

Regional Facilities

Transportation

Kodiak, the transportation center of the Kodiak Region, is served externally by only two modes of transportation: air and marine. Emergency evacuation services are provided by the various Kodiak air services plus the U.S. Coast Guard based at Kodiak.

Communications

The City of Kodiak and the villages are geographically isolated from the mainland by the Gulf of Alaska. No roads connect the seven communities, so they are likewise isolated from each other. The rugged terrain of Kodiak Island, extremely wet and cloudy weather conditions, and distance separate the seven communities, making communication difficult. Kodiak has modern telephone services, as do the villages.

All communication systems, either radio or telephone, between the six villages and Kodiak are dependent upon the availability of electricity in

the village to run them. Currently, the villages of Karluk and Larsen Bay have no central community owned or operated electrical system, thereby significantly limiting the dependability of communications.

Kodiak Area Population

The 1982 total Island population was assessed by the Kodiak Island Borough Census at 12,714.

City of Akhiok	103
City of Kodiak	5,873
City of Larsen Bay	180
City of Old Harbor	355
City of Ouzinkie	233
City of Port Lions	291
Borough Service Area #1	1,853
(Place of) Chiniak	185
(Place of) Karluk	102
(Place of) Women's Bay/ Bells Flats	521
Remainder of Borough	<u>3,018</u>
	<u>12,714</u>

CITY OF KODIAK

The City of Kodiak, the largest on Kodiak Island, is located on the northeast coast. It has an excellent harbor with substantial potential for growth. The harbor is the base for the largest commercial fishing fleet in Alaska.

Kodiak's elevation is from sea level to 800 feet. The climate is maritime with an average annual precipitation of 54.3 inches, and average temperature of between 26° Farenheit and 59° Farenheit. Winds are predominately northwesterly. The local topography is rugged and scenic, with wooded mountains surrounding the harbor. Soils are largely volcanic in origin.

History

The town of Kodiak was founded in 1792 by Alexander Baranov, manager of the Shelikov-Golikov (later the Russian American) Company from 1792 to 1818. He moved the Shelikov-Golikov Company settlement from Three Saints Harbor to the present site because the ground was higher, drier, and surrounded by timber. He called the new settlement "Pavlovsk" or "Paul's Harbor". In 1869, after the U.S. bought Alaska, a post office was established under the name "Kodiak" for the Island; it was discontinued in 1875 and reestablished in 1888.

The Russian American Company was engaged in fur trade, mainly that of sea otter. So many sea otter were slaughtered between 1783 and 1867 that the species was nearly wiped out, along with those who depended on them. Now, both the sea otter and Koniag Natives are recovering from the fur boom, warfare, and epidemics of the 19th century.

Facilities

Kodiak has a post office, library, five public schools, a Catholic school, a community college, a hospital, 13 churches, a daily newspaper, five banks, and three hotels. There is a National Marine Fisheries Service office (U.S. Department of Commerce), the Refuge Headquarters Office for the Kodiak Wildlife Refuge (Department of Interior, U.S. Fish and Wildlife Service), a U.S. Coast Guard Support Center, a Bureau of Customs office (U.S. Department of Treasury), and a U.S. Forest Service Office.

Kodiak is on the Alaska Marine Highway System with access to Homer, Seldovia, and Seward. The City maintains two docks and port facilities for permanent and transient boats, both commercial and private.

Sealand, American President Lines and Foss Tug Lines are Kodiak's major shipping firms.

Kodiak has a 7,500 foot long paved and lighted runway, with jet and small plane fueling facilities. A new runway is under construction. Wein Air Alaska and Alaska Airlines have scheduled flights daily to and from Anchorage, and direct flights to and from Seattle in the summer season. Alaska Aeronautical Industries provides twice weekly flights between Kodiak, Homer, Kenai, and Anchorage. However, they are frequently interrupted by inclement weather. Island Air, Flirite, Uyak Air Service, SeaAir Motive and Alaska Transportation Services provide air services between Kodiak, six villages, and other communities on the Island.

Kodiak has land and marine radio service. The U.S. Coast Guard continuously monitors 2182 kHz and 4136.3. There are Coast Guard official weather forecasts. Water and sewer is supplied by the City of Kodiak. Electricity

is distributed by the Kodiak Electric Association, and Glacier State Telephone supplies telephone services.

Kodiak is a home rule city with a Council-Manager form of government. Kodiak Island Borough is a second class Borough with an Assembly-Manager-Mayor form of government. There is a borough-wide Comprehensive Plan and a Coastal Zone Management Plan. Recreation facilities in Kodiak include two theaters (one military), and a small boat harbor and expansion. Opportunities for spor. hunting and fishing abound.

Economy

The economy of Kodiak relies heavily on the seasonal commercial fishing industry. There are at least 14 canneries in Kodiak, not counting those in outlying areas. In 1968, Kodiak became the largest fishing port in dollar volume in the United States. Only recently (1980) did Kodiak fall into second place behind Dutch Harbor.

Guiding service for hunters, sport fishermen, and photographers is a growing occupation. Tourism is another burgeoning industry. The Kodiak National Wildlife Refuge, on the southwestern two-thirds of the Island, supports trophy Kodiak brown bear and has excellent salmon fishing streams.

AKHIOK

Akhiok is located on Alitak Bay on the southern tip of Kodiak Island, 59 air miles southwest of Kodiak. The land is treeless rolling tundra, with occasional rock outcroppings. Akhiok is 12 feet above sea level, with hills inland reaching an altitude of 1,800 feet. The annual temperature range is from 25 to 54 degrees Fahrenheit. The annual precipitation is

35.3 inches, and the weather is often cloudy and foggy.

History

Originally an Koniag community, this village was occupied by the Russians in the early nineteenth century and was named "Akhiok" or "Akhiak" by them. During World War I, one U.S. Post Office changed the name to "Alitak" to avoid confusion with Akiak, another Native village. Akhiok is now the preferred name.

Population

The 1982 Kodiak Island Borough Census reports a population of 103 persons, 96% of whom are Alaskan Natives.

Village Facilities

Akhiok is traditional village, with a village President, Vice President, Secretary-Treasurer, and three councilmen. Akhiok is recognized by the State of Alaska as a Second Class City. Incorporation of municipality status occurred in 1974, forming a six member City Council from which a mayor and other officers are selected.

There are 28 houses, a post office, a newly constructed post and secondary grade school, Russian Orthodox Church, Community Hall, and Village Corporation owned store. Fifteen new houses were placed in the village in 1978.

There is an airstrip for small aircraft. Planes can also make sea landings to serve the community. The harbor is very poor, being dry at low-tide

and exposing boats to damage during bad weather. In winter, the area is subject to high winds. However, a floating mooring facility was constructed in 1983 to insure safety of moored vessels and small boats.

The community water system, built by PHS in 1969, consists of two 10,000 gallon storage tanks, an impoundment dam, and gravity feed pressure.

Homes are equipped with flush toilets and indoor plumbing. Waste disposal is accomplished through individual leaching pits. Garbage is generally disposed of in an open garbage pit near the village. Electricity is powered by a 55 KW generator with a centralized distribution system. The generator will be replaced by new units by late 1983.

Economy

Commercial and subsistence fishing is the main economic activity; there is also subsistence sea mammal and other hunting for meat. Many years ago a reindeer herding operation was created under the Sheldon Jackson Reindeer Program, but the herd has been wild for some years and of no commercial value. Some jobs are provided by the Kodiak Area Native Association, i.e., Community Health Aides, Community Health Representative, and teacher's aides. Columbia Wards Fisheries provides some employment at their Alitak Fish Processing facility. These jobs are seasonal. The school employs two full-time positions and six part-time positions.

KARLUK

Karluk is on the west coast of Kodiak Island, at the mouth of the Karluk River and 90 air miles from Kodiak. Karluk Lake is 25 miles inland, the source of the Karluk River. Vegetation in the area is limited to willow,

alders, and grasses. The annual temperature range is 30° Farenheit to 54° Farenheit. The climate is maritime and humidity is high. Erosion has been a problem since the 1964 earthquake.

History

This village was first reported by Captain Lisianski, of the Imperial Russian Navy, in 1805, as "Carlock" and as "Karloock". There is an old antiquity site (Old Karluk) and new Karluk is across the bay.

The Karluk River was once known as the greatest salmon stream in the world. In the late 1800s, the largest salmon cannery in the world was located there. Now the people are commercial and subsistence fishermen. A post office was established in 1892.

Population

The population of Karluk has been as follows:

1928.....	99	1960.....	129
1929.....	192	1970.....	98
1939.....	189	1980.....	96
		1982.....	102

Of the 1982 population, 100 are Alaska Natives.

Village Facilities

Karluk is an unincorporated municipality. The Native population is governed by a seven member tribal government established under the 1936 Indian Reorganization Amended Act. The village of Karluk was relocated inland on the south shore in 1978, after a severe storm breached the Karluk spit. Presently, Karluk has a post office and a PHS water treatment

facility. Domestic water is stored in a 35,000 gallon tank. Karluk has a new school (grades K-11) constructed in 1982, a bulk fuel storage tank farm, and a health clinic and tribal facility building. Twenty-three housing units were placed at the new village site and two older houses at the original village are in use. Electricity is supplied by individual 4.5 KW generators, diesel fired. By the fall of 1983, electricity will be supplied by two 55 KW generators connected to a centralized distribution system.

Economy

Karluk's economy rests primarily on commercial and subsistence fishing. Sixteen percent of Karluk's labor force is employed year-round and sixty-four percent seasonally. A privately owned recreational lodge rests on the north shore of Karluk's lagoon and operates during the summer months, but is strictly marginal to the village economy.

LARSEN BAY

History

Larsen Bay is on the northwest coast of Kodiak Island, on the west shore of Uyak Bay. The people have adapted to a cash economy and are now largely commercial fishermen. Kodiak Island Seafood, Inc. was located here; they had purchased the old APA Cannery, but in the past year have discontinued operation due to the combination of obsolescence of machinery and management practices.

Larsen Bay is called "Uyak" in the Native language, although it is distinct from the former village of Uyak.

Population

The population of Larsen Bay has been as follows:

1890.....	less than 20	1967.....	74
1939.....	38	1970.....	109
1950.....	53	1974.....	98
1960.....	72	1980.....	168
		1982.....	180

The 1982 Census data indicated that 68 percent of the population is Alaska Native.

Village Facilities

Larsen Bay is a second class city incorporated in 1974. It has a seven member city council from which the mayor and other officers are selected.

The Native population is represented by a seven-member I.R.A. council recognized by the BIA. Larsen Bay has a post office, community hall, with an attached building housing a clinic, a Russian Orthodox Church, school (grades K-11) and a store located at the closed cannery.

There are 48 housing units in Larsen Bay; thirteen new units will be available in 1984. A 100,000 gallon capacity tank provides the community with water. Electricity is supplied by individual generators, oil fired.

The State of Alaska has indicated the possibility to develop a mini-hydroelectric plant to connect to the immediate development of centralized community electrification.

There is a 10,000 X 1000 foot seaplane landing area and a 2,400 foot long airstrip. The cannery facility has a usable dock and a ramp-type dry dock. The village of Larsen Bay has a PHS radio phone, PHS direct satellite phone, RCA telephone system, and a satellite television system.

A small plane charter service named Uyak Air is located in Larsen Bay providing immediate air travel to the village residents.

Economy

Larsen Bay residents rely heavily on commercial and subsistence fishing. Almost every local fisherman delivers fish to the local cannery, which employs about ten villagers.

KANA, the city, the school, and the Tribal Government employ approximately ten full and part-time positions.

OLD HARBOR

Old Harbor is on the west shore of Sitkalidak Strait, on Kodiak Island. It is 56 air miles southwest of Kodiak. The climate is maritime, with approximately 60 inches of precipitation per year. Temperatures range from 24° F to 60° F. The village was nearly destroyed by the 1964 earthquake tidal wave, but has since been rebuilt. A tsunami warning system is now in effect.

History

Old Harbor (Three Saints Bay) was the first Russian settlement in Alaska. It was established in 1787 by Shelikov of the Russian Fur Company, and was the Russian headquarters until Alexander Baranov moved to St. Paul's (Kodiak) in 1792. Three Saints Bay was actually between the present site of Old Harbor and the former village of Kaguyak. The Russian settlement was destroyed three times by tsunamis before it was moved to Kodiak.

Old Harbor was reported in the 1890 census as "...Old Harbor, named "Sraruigavan" by the Russians...This site containing now less than 100 people" (in Baker 1906). A post office was established in 1931.

Population

The population of Old Harbor has been as follows:

1920.....54	1967.....231
1929.....84	1970.....290
1939.....109	1974.....304
1950.....121	1980.....340
	1982.....355

1982 Census data reports determined that 92% of the population is Alaskan Native.

Village Facilities

Old Harbor has a post office, village school (K-10), a community hall, library, theater, pool hall, two stores, and a Russian Orthodox Church. There are 49 homes, 42 of which were built by BIA, and six by individuals after the earthquake of 1964. The Housing and Urban Development Program has completed 45 new homes in 1979, and scheduled fifteen to be completed in 1985.

In 1968 AVEC, installed a diesel generator which supplies power to the village. As part of the housing project, a new water and sewer system was installed.

There is a 2,000 foot gravel runway. The village has a commercial use dock. Transportation to Kodiak is limited to air and water traffic. A satellite television system, PHS direct radio phone and individual telephone service is currently operable in the village.

Old Harbor is a second class city. The Native population is represented by a seven member traditional tribal council.

Economy

Old Harbor depends on the salmon fishing industry. The stores hire locally and other income is obtained by working in the seafood processing plants in Kodiak, Alitak, and floating processors that moor to the fuel dock from time to time.

OUZINKIE

Ouzinkie is on the southwest coast of Spruce Island, northeast of Kodiak Island and ten miles north of Kodiak. Spruce Island is a small island separated from Kodiak Island by Narrow Strait, and covered with a spruce forest. The climate is temperate, windy, rainy, cloudy, and foggy. Erosion is a serious problem.

History

In 1889, the Royal Packing Company built a cannery here, and the Russian American Packing Company shortly afterwards did the same. In 1890, a Russian Orthodox Church was built. The name is a transliteration by Baker (1906 p. 657) of "Uzenkiy," from "uzkiy," meaning "very narrow," derived from the Russian name given to Narrow Strait. Petroff, in the 1880 census, reported "Oozinkie, where they are fifteen Creoles" [i.e. people of mixed Russian/Native ancestry]. In 1849, the Russian American Company published the name "Sele (iye) Rus (Kiy) i Kreolovy" meaning "village of Russians and Creoles." A post office was established in 1927.

Population

The population of Ouzinkie has been as follows:

1920.....96	1960.....214
1929....168	1967.....231
1939....233	1970.....180
1950....170	1980.....173
	1982.....204

Of the 1982 total, 82 percent are Natives.

Village Facilities

Ouzinkie has a post office, a primary and secondary grade school, a bulk fuel storage facility, a community center, a Baptist Mission, a Russian Orthodox Church, gift shop, a store, and a Ouzinkie Native Corporation Office, which is the fuel distributor.

There are 69 dwellings in Ouzinkie. A new water and sewer system was installed in conjunction with the recently completed housing project in 1982. The City of Ouzinkie provides power to the community.

There is a landing area for sea planes and an airstrip for small aircraft. There are scheduled daily flights. The City owns the vessel dock and there is individual telephone service in the village.

Ouzinkie is an incorporated municipality established in 1967. It has a seven-member council from which the mayor and other officers are selected. A seven-member, federally recognized traditional tribal council represents the Native population.

Economy

The economic base of Ouzinkie is commercial and subsistence fishing.

However, there have been no fish processing facilities in Ouzinkie since the Glacier Bay Cannery burned down in 1976. Commercial fishermen deliver to Kodiak plants. The store (Mark-It Foods) employs two people and the KANA, city, and schools employ thirteen people.

PORT LIONS

Port Lions is on Settlers Cove, near the mouth of the Kizhuyak River, eighteen miles northwest of Kodiak. It is on the north coast of Kodiak Island. Port Lions shares climate conditions similar to other villages on Kodiak Island, namely a mild maritime environment featuring 60 inches of precipitation, temperatures from 20° F to 60° F, and frequent cloudy or foggy days.

History

This village was built in 1964 (construction completed by 1965) by the Lions International and the BIA for the displaced inhabitants of Afognak. The village of Afognak was virtually destroyed by the tsunami during the Good Friday earthquake of March 27, 1964.

Population

The population of the Afognak village was 99 in 1960, and after relocation in 1970, it was 227. In 1974, the population was 243, and the 1982 census total is 291. Of the total population, 68 percent are Native.

Village Facilities

Port Lions has 102 dwelling units, a post office, school (K-8), community

center, library, a lodge, two restaurants, general store, fuel distributor, and a local community clinic staffed by KANA employees and a local contracted physician.

Kodiak Electric Association brings electricity to the dwellings via generators.

There are local roads around the village. In 1972, the State Department of Highways began 4.5 miles of reconstruction on Port Lions streets. Roads were recently constructed to facilitate new housing. There is a gravel airstrip, 2,600 feet long with flights ten times a week in the summer. The village has an Alaska Marine Highway dock and ferry service twice a week during the summer months and once a week during the winter.

A modern telephone system serviced by Interior Telephone Company was established in the community in the late 1960s.

Economy

There are 14-16 locally-owned commercial fishing boats. The rich fisheries around Kodiak Island provide seasonal income for most families. Subsistence fishing also supplements Port Lions' economy.

The Wakefield processing plant provided employment for Port Lions labor force until its destruction by fire in 1974. Since then, local fishermen have delivered their catch to floating processors and to Kodiak processing plants. Of the total labor force in 1979, 31.3 percent were employed for the summer, 53 percent for a nine month period and 15.7 percent were employed year-round.

The village has been incorporated as a municipality since 1966. A seven-member council governs the City from which a mayor and other officers are

selected. The Native population is represented by a five-member traditional Tribal Council recognized under Federal law.

V. METHODOLOGY

The following section summarizes the steps that were taken and the procedures that were followed in the design, implementation, and data analysis phases of KANA's resource use project.

1. The Kodiak Area Native Association (KANA) submitted the proposal, Subsistence Activity and Use Patterns Documentation Project, to Bureau of Indian Affairs on February 25, 1983. This proposal called for gathering baseline data on non-commercial use of fish and game in the Kodiak Archipelago. Under the terms of the proposal the Subsistence Division, Alaska Department of Fish and Game, agreed to provide technical assistance for survey development, sample selection, training of interviewers, and processing of data.

2. Following a meeting with KANA staff on March 24, 1983, the Subsistence Division prepared a draft questionnaire for use in the survey portion of the proposed research. The questionnaire reflected the specific data needs of KANA and the widespread experience of the Subsistence Division in designing research instruments.

3. KANA's Overall Economic Development Committee (OEDP) reviewed the draft questionnaire in Kodiak on April 28, 1983, and suggested numerous changes. A formal pretest then took place and a final questionnaire form was duplicated on April 29, 1983. OEDP members received training in interviewing in preparation for administering the questionnaire in their home communities.

4. Interviewing in the six rural communities on Kodiak Island began in early May 1983, and was completed in five of the communities by the end of June 1983. Interviewing in Akhiok was completed in August 1983.

5. In rural areas the survey goal was to interview members of each household in each community. Table 1 presents survey target and achievement data. In these communities survey attainment varied from 74 percent in Ouziakie to 100 percent in Karluk. Refusal rate was less than 9 percent in all communities. The most common reason for incompleting surveys was that residents could not be contacted during the survey period.

6. The survey procedure in the Kodiak road-connected area used a sampling methodology suitable to its large, complex population. In addition to the sample of the general population of the area, special sampling frames were set up to provide information about particular user groups. The following samples were selected:

a. Kodiak General Sample. This sample was drawn from the total population of Kodiak City, Service Area One, Women's Bay, Bells Flats, and Monashka Bay excluding the Coast Guard base. City and Borough census figures and enumeration maps were used to draw a random sample of this population. Survey achievement was 78 percent, and refusal rate was 7 percent. No contact was made at 16 percent of the households after multiple attempts at different times of the day. (Because of rounding, percentages do not add up to 100.)

b. Kodiak Coast Guard. Contacts were made with the three base commanders who agreed to send personnel to the base theater to complete survey forms. A random sample was drawn from command duty rosters. Because of duty obligations, however, some individuals selected in the sample were not able to complete surveys. The final Coast Guard sample is not strictly random.

Table 1: SAMPLE CHARACTERISTICS KODIAK ISLAND
K.A.N.A./A.D.F.&G. SURVEY OF FISH AND GAME HARVEST AND USE, 1983^{1,2}

Community/ Sample	Survey Target ^{3,4,5}	Survey Attainment	Refusals ⁶	Unable to Contact ⁷
Akhiok ⁸	28	21 (75%)	0 (0%)	8 (25%)
Karluk	20	20 (100%)	0 (0%)	0 (0%)
Larsen Bay	41	32 (78%)	0 (0%)	9 (22%)
Old Harbor	93	77 (83%)	3 (3%)	13 (14%)
Ouzinkie	43	32 (74%)	3 (7%)	8 (19%)
Port Lions	66	55 (83%)	5 (8%)	6 (9%)
Kodiak General	200	155 (78%)	14 (7%)	31 (16%)
Kodiak Native	35	35 (100%)	0 (0%)	0 (0%)
Kodiak Filipino	35	34 (97%)	0 (0%)	1 (3%)
Kodiak Chiniak	27	17 (63%)	1 (4%)	9 (33%)
Kodiak Coast Guard	75	76 (100%)	0 (0%)	0 (0%)

1. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.

2. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

3. Survey target for rural communities was to interview all households occupied during May-June, 1983.

4. Survey sample for Kodiak General and Kodiak Chiniak was based on a random draw of households; see text for details.

5. Survey sample for Kodiak Native, Kodiak Filipino, and Kodiak Coast Guard was not strictly random; see text for details.

6. "Refusals" means household did not wish to participate in survey.

7. "Unable to Contact" means that interviewer was unable to talk with a household member after repeated tries; see text for details.

8. For Akhiok only "Unable to Contact" may include "Refusals".

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

c. Kodiak Native. This sample was drawn from KANA lists of Natives residing in the Kodiak road-connected area. This was a representative sample of Kodiak Natives, but it was not a strictly random sample.

d. Kodiak Filipino. This sample was drawn from lists of Filipino households prepared by the Filipino Community Association. The sampling was representative but not strictly random.

e. Kodiak Chiniak. This sample was based on a random draw from the resident population of the Chiniak area. Although refusal rate was low (less than 4 percent), interviewers were unable to contact about one third of the target households.

7. Except for the Coast Guard interviews which were done en masse and a small number of interviews done in Old Harbor and Ouzinkie, all interviews were performed in person by interviewers trained in survey techniques. Interviewers reviewed all completed questionnaires before turning them in.

8. Survey work in the Kodiak road-connected area was completed in June and July 1983.

9. Coding and entry of survey data were done by the Subsistence Division's data management team in consultation with Subsistence Division researcher Bob Schroeder. Coding and entry of data were completed in September 1983.

10. Statistical analysis of survey data was done by Bob Schroeder in consultation with James Fall of the Subsistence Division and Tom Peterson of KANA. Computer analysis was done on the University of Alaska computer system using the Statistical Package for Social Sciences. This work was completed in November 1983.

11. Preliminary survey results were presented for review to the OEDP and to rural city and traditional councils in late September and early October 1983.

12. Final tables, graphs and maps were prepared by KANA and the Subsistence Division in November and December 1983. The final report was drafted by KANA with Subsistence Division assistance.

13. Mapping of areas used for subsistence harvest of fish and game was done in conjunction with the survey work. Composite subsistence use area maps presented as part of this report were drawn from more detailed use area maps on file.

14. Tom Peterson at KANA or Bob Schroeder and Jim Fall at the Subsistence Division may be contacted for further information about survey and mapping methodologies or for more detailed survey analysis or mapped information.

VI. Survey Results

Some of the results of the KANA Resource Use Survey are presented in the series of tables and figures which follow. We have selected data from the survey which we believe will be of most interest to the users of this Guide on Kodiak Island. Additional results will be published in the Southwest Regional Fish and Game Habitat Management Guide, now being prepared by the Alaska Department of Fish and Game. ADF&G's Regional Guide will be completed in mid 1984. Furthermore, results of the survey will appear in future Division of Subsistence technical reports.

As an aid to the reader, a short explanatory paragraph accompanies each table, figure, or set of tables and figures. These are arranged by topic.

Mean Household Harvests of Fish and Game Resources

Tables 2 and 3 report the mean household harvests in numbers of selected fish and game resources for each rural community and road-connected sample for the 12 month study period. Harvests of salmon and other fish and marine invertebrates for commercial sale are excluded from these totals. For example, Table 2 reveals that, on average, each household in Akhiok harvested 81.4 red salmon for home use during the study period, 214.5 salmon of all species, 4.5 buckets of butter clams, 3.6 deer, and so on.

In Tables 4 and 5, mean food weight of fish and game harvests per household, these same household harvests are expressed in pounds dressed weight. (See Appendix A, for an explanation of how these calculations were performed.) All harvested species have been organized into a number of resource categories. The reader should note

Table 2: MEAN HOUSEHOLD HARVEST OF SELECTED SPECIES IN NUMBERS,
KODIAK RURAL COMMUNITIES, 1982-1983^{1,2,3}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
Number Households Surveyed	21	20	32	76	32	55
Salmon:						
Red	81.4	315.0	84.1	7.5	45.0	25.3
King	0.0	18.6	2.6	1.2	.9	.4
Silver	31.7	73.4	24.6	56.3	31.4	25.0
Pink	85.2	84.9	41.1	74.7	19.1	8.7
Chum	16.2	1.4	4.2	40.6	16.2	1.6
TOTAL SALMON	214.5	493.4	156.6	180.3	112.6	61.0
.....						
Halibut	2.6	4.9	5.3	5.9	3.1	7.7
Dolly						
Varden	13.8	41.5	24.7	6.6	25.4	7.4
Steelhead	.1	11.6	8.5	1.4	4.5	.3
Butter						
Clams#	4.5	2.5	9.3	4.2	4.2	3.7
Crab:						
King	18.5	1.3	6.7	9.2	26.0	20.3
Tanner	2.7	1.2	3.7	3.0	3.2	6.3
Dungeness	.5	2.0	7.6	4.9	7.1	11.1
.....						
Deer	3.6	5.4	5.8	5.5	2.6	2.6
Rabbit	.5	2.6	1.8	1.6	3.4	2.5
Ptarmigan	5.5	8.9	2.2	1.5	0.0	.3
Ducks	31.3	46.4	21.7	20.8	37.1	10.0
Geese	9.4	.1	.1	2.1	3.2	0.0
Harbor Seal	3.3	2.5	1.3	1.7	1.4	.1
Sea Lion	2.0	1.0	.8	1.0	.2	.1

1. Harvest in numbers except clams which are in 5 gal. buckets.

2. Data are for a 12 month period, most often from June 1982 through May 1983.

See methodology section for details

3. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 3: MEAN HOUSEHOLD HARVEST OF SELECTED SPECIES IN NUMBERS,
KODIAK ROAD-CONNECTED AREA, 1982-1983^{1,2,3}

KODIAK ROAD-CONNECTED AREA

	General Sample ⁴	Coast Guard	Chiniak	Filipino	Native
No. Households Surveyed	155	76	17	34	35
Salmon:					
Red	11.7	3.1	13.9	10.4	16.6
King	.3	.2	1.9	.0	.4
Silver	9.4	4.3	23.4	10.4	13.3
Pink	7.1	7.4	8.9	2.8	9.0
Chum	1.2	.9	4.3	.4	1.2
TOTAL SALMON	29.7	15.9	52.4	24.0	40.5
Halibut	4.9	6.8	4.4	2.6	1.6
Dolly					
Varden	8.5	14.4	5.1	23.0	4.3
Steelhead	.6	2.8	1.4	2.3	2.3
Butter Clams	1.6	1.0	4.2	3.6	3.5
Crab:					
King	7.2	10.6	17.3	.8	4.2
Tanner	4.4	4.7	4.1	1.6	.8
Dungeness	3.2	3.2	4.5	1.4	2.2
Deer	1.3	.6	4.4	1.0	1.5
Rabbit	1.2	1.6	3.4	1.2	1.4
Ptarmigan	.7	.6	.4	1.0	.8
Ducks	.8	.2	3.6	1.1	2.7
Geese	.0	.1	.2	0.0	1.5
Harbor Seal	.1	0.0	.1	0.0	0.0
Sea Lion	.0	0.0	.1	0.0	0.0

1. Harvest in numbers except clams which are in 5 gal. buckets.
2. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details
3. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the total expected from the addition of constituent numbers.
4. General Sample data are from a random sample of all road connected areas including, Kodiak City, Service Area One, Bells Flats, Women's Bay, and Monashka Bay, but excluding Chiniak and Pasagshak.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 4: MEAN FOOD WEIGHT OF FISH AND GAME HARVEST PER HOUSEHOLD,
PER CAPITA FOOD WEIGHT, KODIAK RURAL COMMUNITIES, 1982-1983^{1,2,3}

	Akhick	Karluk	Larsøn Bay	Old Harbor	Ouzinkie	Port Lions
No. Households Surveyed	21	20	32	76	32	55
Species Group						
All Salmon	845.0	2223.2	663.2	795.9	522.5	287.1
All Fish	954.5	2532.2	936.9	1034.5	707.2	580.9
All Crab	47.2	6.5	26.6	29.6	69.9	64.6
All Invertebrate	185.3	62.1	190.0	121.0	163.6	118.6
Deer	156.3	235.4	251.1	235.9	110.7	113.1
Marine Mammals	547.9	324.7	227.8	281.0	93.0	24.7
Small Game	131.2	128.0	59.7	66.6	115.9	30.3
All Game	835.4	702.0	538.6 ⁴	606.6	325.6	168.1
All Species	1975.2	3296.3	1665.5 ⁴	1758.3	1196.3	865.9
.....						
Mean Household Size (persons)	3.81	3.95	4.16	3.79	3.34	3.30
Per Capita Food Weight of Harvest	518.4	834.5	400.4	463.9	358.2	262.4

1. Food weight given in pounds, converted from harvest number using standard conversion factors, see Table 21.
2. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
3. Because of rounding and the computer technique used to deal with missing data, the column, row, and category totals may not always equal 100% or the total expected from the addition of constituent numbers.
4. Adjusted total for Larsen Bay, does not include bear.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 5: MEAN FOOD WEIGHT OF FISH AND GAME HARVEST PER HOUSEHOLD, PER CAPITA FOOD WEIGHT, KODIAK ROAD-CONNECTED AREA, 1982-1983^{1,2,3}

KODIAK ROAD-CONNECTED AREA

	General Sample	Coast Guard	Chiniak	Filipino	Native
No. Households Surveyed	155	76	17	34	35
All Salmon	132.0	64.5	264.7	113.1	181.5
All Fish	331.6	326.4	465.1	280.0	258.3
All Crab	26.0	34.0	49.4	5.3	12.5
All Invertebrate	54.7	54.2	96.7	52.2	55.0
Deer	57.7	24.3	190.6	41.9	65.4
Marine Mammals	9.7	0.0	17.1	0.0	1.3
Small Game	5.1	4.4	17.1	5.8	17.6
All Game	82.8	29.6	232.1	54.3	90.8
All Species	475.2	412.7	793.9	386.6	404.2
.....
Mean Household Size (persons)	3.32	2.41	3.94	4.18	3.49
Per Capita Food Weight of Harvest	143.1	172.0	203.6	92.0	115.5

1. Food weight given in pounds, converted from harvest number using standard conversion factors, see Table 21.
2. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
3. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

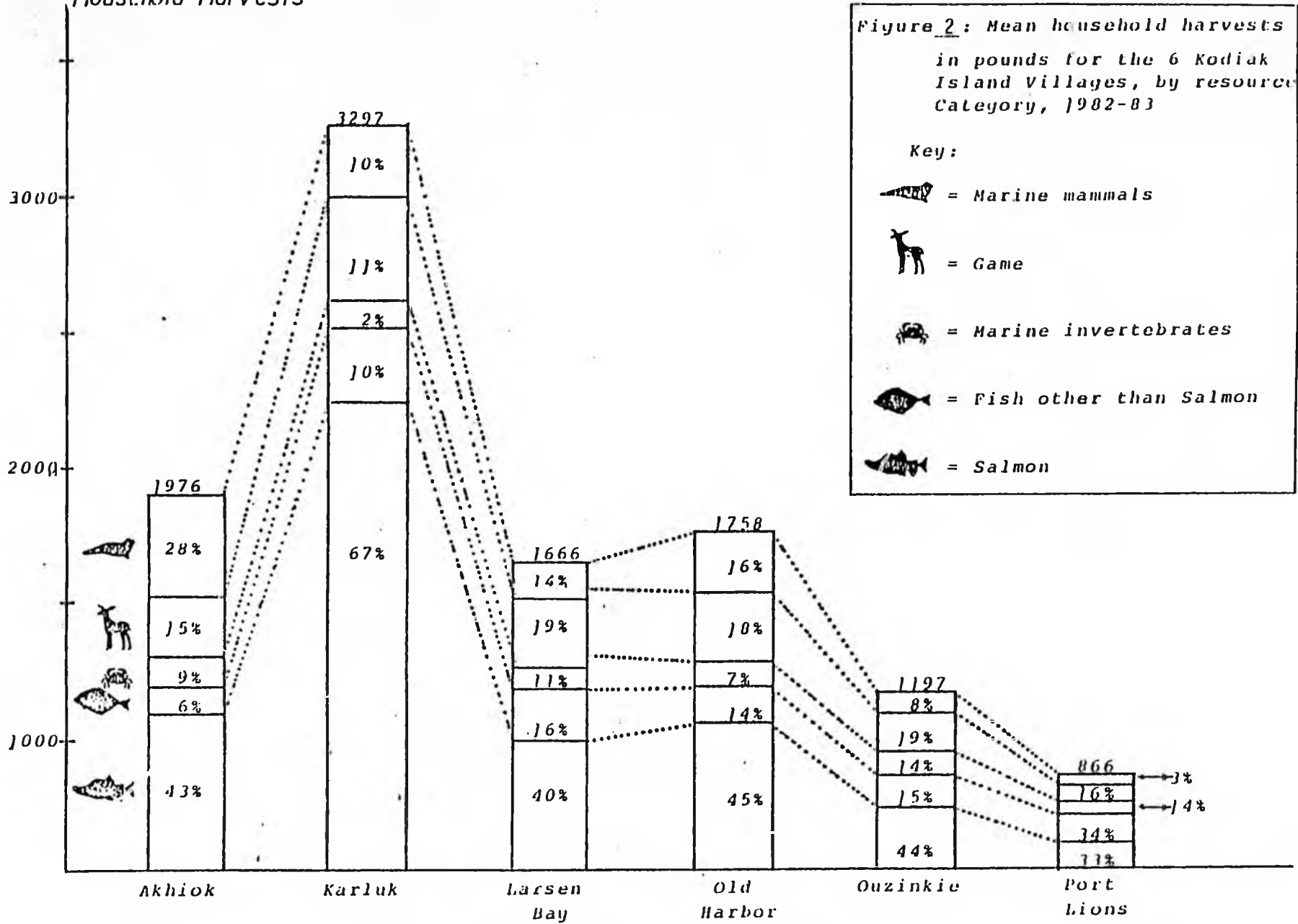
that the category "all fish" includes the category "all salmon"; "all crab" is contained within "all invertebrate"; and "deer", "marine mammals", and "small game" are included within the "all game" category. The mean total household harvest for a community is the sum of "all fish", "all invertebrate", and "all game". By inspecting these tables, the reader will learn that in Old Harbor, the food weight of the mean household harvest of salmon was 795.9 pounds during the study period. The mean household harvest weight of all resources taken in Old Harbor was 1758.3 pounds. Since the sample households in Old Harbor had an average of 3.79 members, the per capita food weight of Old Harbor's resource harvests during the study period was 463.9 pounds.

Figures 2 and 3 show the composition of the mean household fish and game harvests (in pounds) by five resource categories. Each category is represented by its own animal symbol. For example, Figure 2 reveals that about ten percent of Karluk's mean household harvest of 3297 pounds was composed of marine mammals, and two percent was marine invertebrates.

Mean Numbers and Food Weight of Fish and Game Used

Tables 6 and 7 report the mean reported amount of selected fish and game resources used per household, in numbers, and Tables 8 and 9 present mean household uses in pounds for each community and sample. This total includes all resources harvested by a household and kept for its own use during the study period, plus any resources the household received from the harvests of other households. Resources given away, or not used during the study period, were not included in this total. The resource categories in these tables are the same as in Tables 4 and 5.

Household Harvests



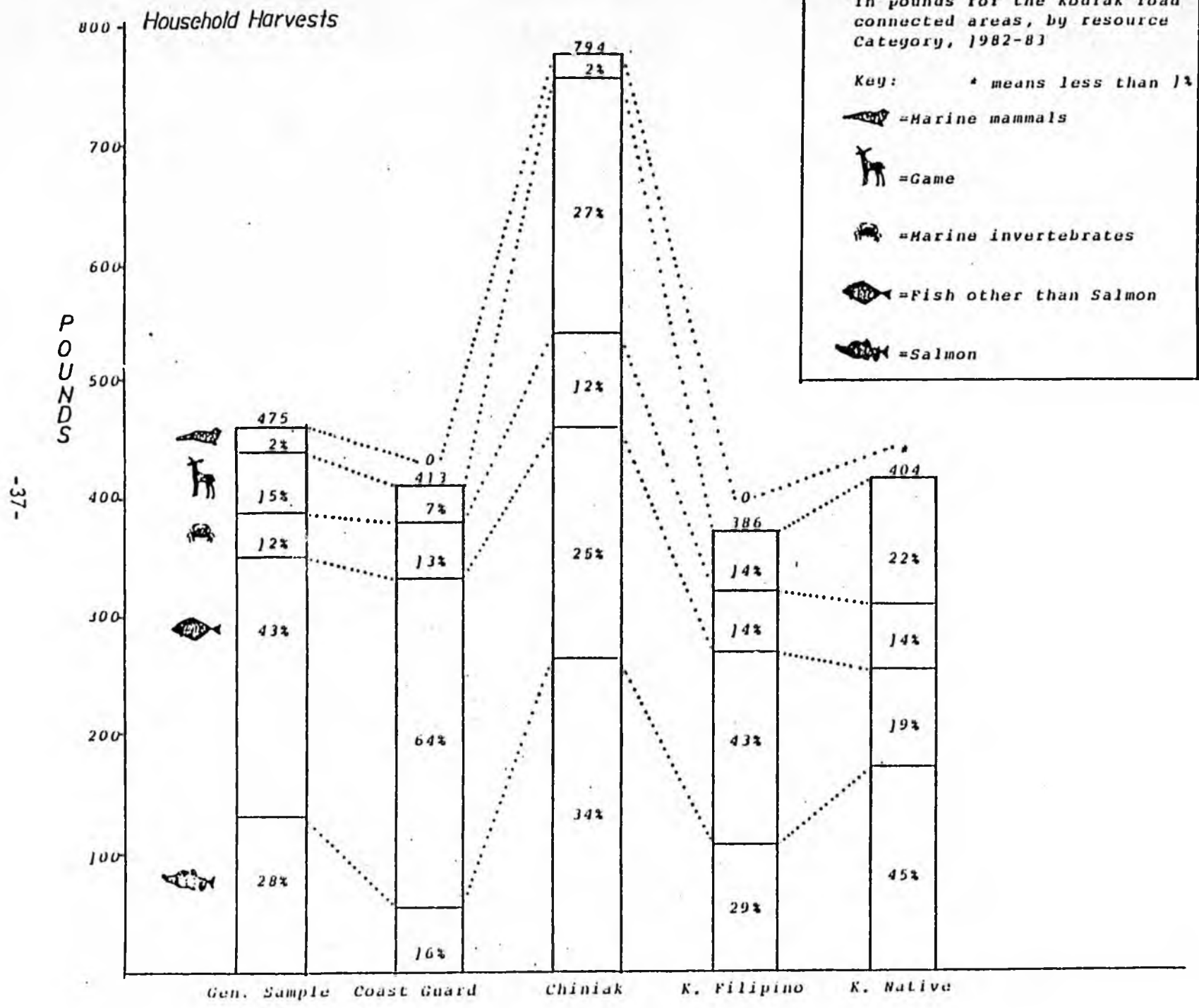


Table 6: MEAN HOUSEHOLD USE OF SELECTED RESOURCES IN NUMBERS,
KODIAK RURAL COMMUNITIES, 1982-1983^{1,2,3}

Species	Aknick	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
Salmon:						
Red	62.1	250.3	66.1	7.9	38.8	19.3
King	0.0	14.1	3.1	1.3	1.0	.7
Silver	23.6	42.4	22.6	56.0	26.2	16.1
Pink	60.2	39.6	44.6	75.4	22.0	6.1
Chum	11.2	1.6	4.8	39.3	15.7	1.2
TOTAL SALMON	157.1	348.0	141.2	179.9	103.7	43.4
.....						
Halibut	1.6	4.9	8.7	6.4	3.4	7.5
Dolly	9.4	25.7	17.3	7.8	21.8	5.2
Varden						
Steelhead	0.0	9.4	11.5	1.1	6.3	.9
Butter	3.8	2.7	7.7	4.5	4.2	3.1
Clams ¹						
Crab:						
King	17.5	7.5	12.6	9.0	12.1	19.2
Tanner	2.7	4.9	7.0	4.0	5.0	7.4
Dungeness	1.0	5.6	9.8	4.9	7.4	7.7
.....						
Deer	3.2	4.2	5.5	4.7	3.2	2.4
Rabbit	.5	1.6	1.8	1.6	4.8	2.7
Ptarmigan	5.5	8.6	1.8	1.2	.2	.2
Ducks	30.7	37.9	18.8	19.1	37.8	12.0
Geese	9.2	.4	.1	1.9	4.5	0.0
Harbor Seal ¹	74.2	67.3	36.3	54.5	29.8	4.1
Sea Lion ¹	67.4	20.3	108.0	102.4	8.4	0.0

1. Harvest in numbers except clams which are in 5 gal. buckets, and seal and sea lion which are in pounds
2. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
3. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 7: MEAN HOUSEHOLD USE OF SELECTED RESOURCES IN NUMBERS,
KODIAK ROAD-CONNECTED AREA, 1982-1983^{1,2,3,4}

KODIAK ROAD-CONNECTED AREA

	General Sample	Coast Guard	Chiniak	Filipino	Native
No. Households Surveyed	155	76	17	34	35
Salmon:					
Red	13.1	3.2	14.0	12.9	21.9
King	.8	.2	1.9	.5	.9
Silver	9.1	4.1	21.9	10.5	12.4
Pink	4.3	5.8	7.7	3.0	10.4
Chum	1.0	.8	4.4	.7	1.4
TOTAL SALMON	28.3	14.1	49.9	27.6	47.0
.....					
Halibut	6.3	4.8	4.9	3.5	8.6
Dolly					
Varden	7.7	13.7	5.1	20.0	6.2
Steelhead	.8	2.6	1.4	2.3	3.3
Butter Clams ¹	1.6	1.0	4.1	3.1	3.9
Crab:					
King	12.0	9.8	18.9	9.3	12.1
Tanner	7.0	4.8	4.9	12.4	3.7
Dungeness	6.5	3.2	5.4	23.4	6.1
.....					
Deer	1.8		2.8	1.1	1.9
Rabbit	1.7	1.5	4.0	1.2	5.7
Ptarmigan	.7	.6	.5	1.1	2.0
Ducks	.9	.2	6.0	1.4	4.0
Geese	0.0	.1	.3	0.0	2.1
Harbor Seal ¹	6.8	0.0	2.7	0.0	0.0
Sea Lion ₁	9.8	0.0	0.0	0.0	0.0

1. Harvest in numbers except clams which are in 5 gal. buckets and seal and sea lion which are in pounds.
2. Kodiak City data is from a sample of all road connected areas excluding Chiniak and Pasagshak.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 8: MEAN FOOD WEIGHT OF FISH AND GAME USED BY RESOURCE CATEGORY,
KODIAK RURAL COMMUNITIES, 1982-1983^{1,2,3}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
No. Households Surveyed	21	20	32	76	32	55
All Salmon	621.9	1592.9	594.7	791.9	472.3	205.1
All Fish	690.3	1864.2	990.1	1045.3	668.0	485.4
All Crab	45.3	28.9	47.0	30.4	41.1	61.4
All Invertebrate	168.4	90.6	176.5	126.1	146.5	114.7
Deer	137.8	181.5	239.6	201.4	136.3	104.1
Marine Mammals	141.6	67.3	144.7	156.8	38.3	4.1
Small Game	127.5	106.0	52.4	61.5	126.5	35.7
All Game	407.0	389.0	442.7	427.6	322.7	153.0
All Species	1265.6	2343.8	1523.7	1598.2	1137.2	753.6
.....						
Mean Household Size (persons)	3.81	3.95	4.16	3.79	3.34	3.30
Per Capita Food Weight Used	360.5	593.4	371.1	421.7	340.5	228.4

1. Food weight given in pounds, converted from use number using standard conversion factors, see Table 21.
2. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
3. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey, table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 9: MEAN FOOD WEIGHT OF FISH AND GAME USED BY RESOURCE CATEGORY, KODIAK ROAD-CONNECTED AREA, 1982-1983^{1,2,3}

KODIAK ROAD-CONNECTED AREA

	General Sample ⁴	Coast Guard	Chiniak	Filipino	Native
No. Households Surveyed	155	76	17	34	35
All Salmon	134.4	59.3	254.5	132.0	210.5
All Fish	386.9	250.8	471.3	337.8	541.2
All Crab	43.3	32.3	55.0	57.5	38.1
All Invertebrates	88.2	50.8	107.7	128.0	107.2
Deer	79.1	25.6	122.5	47.1	81.2
Marine Mammals	16.5	0.0	2.7	0.0	1.0
Small Game	6.3	4.2	24.8	6.7	33.1
All Game	114.9	31.7	155.4	61.1	128.3
All Species	588.7	334.8	734.4	526.9	776.7
.....					
Mean Household Size (perons)	3.32	2.41	3.94	4.18	3.49
Per Capita Food Weight Used	177.4	138.9	186.4	126.1	222.6

1. Food weight given in pounds, converted from use numbers using standard conversion factors, see Table 21.
4. General Sample data are from a random sample of all road connected areas including Kodiak City, Service Area One, Bells Flats, Women's Bay, and Monashka Bay, but excluding Chiniak and Pasagshak.
2. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
3. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Household participation in Harvest and Use of Fish and Game Resources

By inspecting Tables 10 and 11, the reader can learn what percentage of the households in each community or sample participated in the harvest or use of categories of fish and game resources. The same categories are used as in Table 4. For example, 82 percent of households in Port Lions reported harvesting some salmon for household use, but 100 percent of the households reported using salmon during the study period. About 96 percent of Port Lions' households harvested at least one species of wild fish and game, and 100 percent used at least one species.

Diet Breadth

Diet breadth is defined here as the total number of fish and game resources harvested or used by a household during the study period. The mean number of resources harvested or used per household for each community and sample is reported in Table 12. Species were arranged in three categories: fish, marine invertebrates, and game. For example, the mean number of species harvested or used per household in Ouzinkie is 17.7. Of these, about 8.2 are fish, 6.2 are marine invertebrates, and 3.3 are game (including marine mammals). Figure 4 depicts this same information in graphic form. Each bar shows the percentage of the average household diet breadth for each community comprised by each resource category.

Desired Use Levels

Each household in the survey was asked to estimate how much of a given resource would be "enough" for an average year. The reader should keep in mind that probably no year is "average"; that total resource

Table 10: HOUSEHOLD PARTICIPATION IN HARVEST AND USE OF FISH AND GAME,
KODIAK RURAL COMMUNITIES, 1982-1983^{1,2}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
No. Households Surveyed	21	20	32	76	32	55
	Percent Households Harvesting (Percent Households Using)					
Any Salmon Species	100% (100%)	90% (100%)	72% (97%)	95% (99%)	81% (97%)	82% (100%)
Any Fish Species	100% (100%)	90% (100%)	77% (97%)	96% (99%)	84% (97%)	89% (100%)
Any Crab Species	90% (95%)	25% (85%)	34% (86%)	64% (77%)	53% (94%)	65% (100%)
Any Invertebrate	100% (100%)	75% (100%)	93% (97%)	99% (99%)	94% (100%)	94% (100%)
Deer	91% (95%)	80% (95%)	62% (94%)	87% (97%)	59% (91%)	64% (76%)
Marine Mammal Species	95% (100%)	65% (75%)	28% (50%)	57% (71%)	31% (53%)	9% (9%)
Small Game Species	95% (100%)	75% (85%)	50% (72%)	82% (91%)	72% (91%)	69% (80%)
Any Game Species	95% (100%)	85% (100%)	65% (94%)	93% (99%)	78% (94%)	80% (94%)
Any Species	100% (100%)	90% (100%)	96% (100%)	100% (100%)	97% (100%)	96% (100%)

1. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
2. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 11: HOUSEHOLD PARTICIPATION IN HARVEST AND USE OF FISH AND GAME, KODIAK ROAD-CONNECTED AREA, 1982-1983^{1,2}

KODIAK ROAD-CONNECTED AREA

	General Sample ³	Coast Guard	Chiniak	Filipino	Native
No. Households Surveyed	155	76	17	34	35
	Percent Households Harvesting (Percent Households Using)				
Any Salmon Species	80% (98%)	65% (62%)	94% (100%)	82% (100%)	71% (100%)
Any Fish Species	83% (99%)	70% (67%)	100% (100%)	82% (100%)	77% (100%)
Any Crab Species	34% (92%)	49% (47%)	74% (94%)	9% (100%)	29% (89%)
Any Invertebrate	71% (96%)	54% (54%)	100% (100%)	85% (100%)	66% (91%)
Deer	40% (82%)	20% (24%)	59% (88%)	29% (62%)	40% (89%)
Marine Mammal Species	1% (2%)	0.0% (0.0%)	18% (6%)	0.0% (0.0%)	3% (9%)
Small Game Species	26% (34%)	28% (27%)	29% (47%)	12% (15%)	29% (63%)
Any Game Species	47% (86%)	34% (34%)	65% (88%)	32% (62%)	46% (91%)
Any Species	91% (100%)	74% (74%)	100% (100%)	91% (100%)	86% (100%)

1. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
2. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.
3. General Sample data are from a random sample of all road-connected areas including Kodiak City, Service Area One, Bells Flats, Women's Bay and Monashka Bay, but excluding Chiniak and Pasagshak.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 12: DIET BREADTH: MEAN NUMBER OF RESOURCES HARVESTED OR USED PER HOUSEHOLD
KODIAK ROAD-CONNECTED AND RURAL AREAS, 1982-1983^{1,2,3}

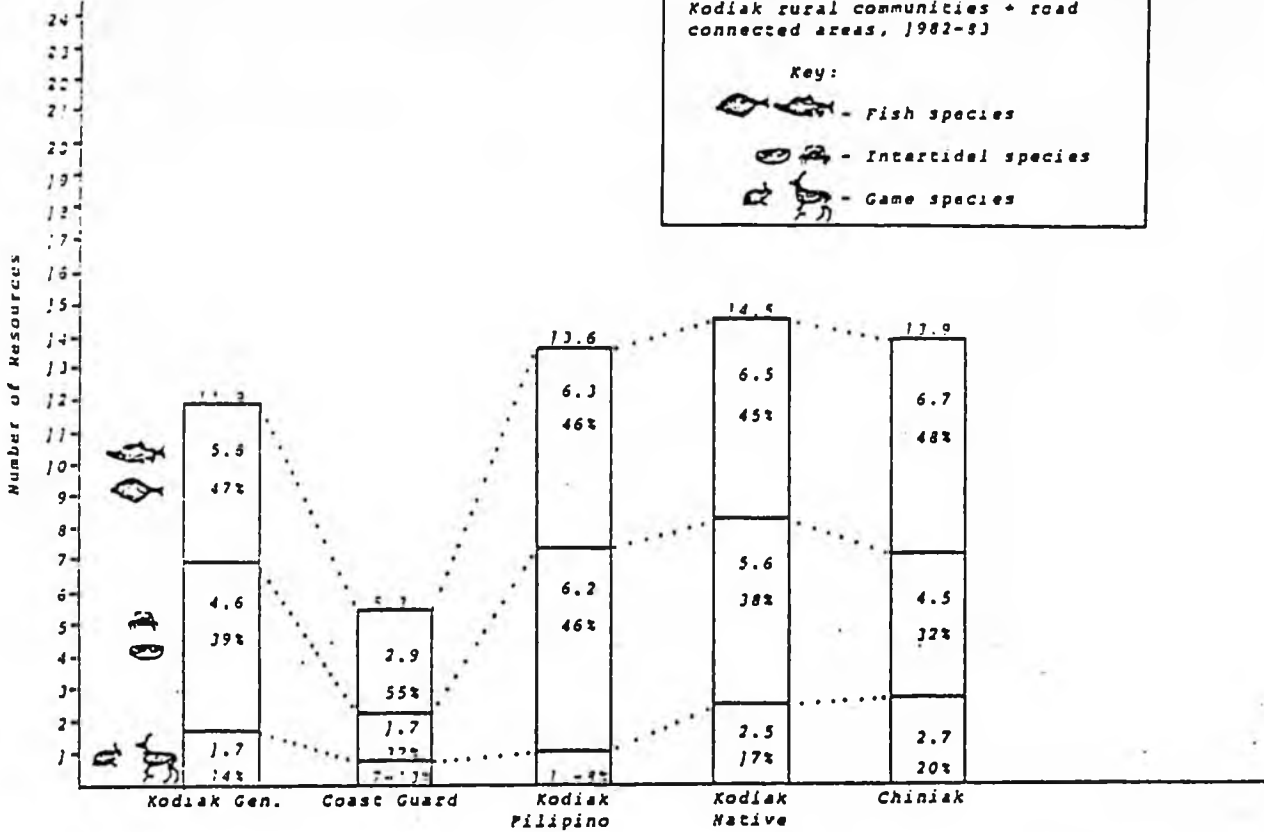
Community/ Sample	Fish Species	Intertidal Species	Game Species	All Animal Species
Akhiok	4.8	6.1	4.6	15.5
Karluk	8.9	5.6	4.6	19.1
Larsen Bay	7.7	5.4	3.3	16.3
Old Harbor	6.1	5.4	3.9	15.4
Ouzinkie	8.2	6.2	3.3	17.7
Port Lions	5.9	5.2	2.4	13.5
ALL RURAL ¹	6.7	5.5	3.5	15.7
.....				
Kodiak City	5.6	4.6	1.7	11.9
Kodiak Coast Guard	2.9	1.7	.7	5.3
Kodiak Filipino	6.3	6.2	1.0	13.6
Kodiak Native	6.5	5.6	2.5	14.5
Kodiak Chiniak	6.7	4.5	2.7	13.9
Highest Recorded	14	12	12	35

1. Data are from six rural communities surveyed.
2. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
3. Because of rounding and the computer techniques used to deal with missing data column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

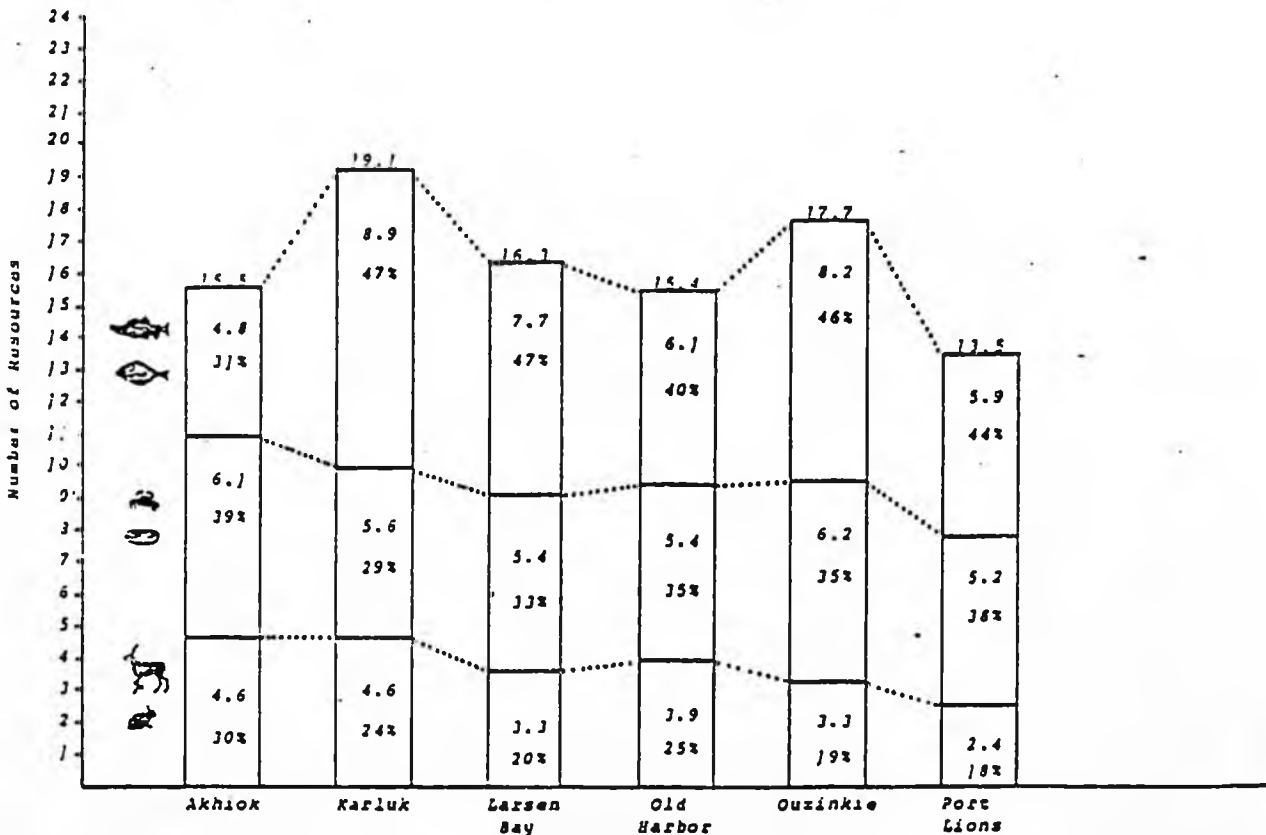
Source: Data from KANA survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Diet Breadth

Figure 4: Diet Breadth; mean number of resources harvested or used per household, by resource category, for Kodiak rural communities + road connected areas, 1982-83



Diet Breadth



harvests vary because of a variety of factors; and that the amount of any one resource that will be "enough" usually depends in part on the household's success or failure in harvesting other resources. Nevertheless, the results of the survey give a rough estimate of Kodiak Island residents' ideas about what constitutes a good annual harvest of certain resources, especially for those that have been harvested regularly year after year.

Tables 13 and 14 report the results of this portion of the survey for six resources: red salmon, silver salmon, pink salmon, crab (all species), halibut, and deer. All results are expressed in mean number of animals per household. For convenience, the tables also give the mean amount of each resource reported to have been used per household during the study period. Thus, the reader may compare the estimated desired amounts and reported use amounts for each species for each community and sample.

In Figures 5 and 6, the reported mean household use of each resource during the study period (in numbers of animals) is expressed as a percentage of the estimated amount of that resource that would be "enough" for an average year. In other words, the amount used was divided by the amount "desired" and multiplied by 100. If the value for a particular species in a community is 100 percent or greater, this means that, on average, households were able to achieve their desired use levels for that species during the study period. If the value is less than 100, this means that the average household failed to harvest or receive the amount of that resource that they thought would be "enough".

Changes in Wild Resource Use

Surveyed households were asked to describe the change in amount of

Table 13: MEAN DESIRED USE OF SELECTED SPECIES PER HOUSEHOLD
PER YEAR, KODIAK RURAL COMMUNITIES, 1982-1983^{1,2,3,4,5}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
No. Households Surveyed	21	20	32	76	32	55
Salmon:						
Red	58.3	279.0	159.3	17.9	70.7	72.4
King	.3	8.7	10.4	2.1	1.6	6.9
Silver	22.6	45.9	45.7	54.1	39.5	40.2
Pink	56.1	44.7	54.8	70.8	23.9	14.3
Chum	10.7	4.4	7.2	40.5	16.2	2.8
Total Salmon	148.0	382.7	277.4	185.4	151.9	136.6
.....						
Halibut	3.4	5.8	9.9	4.6	4.2	14.3
All Crab	17.3	26.6	39.1	16.6	22.7	43.0
Clams ²	6.6	3.1	10.8	21.3	5.4	7.2
.....						
Deer	3.3	6.2	7.8	5.2	4.7	4.8
Waterfowl	20.8	41.0	28.8	24.3	43.6	21.3
Seal	2.5	2.7	2.4	2.8	1.5	1.2
Sea Lion ³	32.7	16.6	80.1	101.4	9.7	.4

1. Desired use is in numbers for all species unless otherwise indicated.
2. Desired use of clams is presented in 5 gallon buckets.
3. Desired use of sea lion is in pounds.
4. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
5. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey, table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 14:

MEAN DESIRED USE OF SELECTED SPECIES PER HOUSEHOLD
PER YEAR, KODIAK ROAD-CONNECTED AREA, 1982-1983^{1,2,3,4,5}

KODIAK ROAD-CONNECTED AREA

	Kodiak City	Coast Guard	Chiniak	Filipino	Native
No. Households Surveyed	155	76	17	34	35
Salmon:					
Red	22.6	8.4	32.1	27.4	30.6
King	4.3	3.9	1.3	2.8	2.8
Silver	15.6	10.0	23.9	18.4	20.9
Pink	5.8	7.6	12.5	2.5	17.3
Chum	2.1	1.2	4.8	3.1	2.7
Total Salmon	50.5	31.1	74.6	54.2	74.3
.....					
Halibut	7.3	9.4	4.8	5.4	11.4
All Crab	30.4	34.7	42.5	32.3	21.9
Clams ²	3.3	1.8	7.6	3.9	5.1
.....					
Deer	3.5	2.5	5.1	1.8	3.4
Waterfowl	3.9	2.2	6.1	3.6	10.6
Seal	.2	0.0	.1	0.0	.1
Sea Lion ³	0.0	0.0	0.0	0.0	1.5

1. Desired harvest/use is in numbers for all species unless otherwise indicated
2. Desired harvest/use of clams is presented in 5 gallon buckets.
3. Desired harvest/use of sea lion is in pounds.
4. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
5. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

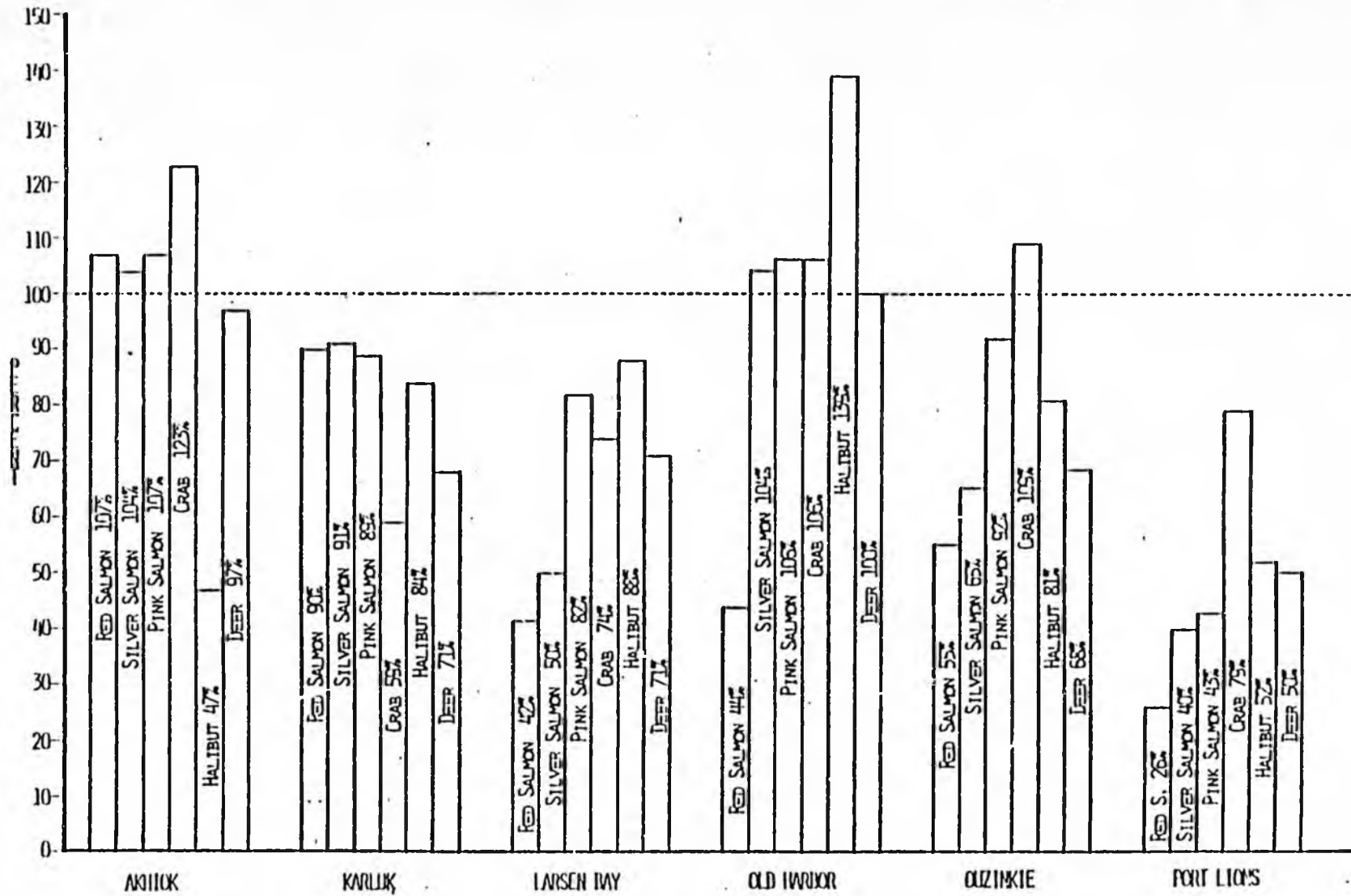


Figure 5. Mean Household Use of Six Wild Resources in 1982-83 Expressed As a Percentage of Mean Desired Use, Kodiak Rural Communities.

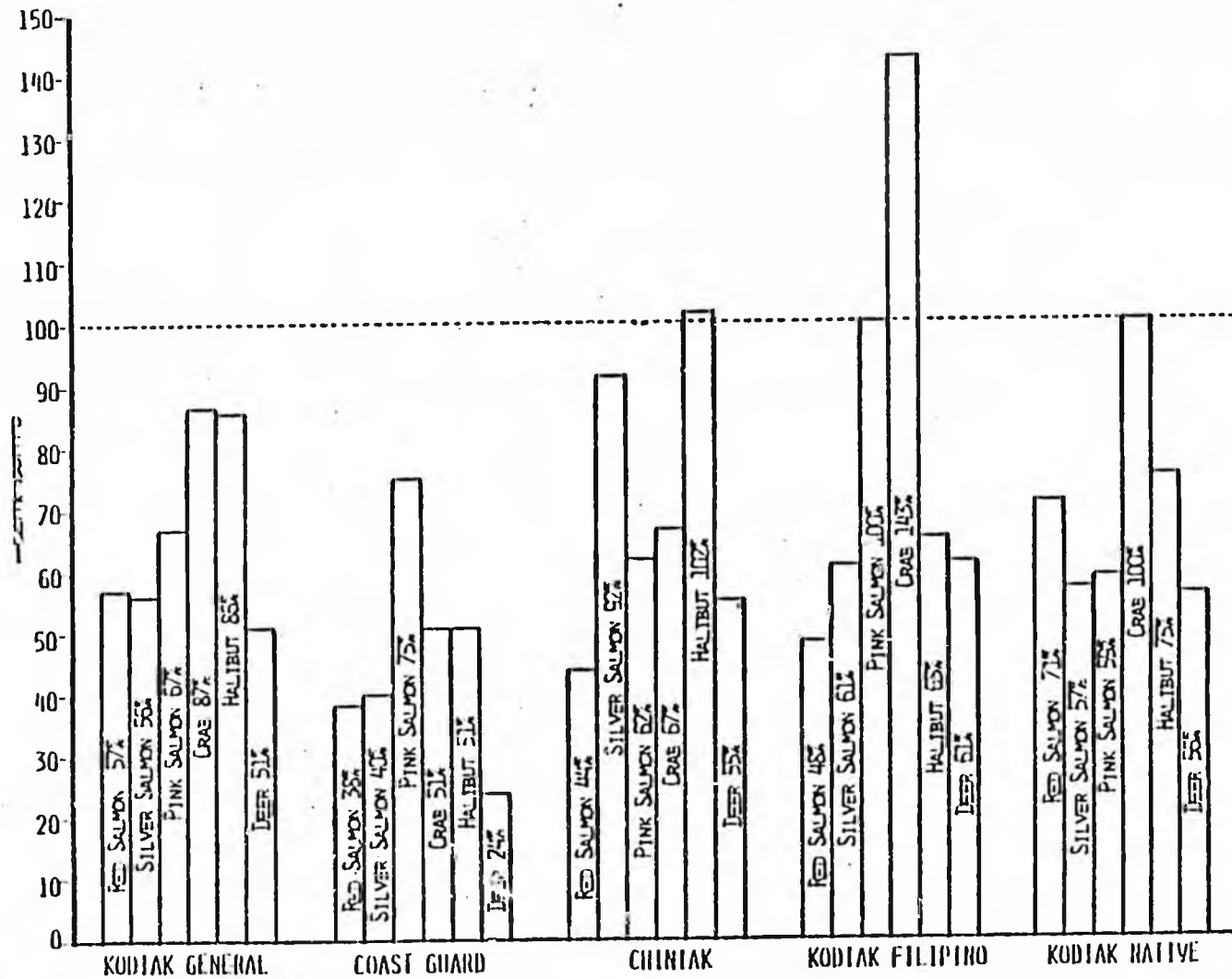


Figure 6. Mean Household Use of Six Wild Resources in 1982-83 Expressed As a Percentage of Mean Desired Use, Kodiak Road-Connected Areas.

their use of wild foods over the last five years. The results are given in Figure 7. For example, it can be seen that 47 percent of Larsen Bay's households reported using a much greater amount of wild foods during the study period than five years ago, 35 percent used the same amount, and 6 percent said they used much less.

The same households were also asked to estimate the change in the number of kinds of wild resources used over the last five years. Figure 8 shows the results. The reader will note, for example, that 29 percent of the households in the Native sample from Kodiak city said they used more kinds of wild resources during the study period than they did five years ago. Fifty four percent said they used about the same number of types, and 17 percent said they used less.

Estimated Total Harvest and Total Harvest Weight

Table 15 presents the estimated total harvest of selected fish and game species by Kodiak Island residents. Table 16 presents the estimated food weight of that harvest. Harvest data and food weight data from the survey were extrapolated to the total population of Kodiak as reported in the most recent census. Please see Appendix B for the extrapolation methodology. Extrapolations provide a good estimate of harvest level and importance, but they should not be thought of as exact measurements. According to these data Kodiak residents harvested approximately 182,000 salmon; 21,000 halibut; 36,500 king crab; 6,600 deer; and 14,900 ducks for non-commercial use in the 12 months covered by the survey. A total of almost 2.5 million pounds of food from fish and game resources was utilized, with fish accounting for about 1.7 million pounds, marine invertebrates for about 260,000 pounds, and game accounting for 500,000 pounds.

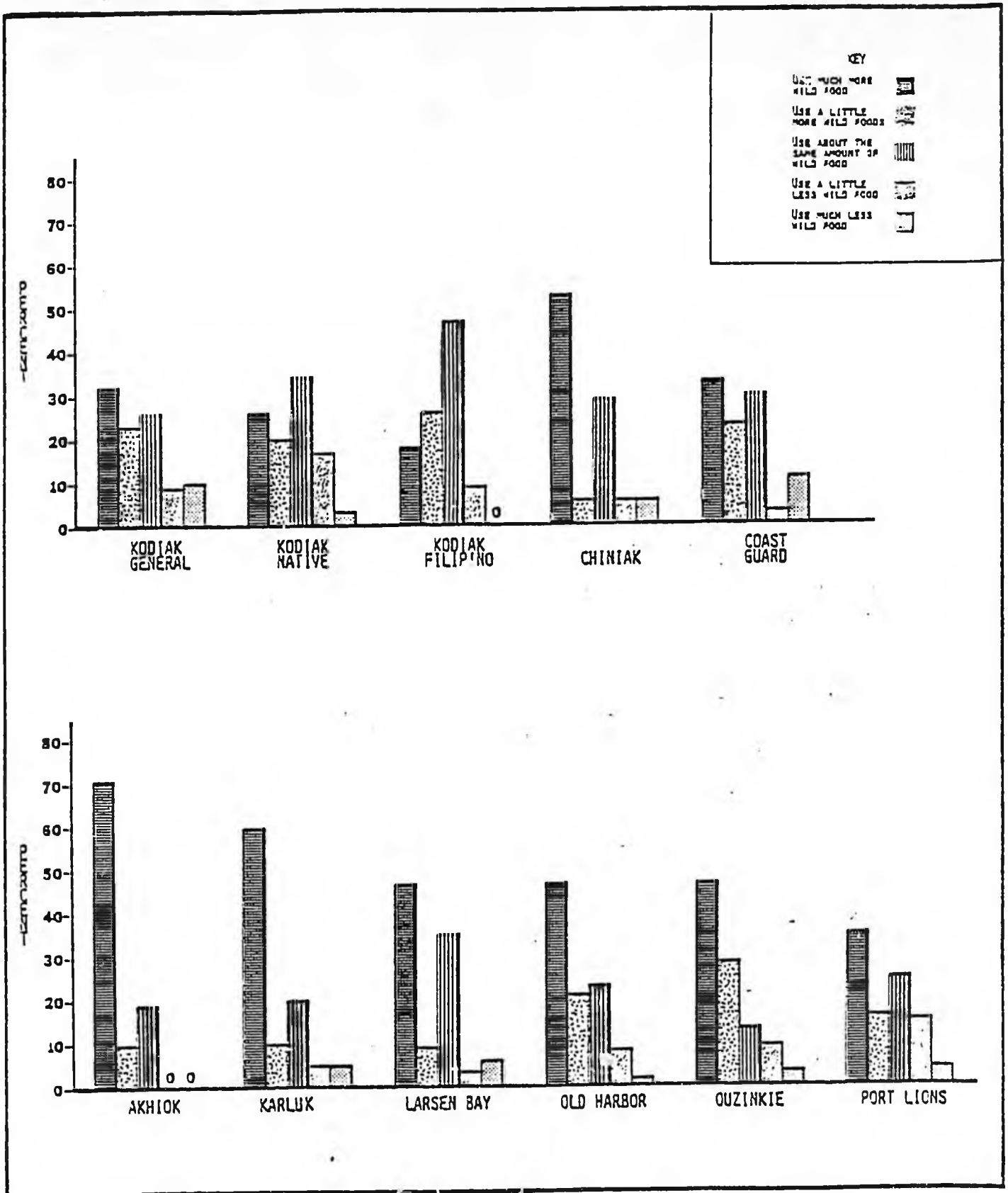


Figure 7. Reported Change in Amount of Wild Resources Used, Kodiak Rural Communities and Road-Connected Areas, 1982-83.

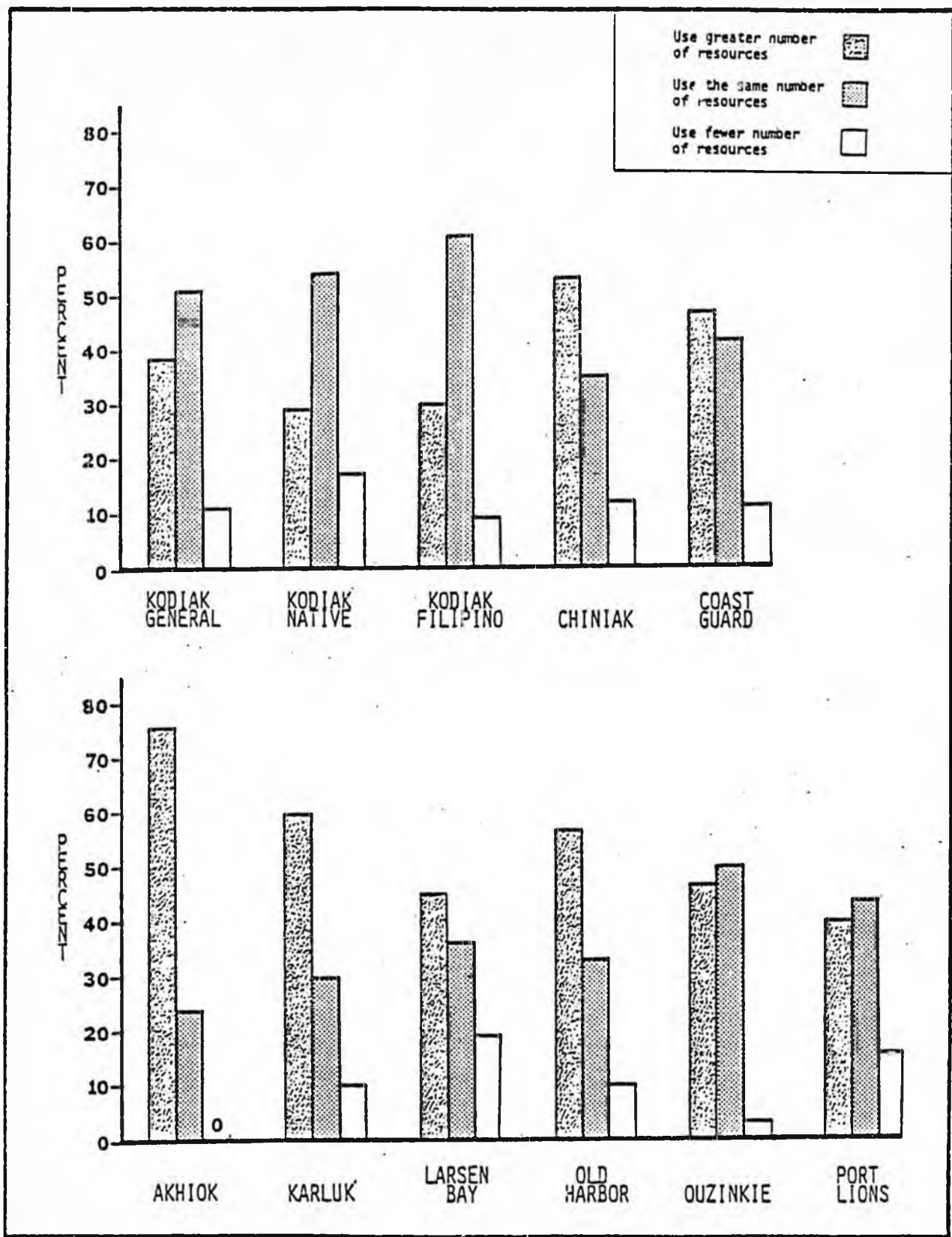


Figure 8. Reported change in number of wild resources used, Kodiak Rural Communities and Road-Connected areas, 1982-1983.

Table 15:

ESTIMATED TOTAL HARVEST OF SELECTED SPECIES,
KODIAK ROAD-CONNECTED AND RURAL AREAS, 1982-1983^{1,2,3,4,5}

	KODIAK ROAD-CONNECTED AREA			RURAL		TOTAL
	City Area	Coast Guard	Chiniak Pasagshak	Rural No. Community ⁶	Six Rural Communities	
Population ⁷	8,247	1,995	611	597	1,264	12,714
Salmon:						
Red	29,063	2,566	2,173	9,821	20,764	64,387
King	745	166	297	411	870	2,489
Silver	23,350	3,560	3,657	6,679	14,121	51,367
Pink	17,636	6,126	1,391	8,061	17,042	50,256
Chum	2,981	745	672	2,928	6,191	13,517
TOTAL SALMON	73,775	13,162	8,190	27,900	38,988	182,016
.....						
Halibut	12,172	5,629	688	905	1,913	21,307
Dolly Varden	21,114	11,920	797	2,533	5,356	41,720
Steelhead	1,490	2,318	219	543	1,148	5,718
Butter Clams	3,974	828	656	823	1,739	8,020
Crab:						
King	17,885	8,775	2,704	2,303	4,869	36,536
Tanner	10,930	3,891	641	609	1,287	17,358
Dungeness	7,949	2,649	703	1,036	2,191	14,528
.....						
Deer	3,229	497	688	707	1,496	6,617
Rabbit	2,981	1,324	531	345	730	5,931
Ptarmigan	1,739	497	63	345	730	3,374
Ducks	1,987	166	563	3,915	8,278	14,909
Geese	0	83	31	329	696	1,139
Harbor Seal	248	0	16	230	487	981
Sea Lion	0	0	16	132	278	426

1. Harvest in numbers except clams which are in 5 gal. buckets.
2. Kodiak Road-Connected data are from a sample of all road connected areas.
3. Rural community data combine data from 5 rural communities, total population was surveyed.
4. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details
5. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.
6. Persons living rurally outside communities were not surveyed. In this computation the assumptions are made that family size and fish and game harvest for this population are the same as for rural community residents.
7. Population data are from Kodiak City and Borough census, 1982, supplied by Linda Fried.

Source: Data from KANA 1983 survey, table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 16: ESTIMATED FOOD WEIGHT OF TOTAL FISH AND GAME HARVEST,
KODIAK ROAD-CONNECTED AND RURAL AREAS, 1982-1983^{1,2,3,4,5}

	KODIAK ROAD-CONNECTED AREA			RURAL		TOTAL
	City Area	Coast Guard	Chiniak Pasagshak	Rural No Community ⁶	Six Rural Communities	
Population ⁷	8,247	1,995	611	597	1,264	12,714
All Salmon	327,893	53,393	41,373	122,980	260,015	805,654
All Fish	823,706	270,194	72,695	163,052	344,739	1,674,386
All Crab	64,585	28,145	7,721	6,991	14,782	122,224
All Invertebrates	135,877	44,867	15,114	22,323	47,196	265,377
Deer	143,329	20,116	29,790	30,465	64,413	288,113
Marine Mammals	24,095	0	2,672	35,548	75,160	137,475
Small Game	12,669	3,642	2,672	12,321	26,050	57,354
All Game	205,678	24,503	36,277	77,512	163,883	507,853
All Species	1,180,414	341,633	124,086	259,482	548,620	2,454,235

1. Food weight given in pounds, converted from harvest number using standard conversion factors, see Table 9.
2. Kodiak Road-Connected data are from samples of all road connected areas.
3. Rural community data combine data from 6 rural communities, total population was surveyed.
4. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
5. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.
6. Persons living rurally outside communities were not surveyed. In this computation the assumptions are made that family size and fish and game harvest for this population are the same as for rural community residents.
7. Population data are from Kodiak City and Borough census, 1982, supplied by Linda Fried.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Domestic Use of Commercial Catches

Surveyed households were asked if they took any salmon, halibut, or crab from their own commercial catches of these resources for domestic use during the study period. Tables 17 and 18 report the results, in percentages of total households in each sample. For example, 36 percent of the households in Port Lions said they took some salmon for household use from their commercial catches. This does ^{NOT} mean that the commercial catch was the only source of salmon for these households, however, since household members may have also set subsistence nets or pots, or fished with hook and line.

Distribution and Exchange of Wild Resources

Tables 19a through 19p provide information on the sharing of wild resources within and between communities in the Kodiak Island region during the study period. For each community or sample, a pair of tables is presented. The first reports information on the receiving of resources by households in a particular community. For example, according to Table 19c, on average each household in Karluk received game from 3.3 other Karluk households during the study period, and 90 percent of Karluk's households received game from other households in the community. In addition, Karluk households received game from about 1.6 households from Larsen Bay. About 65 percent of Karluk's households received game from Larsen Bay.

The second table in each community pair reports information on the giving of resources from households in that community. For example, Table 19d reports, on average, each household in Karluk gave game to 3.7 other Karluk households, and 85 percent of Karluk's households gave game to other households in their community. In addition, Karluk households,

Table 17:

DOMESTIC USE OF COMMERCIAL CATCH, BY FISHERY,
KODIAK RURAL COMMUNITIES, 1982-1983^{1,2}

	Akhiok	Karluk	Larson Bay	Old Harbor	Ouzinkie	Port Lions
No. Households Surveyed	21	20	32	76	32	35
Use Salmon from Commercial Harvest	81%	15%	41%	83%	63%	36%
Use Halibut from Commercial Harvest	19%	5%	25%	74%	31%	45%
Use Crab from Commercial Harvest	10%	0%	6%	47%	28%	47%

Table 18:

DOMESTIC USE OF COMMERCIAL CATCH, BY FISHERY,
KODIAK ROAD-CONNECTED COMMUNITIES, 1982-1983^{1,2}

KODIAK ROAD-CONNECTED AREA

	General Sample	Coast Guard	Chiniak	Filipino	Native
No. Households Surveyed	155	76	17	34	35
Use Salmon from Commercial Harvest	18%	3%	41%	3%	34%
Use Halibut from Commercial Harvest	13%	3%	41%	6%	14%
Use Crab from Commercial Harvest	19%	4%	35%	12%	23%

1. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
2. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19a: DISTRIBUTION OF HARVESTED FOODS TO EACH AKHIOK HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	2.3 85%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fish/Snellfish	1.6 75%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ducks/Birds	2.0 80%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plants/Berries	.9 35%	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1. Numbers indicate the mean number of households from each place giving harvested food to each Akhiok household.
2. Percentages indicate the percent of Akhiok households receiving any harvested food from each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KAWA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19b: DISTRIBUTION OF HARVESTED FOODS FROM EACH AKHIOK HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	2.0 65%	0	0	0	0	0	.2 15%	.1 5%
Fish/Shellfish	2.1 60%	0	0	0	0	0	.2 15%	0
Ducks/Birds	1.6 60%	0	0	0	0	0	.3 20%	0
Plants/Berries	.5 20%	0	0	0	0	0	.1 5%	0

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Akhiok household.
2. Percentages indicate the percent of Akhiok households giving any harvested food to each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19c: DISTRIBUTION OF HARVESTED FOODS TO EACH KARLUK HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	A'niok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	3.3 90%	1.6 65%	0	0	0	.4 10%	.3 15%
Fish/Shellfish	0	3.2 95%	2.2 85%	0	0	0	.2 20%	.1 5%
Ducks/Birds	0	2.4 60%	.2 5%	0	0	0	0	0
Plants/Berries	0	.9 35%	.6 50%	0	0	0	.3 20%	0

1. Numbers indicate the mean number of households in each place giving harvested foods to each Karluk household.
2. Percentages indicate the percent of Karluk households receiving any harvested food from each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19d: DISTRIBUTION OF HARVESTED FOODS FROM EACH KARLUK HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	3.7 85%	1.3 45%	0	.1 5%	0	1.4 60%	.7 20%
Fish/Shellfish	0	5.7 85%	3.1 70%	0	.2 10%	0	3.7 85%	1.4 35%
Ducks/Birds	0	3.3 65%	.8 30%	0	0	0	1.4 40%	.5 15%
Plants/Berries	0	.6 25%	.3 20%	0	0	0	.2 5%	.5 10%

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Karluk household.
2. Percentages indicate the percent of Karluk households giving any harvested food to each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19e: DISTRIBUTION OF HARVESTED FOODS TO EACH LARSEN BAY HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	.2 6%	2.0 66%	0	0	0	0	.1 6%
Fish/Shellfish	0	1.1 63%	3.4 97%	* 3%	0	0	* 3%	.2 6%
Ducks/Birds	0	.1 3%	.8 38%	0	0	0	* 3%	0
Plants/Berries	* 3%	.3 13%	.5 25%	* 3%	0	0	.3 16%	* 3%

1. Numbers indicate the mean number of households in each place giving harvested foods to each Larsen Bay household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Larsen Bay households receiving any harvested food from each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19f: DISTRIBUTION OF HARVESTED FOODS FROM EACH LARSEN BAY HOUSEHOLD BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	.5 22%	1.9 53%	0	0	0	NA 41%	NA 22%
Fish/Shellfish	0	.7 22%	3.9 66%	0	0	0	NA 41%	NA 28%
Ducks/Birds	0	.1 3%	.8 31%	0	0	0	NA 13%	NA 6%
Plants/Berries	0	.4 16%	.8 25%	.2 3%	0	0	NA 9%	NA 6%

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Larsen Bay household. Symbol "NA" means data are not available.
2. Percentages indicate the percent of Larsen Bay households giving any harvested food to each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always be equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19g: DISTRIBUTION OF HARVESTED FOODS TO EACH OLD HARBOR HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1, 2, 3, 4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	.1 3%	0	0	1.4 64%	0	0	.1 3%	.1 5%
Fish/Shellfish	.1 1%	.1 4%	0	1.9 67%	0	* 1%	* 1%	.1 5%
Ducks/Birds	* 1%	0	0	1.1 53%	* 1%	0	* 1%	.1 4%
Plants/Berries	.1 5%	0	0	.2 14%	0	0	* 1%	.1 8%

1. Numbers indicate the mean number of households in each place giving harvested foods to each Old Harbor household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Old Harbor households receiving any harvested food from each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19h: DISTRIBUTION OF HARVESTED FOODS FROM EACH OLD HARBOR HOUSEHOLD BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	0	* 1%	1.8 62%	0	0	.1 5%	.1 5%
Fish/Shellfish	* 1%	* 1%	0	2.1 70%	0	0	.1 8%	.2 11%
Ducks/Birds	0	0	0	1.3 49%	0	0	.1 7%	* 3%
Plants/Berries	* 1%	0	0	.1 5%	0	0	0	* 4%

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Old Harbor household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Old Harbor households giving any harvested food to each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19i: DISTRIBUTION OF HARVESTED FOODS TO EACH OUZINKIE HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	0	0	0	2.5 84%	.1 10%	.2 10%	.1 10%
Fish/Shellfish	0	* 3%	0	0	4.8 88%	.2 9%	.2 13%	.1 6%
Ducks/Birds	0	0	0	0	3.5 84%	.1 6%	.2 6%	.1 3%
Plants/Berries	0	0	0	0	1.3 69%	0	.1 6%	.1 6%

1. Numbers indicate the mean number of households in each place giving harvested foods to each Ouzinkie household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Ouzinkie households receiving any harvested food from each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19j: DISTRIBUTION OF HARVESTED FOODS FROM EACH OUZINKIE HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	0	0	0	1.6 52%	.1 6%	.2 19%	.2 16%
Fish/Shellfish	0	0	0	0	4.1 78%	* 3%	.6 28%	.4 25%
Ducks/Birds	0	0	0	0	1.7 56%	0	.2 16%	.2 13%
Plants/Berries	0	0	0	0	.5 41%	.1 6%	* 6%	.1 6%

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Ouzinkie household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Ouzinkie households giving any harvested food to each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19k: DISTRIBUTION OF HARVESTED FOODS TO EACH PORT LIONS HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	0	0	.1 6%	.1 6%	.8 38%	.2 10%	.1 8%
Fish/Shellfish	0	.1 6%	* 4%	.1 8%	.2 8%	2.6 83%	.4 17%	.1 8%
Ducks/Birds	0	0	0	0	.1 8%	.8 48%	* 2%	0
Plants/Berries	0	0	* 2%	* 2%	* 2%	.5 29%	* 2%	* 4%

1. Numbers indicate the mean number of households in each place giving harvested foods to each Port Lions household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Port Lions households receiving any harvested food from each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers..

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19 DISTRIBUTION OF HARVESTED FOODS FROM EACH PORT LIONS HOUSEHOLD BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	0	0	* 4%	.2 6%	1.1 43%	.4 NA	.1 NA
Fish/Shellfish	0	0	* 2%	* 2%	.4 19%	3.0 70%	1.4 NA	.6 NA
Ducks/Birds	0	0	0	0	.2 6%	.6 30%	.2 NA	.1 NA
Plants/Berries	0	0	0	* 2%	0	.4 19%	.2 NA	.2 NA

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Port Lions household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Port Lions households giving any harvested food to each community. "NA" means not available.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey, table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19m: DISTRIBUTION OF HARVESTED FOODS TO EACH KODIAK HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	* 1%	* 1%	.1 3%	* 3%	* 2%	* 3%	.9 47%	.1 5%
Fish/Shellfish	* 2%	.1 7%	.1 4%	.1 3%	.1 6%	* 3%	2.7 80%	* 5%
Ducks/Birds	* 1%	* 1%	* 1%	* 1%	* 1%	* 1%	.1 6%	* 1%
Plants/Berries	* 1%	* 1%	* 1%	* 1%	* 1%	* 1%	.2 12%	* 2%

1. Numbers indicate the mean number of households in each place giving harvested foods to each Kodiak household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Kodiak households receiving any harvested food from each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19n: DISTRIBUTION OF HARVESTED FOODS FROM EACH KODIAK HOUSEHOLD
BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	0	0	* 1%	* 1%	* 1%	.6 29%	.1 3%
Fish/Shellfish	0	0	0	* 1%	* 1%	* 2%	2.2 62%	.5 22%
Ducks/Birds	0	0	.1 1%	0	0	* 1%	* 1%	.1 1%
Plants/Berries	0	0	.1 1%	0	0	* 1%	.4 16%	.1 6%

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Kodiak household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Kodiak households giving any harvested food to each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19c: DISTRIBUTION OF HARVESTED FOODS TO EACH KODIAK CITY NATIVE HOUSEHOLD BY FOOD CATEGORY, 1982-1983^{1,2,3,4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	* 3%	.1 9%	0	* 3%	.1 6%	.2 9%	1.9 57%	.1 6%
Fish/Shellfish	* 3%	.1 14%	* 3%	* 3%	.1 9%	.3 9%	2.8 80%	* 3%
Ducks/Birds	.1 6%	* 3%	0	0	* 3%	.2 6%	.4 23%	* 3%
Plants/Berries	0	0	0	0	0	0	.3 20%	0

1. Numbers indicate the mean number of households in each place giving harvested foods to each Kodiak City Native household. Symbol "*" is used when mean is less than .05.
2. Percentages indicate the percent of Kodiak City Native households receiving any harvested food from each community.
3. Data are from a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey, table prepared by Subsistence Division, Alaska Department of Fish and Game.

Table 19p: DISTRIBUTION OF HARVESTED FOODS FROM EACH KODIAK CITY NATIVE HOUSEHOLD BY FOOD CATEGORY, 1982-1983^{1, 2, 3, 4}

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions	Kodiak	Elsewhere
Game	0	0	0	0	0	.2 6%	.9 40%	.1 9%
Fish/Shellfish	0	0	0	0	0	.2 6%	1.8 51%	.3 14%
Ducks/Birds	0	0	0	0	0	.1 3%	.6 17%	0
Plants/Berries	0	0	0	0	0	0	.5 11%	.2 9%

1. Numbers indicate the mean number of households in each place receiving harvested foods from each Kodiak City Native household.
2. Percentages indicate the percent of Kodiak City Native households giving any harvest food to each community.
3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.
4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

on average, gave game to 1.3 Larsen Bay households, .1 Ouzinkie households, 1.4 Kodiak City households, and .7 households outside the study communities. About 45 percent of Karluk's households gave game to households in Larsen Bay, 5 percent to Ouzinkie households, 60 percent to Kodiak households, and 20 percent to households in locations other than the study communities.

Resource Use Areas

Areas used for non-commercial harvest of fish and game by the six rural communities on Kodiak Island were mapped by the Subsistence Division and Habitat Division of ADF&G with the cooperation of the Kodiak Area Native Association (KANA) in 1983. Figures 9 and 10 depict the overall contemporary resource use areas of these communities. Information on areas used by residents of the road connected area was provided by the KANA survey conducted in 1983 (Table 20, Figure 11). The following preliminary accounts of areas used by communities are taken from these data sources. Final maps and more detailed information on use areas will be available from the Habitat Guide Project, Alaska Department of Fish and Game, in 1984. Previous subsistence use area mapping was done by the Kodiak Island City and Borough as part of the Coastal Zone Management program; these maps should also be consulted.

Akhiok

Akhiok residents use the coastal and adjacent inland areas from Kiavik Bay to Cape Trinity, all of the coastline of Alitak Bay, Portage Bay, Deadman Bay, and Olga Bay, and the coastal and inland areas from Cape Alitak to Cape Grant for the harvest of fish and game

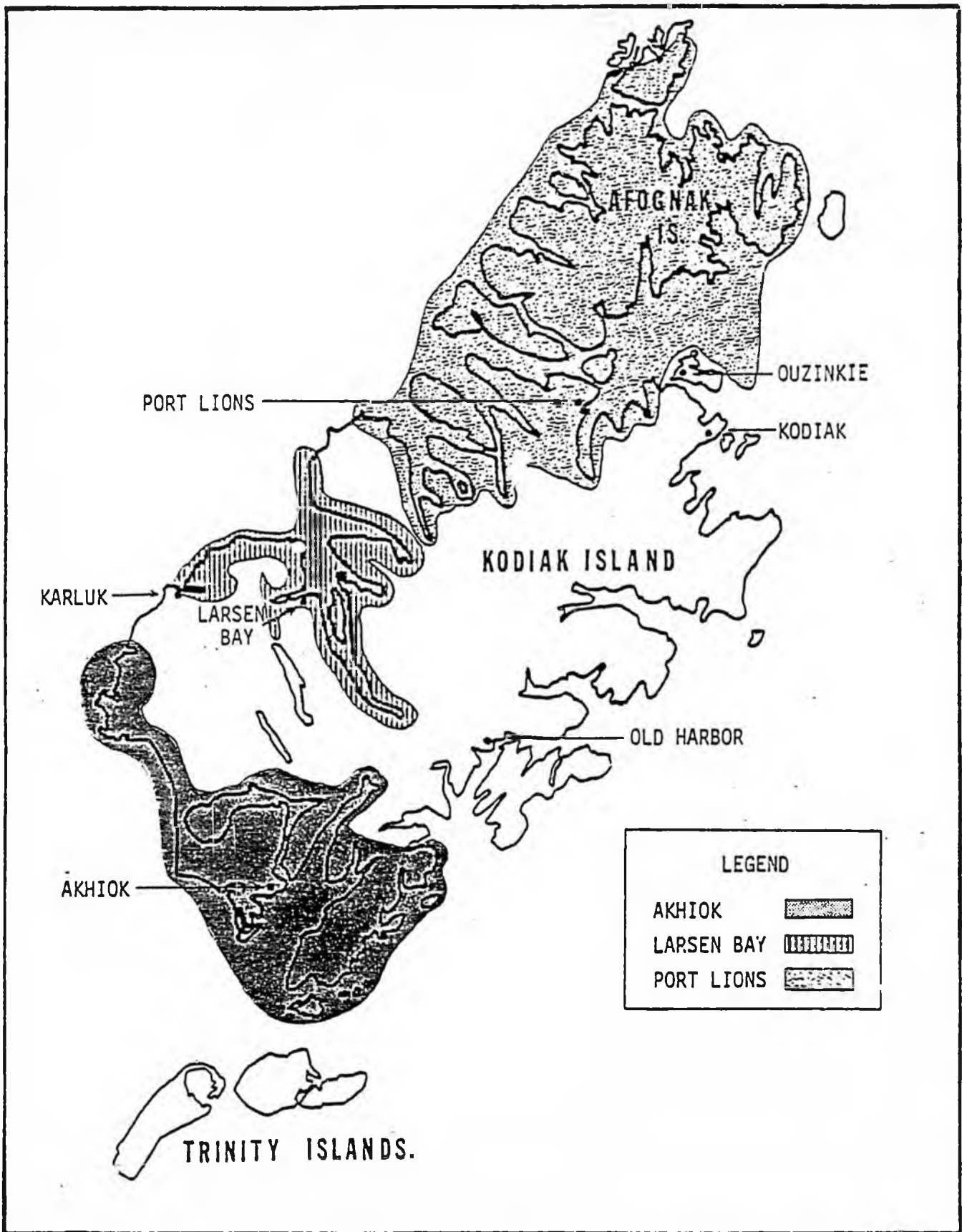


Figure 9. Resource Use Areas: Akhiok, Larsen Bay, Port Lions, 1982-1983.

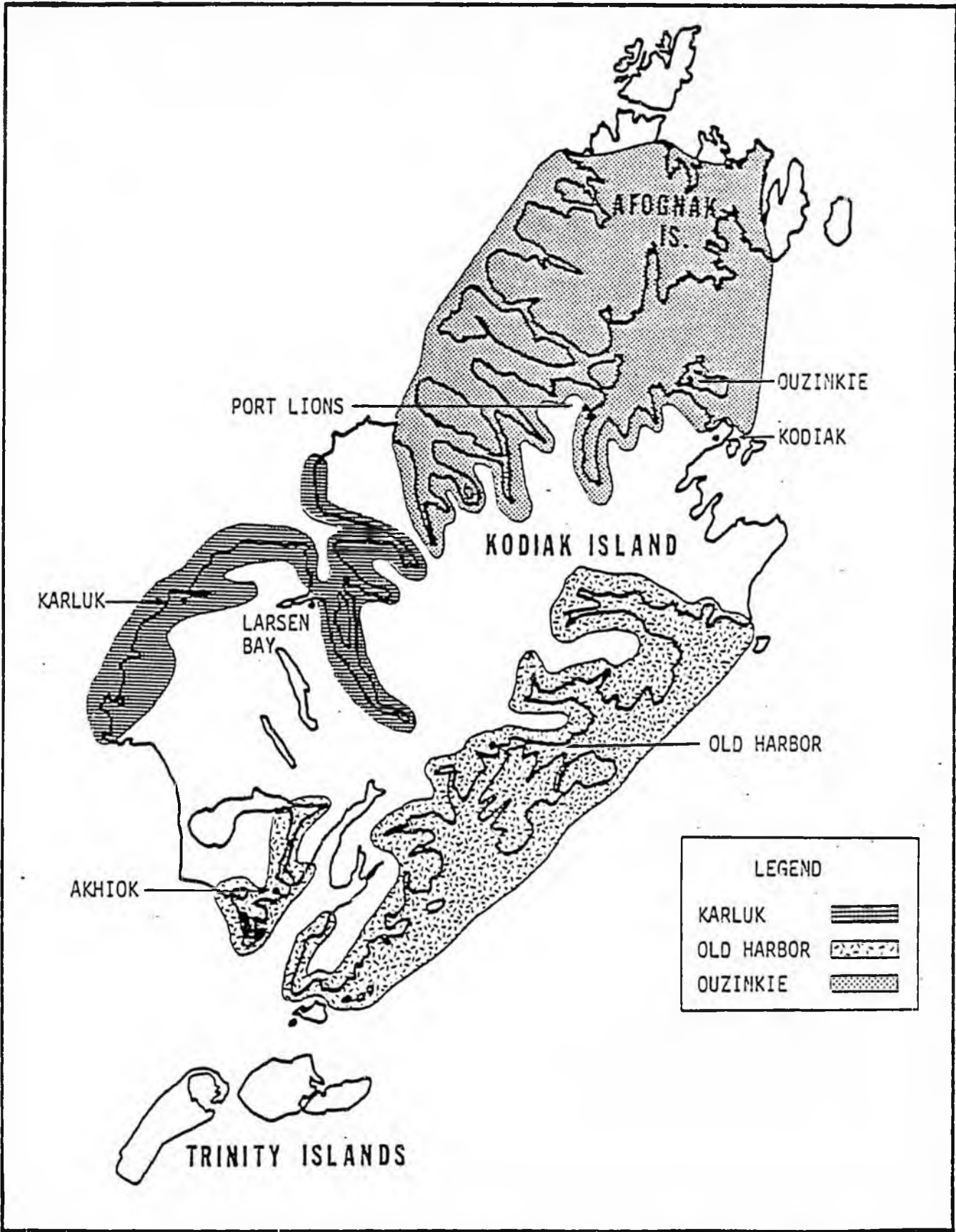


Figure 10. Resource Use Areas: Karluk, Old Harbor, Ouzinkie, 1982-1993.

Table 20: USE INTENSITY FOR HUNTING AND FISHING AREAS BY TYPE OF HARVEST BY HOUSEHOLD, KODIAK ROAD-CONNECTED POPULATION, 1982-1983^{1,2,3,4}

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Alaska Pen.	Kenai Pen.	Other
Percent of households using each area (Mean number of trips for each household in each area)								
Salmon Fishing	74% (11.1)	2% (.2)	5% (.2)	6% (.2)	15% (.6)	2% (.4)	1% (-)	2% (.1)
Halibut Fishing	48% (4.0)	1% (-)	3% (-)	2% (.1)	5% (.1)	- (-)	- (-)	1% (-)
Freshwater Fishing	37% (4.8)	1% (-)	1% (.1)	5% (.4)	3% (.1)	- (-)	- (-)	1% (-)
Clam Harvesting	56% (2.5)	1% (-)	2% (-)	3% (.1)	3% (.1)	5% (.1)	- (-)	1% (-)
Crab Harvesting	30% (3.3)	5% (.3)	3% (.1)	1% (-)	2% (.1)	1% (-)	- (-)	1% (-)
Deer Hunting	34% (2.1)	1% (-)	3% (.2)	6% (.3)	12% (.5)	- (-)	- (-)	1% (-)
Br. Bear Hunting	2% (.2)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
Waterfowl Hunting	8% (.4)	- (-)	- (-)	- (-)	3% (-)	- (-)	- (-)	- (-)
Marine Mammal Hunting	1% (.1)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	1% (-)
ANY HARVEST ACTIVITY ⁵	90%	8%	7%	12%	24%	7%	1%	4%

1. Data are from general sample of the road-connected area, including Kodiak City, Bells Flats, Women's Bay, Monashka Bay, and Service Area One.

2. Data are rounded to nearest percent and nearest decimal point. The symbol "-" indicates that percent use is less than .5% or mean number of trips is less than .05.

3. Data are for a 12 month period, most often from June 1982 through May 1983. See methodology section for details.

4. Because of rounding and the computer techniques used to deal with missing data, the column, row, and category totals may not always equal 100% or the totals expected from the addition of constituent numbers.

5. Trip data are not available for this category.

Source: Data from KANA 1983 survey; table prepared by Subsistence Division, Alaska Department of Fish and Game.

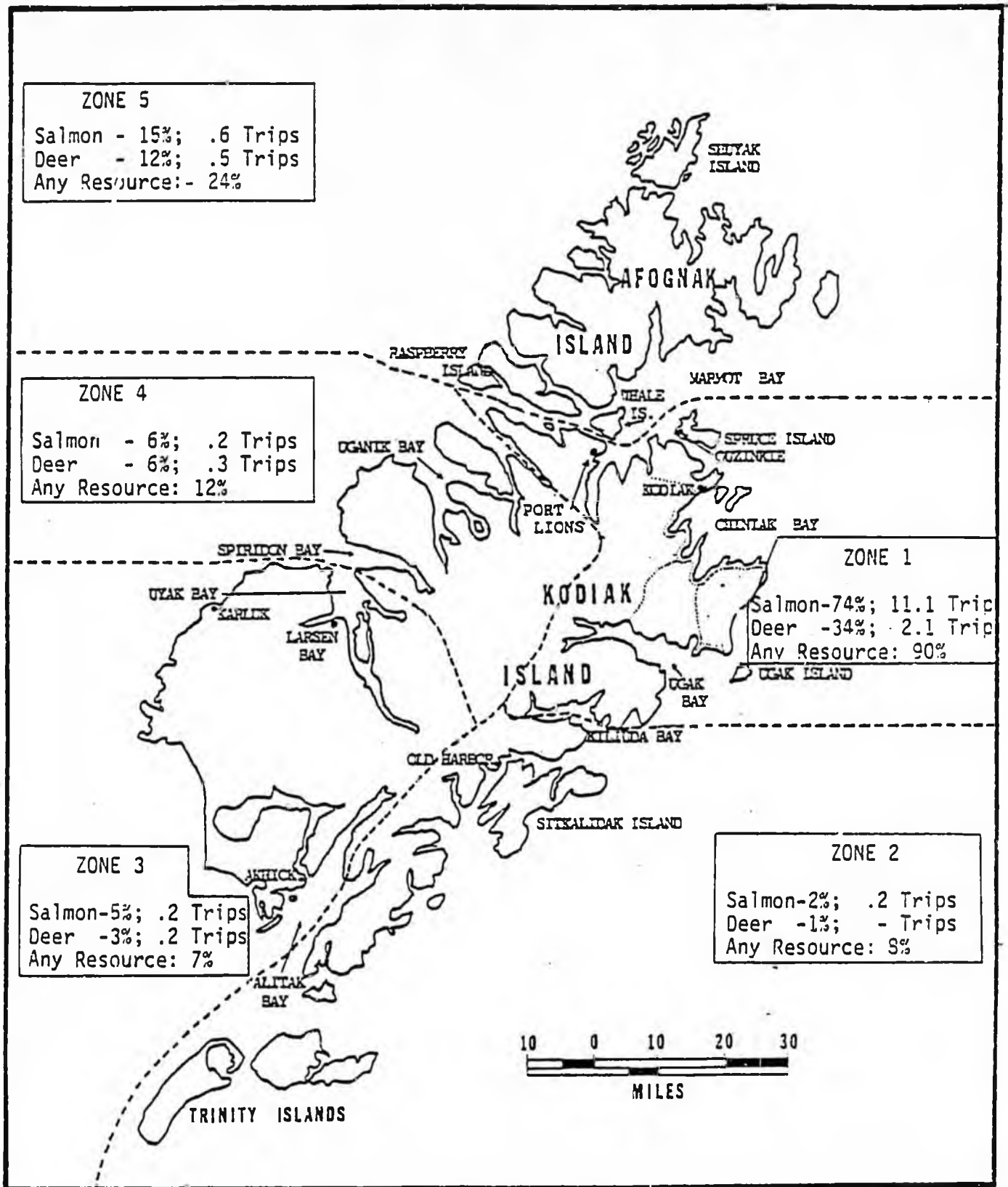


Figure 11. Use Intensity for Hunting and Fishing Areas by Type of Harvest, Kodiak Road-Connected Areas, 1982-1983.

resources for local consumption. Twoheaded Island, Geese Islands and the Aiatalik Island group are also important for resource harvest. Tugidak and Sitkinak Islands were used for resource harvesting in historic times, but little resource harvesting has taken place in recent years. Additional coastal areas may be used incidentally for resource harvesting when Akhiok residents are travelling by boat to other communities or commercial fishing.

Coastal habitats are of particular importance for the harvest of seal and sea lion which are hunted along rocky shores and of clams, crabs and other marine invertebrates, many of which are harvested from the intertidal zone. Deer and waterfowl are hunted in beach areas as well as inland. Anadromous fish species and marine fish are harvested in coastal areas.

The area bounded by a line crossing Alitak Bay from Cape Alitak and to Humpy Cove to the south and a line drawn north from Stockholm Point at the entrance to Olga Bay encompasses the resource harvesting area intensively used by Akhiok residents. Most salmon, halibut and other marine fish, clams and other invertebrates, and deer are harvested in this area. The other coastal areas listed are also regularly used particularly for the harvest of seal and sea lion and for salmon harvesting when fishing in areas closer to the village site is poor.

Karluk

Karluk residents use the coastal and adjacent inland areas from Inner Seal Rock near Gurney Bay to the mouth of the Karluk River, from the Karluk River mouth to Harvester Island, and all of the coastal area of Uyak and Spiridon Bays extending to Cape Kuliuk. Additional coastal

areas south of Gurney Bay may have been utilized at previous times.

Coastal hunting for seal, sea lion, waterfowl and deer provides a substantial amount of food for community residents. The coastal areas facing Shelikof Strait are frequently stormy and have few good moorages. Karluk residents frequently hunt and fish in the less exposed areas of Uyak and Spiridon Bays. Very close relationships exist between the two communities of Karluk and Larsen Bay.

Larsen Bay

Larsen Bay residents use the coastal and adjacent inland areas from the mouth of the Karluk River to Harvester Island, as well as that of Uyak Bay, Larsen Bay, and Spiridon Bay extending to Cape Kuliuk to the north.

These coastal areas of Uyak and Spiridon Bay are used intensively for hunting of seal, sea lion, deer, and waterfowl and for fishing for virtually all species taken by community residents. The coastal area between Harvester Island and Karluk River is used during frequent trips made by Larsen Bay residents to Karluk.

Old Harbor

Old Harbor residents use the coastal and adjacent inland areas from Narrow Cape in the northeast to Geese Channel in the southwest. Included are the coastlines and waters of Uyak Bay, Kiliuda Bay, Sitkalidak Strait, Kaiugnak Bay and Kaguyak Bay. Sitkalidak Island, Towheaded Island, and Geese Islands are also utilized.

Silver, pink, and chum salmon, halibut, crab, deer, waterfowl, seal and sea lion are the species that account for the greatest part of fish

and game harvest by Old Harbor residents in these areas.

Ouzinkie and Port Lions

Residents of Ouzinkie and Port Lions fish and hunt the coastlines, bays and adjacent inland areas of a large portion of north and northwest Kodiak Island and of the southern half of Afognak Island. Areas bounded by Ban Island in the northwest, Miners Point in the west, Spruce Cape in the east, and Tolstoi Point in the northeast, are used by Ouzinkie residents. Included are the coastal areas and waters of Tonki Bay, Marmot Strait, Izhut Bay, Marmot Bay, Kizhuyak Bay, Kupreanof Strait, Viekoda Bay, Uganik Passage, Uganik Bay, Raspberry Strait, Malina Bay, and Panamarof Bay. Coastal areas, waters, and inland portions of Spruce Island, Whale Island, Raspberry Island, and Uganik Island are also used. Areas close to communities are used more intensively, particularly for harvesting salmon.

Kodiak Road Connected Area

The areas most intensively used by Kodiak residents are those reachable by road or open skiff. These include Ugak Bay, Chiniak Bay, Monashka Bay, and into Narrow Strait, Kupreanof Bay, and Marmot Bay. Areas further from town are regularly used by hunters and fishermen on longer trips. Because of the large population of the road connected area, the great number of boats owned by local residents, and the high interest in fishing and hunting, almost the whole coastline of the Kodiak archipelago receives some use from Kodiak residents. This is demonstrated in Table 20 and by Figure 11. For example, 74 percent of the Kodiak General sample reported some salmon fishing activity in Zone 1, that area generally accessible by

road or a short trip by boat from Kodiak. The mean number of salmon fishing trips taken within this zone was 11.1 per household. However, portions of this sample also reported fishing for salmon in other parts of the Kodiak Island region, the Alaska Peninsula, and the Kenai Peninsula.

Seasonal Rounds of Wild Resource Use

Figures 12 through 17 present the seasonal round of wild resource use for each of the six non-road connected communities in the Kodiak Island area. Each figure depicts the time of year, in units of quarter months, when some harvesting of a particular resource occurs. The figures do not indicate when most of the harvest of a resource takes place, but only presence or absence of harvest during a particular quarter month. For example, residents of Akhick typically harvest red salmon from May through February. Harvesting of silver salmon begins in mid July and ends in late October. Halibut are taken year round.

Figure 12.

SEASONAL ROUND OF RESOURCE HARVESTS: AKHIOK 1982-1983^{1,2,3,4,5}

SPECIES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>FISH</u>												
Red Salmon	XXXX	XXXX			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
King Salmon						XXXX	XXXX	XXXX	XXXX			
Silver Salmon							XX	XXXX	XXXX	XXXX		
Pink Salmon							XXX	XXXX	XXX			
Chum Salmon						XX	XXXX	XXXX	XXXX	X		
.....												
Halibut	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Dolly Varden	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Steelhead (Rainbow)	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Butter Clams	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Crab:												
King Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Tanner Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Dungeness Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
<u>GAME</u>												
Deer	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Hare	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Ptarmigan	XXXX	XXXX	XXXX	XXXX					XXXX	XXXX	XXXX	XXXX
Ducks	XXXX	XXXX	XXXX	XXXX					XXXX	XXXX	XXXX	XXXX
Geese	XXXX	XXXX	XXXX	XXXX	XXXX						XXXX	XXXX
Harbor Seal	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Sea Lior	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.

1. Each "x" represents one quarter of a month.
2. An "x" means that named species are typically harvested during indicated time period.
3. The symbol "?" means that harvest during indicated time period has not been documented but may occur.
4. Refer to Tables 2 to 5 for magnitude of harvest and use.
5. Seasonal round data for other species is on file with the Subsistence Division, ADF&G.

Source: 1983 Field Interviews, Subsistence Division, Alaska Department of Fish and Game.

Figure 13.

SEASONAL ROUND OF RESOURCE HARVESTS: KARLUK 1982-1983^{1,2,3,4,5}

SPECIES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>FISH</u>												
Red Salmon					xxx	xxxx	xxxx	xxxx	x			
King Salmon					xxx	xxxx	x					
Silver Salmon							xx	xxxx	xxxx	xxx		
Pink Salmon							xx	xxx				
Chum Salmon							xx	xxx				
.....												
Halibut						xxxx	xxxx	xxxx	xxxx			
Dolly Varden	xx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Steelhead (Rainbow)					xxxx				xx	xxxx	xxxx	xx
Butter Clams	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Crab:												
King Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Tanner Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Dungeness Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
<u>GAME</u>												
Deer	x???	????	????	????	????	????	????	xxxx	xxxx	xxxx	xxxx	xxxx
Hare	xxxx	xxxx									xxxx	xxxx
Ptarmigan	xxxx	xxxx	xxxx								xxxx	xxxx
Ducks	xxxx	xxxx	xxxx	xxx						xx	xxxx	xxxx
Geese				xxxx								
Harbor Seal	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Sea Lion	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.

1. Each "x" represents one quarter of a month.
2. An "x" means that named species are typically harvested during indicated time period.
3. The symbol "?" means that harvest during indicated time period has not been documented but may occur.
4. Refer to Tables 2 to 5 for magnitude of harvest and use.
5. Seasonal round data for other species is on file with the Subsistence Division, ADF&G.

Source: 1983 Field Interviews, Subsistence Division, Alaska Department of Fish and Game.

Figure 14.

SEASONAL ROUND OF RESOURCE HARVESTS: LARSEN BAY 1982-1983^{1,2,3,4,5}

SPECIES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>FISH</u>												
Red Salmon						XXXX	XXXX	XXXX	XXXX	XXX		
King Salmon					XXXX	XXXX	XXX					
Silver Salmon							XXXX	XXXX	XXXX	XXXX	XXXX	XXX
Pink Salmon						XXXX	XXXX	XXXX	XXXX	XXX		
Chum Salmon						XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X
.....												
Halibut	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Dolly Varden		X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		
Steelhead (Rainbow)	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Butter Clams	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Crab:												
King Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Tanner Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Dungeness Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
<u>GAME</u>												
Deer	XXXX	????	????	????	????	????	????	XXXX	XXXX	XXXX	XXXX	XXXX
Hare	XXXX	XXXX	XXX						XXXX	XXXX	XXXX	XXXX
Ptarmigan	XXXX	XXXX	XXXX	XXXX					XXXX	XXXX	XXXX	XXXX
Ducks	(in season only, Oct. 8 to Jan. 22)											
Geese	(rarely present locally)								XXXX	XXXX	XXXX	XXXX
Harbor Seal	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Sea Lion	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.

1. Each "x" represents one quarter of a month.
2. An "x" means that named species are typically harvested during indicated time period.
3. The symbol "?" means that harvest during indicated time period has not been documented but may occur.
4. Refer to Tables 2 to 5 for magnitude of harvest and use.
5. Seasonal round data for other species is on file with the Subsistence Division, ADF&G.

Source: 1983 Field Interviews, Subsistence Division, Alaska Department of Fish and Game.

Figure 15.

SEASONAL ROUND OF RESOURCE HARVEST: OLD HARBOR 1982-1983^{1,2,3,4,5}

SPECIES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>FISH</u>												
Red Salmon	xxxx	x			xx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
King Salmon							xxxx	xxxx				
Silver Salmon								xx	xxxx	xxxx	xxxx	xx
Pink Salmon						x	xxxx	xxxx	x			
Chum Salmon								xx	xxxx	xx		
.....												
Halibut					xxxx	xxxx	xxxx	xxxx	xxxx			
Dolly Varden	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Steelhead (Rainbow)		(rarely found)										
Butter Clams	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Crab:												
King Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Tanner Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Dungeness Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
<u>GAME</u>												
Deer	xxxx	????	????	????	????	????	????	xxxx	xxxx	xxxx	xxxx	xxxx
Hare	xxxx	xxxx	xxxx								xxxx	xxxx
Ptarmigan	xxxx	xxxx	xxxx								xxxx	xxxx
Ducks	xxxx	xxxx	xxxx							xxxx	xxxx	xxxx
Geese	xxxx	xxxx	xxxx							xxxx	xxxx	xxxx
Harbor Seal	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Sea Lion	xxxx	xxxx	xxxx								xxxx	xxxx
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.

1. Each "x" represents one quarter of a month.
2. An "x" means that named species are typically harvested during indicated time period.
3. The symbol "?" means that harvest during indicated time period has not been documented but may occur.
4. Refer to Tables 2 to 5 for magnitude of harvest and use.
5. Seasonal round data for other species is on file with the Subsistence Division, ADF&G.

Source: 1983 Field Interviews, Subsistence Division, Alaska Department of Fish and Game.

Figure 16.

SEASONAL ROUND OF RESOURCE HARVEST: OUZINKIE 1982-1983^{1,2,3,4,5}

SPECIES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>FISH</u>												
Red Salmon					xx	xxxx						
King Salmon	(not usually present)											
Silver Salmon								xx	xxxx	xxxx	xxxx	
Pink Salmon							xxxx	xxxx	xxxx	xxxx		
Chum Salmon							xxxx	xxxx	xxxx	xxxx		
.....												
Halibut	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Dolly Varden				xxxx	xxxx	xxxx	xxxx	xxxx				
Steelhead (Rainbow)				xxxx	xxx				xxxx	xxxx		
Butter Clans	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Crab:												
King Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Tanner Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Dungeness Crab	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
<u>GAME</u>												
Deer	x???	????	????	????	????	????	????	xxxx	xxxx	xxxx	xxxx	xxxx
Hare	xxxx	xxxx	xxxx							xxxx	xxxx	xxxx
Ptarmigan	xxxx	xxxx	xxxx							xxxx	xxxx	xxxx
Ducks	xxxx	xxxx	xxxx	xxxx	xxxx				xxxx	xxxx	xxxx	xxxx
Geese				xxxx	xxxx			xx	xxxx	xx		
Harbor Seal	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Sea Lion	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.

1. Each "x" represents one quarter of a month.
2. An "x" means that named species are typically harvested during indicated time period.
3. The symbol "?" means that harvest during indicated time period has not been documented but may occur.
4. Refer to Tables 2 to 5 for magnitude of harvest and use.
5. Seasonal round data for other species is on file with the Subsistence Division, ADF&G.

Source: 1983 Field Interviews, Subsistence Division, Alaska Department of Fish and Game.

Figure 17.

SEASONAL ROUND OF RESOURCE HARVESTS: PORT LIONS 1982-1983^{1,2,3,4,5}

SPECIES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>FISH</u>												
Red Salmon					XXXX	XXXX	XXXX	XXXX	XX			
King Salmon				XX	XXXX	XXXX	XXXX	XXXX	XX			
Silver Salmon								XXX	XXXX	XXXX	XXXX	
Pink Salmon						XX	XXXX	XXXX				
Chum Salmon						XX	XXXX	XXXX	XX			
.....												
Halibut	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Dolly Varden				XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XX	
Steelhead (Rainbow)						XX	XXXX	XXXX	XX			
Butter Clams	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Crab:												
King Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Tanner Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Dungeness Crab	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
<u>GAME</u>												
Deer	XXXX							XXXX	XXXX	XXXX	XXXX	XXXX
Hare	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Ptarmigan	XXXX	XXXX									XXXX	XXXX
Ducks	XXXX	XXXX	XXXX							XXXX	XXXX	XXXX
Geese				XXXX	XXXX				XXXX	XXXX		
Harbor Seal	XXXX	XXXX	XXXX	XXXX				XXXX	XXXX	XXXX	XXXX	XXXX
Sea Lion	XXXX	XXXX	XXXX	XXXX				XXXX	XXXX	XXXX	XXXX	XXXX
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.

1. Each "x" represents one quarter of a month.
2. An "x" means that named species are typically harvested during indicated time period.
3. The symbol "?" means that harvest during indicated time period has not been documented but may occur.
4. Refer to Tables 2 to 5 for magnitude of harvest and use.
5. Seasonal round data for other species is on file with the Subsistence Division, ADF&G.

Source: 1983 Field Interviews, Subsistence Division, Alaska Department of Fish and Game.

VII. ISSUES AND CONCERNS

During the course of the research for this Guide, the following issues and concerns were expressed by residents of the Kodiak Island region. These are listed below, in no special order, and are included here in order to stimulate further thought and discussion.

- 1) The current permitting system for regulating subsistence fishing has caused problems for resource users and managers. Returns of permits to the Department of Fish and Game for all areas of Kodiak Island have been poor and therefore harvest and effort data derived from the permits is probably not reliable.
- 2) Hunting and fishing licenses and permits must be made more readily available to residents of rural areas.
- 3) Brown bear. Communities on the southern part of the island have experienced difficulties with nuisance bears. Also, residents of these communities report that there is little possibility for subsistence hunting of bears under current regulations.
- 4) Waterfowl. Non-migratory birds have traditionally been taken throughout the year, but current regulations prohibit this harvest.
- 5) Deer: seasons. Rural residents report that the current seasons for hunting deer are too restrictive, because they depend on this resource as a major food source for most of the year.
- 6) Deer: bag limits. Current limits do not permit traditional hunting in which a proficient hunter may supply a number of families with meat.
- 7) Crab. Crab has been an important food item for Kodiak residents who have either caught their own crab or gotten crab from commercial catches. The recent closure of commercial king crab

fishing and the restriction of subsistence crabbing to waters of 25 fathoms or less will tend to eliminate crab as a food source while these regulations are in effect.

- 8) Marine mammals. Significant use of marine mammals continues to occur in rural communities, with seal and sea lion taken year round. The availability of these resources could be affected by changes to the Marine Mammals Act, imposition of bag and or season limits on harvests, or the introduction of new user groups. Development of the bottom fishing industry may result in increased incidental kills of marine mammals, and a subsequent decrease in the population of these species.
- 9) User conflicts exist in a number of areas, including:
 - a) On the Karluk River, Karluk residents report conflicts with sportsfishing over the salmon resource. The Karluk River offers world class sport fishing, but Karluk residents gain little from the industry and feel that their access to subsistence resources is threatened.
 - b) Hunting and fishing pressure may diminish resource availability for rural residents in areas easily reached by land or boat from the Kodiak road-connected area. Old Harbor's traditional use of Ugak Bay; Ouzinkie's traditional use of Monashka Bay, Narrow Strait, Kizhuyak Bay, and much of Marmot Bay; and Port Lions' traditional use of Kizhuyak Bay, the Kupreanof and Raspberry Strait areas, Afognak Bay, and Kazakof Bay are affected by the hunting and fishing of the large population of the road-connected area.
 - c) Potential conflicts exist between subsistence fishing and sport fishing on road accessible areas near the City of Kodiak. Buskin

River and Russian Creek will most likely be the first drainages for which regulatory change will be considered.

- 10) Examination of Tables 13 and 14 and Figures 5 and 6 will reveal that during the study period, the mean household use quantities of red, silver, and pink salmon, halibut, crab, and deer fell below the "desired" use levels in some communities. These discrepancies may indicate other topics which may become regulatory concerns in the future.

VIII. REFERENCES CITED

- Alaska Department of Fish and Game
1982 Alaska 1980 Catch and Production Commercial Fisheries Statistics.
- Baker, Marcus
1906 Geographic Dictionary of Alaska. Second Edition. U.S.G.S. Bulletin 229. Washington: Government Printing Office.
- Behnke, Steven R.
1982 Wildlife Utilization and the Economy of Nondalton. Subsistence Division, Alaska Department of Fish and Game.
- Caulkins, Donald G. and Kenneth W. Pitcher
1982 Population Assessment, Ecology and Trophic Relationships of Stellar Sea Lions in the Gulf of Alaska. Outer Continental Shelf Environmental Assessment Program, U.S. Department of the Interior, Bureau of Land Management.
- Kodiak Island Borough
1982 Kodiak Resource Maps: Kodiak Island Borough Coastal Management Program. Prepared by Honda Graphics for Woodward-Clyde Consultants.
- Nippes, William E. et al
1983 Kodiak Area Shellfish Management Report to Alaska Board of Fisheries. Alaska Department of Fish and Game.
- Pitcher, Kenneth W. and Donald G. Calkins
1979 Biology of the Harbor Seal, *Phoca vitulina richardsi*, in the Gulf of Alaska. Outer Continental Shelf Environmental Assessment Program, U.S. Department of the Interior, Bureau of Land Management.
- Thomas, Dan
1982 The Role of Local Fish and Wildlife Resources in the Community of Shaktoolik, Alaska. Subsistence Division, Alaska Department of Fish and Game.
- Wolfe, Robert J.
1981 Norton Sound/Yukon Delta Sociocultural Systems Baseline Analysis Technical Report No. 72. Alaska Outer Continental Shelf Office, Bureau of Land Management.

APPENDIX A

Table 21: FACTORS USED TO CONVERT FROM NUMBERS OF ANIMALS TO FOOD WEIGHT,
KODIAK ISLAND SURVEY, 1982-1983

Species

<u>Fish</u>	<u>Usable Weight</u>	<u>Source</u>
Red Salmon	4.21 lbs.	Conversion factors were derived by taking average round weights for fish caught commercially on Kodiak (ADF&G, 1982) and multiplying these weights by standard factors used to determine food weight from round weight for salmon species (from Mike Dean, ADF&G, personal communication). Factors used were:
King Salmon	12.92 lbs.	
Silver Salmon	5.70 lbs.	
Pink Salmon	2.72 lbs.	
Dog Salmon	5.55 lbs.	
		Red .78
		King .73
		Silver .75
		Pink .85
		Dog .73
Herring	.50 lbs.	Researcher estimate.
Halibut	25.00 lbs.	
Cod	1.00 lbs.	
Flounder	1.00 lbs.	
Bass	1.00 lbs.	
Snapper	2.00 lbs.	
Dolly Varden	1.40 lbs.	Reported value (Behnke, 1982).
Steelhead	1.40 lbs.	
Pollock	1.00 lbs.	Researcher estimate.
Rockfish	2.00 lbs.	
Irish Lords	1.00 lbs.	
<u>Game</u>		
Deer	43.20 lbs.	Estimates supplied by Roger Smith, (ADF&G) Kodiak area game biologist (personal communication)
Reindeer	62.50 lbs.	
Elk	225.00 lbs.	
Goat	61.50 lbs.	
Brown Bear	300.00	Researcher estimate based on hunter reports.
Moose	540.00	Reported value (Behnke, 1982).
Harbor Seal	45.00 lbs.	Researcher estimate based on hunter reports. Also see reported live weights (Pitcher and Calkins, 1979; Calkins and Pitcher, 1982)
Sea Lion	200.00 lbs.	
Hare	2.00 lbs.	Reported values (Behnke, 1982).
Ptarmigan	.70 lbs.	

<u>Species</u>	<u>Usable Weight</u>	<u>Source</u>
Ducks	2.50 lbs.	Reported value (Thomas, 1982).
Geese	5.00 lbs.	Reported value (Wolfe, 1973).
Bird Eggs	.05 lbs.	Researcher estimate.
<u>Invertebrates</u>		
King Crab	2.30 lbs.	Personal communication, Lee Stratton, ADF&G, and Jim Major, Eastpoint Processors, Kodiak. Also see reported commercial harvest weight (Nippes et al, 1983).
Tanner Crab	1.60 lbs.	
Dungeness Crab	.70 lbs.	
All Clams, Cockles, Geoducks, Mussels, Gumboots, Sea Urchins	5.00 lbs./ 5 gal. bucket	Researcher estimate, also personal communication, Ron Stanek, ADF&G, for razor clams.
Octopus	4.00 lbs.	Researcher estimate.

These conversion factors were used to convert number of animals harvested to weight of usable meat or fish in pounds. Conversion factors are based on published reports of species average live weight or average harvest weight when these exist. In other cases the best estimates of field biologists, researchers, and community informants have been used. For fish species, conversion is based on headed, gutted weight of carcass. For game species, conversion is based on weight of meat and bones usually used by hunters after dressing, skinning, and trimming takes place.

Conversion factors are very conservative. In some communities use may be made of additional parts of fish and game species for human consumption, consumption by dogs and domestic animals, and for garden fertilizer.

APPENDIX B

Table 22: EXTRAPOLATION OF SURVEY DATA FOR ALL OF KODIAK

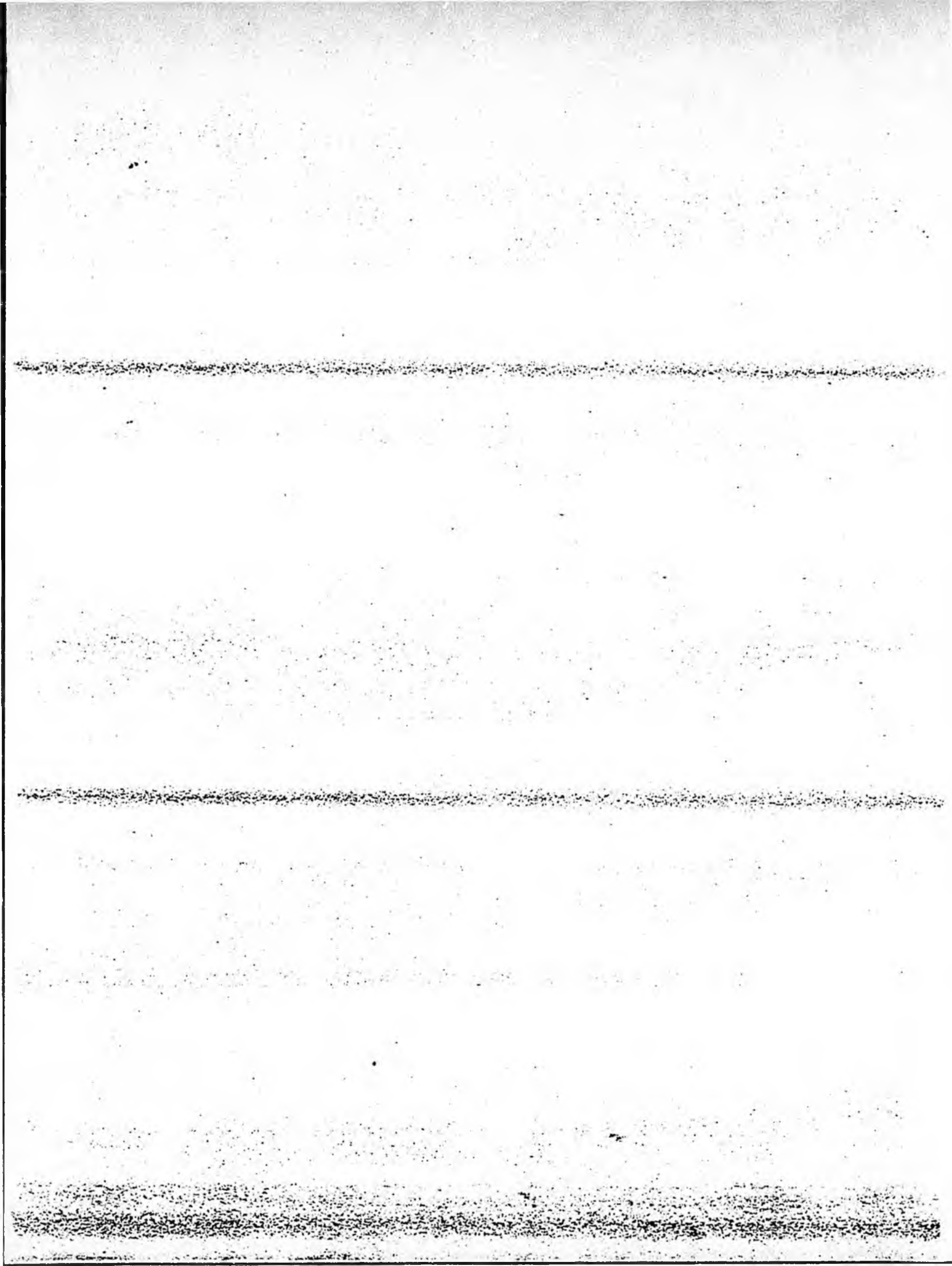
The extrapolation of harvest figures and weights from sample data to the total census population of Kodiak required the following assumptions and calculatons:

1. It was assumed that households that were not surveyed had the same family size and harvest characteristics as households that were surveyed in each community or sample.
2. It was assumed that the rural population living away from surveyed communities had the same family size and harvest characteristics as the population living in rural communities who were surveyed.
3. Number of households in each category was determined by dividing the census population by the average household size of the surveyed population for each community or sample:

Community/ Sample	Household Size ⁴	Population ⁵	Estimated Number of Households
Akhiok	3.81	103	27.0
Karluk	3.95	102	25.8
Larsen Bay	4.16	180	43.3
Old Harbor	3.79	355	93.7
Ouzinkie	3.34	233	69.8
Port Lions	3.30	291	88.2
Kodiak City ¹	3.32	8,247	2,484.0
Chiniak/ Pasagshak ²	3.91	611	156.3
Coast Guard	2.41	1,995	827.8
Rural No Community ³	3.63	597	164.5
TOTAL	3.19	12,714	3,980.4

1. This area includes Kodiak city, Service Area 1, Women's Bay, Bells Flats, and Monashka Bay.
2. Note that this projection is based on a very limited sample.
3. Note that no surveys were administered to this group.
4. Household size is based on survey data.
5. Population figures are from Kodiak City and Borough Census, 1983.

4. Harvest totals and harvest food weight in Tables 15 and 16 were calculated by multiplying household harvest and harvest food weight figures from Tables 2 through 5 by derived numbers of households.



send to:

Mary Margaret Brady
Accounting

- How paid - lump sum after Jan. 1, 86.
- SS # 267-09-8580

①

PROPOSAL TO MONITOR
THE PLACER MINING
DEMONSTRATION GRANT PROGRAM

SUBMITTED TO: SENATOR BETTYE FAHRENKAMP
ALASKA STATE LEGISLATURE
FOUCH V
JUNEAU, ALASKA 99811

BY: JOHN REEVES
P.O. BOX 81941
FAIRBANKS, ALASKA
99708

DATE: MAY 21, 1985

①

1

INTRODUCTION

On June 22, 1984 Governor Sheffield signed Senate Bill 461 into law. This Bill authorized the Commissioners of Natural Resources and Environmental Conservation to administer the Innovative Gold Recovery (DNR), Water Use Reduction (DNR), Water Pollution Control (DEC), and Waste Disposal (DEC), Demonstration Grants Program established under AS 46.16.00 - AS 46.16.100.

DNR and DEC were each allocated 1.5 million dollars and authorized to distribute grant funds in allotments up to \$100,000 to qualified applicants for purposes of testing new and innovative ideas and technology at placer mining operations.

A Review Committee established in Sec. 46.16.010 was responsible for reviewing and making recommendations on each application. The six member review Committee independently scored each application, and submitted their joint recommendations to Commissioners Winnicke and Ross on March 25, 1985. As primary technical reviewer of the Grant Proposals for ADEC, I was responsible for reviewing the proposals and making recommendations to the review committee and the Commissioners on the particulars of each application.

A total of 82 grant applications (41 each for DEC, DNR) were received, 15 of which were submitted under the "Emergency Regulations". The applications submitted under the Emergency Regulations were scored and ranked first. Of these 15, four were recommended for DNR grants and two for DEC grants. Twenty-six additional projects were recommended for funding after final review.

2

Support for the grant program by both the Legislature and the Governor has clearly demonstrated the State's commitment to the placer mining industry by funding research into mining techniques that will both enhance the economic viability of the industry concurrent with improving water quality.

It was the Legislature's intent to make available to placer miners the necessary capital to experiment with new and innovative ideas in gold recovery, pollution control, water use reduction and waste disposal. It was also the Legislature's intent to draw from the practical experience of innovative miners themselves rather than generate theoretical research projects which may not have offered solutions to the complex issues facing the placer miners and regulatory agencies alike.

Sec. 46.16.090 states "All information generated as a result of grants made under this chapter is public information. The Commissioner of Natural Resources and the Commissioner of Environmental Conservation shall compile, analyze, and distribute the information for the benefit of the placer mining industry and State and Federal government."

The Chairman of the Placer Mining Demonstration Grant Review Committee, Earl Beistline, in a letter dated March 25, 1985 to Commissioners Wunnicke and Ross stated, "If the program is not adequately monitored, the credibility of the entire program and the departments will be affected." Mr. Beistline also addressed the need for adequate funding and department personnel to be made available to assure appropriate dissemination of the results and to assure that information gained is presented clearly and understandably.

3

DNR and DEC have demonstrated their commitment to fulfilling their statutory obligations under Sec. 4a.16.090 by committing 5 full time employees to the process of compiling, analyzing and distributing the information obtained in the grants program. However only one of those employees, Glenn Miller (DNR), is familiar with the industry. With the exception of one student intern, none of the other project personnel are familiar with placer mining or have ever seen an operating placer mine.

Almost one million dollars was placed into the operating budgets of DNR, DEC, and ADF&G by the 1984 Legislature to fulfill the intent of SB 407 which failed. This money was allocated to the resource agencies to begin gathering data for the accurate classification of Alaska's waters.

Although considerable time and effort was spent in the field during the 1984 mining season by agency personnel, study results have not yet been issued. There is ongoing research work being done at present and work again will be done in the field during 1985 paid for by the SB 407 money.

Besides the data being generated by miners participating in the SB 461 program there will be data generated by the agencies in both the SB 461 program as well as that resulting from research paid for by SB 407 monies.

Because placer mining is at a critical point, because the next session of the Legislature may need to take legislative action and because of the need to insure that these appropriations have been used for intended purposes to carry out Legislative intent, it is important that the Legislature be kept abreast of developments as they unfold.

(4)

PROPOSAL

I propose, as a contractor for the Alaska State Legislature, to monitor the programs enacted by the Departments of Natural Resources, Environmental Conservation and Fish and Game to fulfill the legislative intent of SB 461 and the "Spirit" of SB 407 of the thirteenth Legislative session.

In monitoring the programs developed for SB 461 I will:

1. Prepare a summary of each of the grant projects.
2. Monitor the progress of each of the projects including field visits.
3. Monitor agency management of grant contracts.
4. Prepare and submit monthly reports on the status of the program and individual grant projects.
5. Prepare a final report for the start-up of the second half of the fourteenth legislative session summarizing the information generated from the demonstration programs; evaluating the results of the projects and their potential application in resolving placer mining issues, making recommendations and evaluating the performance of the managing agencies.

5

5

In monitoring the programs developed under funds appropriated by SB 407 I will:

1. Research, summarize and evaluate study programs and results generated during the 1984 season.
2. Summarize study programs to be carried out during the 1985 season.
3. Prepare and submit a report on items 1 & 2 by July 30, 1985.
4. Prepare a final report for the start up of the second half of the fourteenth Legislative Session summarizing the information generated by the SB 407 monies over the 1984 and 1985 seasons; evaluating the results of the research studies and their potential application in resolving placer mining issues; make recommendations; and evaluating the performance of the managing agencies.

As a Legislative contact I would expect to be provided copies of all correspondence relating to the grants program and research paid for by SB 407 funds by the managing agencies as well as field notes, sampling data, inter-office/agency memos, agency staff and status reports and budgetary information. It would also be desirable to accompany agency personnel during inspections of the various projects.

6

SCHEDULE AND BUDGET

Start-up - June 1, 1985
 *Fees - \$55.00 per hour
 Total Hours - 450
 Contract Amount - \$24,750

Monthly reports will be submitted at the end of each month with a final report submitted no later than November 30, 1985.

20 hours/wk for 20 wks.	400 hrs @ \$55 =	\$22,000
Final Report	40 hrs @ \$55 =	2,200
Clerical Support	27.5 hrs @ \$20 =	<u>550</u>
		\$24,750

*Fees include: transportation, administrative costs, lodging.

7

RESUME

JOHN REEVES

Education

1971-1974 University of Florida- Undergraduate work in wildlife ecology.

1981-1983 University of Alaska, Fairbanks- Undergraduate work in Natural Resource Management.

Experience

Placer Mining Program Manager, State of Alaska. Department of Environmental Conservation. May 1984 - May 1985

Duties: Monitored placer mining activity and provided technical assistance to placer miners on mining techniques and the design and construction of wastewater treatment facilities. Assisted in the development of State and Federal policy for placer mining. Managed the Placer Mining Wastewater Treatment Technology Project. Served as the primary technical reviewer for ADEC and the Water Use Board on Placer Mining Demonstration Grant Program (SP 461). Reviewed and prepared Department comments on Resource Management plans. Wrote RFP's; selected

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scoping and review committees; interviewed consulting firms; evaluated research proposals; negotiated with contractors for state funded research projects. Initiated Enforcement actions when necessary.

Environmental Field Officer II, State of Alaska, Department of Environmental Conservation. May 1982 - May 1984

Duties: Reviewed wastewater treatment plans and permit applications. Assisted other State and Federal agencies in placer program development. Performed field inspections independently and in conjunction with tri-agency team. Offered technical assistance and made recommendations to improve waste water quality by evaluating field data and site-specific conditions at placer mining operations. Was project coordinator for the Commissioner's Task Force, and was Chairman of 2 sub-committees for the resolution of placer mining conflicts. Wrote reports, developed management guidelines, reviewed work plans and managed travel budget.

Environmental Field Officer I, State of Alaska, Department of Environmental Conservation. October 1981 - May 1982

Duties: Reviewed annual placer mining permit applications. Performed mine site inspections and water quality sampling for compliance and research. Provided technical assistance to miners on pollution abatement measures. Investigated complaints and resolved conflicts when possible.

Goldminer, Miller Creek Mining Co., Central, Alaska.

April 1978 - October 1980

Performed exploration and production activities for placer mining. Constructed settling ponds, set up recycle operations, built and maintained sumps, tailraces, berms, bypasses, pipelines, and reservoirs. Other duties included welding, washing plant construction, mechanic, heavy equipment operator, rock-breaker, stacking tailings, stripping overburden, building access roads, and assisting in cleanups and moving operations.

Memberships:

Fairbanks North Star Borough

Board of Equalization 1984-1985 Chairman 1985

Fairbanks North Star Borough

Planning Commission 1985 Commissioner

Fairbanks Convention and Visitors Bureau

1983-1985 Member

Greater Fairbanks Chamber of Commerce

1983-1985 Member



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SUBSISTENCE-BASED SOCIOECONOMIC SYSTEMS

IN ALASKA: AN INTRODUCTION

Robert J. Wolfe, Ph.D.
Research Director
Division of Subsistence
Alaska Department of Fish and Game
Juneau, Alaska
November 1983
(Revised December 1984)

One of the major research endeavors of the Division of Subsistence of the Alaska Department of Fish and Game is to describe and understand a type of socioeconomic system in Alaska which may be termed a "subsistence-based socioeconomic system." A subsistence-based socioeconomic system is an economy and society where fishing and hunting for local use play important roles. Communities with subsistence-based systems are economically and socially dependent on fishing and hunting for local use. Without access to the natural resource base of fish, game, and plants, the communities could not exist as they do today.

There appear to be several characteristics of a subsistence-based socioeconomic system. Characteristic features include the following: a community-wide seasonal round of subsistence activities; high participation rates in fishing and hunting activities; substantial outputs of fish and game products for local use; a domestic mode of production; extensive non-commercial distribution and exchange networks; traditional systems of land use and occupancy; and a mixed economy combining subsistence and commercial sectors. This paper briefly describes each of these features illustrated with materials drawn from several communities where the Division

of Subsistence has conducted work which are examples of this taxonomic type of socioeconomic system. The locations of these communities are depicted in Figures 1 and 2.

Seasonal Round of Subsistence Activities

The first characteristic of a subsistence-based socioeconomic system in Alaska is the presence of a community-wide seasonal round of fishing and hunting activities. The economic activities of a community follow a yearly cycle, based on the seasonal appearance of fish and game resources. The seasonal round of production activities is complex and differs in detail between communities, as illustrated in Figures 3 and 4 which depict seasonal rounds for two areas -- communities along the Yukon River delta, and the community of Tyonek along Upper Cook Inlet. The seasonal round is a regular pattern, although fluctuations appear in it from year to year depending upon the availability of resources, weather conditions, and other factors.

Participation

A second characteristic of a subsistence-based socioeconomic system is high participation in fishing and hunting activities within the community. Figures 5 and 6 show participation rates in selected subsistence activities by households in Nondalton near Lake Clark, and in Tyonek. Figure 5 shows that between 60-75 percent of Nondalton households harvested sockeye each year during a three years' study period. Between 50-60 percent harvested whitefish, while 60-70 percent harvested caribou. Figure 6 shows participation rates in descending order in Tyonek during 1978-82. As will be described below, households which did not harvest certain resources typically receive products through distribution and exchange networks.

Outputs

A third characteristic of subsistence-based systems is that production outputs of fish and game are substantial. Figure 7 shows food outputs for six communities near the Yukon River delta and for Nondalton, in pounds dressed weight per household per year, in 1980. The sample of 88 Yukon Delta area households interviewed in 1981 on average produced 4,600 pounds of fish and game, or about 780 pounds per household member. These are substantial outputs, reflecting the high dependencies of these communities on fish and game. The economic base of these communities is "food extractive" in nature. This contrasts with the economic bases of other Alaska communities such as trade, government services, finance, defense, and manufacturing.

There is as yet little information documenting trends in subsistence outputs. What little information exists for Yukon Delta communities suggests there has been no radical decreases or increases in output in recent years. Figure 8 depicts harvest trends in subsistence salmon caught along the lower Yukon River, for which there is fairly uniform information for about 20 years. It demonstrates that king harvests fluctuate from year to year primarily due to run strength and catch conditions, and that five-year averages seem to be increasing slightly. Five-year averages of chum harvests seem to show a decline over time, attributable in part to the decreased use dog teams in the area.

Domestic Mode of Production

A fourth important characteristic of subsistence-based systems is that fishing and hunting activities primarily occur within kinship units. Figure 9 illustrates a fishing group at Alakanuk, composed of two households

allied for the purpose of taking salmon. The triangles are men, the circles women, and the vertical lines are birth and descent relationships. In this work group, the father and son-in-law fished and the mother and married daughter processed the catch by air-drying and smoking, a relatively labor-intensive processing method. The production group pooled labor and capital, and the proceeds were commonly held by the two households in a food cache at the parental household. Figure 10 shows that kinship based production groups can be considerably more complex. This group is composed of six households from two villages, using five tents and three smokehouses.

In subsistence-based economies, the major economic firms are these domestic groups. Production capital, labor, and community use-areas are controlled or accessed by these kinship groups. Production levels are determined by the needs of the family group, which are typically at levels below production capacity. This contrasts markedly with the social organization of production in industrial-capital economies where production primarily occurs in firms separate from the family, and production is directed toward market sale and accumulated profit.

Distribution and Exchange Networks

A fifth characteristic of subsistence-based socioeconomic systems is the presence of extensive non-commercial distribution and exchange networks. Fish and game are shared, distributed, and exchanged in non-commercial transactions in large quantities. Figures 11 and 12 illustrate the distribution of a moose taken by hunters in Chuathbaluk on the middle Kuskokwim River and Tyonek, respectively. The Chuathbaluk hunter's moose was divided among five households; the Tyonek hunter's moose was used by eight households. Consequently, even though a household may not directly

participate in the harvesting and processing of a resource, the household may use the resources taken by someone else.

Traditional Systems of Land Use and Occupancy

A sixth characteristic of a subsistence-based socioeconomic system is the presence of traditional systems of land use and occupancy. The locations of fishing and hunting activities by residents of a community are influenced by systems of non-codified customary laws defining rights of access. Trap lines, fish camps, set net sites, big game areas, and other areas are recognized as the use areas of particular kinship groups and communities. The Division of Subsistence is beginning to map some of these use areas, and to document some of the customary laws regulating use. Figure 13 depicts the locations fishcamps along the lower Yukon River. It illustrates that camps tend to cluster according to the resident's village of origin. Figure 14 depicts the areas used for fishing and hunting by the community of Tyonek. The systems of land use represent a sociopolitical organization of fishing and hunting whereby access to resources is defined and control exerted.

Mixed Economy

A final characteristic of subsistence-based economies is that food production for subsistence use is mixed with commercial and wage employment in the community. The economy is "mixed" because the communities have subsistence and commercial sectors. In the Yukon Delta area, money is gained through the commercial sale of fish and furs, wage employment, and cottage crafts. Incomes are relatively low, as commercial harvests are finite and wage-paying jobs are few, highly seasonal, low-paying, and part-time.

Figures 14 and 15 depict monetary incomes for three Lower Yukon communities and for Tyonek. Typically, communities with subsistence-based economies cannot function solely on monetary earnings. Consequently, money is invested in the equipment for fishing and hunting for subsistence uses, the most reliable sector of the economy.

There are complex interrelationships between type of commercial or wage employment and resource use. In many communities, the commercial sector and subsistence sector are mutually supportive. Money gained through the commercial sale of fish, wage employment, trapping, and crafts is invested in a way which supports success in the subsistence sector. Research in the Division of Subsistence continues to explore the interaction of monetary and subsistence activities in these mixed economies.

Summary

To summarize, a "subsistence-based socioeconomic system" seems to be a type of socioeconomic system in the State. It is a food extractive economic system and has several identifying characteristics of resource use. Subsistence-based socioeconomic systems are characterized by a complex seasonal round, high participation rates, high production outputs, a domestic mode of production, extensive non-market distribution and exchange networks, traditional systems of land use and occupancy, and mutually supportive subsistence and commercial-wage sectors.

Clearly, in certain communities, fishing and hunting for local use are important components of the social life and economy. In these communities, the community's economy and society are organized around fishing and hunting for subsistence uses. Understanding the form and functioning of this type of Alaskan socioeconomic system is one of the major directives of the Division of Subsistence.



Figure 1

CASE COMMUNITY LOCATIONS

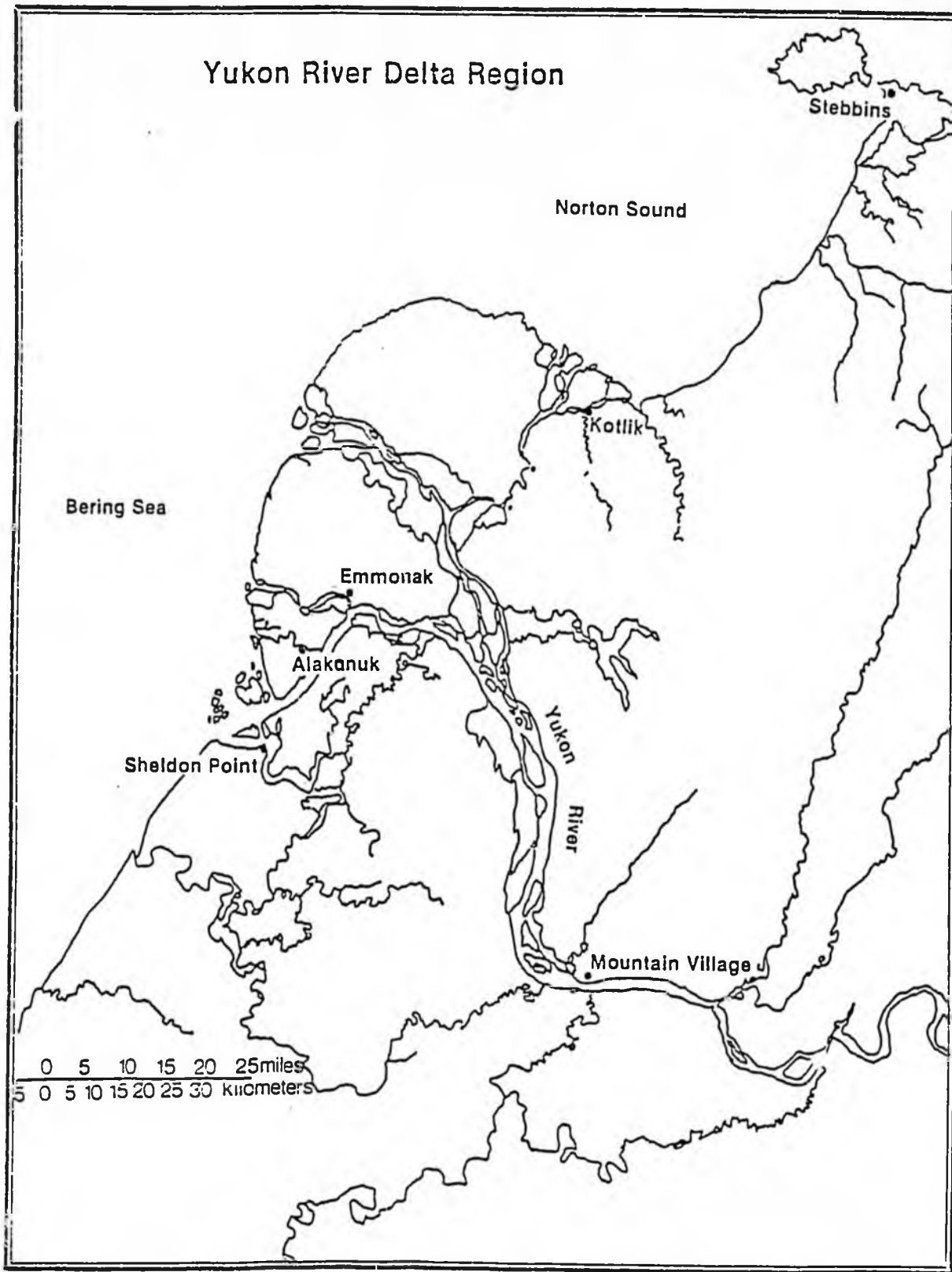


Figure 2

From Robert J. Wolfe (1984) Commercial Fishing in the Hunting-Gathering Economy of a Yukon River Yup'ik Society. Etudes/Inuit/Studies.

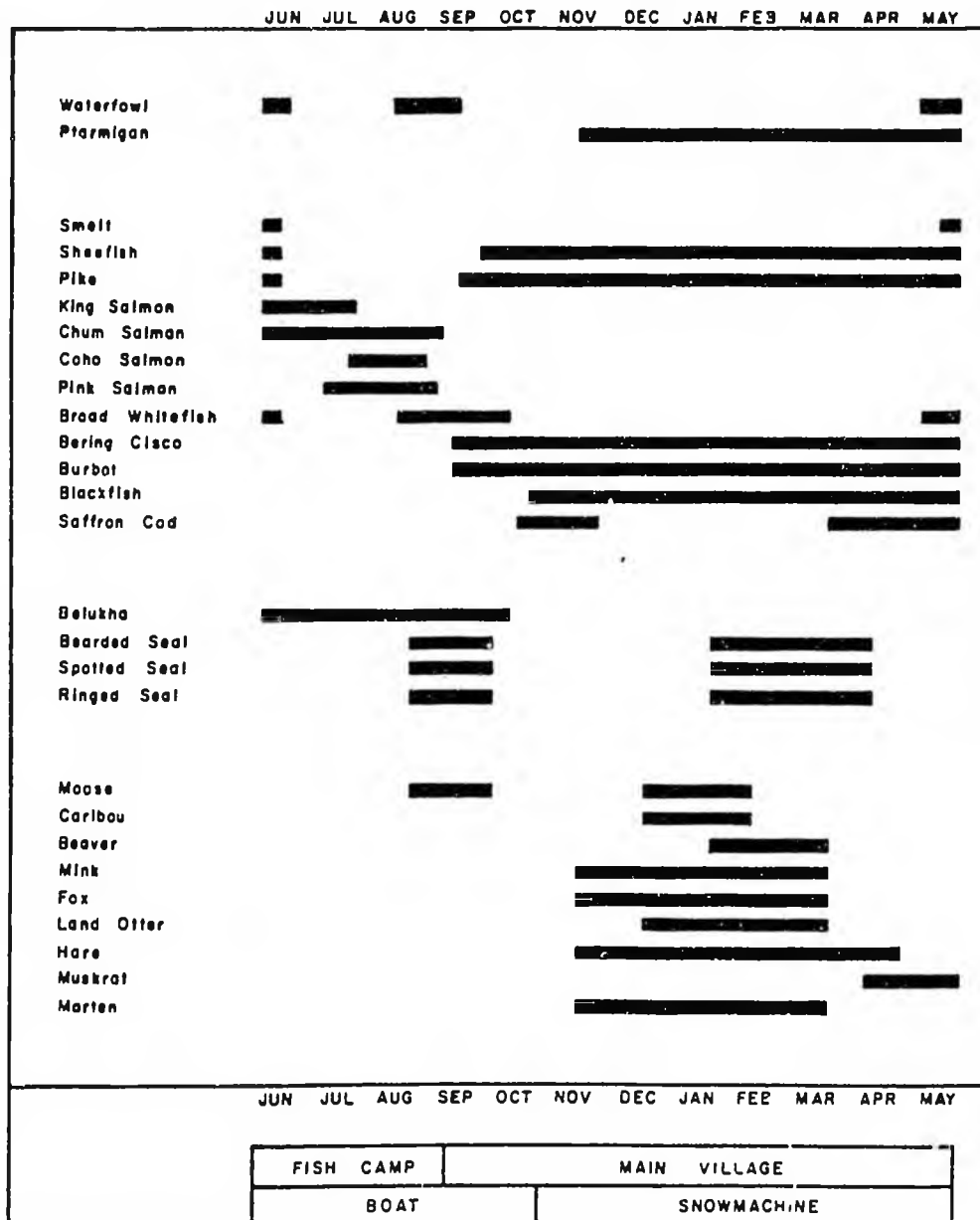
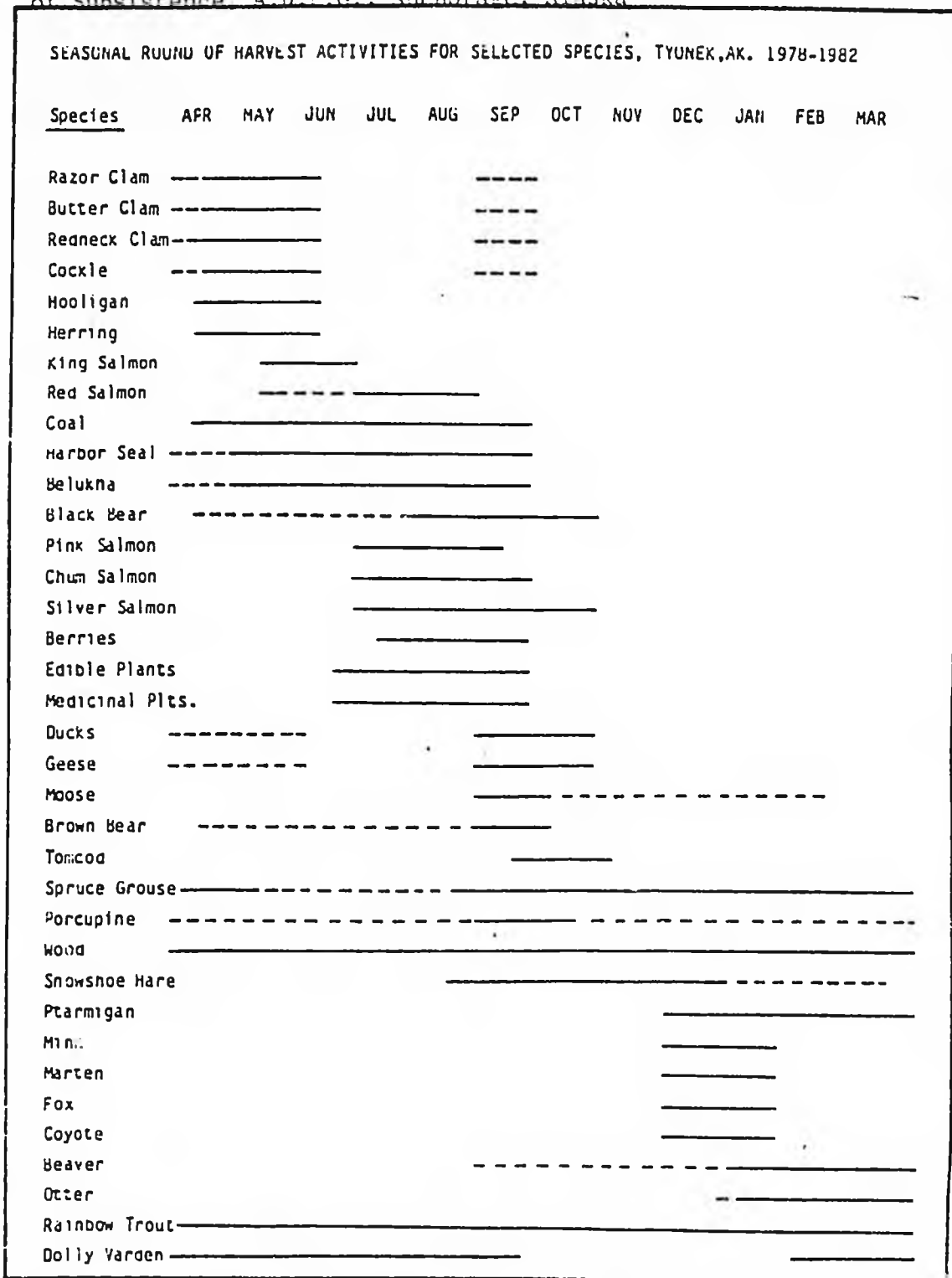


Fig. 4. Seasonal Round of Subsistence Harvests, Lower Yukon River, 1981

From James A. Fall, Daniel J. Foster, and Ronald T. Stanek (1983)
 The Use of Moose and Other Wild Resources in the Tyonek and Upper
 Yentna Areas: A Background Report. Technical Paper No.74, Division
 of Subsistence, A.D.F.G., Anchorage, Alaska



Key: _____ Usual period of harvest effort; ----- Occasional period of harvest effort.

Figure 3. Seasonal round of harvest activities by Tyonek residents (Foster 1982b:34)

Figure 4

HOUSEHOLD PARTICIPATION IN HARVEST ACTIVITIES DURING 1973, 1980, and 1981,
NONDALTON

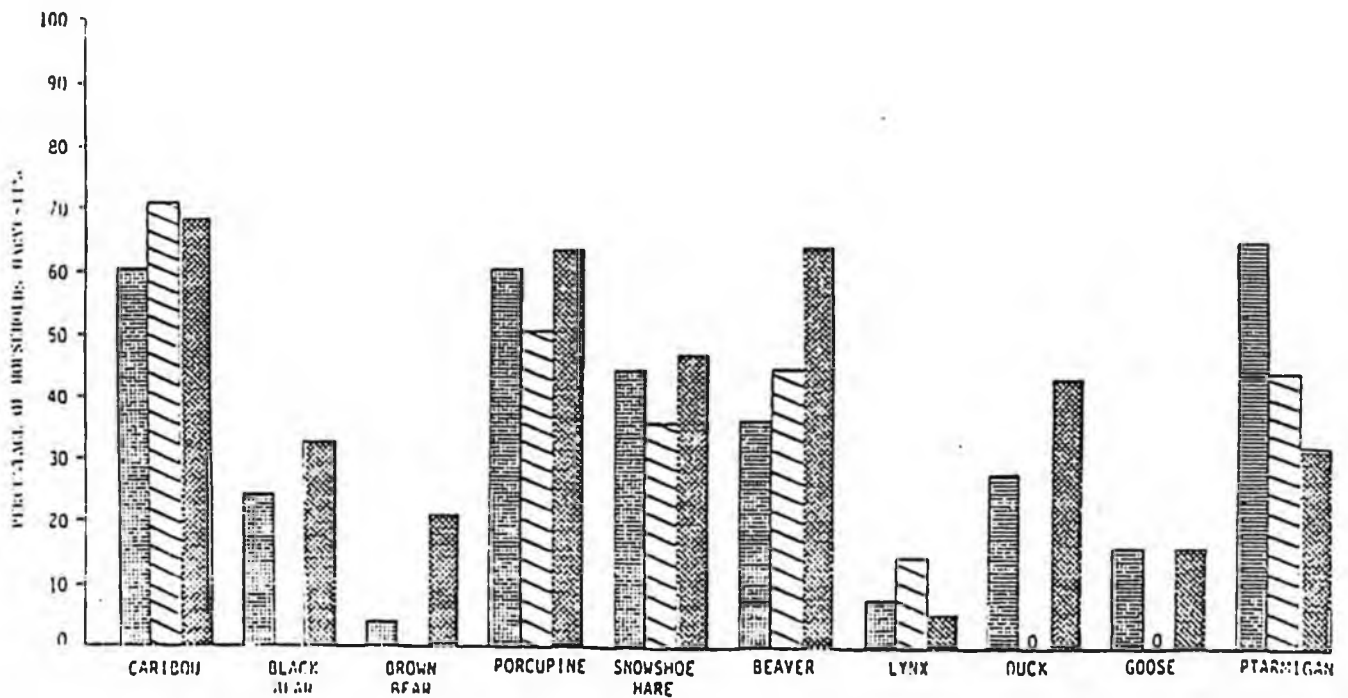
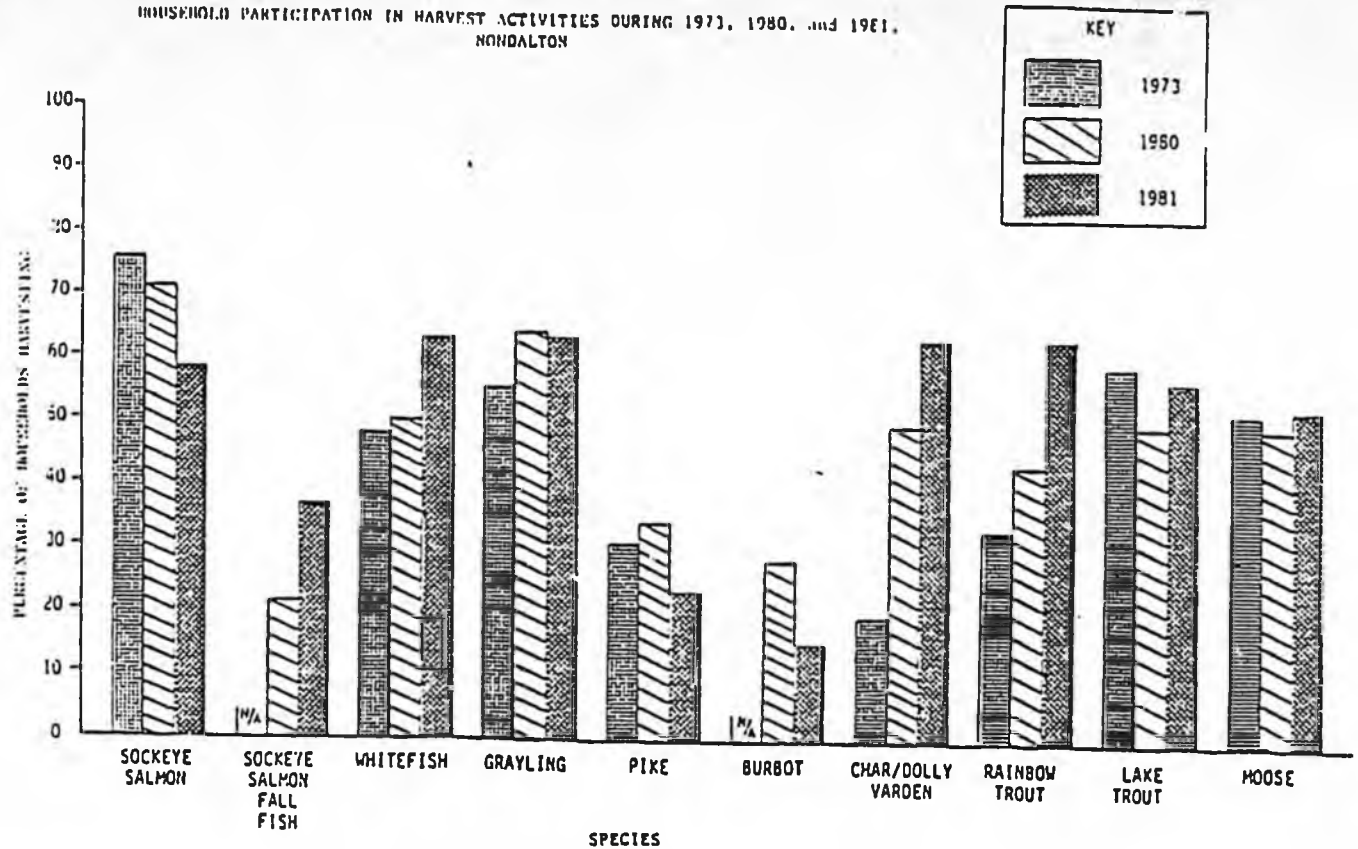


Figure 12. Household Participation in Harvest Activities During 1973, 1980, and 1981, Nondalton

From Steven R. Behnke (1982) Wildlife Utilization and the Economy of Nondalton. Technical Report No.47, Division of Subsistence, A.D.F.G., Dillingham, Alaska..

From James A. Fall, Danieal J. Foster, Ronald T. Stanek (1983) The Use of Moose and Other Wild Resources in the Tyonek and Upper Yentna Areas: a Background Report. Technical Paper 74, Division of Subsistence, A.D.F.G. Anchorage, Alaska.

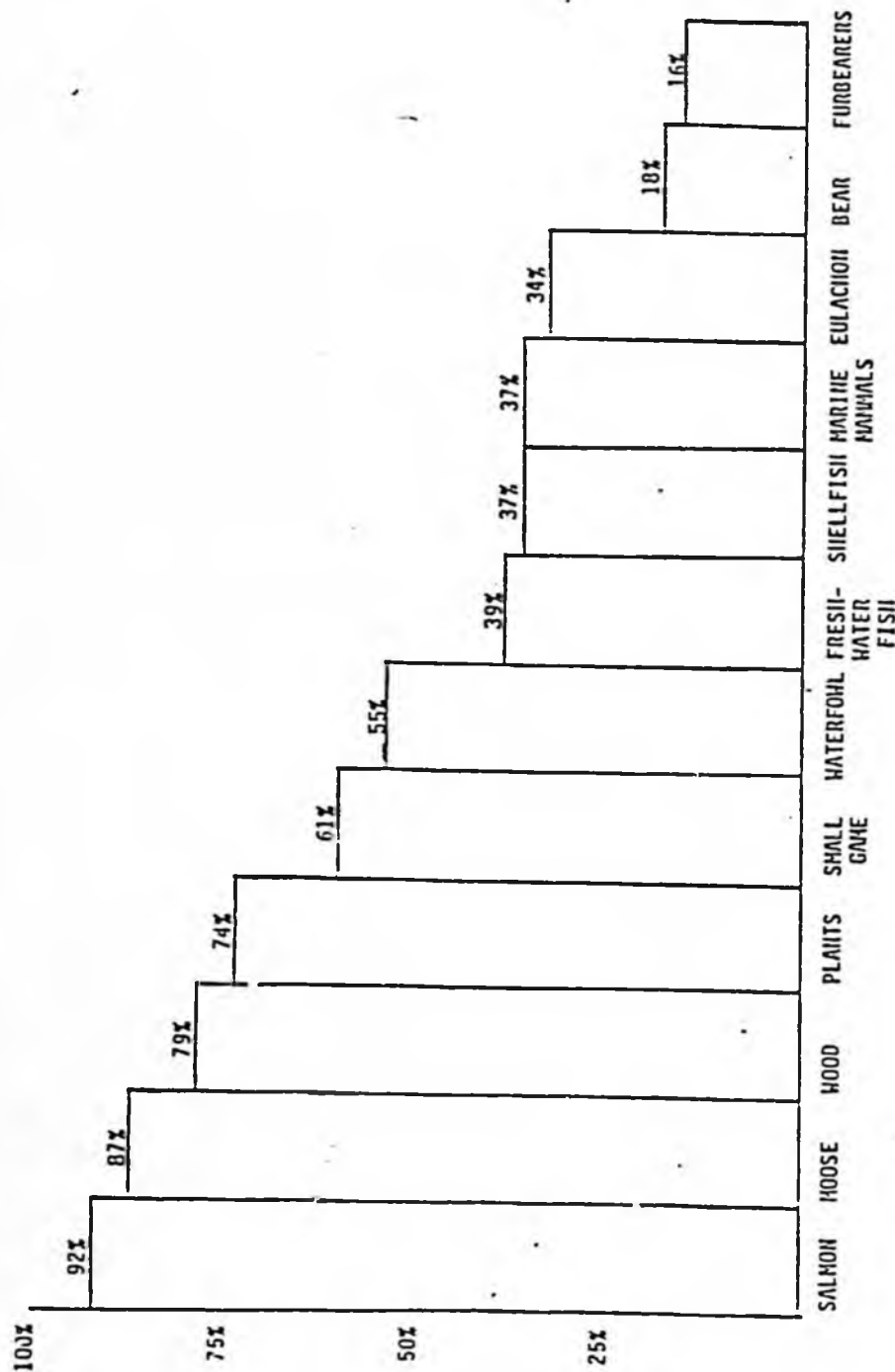


Figure 38. Tyonek Household Participation in the Harvest of Wild Resources, 1978-1982. N=38.

From Robert J. Wolfe (1983)
 Resource Diversification and Coastal-
 Riverine Habitats: The Economy of the
 Yukon Delta Eskimo. Draft report,
Etudes/Inuit/Studies, November 1984

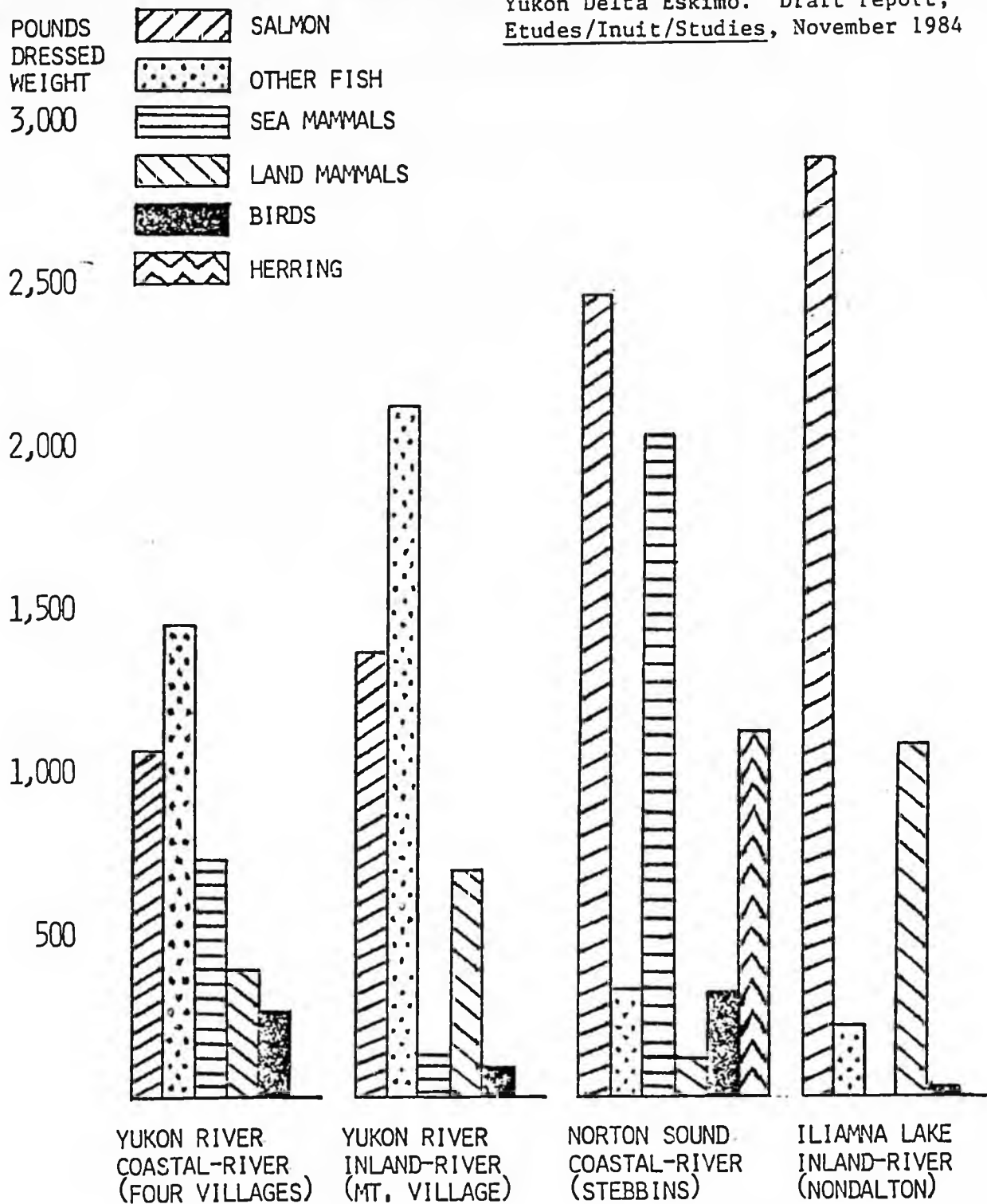


FIGURE 4. MEAN HOUSEHOLD HARVESTS IN POUNDS DRESSED WEIGHT DURING 1980, BY COMMUNITY

From Robert J. Wolfe (1984) Commercial Fishing in the Hunting-Gathering Economy of a Yukon River Yup'ik Society. Etudes/Inuit/Studies

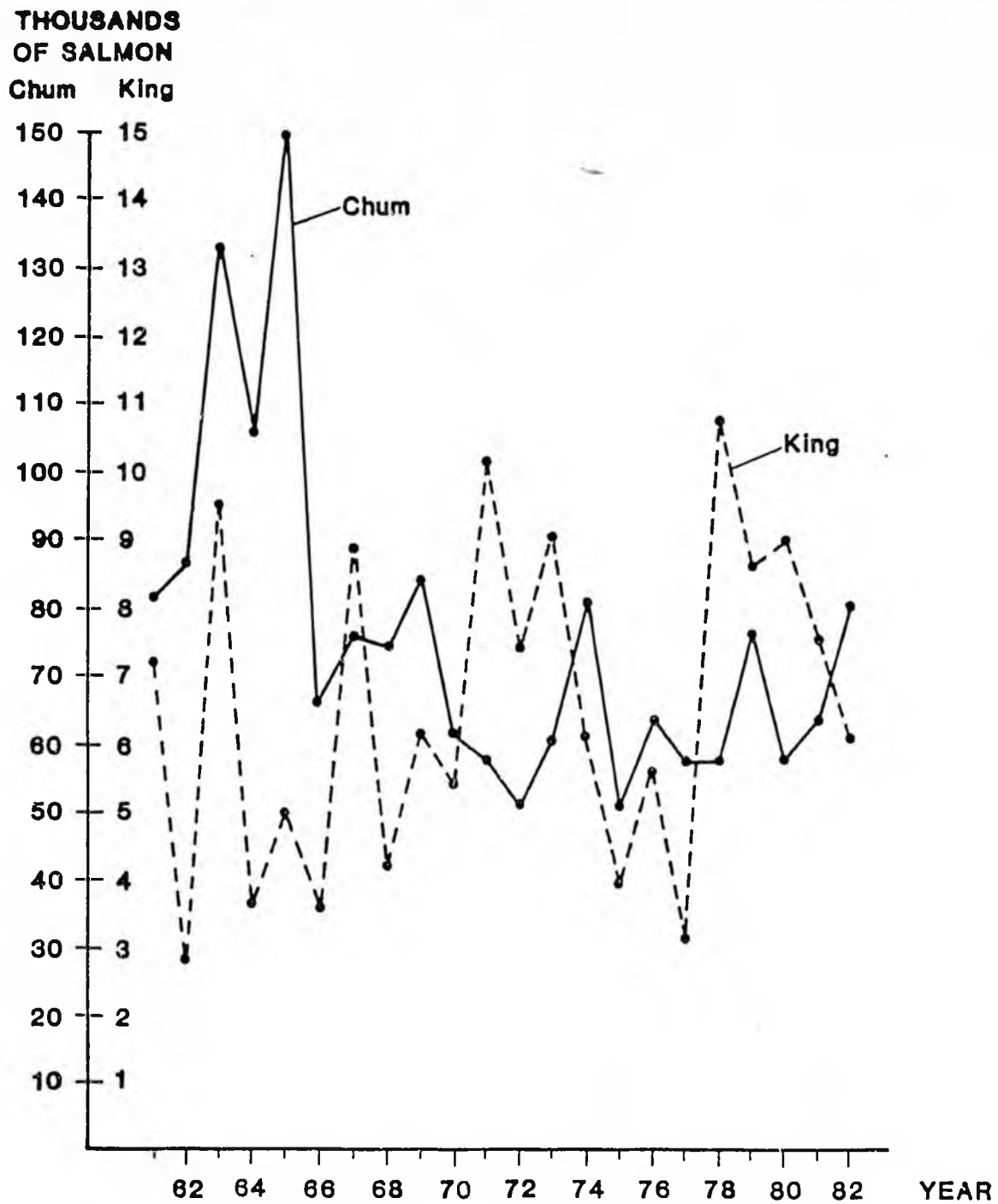


Fig. 6. Subsistence Salmon Catches, Lower Yukon River, 1961-1982

From Robert J. Wolfe (1981) Norton Sound/Yukon Delta Sociocultural Systems Baseline Analysis. Technical Paper No. 59, Division of Subsistence, A.D.F.G., Juneau, Alaska.

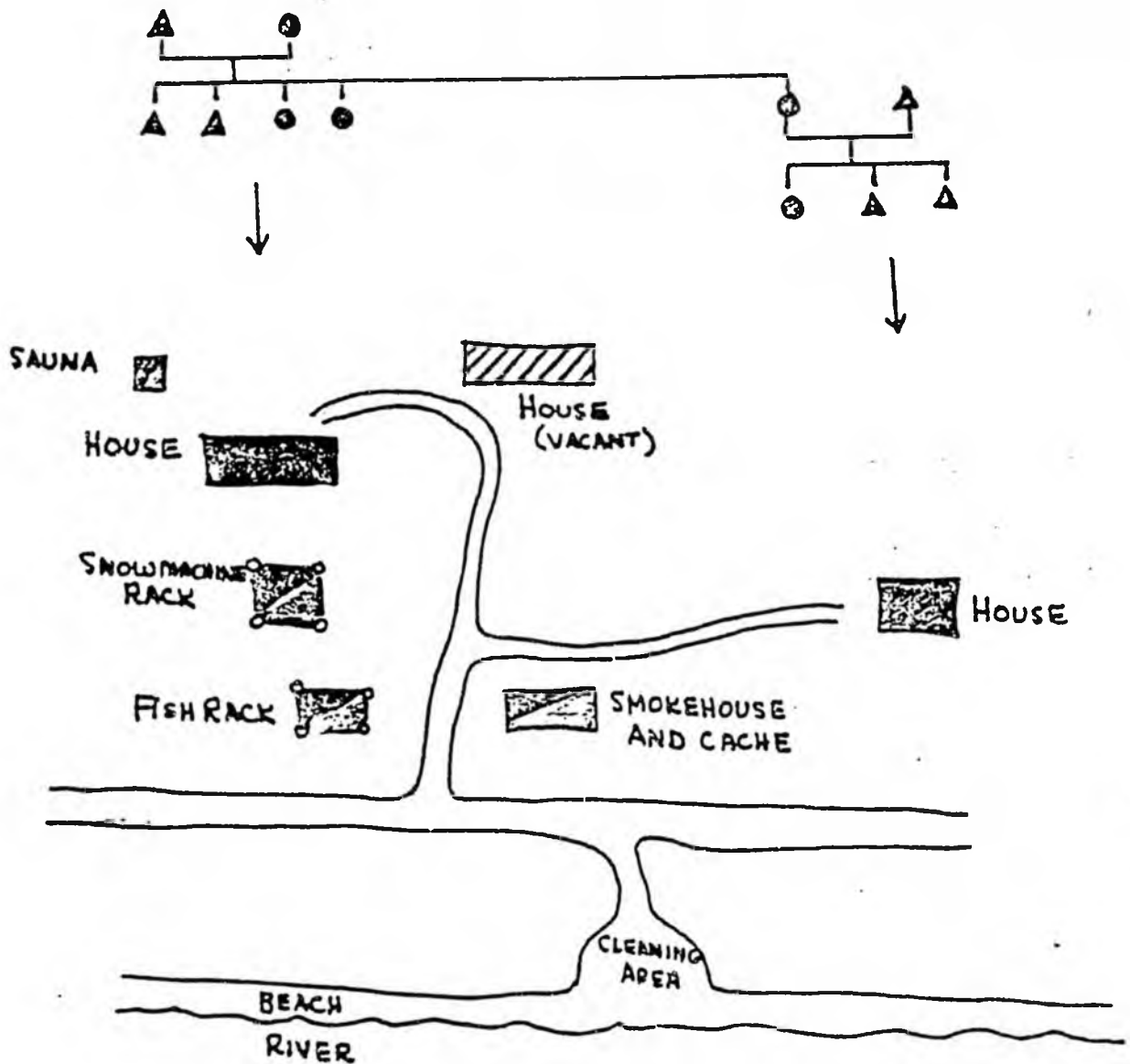


FIGURE 3. EXTENDED FAMILY COOPERATIVE GROUP AT A WINTER VILLAGE

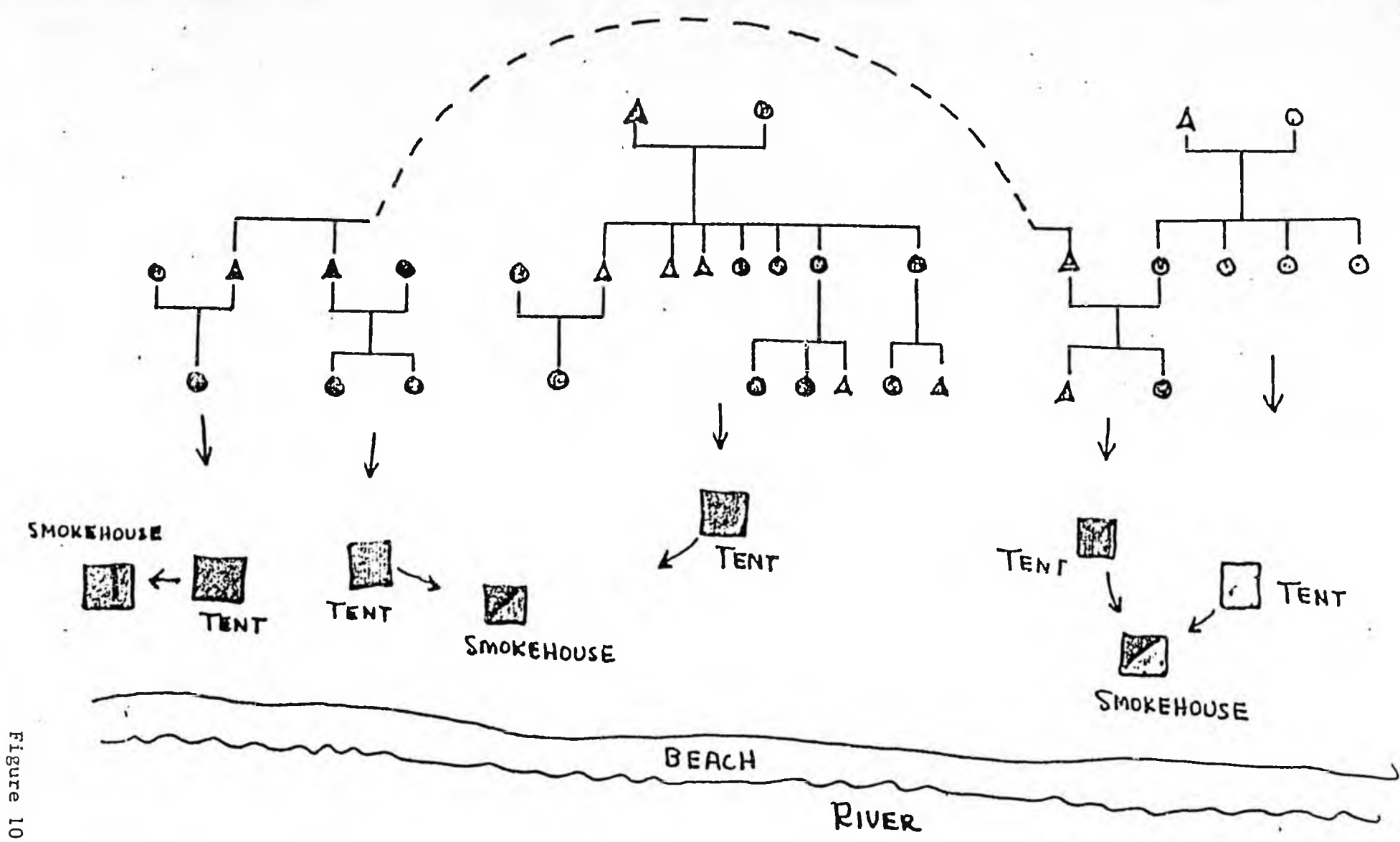


Figure 10

FIGURE 4. COOPERATIVE GROUP AT A FISHCAMP BASED ON KINSHIP AND PRINCIPLES OF ALLIANCE
 From Robert J. Wolfe (1981) Norton Sound/Yukon Delta Sociocultural Systems Baseline Analysis.
 Technical Paper No.59, Division of Subsistence, A.D.F.G., Juneau, Alaska

From Susan Charnley (1983) Moose Hunting in Two Central Kuskokwim Communities: Chuathbaluk and Sleetmute. Technical Paper No. 76, Division of Subsistence, A.D.F.G., Bethel, Alaska

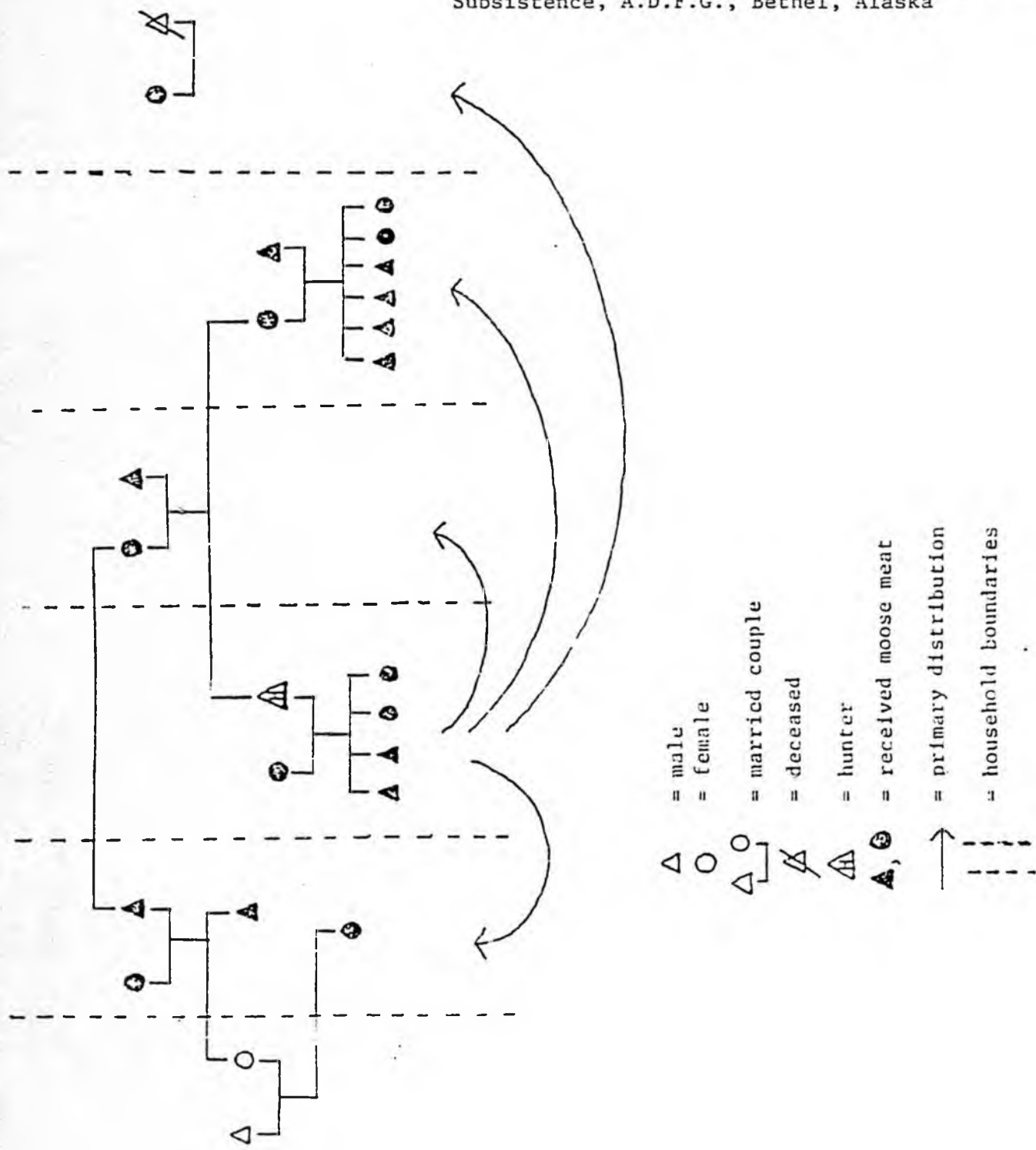


Figure 11

Fig. 9. Distribution of moose meat by a Chuathbaluk hunter.

From James A. Fall, Daniel J. Foster,
 and Ronald T. Stanek (1983) The Use of
 Moose and Other Wild Resources in the Tyonek
 and Upper Yentna Areas. Technical Paper No. 74,
 Division of Subsistence, A.D.F.G., Anchorage.

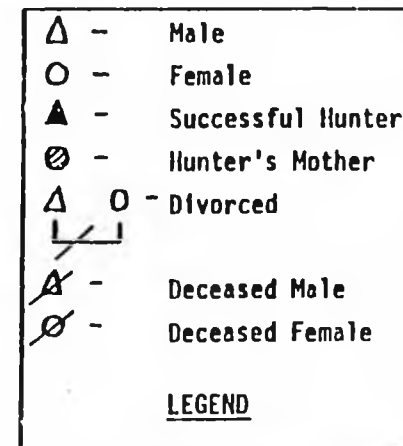
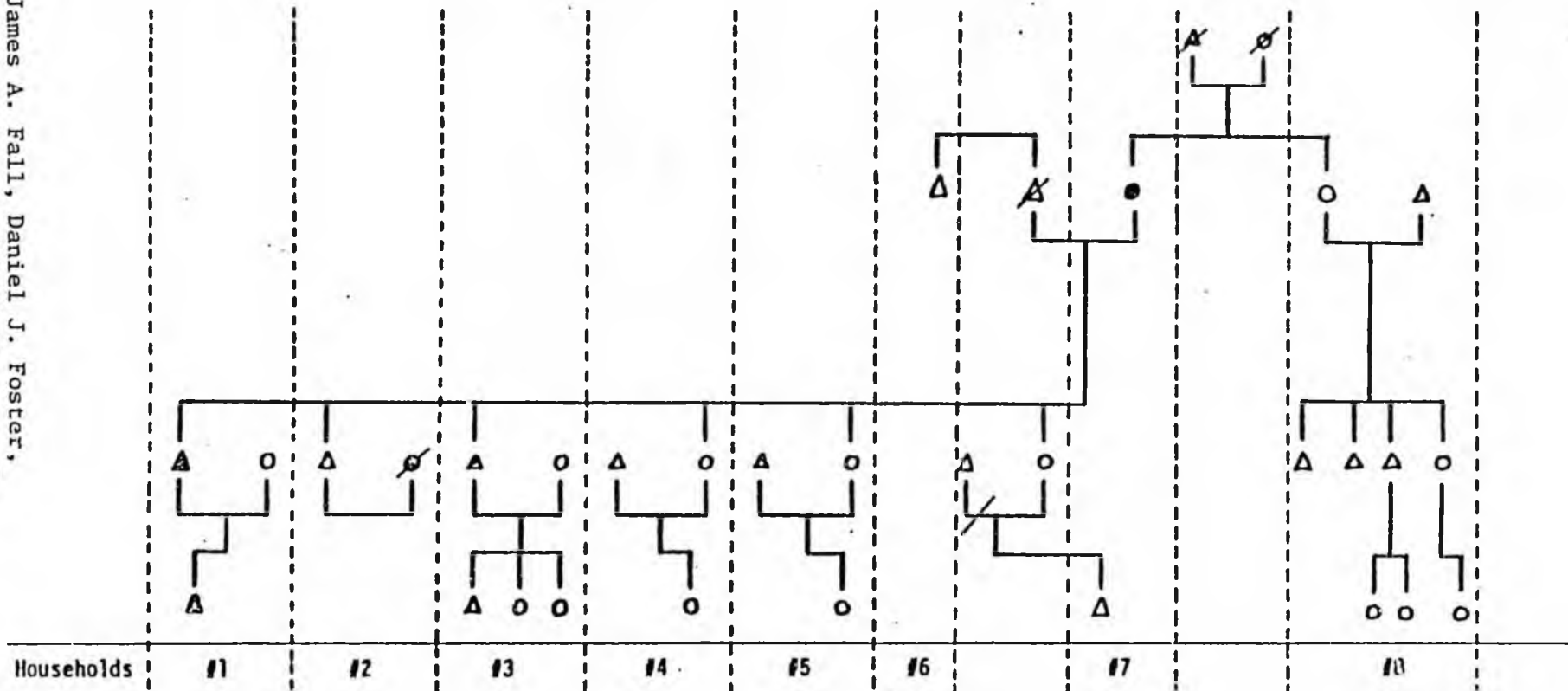


Figure 5. The distribution chart of moose meat in Case #2. Distribution to 8 households consisting of 27 dependents, only those households numbered received meat.

From Steve Behnke (1982) Wildlife Utilization and the Economy of Nondalton. Subsistence Division, Alaska Department of Fish and Game, Anchorage.

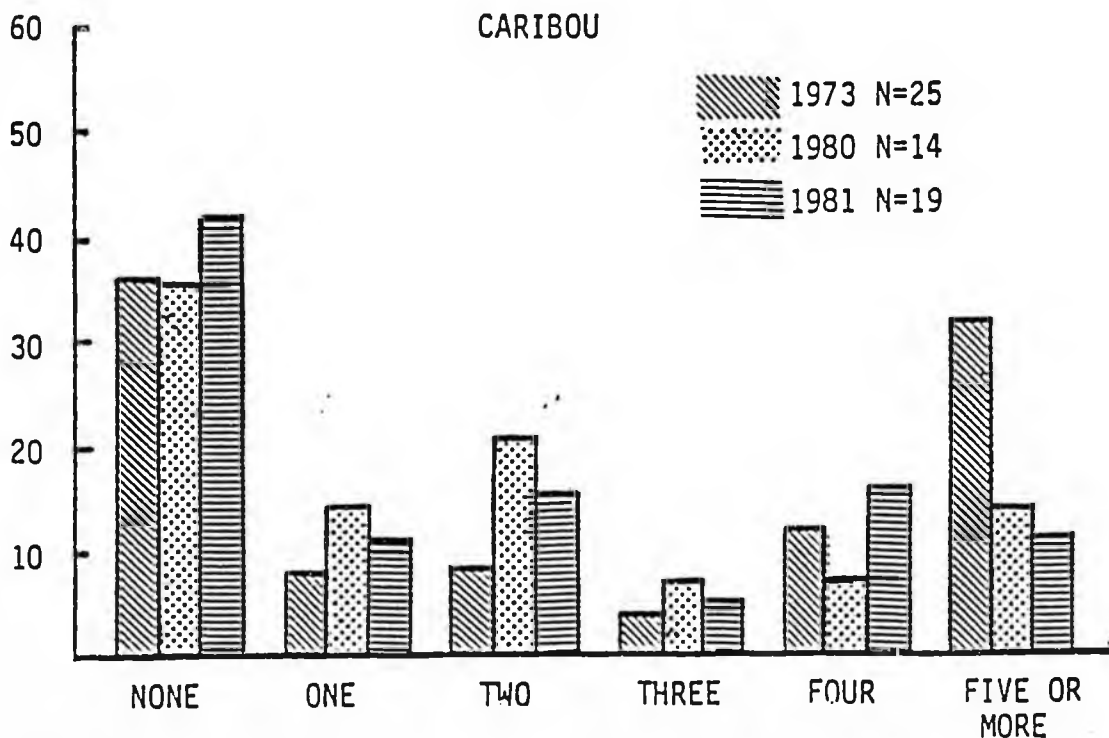
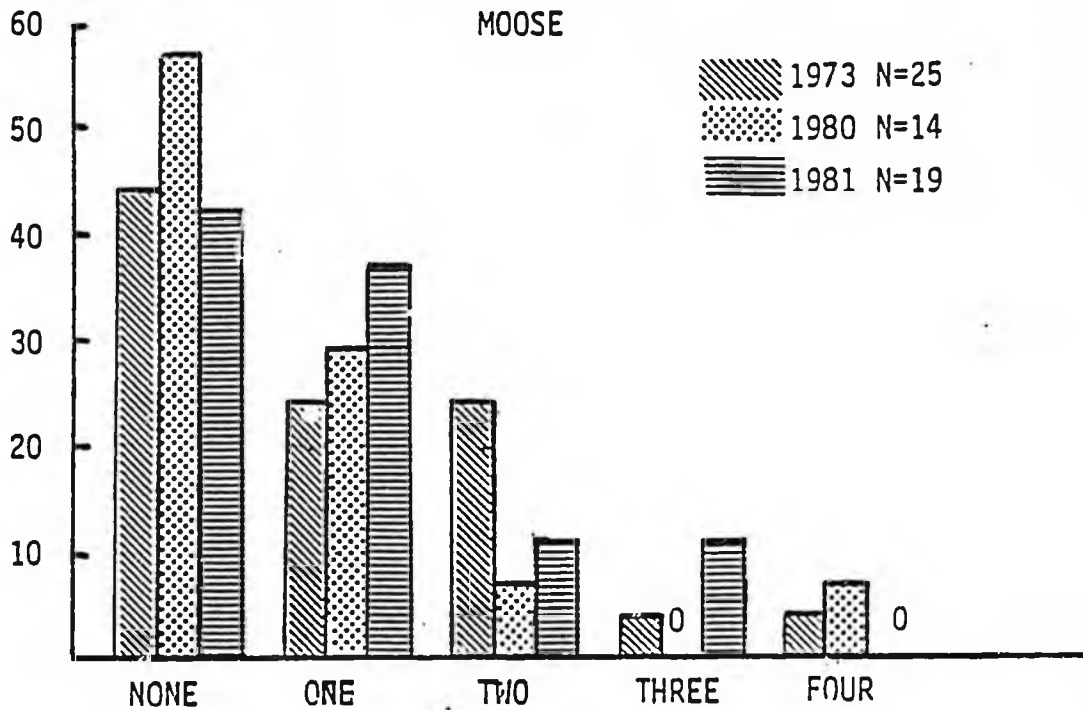


Figure 8. Percentage of Nondalton Households Harvesting Moose and Caribou

From Robert J. Wolfe (1981) Norton Sound/
Yukon Delta Sociocultural Systems Baseline
Analysis. Technical Paper 59, Division of
Subsistence, Juneau.

NORTON SOUND

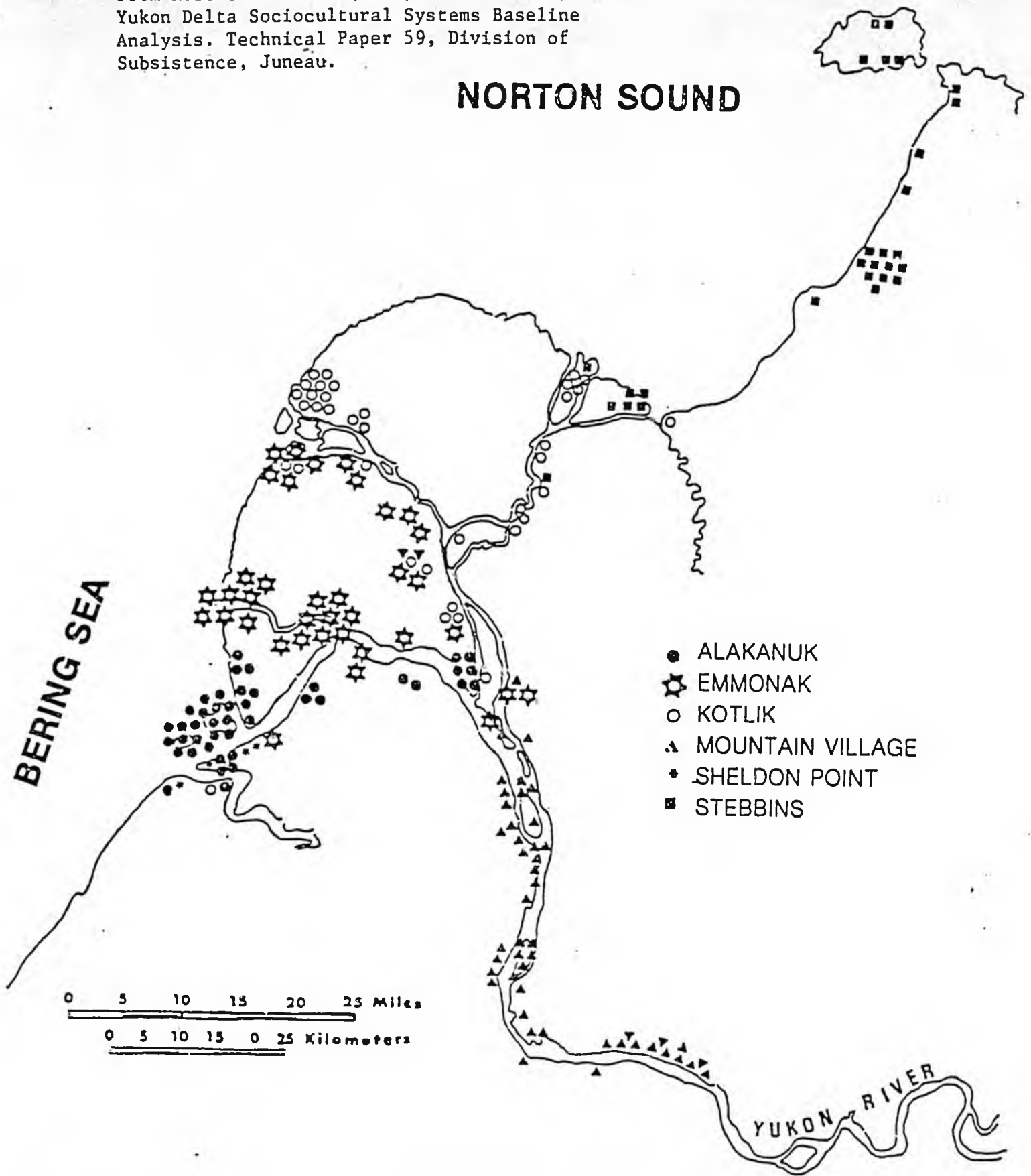


Figure 4: Approximate locations of summer fishcamps of households from Alakanuk, Emmonak, Kotlik, Mountain Village, Sheldon Point, and Stebbins during 1981

From James T. Fall, Daniel J. Foster, and Ronald T. Stanek
 (1983) The Use of Moose and Other Wild Resources in the Tyonek
 and Upper Yentna Areas: A Background Report. Technical Paper NO. 74,
 Division of Subsistence, A.D.F.G., Anchorage, Alaska

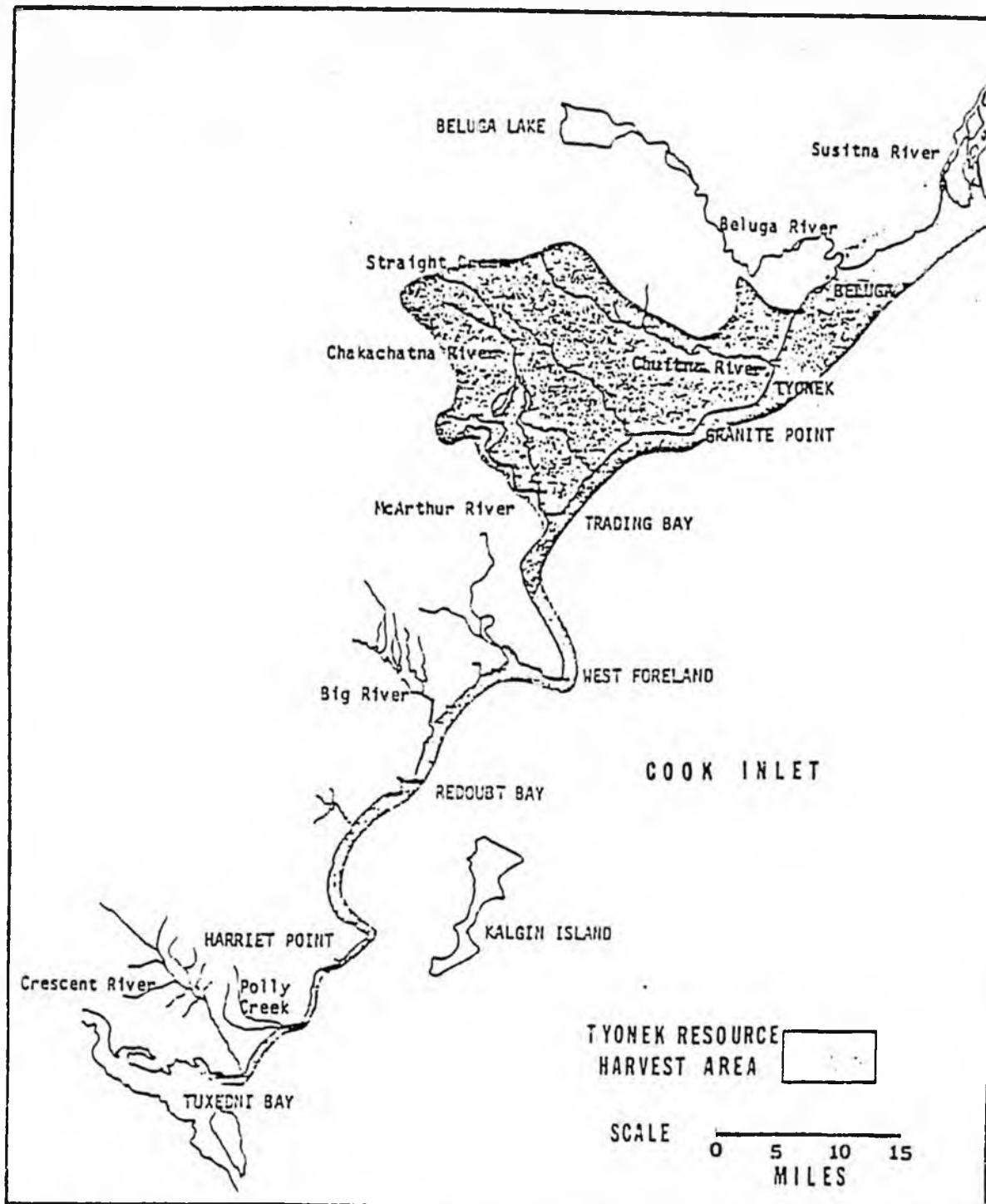


Figure 2. Geographic area of resource harvest used by Tyonek residents 1978 to 1982

Figure 14

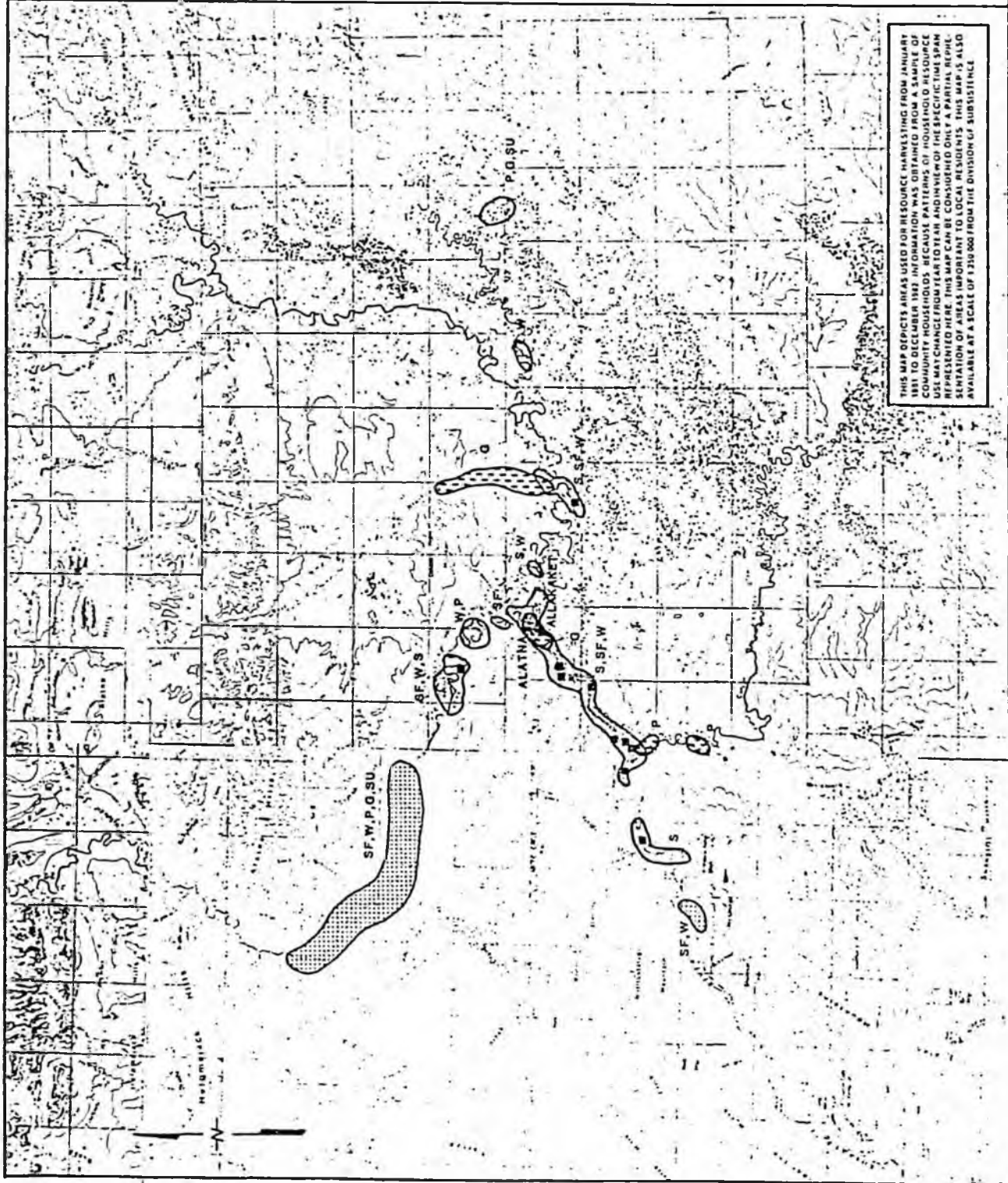


FIG. AREAS USED FOR FISHING BY RESIDENTS OF ALLAKAKET AND ALATNA, JANUARY 1981 - DECEMBER 1982.

- FISH CAMP
- ▨ SEINE NET AREA
- SET NET AREA
- ▤ HOOK AND LINE AREA
- G-GRAYLING
- P-PIKE
- SF-SHEEFISH
- S-SALMON
- SU-SUCKERS
- T-TROUT
- W-WHITEFISH
- S-SALMON

INFORMATION COLLECTED FOR 24 HOUSEHOLDS BY JIM MARCOTTI, HOMER TOBIK, AND ART WILLIAMS SR. IN JULY, 1983

SEE "CONTEMPORARY RESOURCE USE PATTERNS IN THE UPPER KOTZEBUK REGION, BY JAMES H. MARCOTTI AND TERRY L. HAYLES, DIVISION OF SUBSISTENCE TECHNICAL PAPER NO. 13 FOR FURTHER EXPLANATION

BASE MAP ADAPTED FROM USGS HUGHES AND BETTLES 1:250,000 QUADS



LOCATION INDEX

SURVEY	WILKINA
PAGE	WILKINA
HUGHES	BETTLES
MELDING	TARANA



ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF SUBSISTENCE
1984

THIS MAP DEPICTS AREAS USED FOR RESOURCE HARVESTING FROM JANUARY 1981 TO DECEMBER 1982. INFORMATION WAS OBTAINED FROM A SAMPLE OF HOUSEHOLDS IN ALLAKAKET AND ALATNA. THIS INFORMATION WAS CORRELATED TO THE HOUSEHOLD INFORMATION FROM THE HOUSEHOLD SURVEY. THE INFORMATION IS REPRESENTED HERE. THIS MAP CAN BE CONSIDERED ONLY A PARTIAL REPRESENTATION OF AREAS IMPORTANT TO LOCAL RESIDENTS. THIS MAP IS ALSO AVAILABLE AT A SCALE OF 1:250,000 FROM THE DIVISION OF SUBSISTENCE

FIGURE 14A

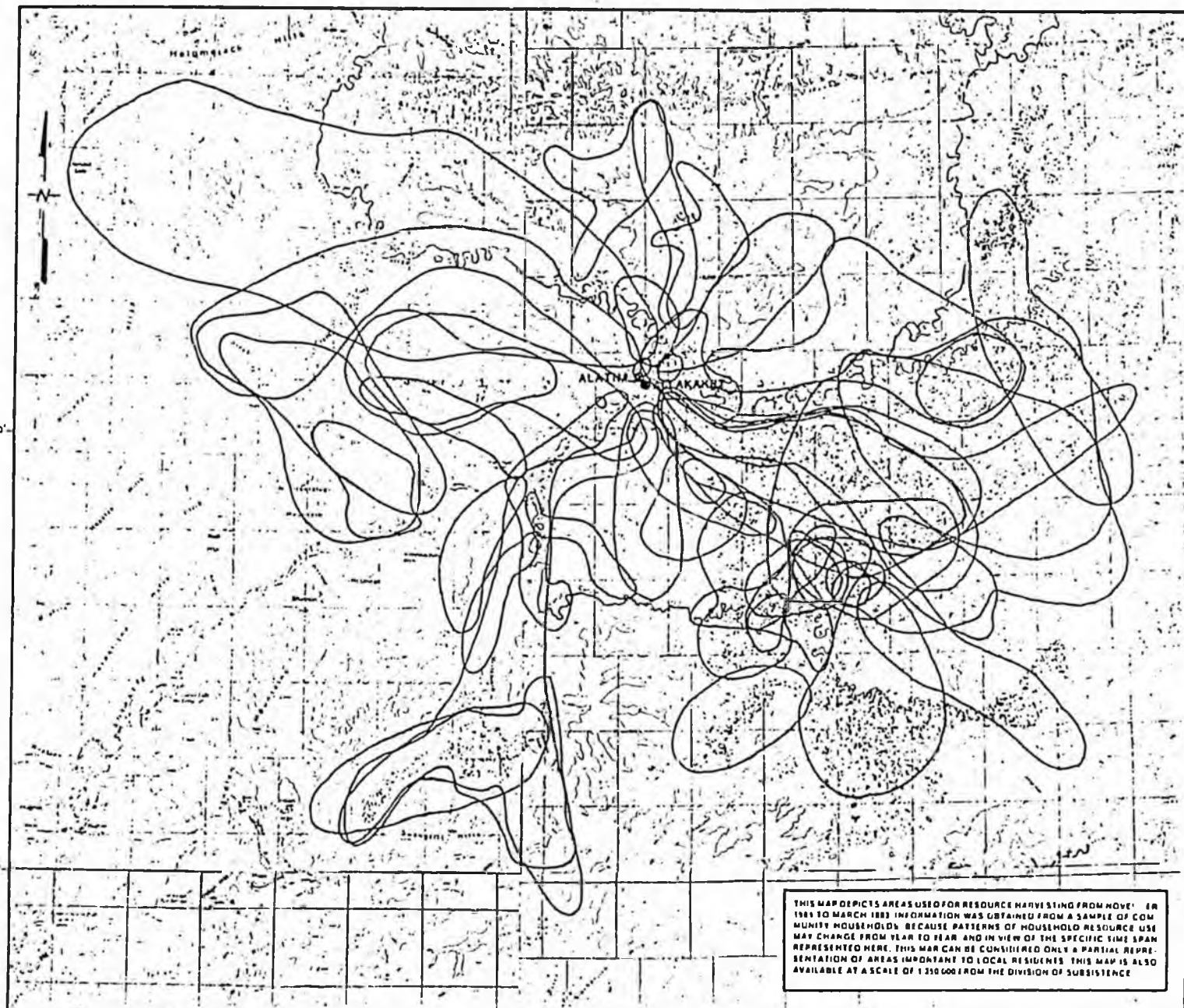


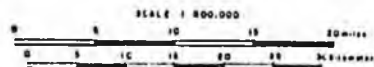
FIG. AREAS USED FOR FURBEARER TRAPPING BY RESIDENTS OF ALLAKAKET AND ALATNA, NOVEMBER 1981 - MARCH 1983

○ TRAPPING AREAS USED BY COMMUNITY HOUSEHOLDS. (TRAPLINES ARE LOCATED WITHIN THESE AREAS.)

INFORMATION COLLECTED FOR 30 HOUSEHOLDS BY JIM MARCOTTE, HOMER TOBUA, AND ART WILLIAMS, SR. IN JULY, 1982

SEE "CONTEMPORARY RESOURCE USE PATTERNS IN THE UPPER KOTURUK REGION" BY JAMES R. MARCOTTE AND TERRY L. HAYNES DIVISION OF SUBSISTENCE TECHNICAL PAPER NO. 81 FOR FURTHER EXPLANATION

BASE MAP ADAPTED FROM USGS HUGHES AND BETTLES 1:250,000 QUADS



LOCATION INDEX

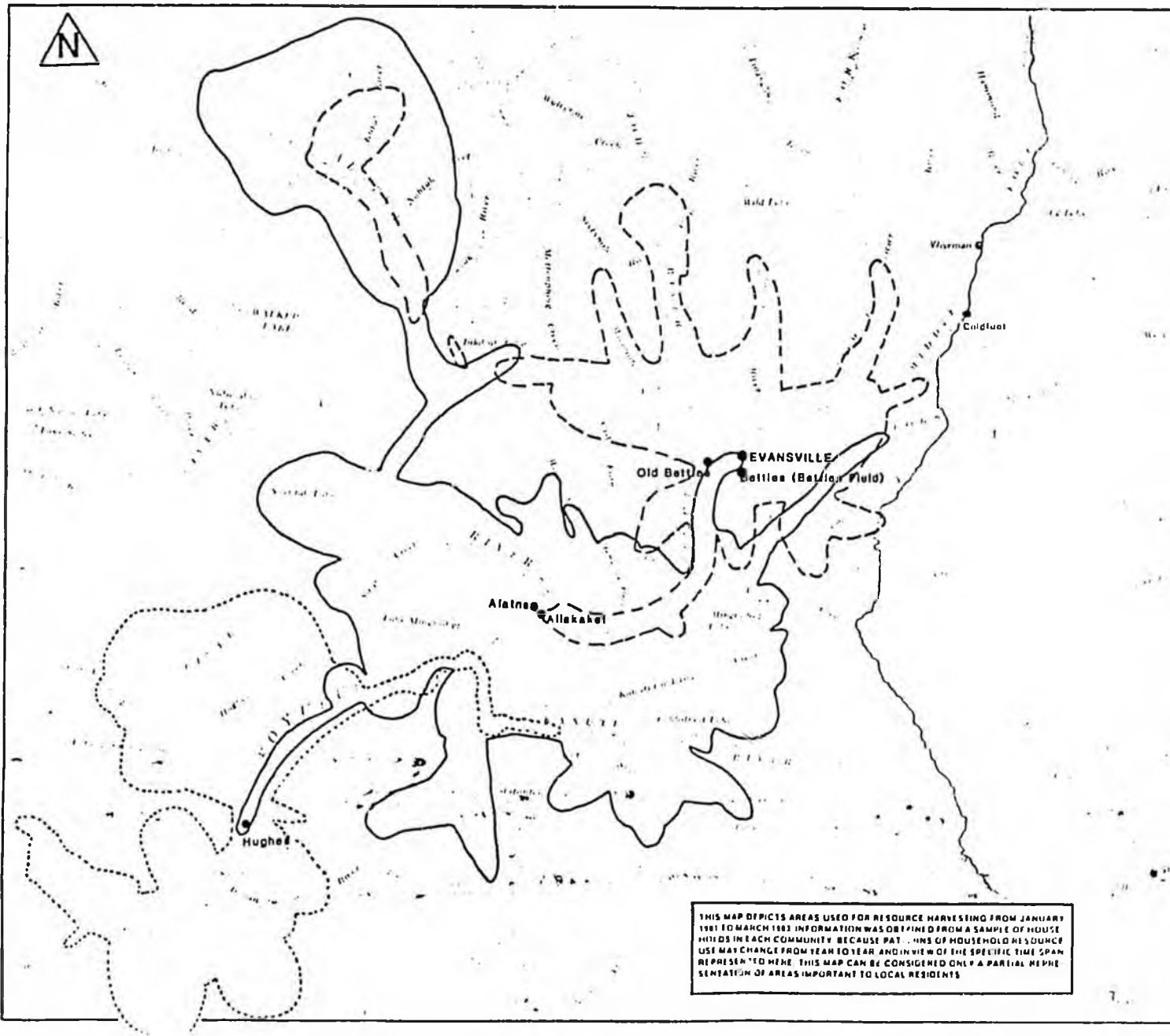
SURVEY PASS	WISSEMAN
HUMBER	BETTLES
DELBERT	TANAKA



ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF SUBSISTENCE

1984

THIS MAP DEPICTS AREAS USED FOR RESOURCE HARVESTING FROM NOVEMBER 1981 TO MARCH 1983. INFORMATION WAS OBTAINED FROM A SAMPLE OF COMMUNITY HOUSEHOLDS. BECAUSE PATTERNS OF HOUSEHOLD RESOURCE USE MAY CHANGE FROM YEAR TO YEAR AND IN VIEW OF THE SPECIFIC TIME SPAN REPRESENTED HERE, THIS MAP CAN BE CONSIDERED ONLY A PARTIAL REPRESENTATION OF AREAS IMPORTANT TO LOCAL RESIDENTS. THIS MAP IS ALSO AVAILABLE AT A SCALE OF 1:250,000 FROM THE DIVISION OF SUBSISTENCE.



AREAS USED FOR FISHING, HUNTING, TRAPPING, AND GATHERING BY RESIDENTS OF BETTLES, EVANSVILLE, ALLAKAKET, ALATNA, AND HUGHES, JANUARY 1981 THROUGH DECEMBER 1982.

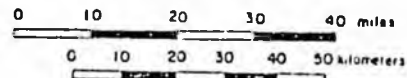
- BETTLES AND EVANSVILLE RESOURCE USE AREA
- ALLAKAKET AND ALATNA RESOURCE USE AREA
- HUGHES RESOURCE USE AREA

*EXCEPT FOR TRAPPING NOVEMBER 1981 THROUGH MARCH 1982

SEE 'CONTEMPORARY RESOURCE USE PATTERNS IN THE UPPER KOTZEBUK REGION' BY JAMES R. MARCOTTE AND TERRY L. HAYNES DIVISION OF SUBSISTENCE TECHNICAL PAPER NO. 21 FOR FURTHER EXPLANATION

BASE MAP ADAPTED FROM ALASKA 1:1,000,000 BASE MAP SERIES. COPYRIGHT ARCTIC ENVIRONMENTAL INFORMATION AND DATA CENTER UNIVERSITY OF ALASKA 1982

SCALE 1:1,000,000



THIS MAP DEPICTS AREAS USED FOR RESOURCE HARVESTING FROM JANUARY 1981 TO MARCH 1982. INFORMATION WAS OBTAINED FROM A SAMPLE OF HOUSEHOLDS IN EACH COMMUNITY. BECAUSE PATTERNS OF HOUSEHOLD RESOURCE USE MAY CHANGE FROM YEAR TO YEAR AND IN VIEW OF THE SPECIFIC TIME SPAN REPRESENTED HERE, THIS MAP CAN BE CONSIDERED ONLY A PARTIAL REPRESENTATION OF AREAS IMPORTANT TO LOCAL RESIDENTS.

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF SUBSISTENCE

FIGURE 14C

TABLE 5. MEAN SURSISTENCE HARVESTS BY MAJOR INCOME SOURCE*

Household's Major Income Sources	Mean Household Size	Mean Household Income	Mean Subsistence Harvest per Household	Mean Subsistence Harvest per Household Member
Wage Employment and Commercial Fishing (n=49)	6.1	\$23,362	5,274 lbs.	870 lbs.
Wage Employment Only (n=10)	4.4	19,025	4,608	1,047
Commercial Fishing Only (n=18)	6.3	16,926	3,920	624
Transfer Payments (n=11)	6.3	6,468	2,741	435

*From a sample of 88 households for the period June 1980 through May 1981
 (Data from the communities of Alakanuk, Emmonak, Kotlik, Sheldon Point, Mountain Village, and Stebbins in the Yukon River Delta vicinity.)

From Robert J. Wolfe (1984) Commercial Fishing in the Hunting-Gathering Economy of a Yukon River Yup'ik Society. Draft submitted to Etudes/Inuit/Studies.

From Robert J. Wolfe (1983) The Lower Yukon River Delta: Resource Uses in Six Small Communities of Western Alaska. In R.J. Wolfe and L.J. Ellanna (comp) Resource Use and Socioeconomic Systems: Case Studies of Fishing and Hunting in Alaskan Communities. Technical Paper No. 61, Division of Subsistence, A.D.F.G., Juneau.

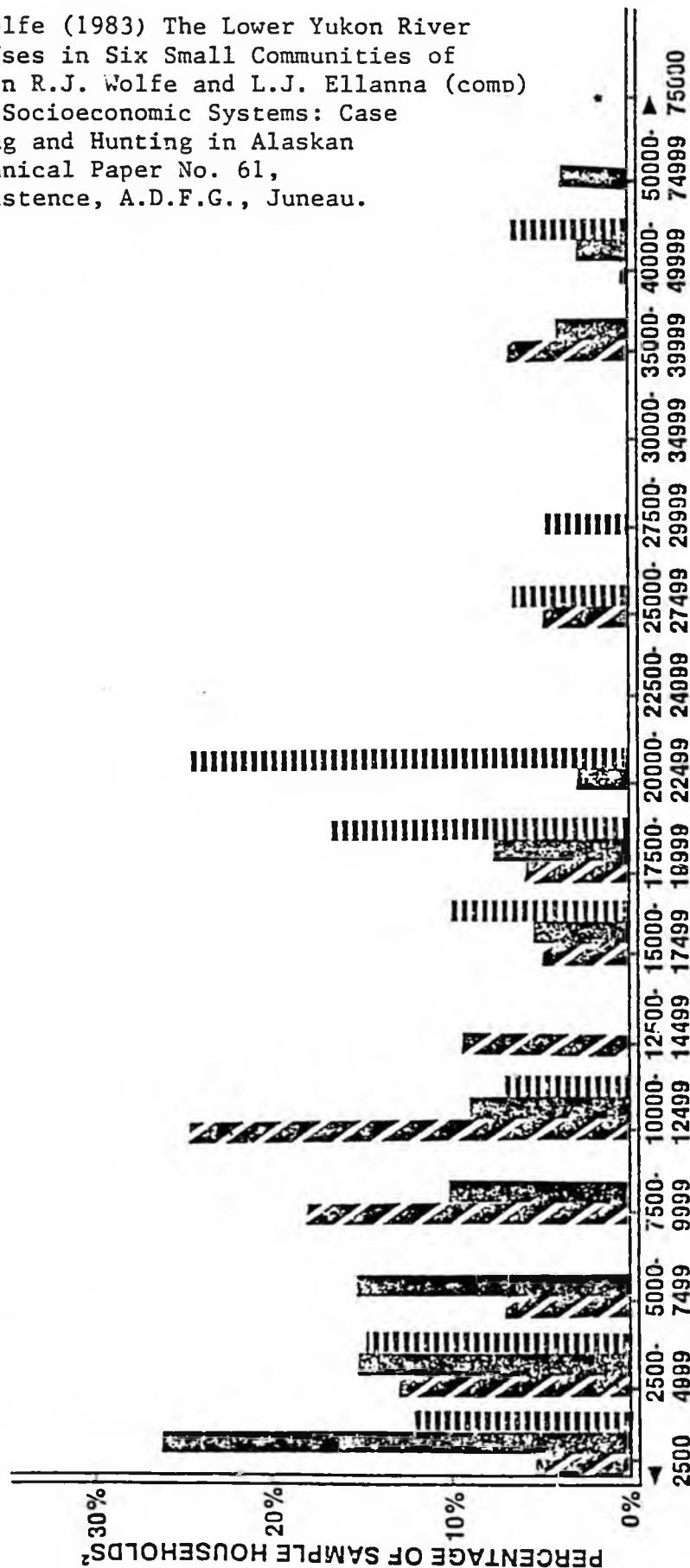


Figure : Household Income (Dollars) — 1979, Alakanuk¹, Emmonak², Kotlik¹

¹ U.S. Bureau of the Census, 1980 Census of Population and Housing, Summary Tape File 3

² Alakanuk N = 105; Emmonak N = 132; Kotlik N = 62

* no data available

From James A. Fall (1983) Tyonek. Resource Uses in a Small Non-Road Connected Community of the Kenai Peninsula Borough. In R.J. Wolfe and L.J. Ellanna (comp) Resource Use and Socioeconomic Systems: Case Studies of Fishing and Hunting in Alaskan Communities. Technical Report No.61, Division of Subsistence, A.D.F.G., Juneau.

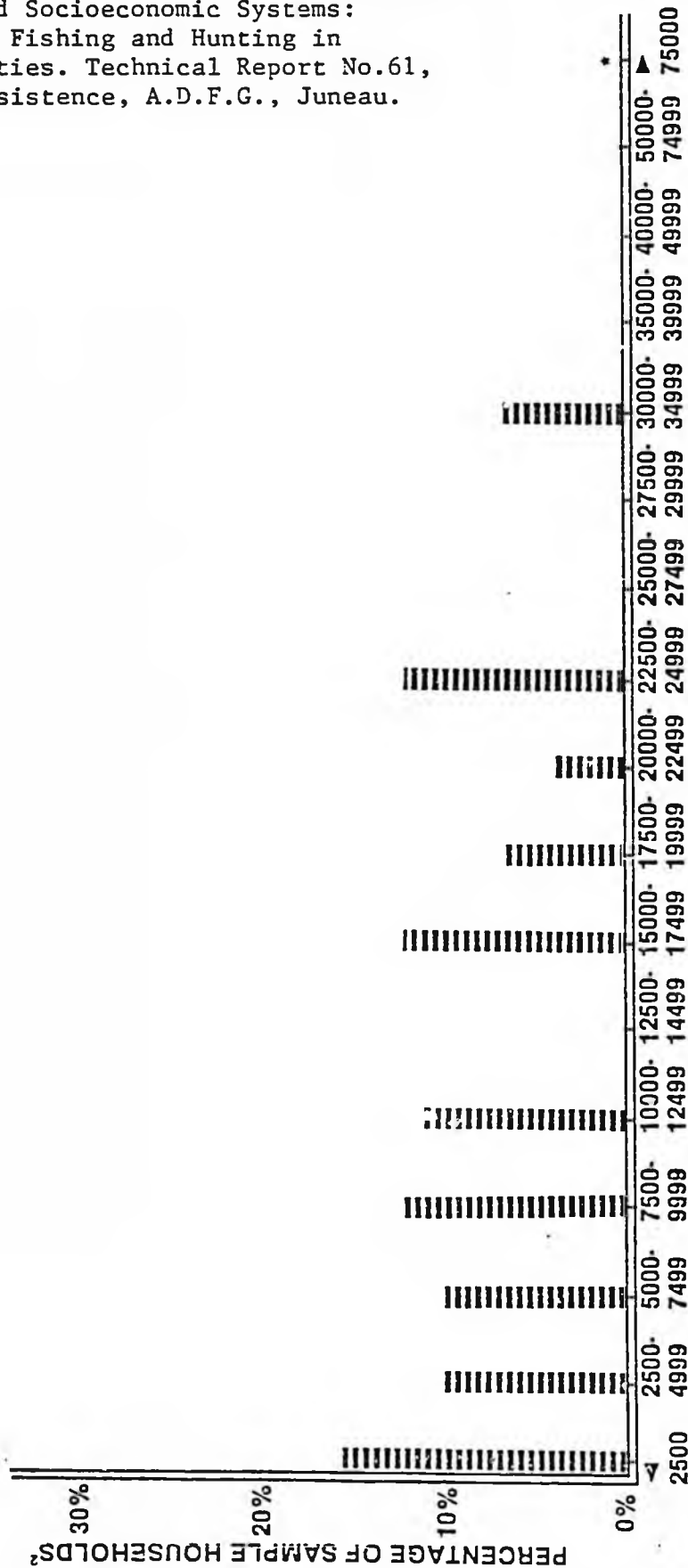


Figure : Household Income (Dollars) — 1979, Tyonek¹

1 U.S. Bureau of the Census, 1980 Census of Population and Housing, Summary Tape File 3

²N = 90

* no data available

A Summary of Federal Acts from 1870 - 1925 allowing
taking of Alaska animals for food or clothing.

1870: An Act.

Unlawful to kill fur seals on St. Paul and St. George Islands except from June to October.

EXCEPTION: Natives may kill "such young seals as may be necessary for their own food or clothing" during other months.

1902: An Act.

Prohibits "wanton destruction" of wild game.

Allows killing of game animals by native Indians or Eskimo, miners, explorers, travelers "when in need of food".

1908: An Act.

Amends 1902 Act. Prohibits "wanton destruction" of non-game wild animals and birds (except of eagles, ravens and cormorants).

Allows killing of any game animal or bird for food or clothing at any time by Natives, miners, explorers "when in need of food".

1910: An Act.

Allows Natives of Pribilof Islands to kill young seals "as may be necessary for their own food and clothing" and old seals "as may be required for their own clothing and for the manufacture of boats for their own use".

1925: An Act.

Allows an Indian or Eskimo, prospector or traveler to take animals or birds during the closed season "when he is in absolute need of food and other food is not available".

A PERFORMANCE REPORT ON THE
DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT
GUIDE LICENSING AND CONTROL BOARD

November 21, 1985

Audit Control Number

08-1253-86-R

Commissioner, Department of
Commerce and Economic Development

Loren H. Lounsbury

Deputy Commissioners, Department of
Commerce and Economic Development

Terry Elder
Greg Baker

Members of the
Guide Licensing and Control Board

Chairman
Member
Member
Member
Member
Member
Member

Ray McNutt
Edward J. Shavings, Sr.
Douglas Pope
Charles Weir
Poldine Carlo
Ralph G. Fenner
James Harrower

STATE OF ALASKA

AUDIT DIVISION
POUCH W
JUNEAU, ALASKA 99811

THE LEGISLATURE

BUDGET AND AUDIT COMMITTEE

November 22, 1985

Members of the Legislative Budget
and Audit Committee:


In accordance with the provisions of Titles 24 and 44 of the
Alaska Statutes (sunset legislation), the attached report is
submitted for your review.

A PERFORMANCE REPORT ON THE
DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT
GUIDE LICENSING AND CONTROL BOARD

November 21, 1985

Audit Control Number

08-1253-86-R



Gerald L. Wilkerson, CPA
Legislative Auditor
Division of Legislative Audit

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PURPOSE AND SCOPE OF THE REPORT

Purpose

In accordance with the intent of Titles 24 and 44 of the Alaska Statutes (sunset legislation), we have reviewed the activities of the Guide Licensing and Control Board for the past four fiscal years. Our examination was conducted to determine if the Board has been operating in an efficient and effective manner.

Legislative intent requires consideration of this report during legislative oversight hearings to determine whether the Guide Licensing and Control Board should be reestablished. The law now specifies that the Board will terminate June 30, 1986 and will have one year from that date to conclude its affairs.

Scope

The major areas of our examination were the licensing, examination, administration, complaint, and affirmative action functions of the Board. We reviewed and evaluated the following:

1. Applicable statutes and regulations.
2. Interviews with the license examiners.
3. Tests of files and documents of licensees.
4. Complaints filed with the Division of Occupational Licensing, Human Rights Commission, Equal Employment Opportunity Office, Attorney General's Office, and the Ombudsman Office.
5. Discussions with Board members.
6. Minutes of Board meetings and Division correspondence files.
7. Attorney General Opinions applicable to professional boards.

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ORGANIZATION AND FUNCTION

The Guide Licensing and Control Board was established by the 1973 Legislature and succeeded the Board of Fish and Game, Department of Fish and Game, which previously had regulated the guiding industry. The seven member Board is appointed by the Governor with confirmation by the Legislature and is restricted to having no more than three members as licensed guides. Board members serve staggered terms of three years or until their successors are appointed.

The Board is organized under the Department of Commerce and Economic Development, Division of Occupational Licensing. The Division assists the Board in the performance of their duties by providing administrative, licensure, and investigative support.

By law, a nonresident may not hunt, pursue, or take brown bear, grizzly bear, polar bear, or sheep in Alaska unless personally accompanied by a licensed master, registered, or assistant guide. Nonresidents hunting with an Alaskan relative are exempt from this requirement. The Guide Licensing and Control Board was appointed in part to protect these nonresident hunters from incompetent individuals holding themselves out to be qualified Alaskan guides.

The function of the Board is primarily regulatory, mandated by AS 08.54.040. Accordingly, the Board has the capacity to administer examinations, determine qualifications of guides, establish performance standards and regulate activities, maintain guide registers, prohibit harmful guiding activities, conduct hearings regarding licensure, and establish quotas of guides for specified geographical areas (exclusive guiding areas). The Board, through the assignment of exclusive guiding areas, limits hunting pressure by guides within a specific geographical area.

In addition, the Board licenses "transporters"; a licensed "transporter" is a person who transports hunters for hire.

(Intentionally left blank)

REPORT CONCLUSION

Policy Issues

This report contains policy issues raised as a result of our evaluation of various Board practices. The final policy decisions affecting these practices are not within the scope of this report but require legislative consideration. In debating these issues, the oversight committees should take into consideration the findings and recommendations presented in this report so the potential impact of policy changes can be evaluated.

Report Conclusion

In our opinion, the Guide Licensing and Control Board should be reestablished. The regulation and licensing of qualified guides is necessary to protect the public's health, safety, and welfare. The Board provides this service by establishing minimum qualification and experience requirements that provide reasonable assurance that persons licensed are both capable of safely conducting guided hunts and familiar with their prospective guiding areas. Assurance that those licensed act in a competent manner is also provided by active investigation of complaints and revocation or suspension of licenses where appropriate.

However, the following findings describe areas where weaknesses or conflicts exist. We have made recommendations which, if implemented, will improve the efficiency and effectiveness of the Board.

(Intentionally left blank)

FINDINGS AND RECOMMENDATIONS

Recommendation No. 1

The Guide Licensing and Control Board (GLCB) should develop a prioritized set of criteria to use in assigning both exclusive and joint-use guiding areas (EGAs).

Alaska Statute 08.55.040(a)(8) allows GLCB to:

Establish a quota of licensed operating guides who may operate within designated geographical units or subunits of the state and provide for an equitable and reasonable procedure for limiting the number of guides to that quota; preference shall be given to qualified available guides who reside within the designated game unit or subunit.

GLCB has implemented this provision through the establishment of both exclusive and joint-use guide areas (EGAs), which limit the number of guides who can conduct hunts in various regions of the State. The GLCB's authority to assign EGAs is supported by an April 1977 Attorney General memorandum which determined that GLCB's regulations and activities implementing exclusive guiding areas were within their statutory powers.

This limitation on the practice of guiding ostensibly provides public benefits by providing for better game management; promotion and enforcement of ethical guiding practices; enhancing the "wilderness" aspect of big game hunting experience by separating guided hunting parties; and allows for the separation of non-compatible forms of hunting. The limits are also designed to provide for a greater degree of safety to the guided hunter by allowing guides to become familiar with the terrain and seasonal weather conditions of their assigned area.

GLCB does not act consistently when considering the assignment of exclusive and joint-use guiding areas. The criteria on which any given area assignment decision is made varies from decision to decision. Additionally, GLCB often does not adequately document the basis on which they make their assignments. We found inconsistencies and contradictions in the way that GLCB applied the following criteria when awarding EGAs:

1. Game Management Information - GLCB does not consistently review game management information in their area assignment decisions. What game information they do consider usually is second hand and anecdotal, provided by applicants or current users (see Recommendation No. 2).

2. Demonstration of Experience - When applying for an EGA, applicants must demonstrate that they have had guiding experience in the applicable game unit. Guides demonstrate their experience through the submittal to GLCB of a Statement of Financial Remuneration (SFR) for each guided hunt. SFRs list the names of hunters, guides assisting in the hunt, game units hunted, and the type of game taken.

Under the Board's regulations, SFRs are the primary evidence of a guide's activity and familiarity with the game unit involved. However, we found instances where the Board awarded EGAs to guides with no SFRs in the appropriate game unit, while denying other EGA applicants because they had no SFRs on file demonstrating their experience or activity.

3. Transfers of guiding areas - GLCB has been essentially approving transfers of guiding areas with little or no consideration of any other criteria such as game management, objections of joint users, or experience of the guide receiving the transferred area (see Recommendation No. 3).

This inconsistency on the part of GLCB in its decision-making, along with the lack of proper documentation of its rationale, ultimately results in a loss of effective control over the activities and policy of the guiding industry.

During the past four years, hearing officers have repeatedly found Board decisions to be arbitrary and capricious with little or no support. In effect, the Board has abdicated much of its control over area assignments through its inconsistent application of criteria. Hearing officer decisions are beginning to effectively replace GLCB in setting quotas for guides. Essentially, GLCB has not fully met its statutory responsibility to adopt an equitable and reasonable procedure for the assignment of guide areas.

We believe GLCB's responsibility would be better met by identifying pertinent criteria to be used in area assignment decisions, assigning some priorities to those criteria, and applying them consistently.

Recommendation No. 2

GLCB should improve methods of obtaining game management information from independent sources, such as the Alaska Department of Fish and Game (ADFG).

One of the primary justifications for the whole concept of EGAs is to enhance overall management of the public's game resources. Guides are awarded exclusive or joint-use areas so that they have a long-term interest in managing the game

in their EGA. GLCB has adopted regulations [12 AAC 38.053(d) (1)] that require it to consider an area's ability "... to sustain an additional guided hunting operation, in terms of game populations, terrain, methods of hunting, and use by other guides and hunters."

As stated in Recommendation No. 1, we found that GLCB rarely considers independent information regarding game populations and management concerns when assigning EGAs. GLCB relies on information provided by applicants and guides operating in the region under consideration. Certainly, the assessment of an active registered guide is important and should be considered. However, whether coming from an applicant or current user, it must be recognized that the guide has a vested interest in how the information is presented and interpreted.

Oftentimes, information presented to the Board is conflicting, depending on the desire of the guide. New applicants for areas claim game is plentiful, and the area is under-utilized. Current users, on the other hand, emphasize game scarcity and hunting pressures.

If GLCB established better, more formal communications with ADFG they would better meet their regulatory and statutory obligation to enhance the management of the State's game resources. ADFG information may be no better than that of guides; however, it is more independent and more objectively developed. ADFG is charged with management of the State's game resources, and guided, non-resident hunters take up to an estimated 40% of the game in the State. We believe GLCB should attempt to improve communications and coordination with ADFG while taking steps to include their assessment of game populations and hunting pressures when considering assignment of EGAs.

Recommendation No. 3

GLCB should take more responsibility for area assignments by repealing regulations that allow a guide to designate to whom his EGA be reassigned.

Registered and master guides may each have a maximum of three EGAs. Typically, when a guide wishes to retire or perhaps become eligible for another, different EGA, he is allowed to turn back an existing EGA to the Board and designate the recipient of this reassignment. GLCB regulations currently allow, but do not necessarily require, this practice.

We found that these designated transfers override all other area assignment criteria. Essentially, GLCB has been automatically approving transfers of EGAs regardless of game management considerations, demonstration of experience

in the area by the transferee, and over the objections of affected joint users. Whereas GLCB evaluates, albeit inconsistently, regular area assignments, our review indicated they gave transfers much less scrutiny.

We believe that this lack of scrutiny encourages the practice of guides selling their EGAs to other guides in violation of GLCB regulations. With the Board giving little review to transfers, they greatly increase the potential of EGAs being awarded based solely on economic consideration; i.e., can the designated recipient afford to buy the area from its holder? This potential abuse is contrary to GLCB's statutory responsibility of establishing quotas for guide areas in an equitable and reasonable manner. We feel that all qualified guides for the area should receive equal chance at receiving an EGA, regardless of their ability to "buy" the rights from the previous holder.

By not adequately reviewing transfers of guide areas, the GLCB is missing an opportunity to achieve one of its stated policy goals. In the Board's FY 85 annual report, they state one of their policy objectives is to not allow additional joint use in areas that already have enough guides operating.

We feel that it would be better if the EGAs were surrendered to the Board; the Board review pertinent and prioritized criteria to determine if the region would support one or more additional guide operations; then consider all applications for the area under a equitable and reasonable method of allocation. Such a method could take into consideration unique qualifications such as a son or daughter who had worked as an assistant to their father, or perhaps a registered guide, who had "apprenticed" in the region under the surrendering EGA holder and accordingly, is more knowledgeable of the area than other applicants. By following such a procedure the Board would promote compliance with its own regulation restricting the transfer of guiding area permits.

Recommendation No. 4

GLCB should adopt procedures to improve the administration of the oral portion of the registered guide examination.

The oral portion of the registered guide examination is arbitrary and inconsistent in content and grading. This is because the examination content and grading guidelines are left to the discretion of the individual examiners.

To qualify for licensure as a registered guide, an applicant must successfully pass the registered guide examination. This examination, which is prepared and administered by GLCB, is composed of two parts, a written and an oral section. Passage of the examination requires the applicant to obtain a score of 80% on both sections.

GLCB procedures require the oral portion of the registered guide examination to be administered by three examiners, consisting of a Board member and two master guides. Questions asked by the examiners are based on an oral exam sheet, which does not limit examiners to specific questions nor does it provide predetermined question grading values.

This allows individual examiners to emphasize whatever subject areas they wish in the questioning of applicants. Despite the lack of specific grading criteria on which to base examination scores, instances were noted in which applicants narrowly failed exams by combined examiner scores as high as 79%.

The inconsistency of exam content and grading is demonstrated by the following example. In February 1985, an applicant failed the oral portion of the examination. The reason for failure noted by the examiners was that the applicant needed more hunting experience in the field. Examiners recommended the applicant obtain specific area experience along with spring, late fall, and winter experience. One month later, the applicant took the oral examination again, and was passed by an examination committee made up of three different examiners.

GLCB appears to have demonstrated its own doubts regarding the validity of oral examination results. GLCB's regulation 12 AAC 38.010(c), states the failure to achieve a passing score on either section of the examination constitutes failure of the entire examination. However, on several occasions, after having been petitioned by applicants who passed the written portion of the exam while failing the oral portion, the Board waived the requirement that the written portion of the examination be retaken.

The lack of specific guidelines dictating the objective administration of the oral portion of the registered guide examination has resulted in inconsistent content and grading between individual examinations. The likelihood of exam passage is as much affected by who the examiners are and their individual judgement as it is by the knowledge and competence of the applicant.

Structured guidelines governing the administration of the oral portion of the registered guide examination should be implemented by GLCB. These guidelines need to provide examiners with specific directions as to examination questions to be asked and their assigned grading values. If implemented, structured guidelines will provide a more objective means of administering the examination. This will provide the Board with more of a fair and consistent test of applicant competence.

Recommendation No. 5

GLCB should seek both statutory and regulatory changes in order to improve the protection of the public from unethical guiding practices.

One of the primary purposes of licensing and regulating guides is to protect the public from unethical guiding practices. We identified regulations and statutes that serve to block effective consumer protection action on the part of GLCB and serves to protect guides at the expense of the public. We recommend that GLCB enhance its consumer protection responsibilities by taking the following actions:

- A. Pursue amendment of statutes that limit GLCB's authority to discipline guides for unethical activity.
- B. Adopt regulations and/or recommend legislation to require guides to post performance bonds.

Statutory Constraints to Effective Disciplinary Action

Alaska Statute 08.54.200(a)(1) does not allow the Board to consider complaints of unethical or incompetent guiding practices until receiving complaints from "... three or more clients [hunters] of separate [hunting] parties."

In the course of our review we found four instances where guides had two allegations of unethical guiding activity, as defined by GLCB's regulations, but still had not been brought before the Board for review. Law enforcement officials told us that the statute requiring three separate complaints was particularly onerous for effective resolution of consumer complaints. Law enforcement officials are put in the position of consumer ombudsman, trying to mediate and negotiate settlements of hunter-and-guide or guide-and-guide disputes.

GLCB's effectiveness and visibility would be enhanced if all allegations regarding unethical guide practices was brought to it for review on a case-by-case basis. It appears that the intent of the statute was to keep down the number of frivolous and unfounded complaints against guides. Other professional licensing boards listen to, and sort through, all cases and complaints, no matter how trivial, as a means of keeping apprised of the conduct of their licensees. We recommend that GLCB begin doing the same.

Bonding of Guides

Almost all hunters who use guiding services are non-residents, a large number from outside of the United States. As a result, when disputes arise between guides and hunters it is often very difficult and expensive for the complaining

hunter to seek legal remedies or implement administrative action. This difficulty is compounded by the three complaint requirement of the statutes discussed previously.

In the course of our review, we noted four cases where a non-resident hunter and guide were disputing the refundability of a deposit. One example, two out-of-state hunters sent in deposits of \$2,500 six months in advance of a hunt. Just prior to their departure for Alaska, the guide notified them that he would have to cancel their hunt. He offered to apply their deposits to a hunt the next year, but the hunters decided they wanted a refund. The guide did not respond to requests, and due to the statutory three complaint requirement, law enforcement officials were not able to bring the dispute before GLCB. The two hunters retained a Fairbanks attorney to pursue legal remedies, but soon abandoned the effort due to costs of litigation.

We recommend that GLCB pursue the necessary statutory and regulatory changes that would implement a mandatory requirement that guides post performance bonds. Performance bonds would allow hunters with legitimate grievances and claims against guides an easier, less expensive alternative in obtaining settlement of their claims. Guiding is a large industry in the State. It is important that GLCB do all it can to maintain the integrity of the guiding industry and uphold the reputation of the Alaskan guides with hunters outside of the State. The Board should recognize the unique type of consumer for guide services and take steps to adequately protect the interest of the out-of-state hunter/consumer.

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ANALYSIS OF PUBLIC NEED

Limited Analysis

The following analyses indicate both positive and negative factors as they relate to the public need as defined in the "sunset" law. These analyses are not intended to be comprehensive, but to address those areas we were able to cover during our review.

- I. The extent to which the board, commission, or program has operated in the public interest.
 - A. The Board has adopted regulations defining unethical conduct which clarify and strengthen the professional's responsibility to the public.
 - B. The Board does not consistently review the Department of Fish and Game game management information prior to assignment or transfer of an exclusive guiding area (EGA) (see Recommendation No. 1).
- II. The extent to which the operation of the board, commission, or agency program has been impeded or enhanced by existing statutes, procedures, and practices which it has adopted, and any other matter, including budgetary, resource, and personnel matters.
 - A. Regulation 12 AAC 38.054(b) allows an EGA permit holder to designate the qualified guide to whom he wishes to transfer his guide area. These transfers often take precedence over other guide area assignment criteria such as joint user objections, experience in the game unit, or game management considerations (see Recommendation No. 3).
 - B. Alaska Statute 08.54.200(a)(1) does not allow the Board to consider complaints of unethical or incompetent guiding practices until receiving complaints from three or more clients of separate parties regardless of the potential magnitude of the unethical act (see Recommendation No. 5).
- III. The extent to which the board, commission, or agency has recommended statutory changes which are generally of benefit to the public interest.
 - A. Senate Bill No. 294, which was introduced in April 1985 by the Resources Committee, contains the following items which should enhance public protection if ratified:

1. An amendment to AS 08.54.010 would increase game management considerations in regulating guide activities (see Recommendation No. 2).
 2. An amendment to AS 08.54.040 and a proposed new section (AS 08.54.195) would require consistency in procedures used in allocating EGAs (see Recommendation No. 1).
 3. New sections would require those guides that contract with more than one client at a time (an outfitter) to maintain a surety bond of \$5,000 (see Recommendation No. 5).
 4. The bill would require closer supervision over assistant guides while in the field.
 5. Unethical activities would be amended to include unsafe or unsportsmanlike actions that are detrimental to the game resources of the State.
 6. Statutes dictating qualifications for, and restrictions on, transporters would be repealed. Many of the services now being provided by transporters would be subject to the proposed outfitter statutes contained in this bill.
- B. Additional portions of SB 294 which do not appear to us to be in the public's best interest are as follows:
1. Current law limits the number of Board members that have guide licenses to no more than three of the seven members. SB 294's amendment of AS 08.54.010 would require that at least three Board members be active guides. This amendment would increase the potential for expanding the number of industry members on the Board at the expense of public participation.
 2. Currently, AS 08.54.200(a)(1) does not allow the Board to consider complaints of unethical or incompetent guiding practices until receiving complaints from three or more hunters of separate parties. SB 294 contains an amendment of this statute which would require that these complaints be received within five years prior to the hearing date. This would compound those problems outlined in Recommendation No. 5.

3. Currently, AS 08.54.210(a)(6) makes it unlawful for a master or registered guide to employ or supervise more than three assistant guides at the same time.

SB 294 would repeal this statute and could allow a master or registered guide to employ more assistants than they are capable of effectively supervising. The experience and professional judgement of the master or registered guide may not be available to clients when needed.

Alaska Statute 08.54.141 of this bill also provides that assistant guides shall be supervised at all times while in the field on guided hunts. The potential problem noted above will depend on enactment of this new section and on the Board's interpretation of the term "supervised."

4. Enactment of amendments to AS 08.54.200(c)(3) may unnecessarily restrict those hunting statutes or regulations upon which the Board can take disciplinary action.

IV. The extent to which the board, commission, or agency has encouraged interested persons to report to it concerning the effect of its regulations and decisions on the effectiveness of service, economy of service, and availability of service which it has provided.

- A. The public is invited to attend Board meetings and to give their input about the workings of the Board. Notices of meetings are advertised in at least five newspapers throughout the State. In addition, guides are notified by registered mail of meetings that might affect them.
- B. Publication of meeting information does not always precede the meeting by a reasonable time period. We found that the public was given less than a one week notice for two of the last eleven Board meetings.
- C. Teleconference meetings are not being noticed publicly. This limits public input at those meetings and may legally jeopardize Board decisions and actions.

V. The extent to which the board, commission, or agency has encouraged public participation in the making of its regulations and decisions.

- A. As stated under IV, the public is invited, by published notices in newspapers, to attend Board meetings to give their input about Board regulations or submit written testimony.
- B. Those problems noted in IV B and C above also represent potential problems in this public need area.

VI. The efficiency with which public inquiries or complaints regarding the activities of the board, commission, or agency filed with it, with the department to which a board or commission is administratively assigned, or with the Office of the Ombudsman have been processed and resolved.

- A. Since July 1983, ten complaints have been filed with the Ombudsman's Office concerning Board activity. Only one of these complaints, alleging improper denial of a registered guide license, was found to be justified.
- B. Since August 1984, 19 complaints against guides have been submitted to the Department of Commerce and Economic Development, Division of Occupational Licensing, for investigation. These cases appear to have been investigated in a reasonable fashion and are pending Board action or court rulings.
- C. As mentioned in III above and in Recommendation No. 5, AS 08.54.200(a)(1) does not allow the Board to consider complaints of unethical or incompetent guiding practices until receiving complaints from three or more hunters of separate parties.

VII. The extent to which a board or commission which regulates entry into an occupation or profession has presented qualified applicants to serve the public.

- A. As of September 1985, 46 master guides and 361 registered guides were licensed in Alaska. These individuals were required to pass both a written and an oral exam, as well as obtaining practical experience in the field, prior to licensure.
- B. The oral portion of the registered guide examination is arbitrary and inconsistent in content and grading. This is because the examination content and grading guidelines are left to the discretion of the individual examiners (see Recommendation No. 4).

VIII. The extent to which State personnel practices, including affirmative action requirements, have been complied with by the board, commission, or agency to its own activities and the area of activity of interest.

A. The Board established 12 AAC 38.010(c) whereby an applicant for licensure who:

because of a language barrier, is unable to read and competently understand the English language may be excused from taking the written examination, and may be issued a license based on successful completion of the oral portion of the examination and demonstration of his capabilities and experience.

B. Regulations also provide that when assigning guide area permits,

the board will give preference to qualifying guides whose permanent residence is within the district in which the area is located.

IX. The extent to which statutory, regulatory, budgeting, or other changes are necessary to enable the agency, board, or commission to better serve the interests of the public and to comply with the factors enumerated in this subsection.

Please refer to the previous section, Findings and Recommendations.

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APPENDIX A

GUIDE LICENSING AND CONTROL BOARD
REVENUES COMPARED WITH EXPENDITURES

June 30, 1985
(UNAUDITED)
(Note 1)

	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85</u>
Revenues (Schedule 1, Note 2)	\$46,000	\$53,735	\$88,678
Expenditures (Note 3)	<u>21,663</u>	<u>13,483</u>	<u>11,777</u>
Excess of Revenues over Expenditures	<u>\$24,337</u>	<u>\$40,252</u>	<u>\$76,901</u>

Schedule 1
Types of Revenues
(Note 4)

<u>Revenues</u>	<u>Amount</u>	<u>Collection Time</u>
Master Guide License	\$150	Biennially
Registered Guide License	150	Biennially
Class-A Assistant Guide License	30	Biennially
Assistant Guide License	20	Biennially
Transporter License	10	Biennially
Application For A Guide Examination	25	With Application

Note 1

This revenue/expenditure comparison was prepared from available reports prepared by Occupational Licensing personnel. The records were not audited by us and, accordingly, we do not express an opinion on the Board's Revenues Compared with Expenditures.

Note 2

Revenue amounts reported do not include revenue obtained from the sale of game tags or hunting licenses. They only include revenue obtained from fees required to obtain and/or renew guide licenses.

Note 3

Expenditures consist of direct costs resulting from Board activities. These include miscellaneous contractual, travel, and per diem costs incurred by Board members and the Board's licensing examiner. The amounts do not include the administrative expenditures of the Division of Occupational Licensing such as employee salaries or the expenditures made to other departments such as the Department of Law, which assist the boards and the Division.

Note 4

Amounts reflected are those established by statute for FY 85. Chapter 37, SLA 1985 provides that the Department of Commerce and Economic Development shall set license fees effective upon adoption of said regulations.

APPENDIX B

GUIDE LICENSING AND CONTROL BOARD
EXAMINATION STATISTICS

Number of Examinations Given in FY 1984-1985 (Note 1)

<u>Fiscal</u> <u>Year</u>	<u>Written Exam</u>		<u>Oral Exam</u>		<u>Total</u>
	<u>Passes</u>	<u>Fails</u>	<u>Passes</u>	<u>Fails</u>	
1984	22	13	26	7	41
1985	19	9	17	4	30

Note 1

Licensure as a registered guide requires a passing score on both a written and oral examination. Licensure as a master guide requires a passing score on an oral examination only. Licensure as assistant guides and transporters does not require examination.

APPENDIX C

GUIDE LICENSING AND CONTROL BOARD
ADMINISTRATIVE STATISTICS
September 30, 1985

Currently Licensed

Master Guides	46
Registered Guides	361
Class-A Assistant Guides	139
Assistant Guides	829
Transporters	141

Board Meetings Between
July 1, 1983 and June 30, 1985

July 17-22, 1983

October 25-26, 1983

December 7-13, 1983

March 12-17, 1984

December 13-14, 1984

February 9-17, 1985

March 18-19, 1985

BILL SHEFFIELD, GOVERNOR

**DEPARTMENT OF COMMERCE &
ECONOMIC DEVELOPMENT**

DIVISION OF OCCUPATIONAL LICENSING

POUCH D
JUNEAU, ALASKA 99811
PHONE: (907) 465-2534

December 23, 1985

Mr. Gerald L. Wilkerson
Legislative Auditor
Legislative Audit Division
Pouch W
Juneau, AK 99811

RECEIVED
DEC 24 1985
**LEGISLATIVE
AUDIT**

Dear Mr. Wilkerson:

Re: Preliminary Audit Findings
Guide Licensing and Control Board

Thank you for the opportunity to comment on your preliminary audit report on the Guide Licensing and Control Board.

Our position remains the same from previous correspondence in that, we concur with your findings and recommendations, and also support continuation of the board. We once again offer the following comments regarding your recommendations:

In reference to recommendation #1, it is important to note that many of the actions or decisions made by the Guide Licensing and Control Board were made upon advice and support of counsel from the Department of Law. This is done especially in relation to your finding that hearing officer decisions are replacing that of the Guide Licensing and Control Board where setting quotas for guides are concerned. However, we believe the board has demonstrated an honest effort to act accordingly within the parameters of what they perceived to be correct, based on legal advice.

Regarding recommendation #4, this matter was brought to the attention of the board by staff of the Division of Occupational Licensing during previous board meetings. Although the board did acknowledge the need to address this issue, no time was given to address the oral examination for registered guides.

Mr. Gerald L. Wilkerson

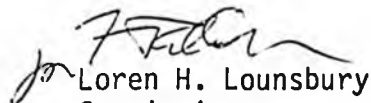
-2-

December 23, 1985

We strongly support your suggestions in recommendation #5 and feel that, although performance bonds posted by master and registered guides may not be entirely adequate to rectify all complaints, it would certainly allow some means of restitution for injured parties from receiving unethical services.

Thank you once again for the opportunity to comment on your findings and for your cooperation.

Sincerely,


Loren H. Lounsbury
Commissioner

LHL/sa1444s
122385b

The Legislature
Budget and Audit Committee
Jim Griffin, Auditor

DEC 19 1985

LEGISLATIVE
AUDIT

Recommendation #1

The Guide Licensing and Control Board (GLCB) uses the Statements of Financial Remunerations as proof of use and experience in areas when assigning Exclusive Guide Areas (EGA). There have been discrepancies in the past, the last year the GLCB have been adhering closely to the criteria of using SFRs. The GLCB seeks biological and Fish & Game surveys when they are available. This cannot always be done. Some areas Fish & Game haven't run surveys or recent surveys. Most of the time, the GLCB doesn't know which areas will be before them until the applicant comes before the GLCB with his application. This doesn't allow enough time to obtain the information. In cases that are held over and coming before the GLCB at a later date do allow time for soliciting biological information from the Fish & Game biologist located in the area involved. I have solicited Fish & Game information in several cases that are coming before the GLCB this next meeting in December 1985.

I hope to get a regulation passed that requires an applicant applying for an EGA to obtain this information from the Fish & Game for presentation to the GLCB.

Along these lines there also should be a regulation requiring the same criteria for a transfer be the same as a new applicant. That is to show proof of experience in the area as would a new applicant. And going farther, an applicant for a transfer from an EGA holder to himself show proof of working with the EGA holder for a certain time. One or two years. Co-signing SFRs could be used as proof as well as additional proof, either in EGAs or joint use areas.

Recommendation #2

Regulation (12 AAC 38.053 (D) (1) applies mostly to applications for joint use areas and EGAs being applied for by more than one guide. The proposal to pass a regulation requiring the applicant to obtain Fish & Game biological information on the area applied for will help in this area.

Recommendation #3

I do not agree that an EGA holder should have to surrender his EGA to the GLCB and not have the opportunity to transfer the EGA to a guide of his choice with the approval of the GLCB. There are many cases where an EGA holder has farmed his area, carefully not to over harvest, so has improved both game populations and size of the animals in the area. To enhance game populations and sportsmen enjoyment is one purpose of the GLCB. Financial investments should also be considered in transfers, land, buildings and equipment related to guiding in the area. A guide who has spent many years building up an area with improvements to game populations should certainly have something to say about who's care the area ~~XXXXXX~~ comes under. Son, ~~XXXXXX~~ Daughter, apprentice or a guide who is well qualified to guide in the area.

The GLCB has a policy not to issue a new applicant an area in joint use. In other words filing over an area that is already in joint use, or use by only one EGA holder. The GLCB is working to eliminate as much joint use as possible. This can only be done through natural attrition. The GLCB cannot choose two permit holders out of six joint users and pull their permits without due cause. I do think, and it has been the GLCB's policy the last two years. A Ega holder is convicted of some violation that merits revoking his area that is in joint use with others, that area will not be reassigned ~~XXXXXXXXXXXX~~ ..

Where the area is extremely large and doesn't have many joint users some leeway should apply to a new applicant. The guide losing the area should not have a say one way or the other in the matter. However, in cases such as this very careful scrutiny in all criteria must be made. One thing along these lines. At one time the intent of GLCB to review and reassess all EGAs. Considering size, utilization and condition of game populations. This was never done, primarily because time and budget restrictions wouldn't allow it.

Recommendation #4

Oral guide examinations;

There are inconsistencies in administering oral tests. The purpose of the oral test is to determine the applicant's practical field experience and knowledge of game habits, size and the area he is being tested for. Most of this is impossible to determine with a ~~XX~~ tightly held oral tests with set questions and answers. The examiner should have some flexibility but should not be allowed to wander far afield and asking impertinent questions. There should also be a standard time for the test, say 1 or 1½ hours. One ~~XX~~ problem that keeps cropping up is first aid. I propose that an applicant be required to have passed a first aid course within the year prior to taking the guide exam.

The GLCB has been trying to upgrade this portion of the guide test. Here again, the increasing number of applications for testing each meeting is also increasing the work load of the GLCB.

Recommendation #5

There should be some changes in Statute 08.54.200 (A) (1). The change should give the GLCB some flexibility on guide complaints. Taking in consideration of the severity of the complaint. Endangering life, flagrant game violations, and unethical practices, etc. The GLCB does have a guiding ethics regulation (12AAC 38.180) The complaints are slowly being corrected since the administration was consolidated in the Department of Commerce, Division of Occupational Licensing. The GLCB investigator is investigating all complaints that come in now.

We are trying to get a section in the new guide bill, (Senate Bill #294) to satisfy the change mentioned above. Bonding is already addressed in S294.

The bill also creates an outfitter's license and repeals the transporters license. This should help to alleviate the wide spread unlicensed guiding. These unlicensed guides are a big factor in guiding complaints.

The bill also goes into more detail on what guiding is. Enforcement people say the present bill doesn't explain guiding enough for them to make a case on ~~unknown~~ unlicensed guiding. The new bill should give them the tools they need to enforce that section.

The GLCB would like to conduct more work on all these programs and others as well.

It is very important to the guiding industry that the GLCB not be sun setted. If the guide bill is not extended or a new bill passed, the guiding industry will be plunged into a chaos that it could never recover from. Just about everyone with a super cub or 185 will become instant guides creating an impossible situation for game populations and sportsmen safety.

An addition to recommendation #4.

At this last GLCB meeting we appointed 2 master guides and a registered guide to study the oral test and make up a new one that would standardize the test. These men ~~were~~ all have an educational background.

Comments Regarding Interim Letter #1
Sunset review GLCB

Recommendation # 1.

I agree with all of Mr. McNutt's comments. In addition I might add. There have been a number of meetings to establish a point for awarding and transferring guiding areas. The suggested method that had the most merit was to award points for criteria relating to use of the area, financial investment in the area, residence alternate areas, etc. I would suggest that those who did so much work on this system be contacted and a system be finalized and approved. This will eliminate most of the criticism related to transfers.

Recommendation # 2.

Agree with Mr. McNutt.

Recommendation #3.

I completely agree with Mr. McNutt's comments and would like to add emphasis here. The assigned area concept will do more to elevate the quality of guiding in Alaska than any change in years. It gives the area holders a responsibility toward the area and game. Now through leases from the state and permits from the federal government, it will be possible for guides to build permanent structures in many areas. The guides will continue to increase their investments in areas. As the investment both in time and monetary increases so does the guides financial responsibility increase. After working for years to build a high quality operation it seems only just that upon retirement the permit holder would be able to choose his successor, who in nearly every case would be the most qualified person for the transfer no matter what selection criteria were used. There have been abuses of this in the past as there were some transactions that seemed to be merely real estate sales. The GLCB is aware of this and is taking a firm stance against real estate dealers. It would seem that guiding like any other business would allow a successful and ambitious business man to build some value into his business so that when it came time for retirement he would have something to sell. Because the guiding business involves land and resources that belong to the public, the burden of responsibility upon the area permit holder is great. aside from his investment in property and equipment the value lies in his concessionary right to the area and it's wildlife. If he has treated these right with regard and respect and obeyed all covenants both moral and legal it seems only right that he should be able to sell this right to another qualified individual of his Choosing. This would allow him to maximize the return for his investment.

Recommendation #4.

The GLCB commented on this in addition to Mr. McNutt's comments and covered it quite thoroughly.

Recommendation # 5.

Agree with Mr. McNutt.

Dear Sportsfisher,

The public hearings on subsistence law changes that we have demanded have been scheduled for August 14, 1985, in Anchorage. Senator Abood will be presiding on the State Affairs Committee for these hearings. Whether they will be delayed because of the impeachment proceedings remains to be seen. Watch the paper for public notices.

The following five points were sent to us by the statewide Alaska Outdoors Council of which we are a member. We have changed some wording, but the ASA Board of Directors concurs and feel that any change to the subsistence law must contain these five points.

Six additional position statements that your Board of Directors feel must be included in the law follow the AOC points. If you have any comments on additions, please contact Bob Hunter at 276-8134 (home). All points will be subject to change to enable a consensus with hunting needs, and to consolidate a position with Fairbanks, Juneau, Wasilla, etc. A united front is imperative. Your attendance and input at the committee hearings is important to successfully demonstrate that we are greatly concerned about the existing law.

GENERAL POINTS FOR CONSIDERATION AND CONCURRENCE - SUBSISTENCE

(FROM THE ALASKA OUTDOOR COUNCIL)

1. Licensing: A permit will be required for subsistence preference use. Licensing will be based on personal or household qualifications. No fee will be charged for this permit.
2. Limiting Qualifications: Qualifications for the permit will be very restrictive, requiring that (1) the wild resource taken be used for personal and household consumptive use only; and (2) the applicant must assert and establish that he needs the subsistence because it is reasonably necessary for his survival or the survival of his dependent household. The Board may initially qualify an area, then restrict further to a community, then groups, then families and individuals, as the situation and need arises...or otherwise pass a needs test as specified by the Boards.
3. Subsistence Seasons and Bag Limits: The permit holders will be subject to specific subsistence regulations on seasons, quotas, bag limits, etc. The opportunity to harvest will be given a preference, but no guarantee of harvest is intended.
4. Preference Not Priority: The preference will not be an absolute priority over sport, commercial, or recreational use. These latter uses need not necessarily be eliminated before subsistence preference use is restricted or regulated.
5. Trade and Barter: Trade provisions will be similar to those in current state law. Subsistence use may include trade, barter, or sharing for personal or family consumption of wild renewable resources and must be limited to the first exchange. No cash exchanges shall be included in subsistence use.

ALASKA SPORTFISHING ASSOCIATION INPUT - SUBSISTENCE

(1) POSITION STATEMENT

Subsistence harvests should be based on meeting the protein needs and, in some cases, significant cultural needs of the harvesters. One species should be substitutable for another comparable species, and harvest should occur on those species that are most abundant and best able to withstand the harvest.

BACKGROUND

The need for the Board of Fisheries to be able to shift subsistence harvests to the most abundant species is statewide in application. However, it is most clearly demonstrated by the existing Cook Inlet situation. Current law stipulates that subsistence harvests are based on "customary and traditional" harvest patterns. The courts, as in the Tyonek case in Cook Inlet, ruled that harvests originally were a spring fishery on King Salmon, and thus the Board of Fisheries could not shift to a more abundant species of salmon for the Tyonek fishery.

The history of modern subsistence in Cook Inlet is that it was chiefly conducted by commercial fishermen who already owned gill nets. These people fished for subsistence early in the season until sufficient salmon were available to harvest commercially. They then fished commercially until the late fall, when they again subsistence fished for their winter food supply. In recent years the Board of Fisheries allocated early and late runs to sport fishermen and the large mid-season runs to commercial interests. The result, at least in Cook Inlet, was that subsistence fisheries are directed upon the small runs given to sport fishermen rather than the huge mid-season runs which have a commercial priority.

A classic example is the fall Kenai Silver run, which has a long-term average harvest of 13,200 fish. Currently, the subsistence allocation from this run is 13,000 Silvers...essentially the entire run.

(2) POSITION STATEMENT

Certain areas exist where the fishery resources are so sensitive that the efficient harvest methods associated with subsistence fishing (gill nets?) would destroy those resources. The Board of Fisheries must continue to have the authority, upon a formal finding of fact, to close such areas to subsistence fishing while still allowing less efficient methods, such as pole and line.

BACKGROUND

An example of this problem is the trophy Rainbow trout streams of the Illiamna Lake Drainage. Trout in these streams grow very slowly with some

large trout being over 10 years of age. These trout also occur in limited numbers. Counts by Alaska Department of Fish and Game personnel have, during some years and in some streams, found less than 1,000 adult trout. About 1975 one gill net, set illegally during one night, caught nearly ten percent of the adult Rainbow trout in Lower Talaric Creek. The Board of Fisheries has recognized the fragile state of the Rainbow trout resource in that area, and current regulations allow only one Rainbow trout to be taken per day; no bait or treble hooks are allowed to reduce incidental hooking mortality. Gill nets have been banned in and near these streams for approximately 10 years. However, since subsistence fisheries were allowed in these areas at one time, the Madison decision appears to grant priority to the use of subsistence gill nets over pole and line angling.

(3) POSITION STATEMENT

That the definition of subsistence gear in AS 16.05.940(22) is proper and should not be amended. That definition does not normally allow pole and line to be used as subsistence gear.

BACKGROUND

We strongly believe that pole and line should not be included for subsistence use for several reasons:

- (1) The present problem with subsistence is principally that one Alaskan has been given priority over another Alaskan based solely on where he lives. We disagree with that concept. Including pole and line users in subsistence would simply increase the problem by giving more people a priority. We call for a major reduction in the number of people having a priority or preference. We have, since 1978, disagreed with the concept of giving priority to one person over another. Adding pole and line would be nothing more than giving sport fishermen a priority over commercial users. We reject that premise.
- (2) Pole and line subsistence users would create an enforcement nightmare. How would we distinguish between subsistence harvesters and sport (non-resident?) fishermen?

(4) POSITION STATEMENT

That a set of personal-use fishing regulations is needed to allow the harvest of fish, when they occur in numbers excess to escapement and commercial/consumptive needs.

BACKGROUND

In many areas of the state, large numbers of fish (commonly salmon) occur which are excess to spawning needs and are not harvested by commercial, subsistence, or sport fishermen. Personal-use regulations may be an ideal tool for the Board of Fisheries to allow the harvest of the fish on an equal

priority basis with other user groups. Personal-use regulations were created by the Board of Fisheries for exactly this purpose. However, the Madison decision vastly expanded subsistence qualifications, and personal-use harvesters have now been included in subsistence with a priority over other users. The legislature should enact personal-use regulations, by statute, to permit harvest of fisheries resources on an equal priority basis.

(5) POSITION STATEMENT

Rainbow/Steelhead trout shall not be subject a subsistence priority. The Board of Fisheries shall continue to have the authority to allocate the harvest of this species to any user group without priority on a case by case basis.

BACKGROUND

Despite Alaska's reputation as having some of the world's best Rainbow fishing, Rainbow trout in this state are limited both in number and location. Only in Bristol Bay and Cook Inlet do major numbers of Rainbow trout occur. For 1983, the latest year for which complete catch data exist, the entire statewide Rainbow harvest was less than 175,000 fish. Approximately 125,000 of these fish were from Cook Inlet waters, and over half of the statewide total were small stocked trout from lakes adjacent to urban centers.

Rainbow trout in Alaska are not only limited in number, they are slow-growing, and stocks are very easily damaged. In recognition of these facts, the Board of Fisheries regulates wild Rainbow stocks with very stringent bag limits, in many cases allowing only one trout per day.

(6) POSITION STATEMENT

Subsistence fishing in Cook Inlet waters should be limited to the areas adjacent to English Bay, Port Graham, and Tyonek, as previously designated by the Board of Fisheries. All other non-commercial net fishing in Cook Inlet should be conducted under personal-use regulations.

BACKGROUND

This is the only recommendation of the Alaska Sportfishing Association relating to a specific area of the state. We must face the fact that Cook Inlet is unique. Over half the state's population resides in this drainage. Most of these people have access only to Cook Inlet fishery stocks. According to Fish and Game data, approximately 140,000 sport fishermen and several thousand commercial fishermen utilize Cook Inlet fisheries, in addition to persons wishing subsistence fishing privileges.

Regulations promulgated by the Board of Fisheries, after passage of the 1978 subsistence law, restricted gill net subsistence fishing to remote villages of Cook Inlet. These regulations successfully avoided the intense conflict which resulted when priority mandated subsistence gill netting was opened in high-use waters accessible to the Cook Inlet highway systems.

We have no objection to continued subsistence harvests by any Alaskan in the three communities noted above. However, in basic fairness to all Alaskans living in Cook Inlet and to avoid the inevitable future chaotic controversy associated with priority mandated gill net fisheries, in the remainder of Cook Inlet subsistence fisheries should not be permitted. We wish to make clear that we believe that gill net, or dip net fisheries, may be desirable in certain times and for sites in Cook Inlet waters. However, it is critical that these fisheries be permitted on a non-priority basis by the Board of Fisheries under personal-use regulations.