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House Special Committee on Fisheries

AGENDA-February 19, 2003

Rm#124; 8:30-10:00 a.m.

- 1) +*HCR 6 Extension of the Joint Legislative Salmon Industry Task Force.
- 2) Overview of the Alaska Department of Fish and Game **Subsistence Division**, Director Mary C. Pete presenting.

Questions and Answers.

Thank you. If you have any questions you can contact my committee staff person, Cameron Yourkowski, at 465-3306

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Division of Subsistence Program Review

FY03 Management Plan Funding

General Funds	224.1
AIDEA Dividend Receipts	1,000.0
Inter-Agency Receipts	538.1
Program Receipts	70.1
Federal Receipts	2,253.5
EVOS	369.2
TOTAL	4,455.0

Mission, Goals & Strategies

Mission

The mission of the Division of Subsistence is to gather, quantify, evaluate, and report data about uses, users, and methods of subsistence hunting and fishing; and make recommendations on the impacts of federal and state laws and regulations on subsistence uses and users.

Goals and Strategies

1. Provide comprehensive, accurate information on subsistence uses of fish and game in selected communities throughout the state. The division was created by the legislature because successful implementation of the state subsistence law would require a reliable database for making subsistence allocation decisions. Research goals are to document and analyze subsistence uses in Alaska, and to provide information to the general public and to a variety of public agencies, organizations, and decision-making bodies. This is the primary function of the division and will be maintained to the maximum extent possible given available funding.
2. Implement the state subsistence law. The division has responsibility for implementing the state subsistence law through close coordination with the Department of Law. This involves following and understanding the legal framework for subsistence implementation, advising the commissioner and other department staff on necessary implementation steps, and guiding the Boards of Fisheries and Game through the implementation process. Key elements in the implementation process include action by the boards in making customary and traditional use findings, determining the amount reasonably necessary to meet subsistence needs and promulgating regulations that provide a reasonable subsistence harvest opportunity.

Organizational Structure

The subsistence section was established by law in 1978 and accrued division status in 1980. Currently the division has 28 full-time, 10 part-time and 62 non-permanent positions. The management team consists of the division director, the assistant director, the research director, two regional program managers, and database program coordinator. The assistant director serves as the department's liaison to the federal Office of Subsistence Management.

The division maintains a Headquarters Office in Juneau, regional offices in Douglas, Anchorage and Fairbanks, and field offices in Kotzebue, Bethel, Dillingham, and Kodiak. In the past year, division researchers conducted studies in 147 communities.

Performance Measures

1. Number and percentage of Alaskan communities in each region for which fisheries harvest data are collected and reported.

	<u>Total Communities</u>	<u>Number Collected</u>	<u>Percentage</u>
• Southeast	34	3	9%
• Southcentral	34	28	82%
• Southwest	41	30	73%
• Interior	43	40	93%
• Western	50	40	80%
• Northwest	26	18	69%
• Arctic	7	3	43%

Subsistence salmon fisheries harvest data are collected annually in certain regions of the state (Western, Interior, Southwest, Northwest) and sporadically in other parts, as funding and project schedules allow. The regions with annual assessment generally are those with the greatest dependence on key species, such as salmon. Harvest information for other regions is collected as multiple purpose projects are activated. The division maintains a statewide subsistence harvest assessment report that contributes to the statewide harvest report of all uses.

2. Numbers and percentage of Alaska communities in each region for which wildlife harvest data and subsistence use information are collected and reported.

	<u>Total Communities</u>	<u>Number Collected</u>	<u>Percentage</u>
• Southeast	34	0	0%
• Southcentral	34	5	15%
• Southwest	41	17	41%
• Interior	43	17	40%
• Western	50	0	0%
• Northwest	26	5	19%
• Arctic	7	3	43%

Subsistence wildlife harvest data are collected annually in certain regions of the state (Southwest, Interior, and Arctic) and sporadically in other parts, as funding and project schedules allow. The regions with annual assessment generally are those for which funding is available due to controversial or allocation concerns, such as big game in the Interior. The aim is to develop a schedule of regional updates of harvest data, as resources are available. Harvest information for other regions is collected as multiple purpose projects are activated.

3. Number and percentage of subsistence proposals at meetings of the Board of Fisheries and the Board of Game for which subsistence data are assessed and recommendations are made.

Fisheries Region on Agenda	Total Proposals	Subs. Proposals	Percentage
• Lower Cook Inlet	43	1	2%
• Upper Cook Inlet	111	15	16%
• Kodiak/Chignik	110	4	4%
• Statewide King & Tanner Crab	96	4	4%

Game Region on the Agenda	Total Proposals	Subs. Proposals	Percentage
• Western & Arctic	39	34	87%
• Interior	175	130	74%
• Statewide	62	30	48%

Subsistence data from harvest assessment projects are used to analyze impacts of subsistence proposals to the Boards of Fisheries and Game. There are some areas or issues for which the division has not collected data or the data is outdated due to regulatory changes in the intervening years or uses are known to have changed but details are unknown. The division attempts to anticipate information needs of the boards and public through extensive public contacts such as local fish and game advisory committees and local harvest monitors. This information is useful to plan research priorities and schedules to address these issues as each board responds to public proposals. The goal is to have current subsistence information for every proposal that comes before each board.

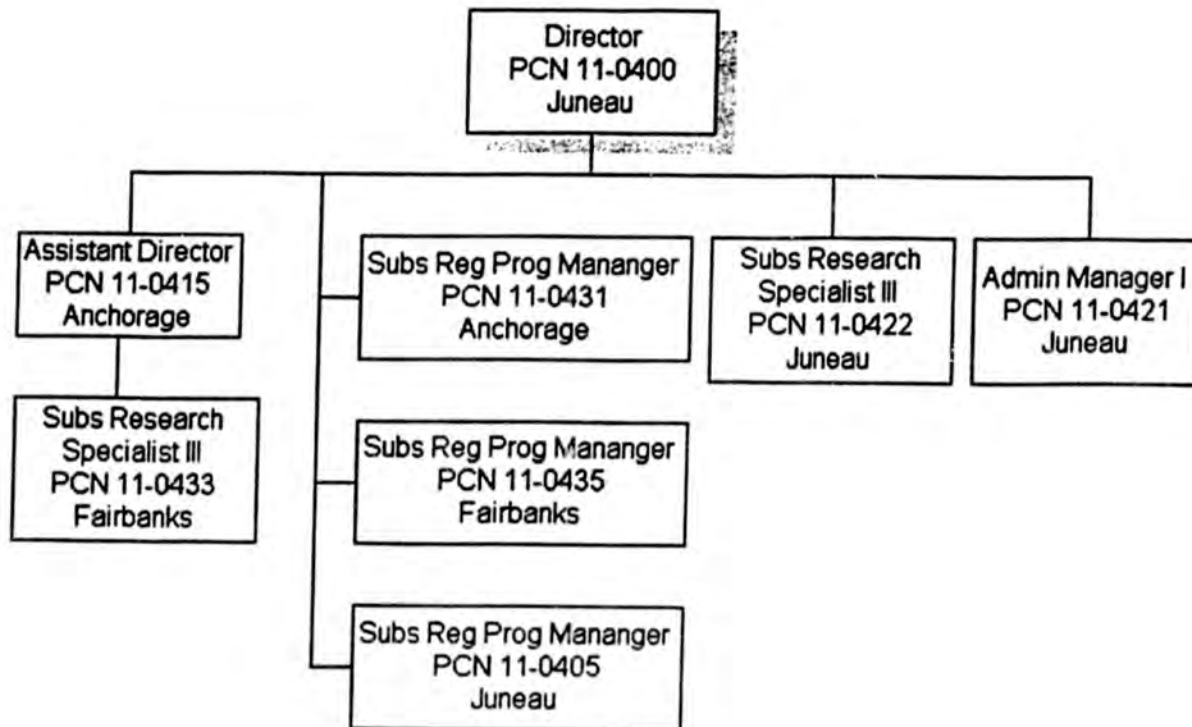
4. Number of proposed statutory and regulatory changes by federal and other state entities for which subsistence data are assessed and recommendations are made.

For state regulatory proposal and changes, see previous measure. Resolution of the state's subsistence dilemma in the form of a proposed constitutional amendment allowing a rural preference for the subsistence priority was the only statutory proposal for which subsistence data were used. In the most recent regulatory cycle, there were 46 wildlife proposals and 44 fisheries proposals to the Federal Subsistence Board for regulatory change. Subsistence data were used in analysis and comments on all the proposals to the federal program. The federal program does not conduct research; it relies on the state's subsistence information.

Program Administration

The division had a statewide staff meeting in May 2002 to review its work over the past two decades and explore future direction and priorities within its mandate. Some administrative and operational practices were reviewed for change and improvement, such as contracting with partner agencies to hire local subsistence monitors to reduce division personnel duties and allow principal investigators to focus on substantive oversight of projects. Other ideas were to develop procedures for harvest assessment monitoring programs that are more efficient with standard measures and information to automatically incorporate into division databases. Increased on-line accessibility of division databases was a high priority, which will reduce staff time in responding to information requests.

DIVISION OF SUBSISTENCE



Division of Subsistence General Information

STATUTORY BASIS

AS 16.05.090; AS 16.05.094; AS 16.05.258

OVERVIEW

Subsistence hunting and fishing are economically and culturally important for many Alaskan families and communities. The division's main responsibilities are to conduct research to document subsistence uses, estimate subsistence harvest levels, and evaluate potential impacts to subsistence users from other uses. Research findings are compiled and analyzed to address fish and wildlife management and regulatory issues and to provide information for state and federal land use planning.

DUTIES

Compile existing data and conduct studies to gather existing information, including data from subsistence users, on all aspects of the role of subsistence hunting and fishing in the lives of the residents of the state.

Quantify the amount, nutritional value, and extent of dependence on food acquired through subsistence hunting and fishing.

Make information gathered available to the public, appropriate agencies, and other organized bodies. Assist the department, the Board of Fisheries and the Board of Game in determining which uses of fish and game, as well as what users and what methods, should be termed subsistence users, uses, and methods.

Evaluate the impact of state and federal laws and regulations on subsistence hunting and fishing and, when corrective action is indicated, make recommendations to the department.

Make recommendations to the boards of fisheries and game regarding adoption, amendment, and repeal of regulations affecting subsistence fishing and hunting.

Participate with other divisions in the preparation of statewide and regional management plans so that those plans recognize and incorporate the needs of subsistence users of fish and game.

MAJOR ISSUES

Dual Subsistence Management. Although both the Alaska National Interest Lands Conservation Act (ANILCA) and the State of Alaska subsistence law recognize subsistence uses, dual management has increasingly led to different regulatory situations on state and federal land. In FY97 the division assumed lead department coordination and liaison functions with the Federal Subsistence Management program. This work entails tracking the federal board process to comment on proposals, filing requests for reconsideration when federal decisions are counter to factual analysis; or protection of the state's subsistence uses and ensuring sustained yield; and providing department information throughout the process, including litigation.

Subsistence Resolution. Resolution of the dual management situation and resumption of state management of fish and wildlife on federal lands are certain to be important issues in FY98. Efforts by the administration or the legislature to regain state management, and/or potential legal decisions would likely change the present management landscape. Private sector groups, such as chambers of commerce and fishing groups have also expressed interest in providing forums for discussion of the issue. Division data and expertise will be called upon to provide the factual basis and the necessary analysis that may contribute to a lasting resolution of the present management impasse.

State Subsistence Law Implementation. The present state subsistence law may be examined in the coming legislative session. The Legislature will rely on the Division of Subsistence to provide a factual basis and analysis of fishing and hunting patterns to support legislative action on this law. Implementing the present law requires major work in two main areas: determining customary and traditional uses and providing reasonable opportunity for subsistence harvests, and secondly, developing and administering Tier II hunting procedures.

Resource Allocation. Allocation disputes between user groups continue. Division data provide the basis for Boards of Fisheries and Game customary and traditional use determinations and for the promulgation of subsistence regulations.

SUBSISTENCE RESEARCH

Harvest Monitoring and Species-Specific Studies. A number of division projects in FY98 will document levels of subsistence salmon harvest in fisheries where accurate yearly harvest data are essential for management. Assessment projects are planned in Northwest Alaska, the Kuskokwim River drainage, Bristol Bay, the Chignik area, Cook Inlet, and Copper River. Research in Southeast Alaska will examine harvest and use of king and coho salmon in the area's smaller communities. Research on subsistence fisheries along the Aniak, Kisaralik, and Kwethluk rivers, and further monitoring of Nelson Island herring harvests are also scheduled. The division will update data on subsistence use of deer in Southeast Alaska, and examine moose hunting practices in Yukon River drainage communities. Several proposed projects in the Interior and northern Alaska as well as one completed in the Bristol Bay region will develop models for harvest assessment of large game through partnership with regional Native organizations.

Community Profiles. Subsistence harvest survey data, maintained in the Community Profile Database, provide the quantitative factual basis for regulatory decisions on subsistence issues as well as provide information for land use planning. In FY98 the division will continue to update community profiles by conducting household surveys in northern Southeast and Interior communities. Available data for these regions has become dated. Other regions of the state will be resurveyed in subsequent years, following a five-year research cycle.

Collaborative Research. The efficient collection of accurate subsistence harvest and use data in small communities in Alaska increasingly requires the active participation of local communities in this work. The division will continue its practice of working closely with local communities in field research projects. Many research projects will take place through cooperative agreements with community and regional organizations.

Marine Mammal Studies. Certain marine mammal species are being evaluated for possible Endangered Species Act protection; final decisions have yet to be made. The division has undertaken studies of subsistence use of harbor seals and sea lions under contract with the National Marine Fisheries Services (NMFS). These studies have documented the importance of subsistence harvests and demonstrated that these harvests are not the cause of declines of marine mammal populations.



[Subsistence Home Page](#)

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Subsistence

MISSION STATEMENT

The Division of Subsistence is the research branch of the Alaska Department of Fish and Game responsible for providing comprehensive information on the customary and traditional use of wild resources in Alaska. We furnish this information to meet resource management goals, aid in regulation development, facilitate collaborative agreements, assess environmental impacts, and to describe the unique role of wild resources in the lives, communities, and cultures of Alaskans.

Background

In 1978, the Alaska Legislature passed the Alaska subsistence law requiring that subsistence uses of fish and game be authorized and protected, and established the legal basis for the Division of Subsistence within the Department of Fish and Game. The division's main duty lies in the area of human dimensions research which focuses on understanding human systems, that is, people and their ways of living, using systematic methods of gathering and analyzing information developed for the social sciences, including interviews, mapping, surveys, direct observation, and participant observation. We maintain the public's trust by adhering to high ethical standards in carrying out our research, obtaining community approval before beginning research, including local residents directly in the research process, providing proper confidentiality, and presenting study results to community representatives before publication. The division's professional staff is a combination of social scientists, biologists, and local subsistence experts who study and report on:

- wild resource harvests and uses,
- seasonality of fishing, hunting, and gathering,
- methods of harvesting and processing,
- harvest levels,
- sharing and trading subsistence foods,
- geographic areas used,
- cultural and economic values attached to subsistence,
- types of groups that work and share together,
- trends in resource use patterns, and
- resource issues that need resolution.



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Subsistence in Alaska: A Year 2000 Update

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Introduction

Subsistence fishing and hunting are important for the economies and cultures of many families and communities in Alaska. Subsistence exists alongside other important uses of fish and game in Alaska, including commercial fishing, sport fishing, personal use fishing, and general hunting. This report provides an update on subsistence in Alaska, including the dual state-federal management system.

What is Subsistence?

State and federal law define subsistence as the "customary and traditional uses" of wild resources for food, clothing, fuel, transportation, construction, art, crafts, sharing, and customary trade. Subsistence uses are central to the customs and traditions of many cultural groups in Alaska, including Aleut, Athabaskan, Alutiiq, Euroamerican, Haida, Inupiat, Tlingit, Tsimshian, and Yup'ik. Subsistence fishing and hunting are important sources of employment and nutrition in almost all rural communities.

Commercial fishing differs from subsistence fishing, as it is fishing for sale on commercial markets. Subsistence fish and game cannot be commercially sold. Personal use

fishing is similar to subsistence fishing, except that it is fishing with nets for food in areas generally closed to subsistence, particularly by residents of urbanized areas. Sport fishing and sport hunting differ from subsistence in that, although food is one product, they are conducted primarily for recreational values, following principles of "fair chase". While subsistence is productive economic activity which is part of a normal routine of work in rural areas, sport fishing and sport hunting usually are scheduled as recreational breaks from a normal work routine.

Who Qualifies for Subsistence?

Federal and state laws currently differ in who qualifies for subsistence. Rural Alaska residents qualify for subsistence under federal law. About 20% of Alaska's population (123,118 people in 270 communities) lived in rural areas in 1999 (see Fig. 1). Of the rural population, 62,646 (51%) were Alaska Native and 60,472 (49 %) were not Alaska Native. Of Alaska's urban population (498,882 people), about 35,243 (7%) were Alaska Native and 463,639 (93%) were not Alaska Native. Under state law, rural residents qualified for subsistence from 1978-1989. Since 1989, all state residents have qualified under state law.

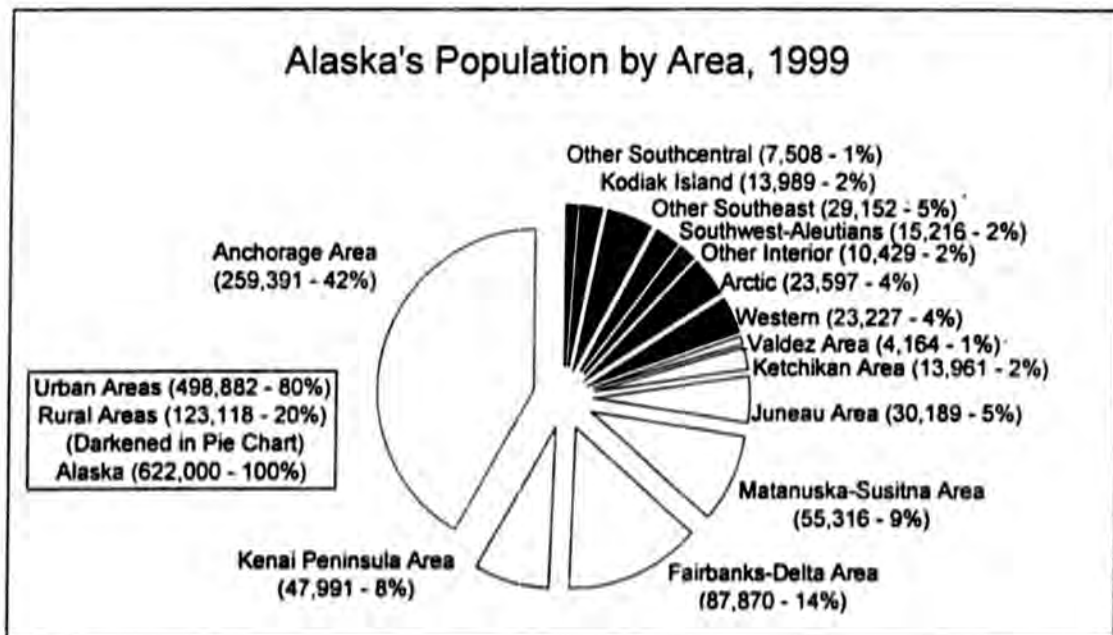


Figure 1

Percent of Households Participating in Subsistence Activities in Rural Areas

Area	Harvesting Game	Using Game	Harvesting Fish	Using Fish
Ardic	63%	92%	78%	96%
Interior	69%	88%	75%	92%
Southcentral	55%	79%	80%	94%
Southeast	48%	79%	80%	95%
Southwest	65%	90%	86%	94%
Western	70%	90%	98%	100%
Total Rural	60%	86%	83%	95%

Figure 2

Composition of Subsistence Harvest by Rural Residents

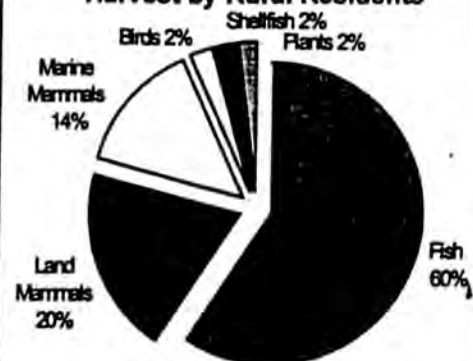


Figure 3

Who Participates in Subsistence?

Most rural families in Alaska depend on subsistence fishing and hunting. A substantial proportion of rural households harvest and use wild foods (see Fig. 2). For surveyed communities in different rural areas, from 92%-100% of sampled households used fish, 79%-92% used wildlife, 75%-98% harvested fish, and 48%-70% harvested wildlife. Because subsistence foods are widely shared, most residents of rural communities make use of subsistence foods during the course of the year.

What is the Rural Food Harvest?

Most of the wild food harvested by rural families is composed of fish (about 60% by weight), along with land mammals (20%), marine mammals (14%), birds (2%), shellfish (2%), and plants (2%) (see Fig. 3). Fish varieties include salmon, halibut, herring, and whitefish. Seals, sea lion, walrus, beluga, and bowhead whale comprise the marine mammal harvest. Moose, caribou, deer, bear, Dall

sheep, mountain goat, and beaver are commonly used land mammals depending on the community and area.

How Large is the Subsistence Harvest?

The subsistence food harvest in rural areas represents about 2% of the fish and game harvested annually in Alaska (see Fig. 4). Commercial fisheries harvest about 97% of the statewide harvest (about 2.0 billion lbs annually), while sport fishing and hunting take about 1% (18.0 million lbs).

Though relatively small in the statewide picture, subsistence fishing and hunting provide a major part of the food supply of rural Alaska (see Figs. 5 and 6). Our best estimate is about 43.7 million lbs (usable weight) of wild foods are harvested annually by residents of rural areas of the state, and 9.8 million lbs by urban residents (see Fig. 6). On a per person basis, the annual wild food harvest is about 375 lbs per person per year for residents of rural areas (about a pound a day per person), and 22 lbs per person per year for urban areas (see Fig. 5).

Who Harvests Fish and Game?
Resource Harvests by Use in Alaska

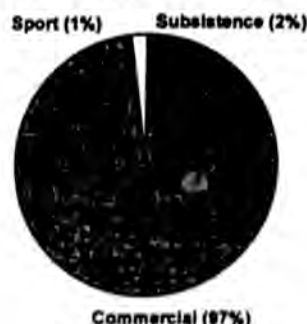


Figure 4

Wild Food Harvests in Alaska
by Area, 1990s
(Lbs Per Person Per Year)

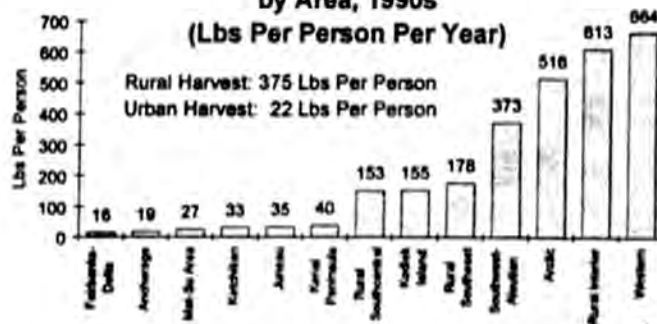


Figure 5

Nutritional Value of Subsistence

The subsistence food harvest provides a major part of the nutritional requirements of Alaska's population. The annual rural harvest of 375 lbs per person contains 242% of the protein requirements of the rural population (that is, it contains about 118 grams of protein per person per day; about 49 grams is the mean daily requirement) (see Fig. 6). The subsistence harvest contains 35% of the caloric requirements of the rural population (that is, it contains about 840 Kcal daily, assuming a 2,400 Kcal/day mean daily requirement). The urban wild food harvests contain 15% of the protein requirements and 2% of the caloric requirements of the urban population (see Fig. 6).

Wild Food Harvests in Alaska: Nutritional and Replacement Values						
	Annual Wild Food Harvest (Lbs Per Person)	Annual Wild Food Harvest (Total Lbs)	Percent of Population's Required		Estimated Wild Food Replacement Value @ \$3/lb	Estimated Wild Food Replacement Value @ \$5/lb
			Protein (49 g/day)	Calories (2400 C/day)		
Rural Areas						
Southcentral	153	1,688,467	99%	14%	\$5,065,401	\$8,442,335
Kodiak Island	155	2,061,807	100%	14%	\$6,184,821	\$10,308,035
Southeast	178	5,064,509	115%	17%	\$15,193,527	\$25,322,545
Southwest-Aleutian	373	5,114,522	241%	35%	\$15,343,566	\$25,572,610
Interior	613	6,359,597	398%	57%	\$19,078,791	\$31,797,985
Arctic	516	10,507,255	333%	48%	\$31,521,765	\$52,536,275
Western	664	12,918,649	429%	62%	\$38,755,947	\$64,593,245
Total Rural	375	43,714,606	242%	35%	\$131,143,818	\$218,573,030
Urban Areas						
Ketchikan Area	33	461,855	22%	3%	\$1,385,566	\$2,309,276
Juneau Area	35	922,910	22%	3%	\$2,768,729	\$4,614,548
Matsu Area	27	1,056,322	17%	2%	\$3,168,966	\$5,281,610
Fairbanks-Delta	16	1,307,648	10%	1%	\$3,922,944	\$6,538,240
Kenai Peninsula	40	1,600,320	26%	4%	\$4,800,960	\$8,001,600
Anchorage Area	19	4,390,957	13%	2%	\$13,172,872	\$21,954,786
Total Urban	23	9,740,012	15%	2%	\$29,220,036	\$48,700,060
Alaska Total	100	53,454,618	65%	9%	\$160,363,854	\$267,273,090

Figure 6

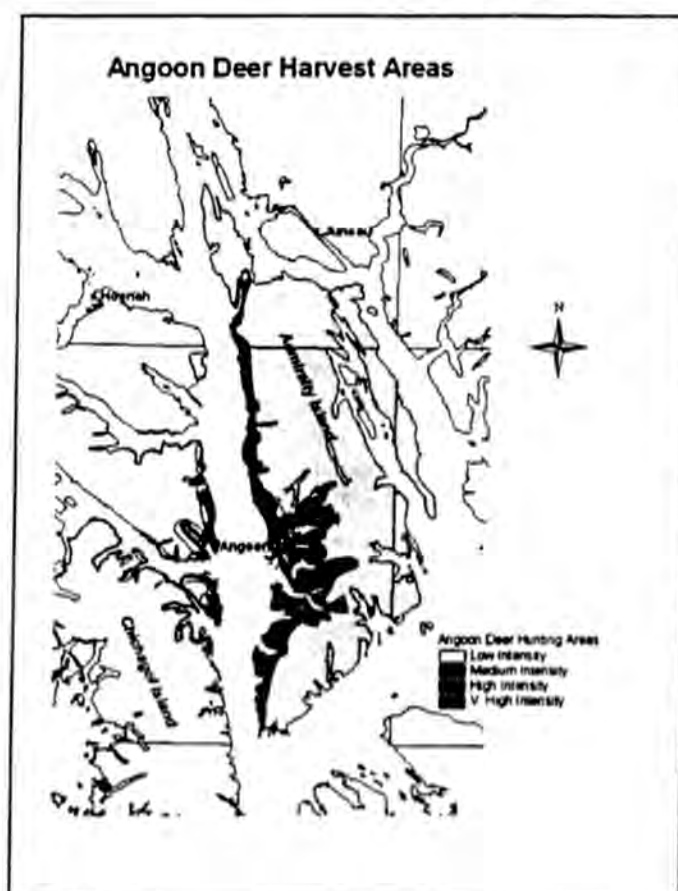


Figure 7

Traditional Harvest Areas

Studies show that subsistence users tend to harvest in traditional use areas surrounding their communities. Subsistence harvest areas are accessible from the community, although seasonal camps are used to access some species. Subsistence harvest areas for communities are definable and relatively predictable. Subsistence users generally do not harvest outside their community's traditional use areas (see Fig. 7).

The Monetary Value of Subsistence Harvests

Subsistence fishing and hunting are important to the rural economy. Attaching a dollar value to wild food harvests is difficult, as subsistence products do not circulate in markets. However, if families did not have subsistence foods, substitutes would have to be purchased. If one assumes a replacement expense of \$3 - \$5 per pound, the simple "replacement value" of the wild food harvests in rural Alaska may be estimated at \$131.1 - \$218.6 million dollars annually (see Fig. 6).

Subsistence and Money

Subsistence is part of a rural economic system, called a "mixed, subsistence-market" economy. Families invest

money into small-scale, efficient technologies to harvest wild foods, such as fishwheels, gill nets, motorized skiffs, and snowmachines. Subsistence food production is directed toward meeting the self-limited needs of families and small communities, not market sale or accumulated profit as in commercial market production. Families follow a prudent economic strategy of using a portion of the household monetary earnings to capitalize in subsistence technologies for producing food. This combination of money from paid employment and subsistence food production is what characterizes the mixed, subsistence-market economies of rural areas. Successful families in rural areas combine jobs with subsistence activities and share wild food harvests with cash-poor households who cannot fish or hunt, such as elders, the disabled, and single mothers with small children.

Dual Subsistence Management

Subsistence fishing and hunting in Alaska are regulated by the State of Alaska and the federal government, depending upon where the harvests occur. This system is called a "dual management system" because there are overlapping state-federal jurisdictions in many areas. The federal government regulates federal subsistence fisheries and hunts on federal public lands and federally-reserved waters in Alaska. The State of Alaska regulates state subsistence fisheries and hunts on all Alaskan lands and waters. A harvester should consult both the federal subsistence regulation booklet and the state subsistence regulation booklet, to be apprised of the complete set of hunting or fishing regulations in a particular area.

The Alaska Board of Fisheries and the Alaska Board of Game create regulations for state subsistence fisheries or hunts. The Federal Subsistence Board creates regulations for federal subsistence fisheries or hunts. In creating regulations, each board follows procedures for obtaining information and comment on proposed regulations from the public, agencies, and other interests.

Hunting of marine mammals is managed by the federal government through the National Marine Fisheries Service (seals, sea lions, and whales) or the U.S. Fish and Wildlife Service (polar bear, sea otters, and walrus). There is an exemption in the federal Marine Mammal Protection Act to allow for the traditional harvest and use of marine mammals by coastal Alaska Natives.

Subsistence hunting and fishing are closed in non-rural areas of Alaska by the federal and state programs. Federal law recognizes subsistence harvests only by residents of rural areas. State law recognizes subsistence harvests in subsistence areas outside the boundaries of "nonsubsistence areas". The Federal Subsistence Board and the Alaska

Joint Board of Fisheries and Game have determined that the areas around Anchorage-Matsu-Kenai, Fairbanks, Juneau, Ketchikan, and Valdez are non-rural areas, where fish and game harvests may be allowed under sport, personal use, or commercial regulations, but not under subsistence regulations.

The Subsistence Priority

Subsistence uses of fish and land mammals are given a priority over commercial fishing and recreational fishing and hunting in state and federal law. This means that when the harvestable portion of a fish stock or game population is not sufficient for all public uses, that subsistence uses are restricted last by regulation.

By and large, urban fishers and hunters have not experienced major changes in harvest opportunity due to the subsistence priority. General hunting and sport fishing regulations continue to provide opportunities for residents and non-residents. Personal use net fisheries provide for established food fisheries of urban residents in areas closed to subsistence fishing.

For example, during the eleven-year period when the rural priority was being implemented under state management (1978-1989), general resident hunting seasons for caribou increased by 36% (from 5,505 days to 7,500 days), moose hunting days decreased by 10% (from 2,961 days to 2,671 days), and Dall sheep hunting days increased by 2% (from 1,855 days to 1,900 days) – comparing the 1978-79 resident season with the 1989-90 resident season. That is, during this period, hunting days by urban hunters for caribou, moose, and sheep were not significantly changed by the rural subsistence priority.

The greatest effect of state and federal subsistence laws has been to legally recognize customary and traditional harvest practices and uses in rural areas. Because of the law, the Alaska Boards of Fisheries and Game and the Federal Subsistence Board have created subsistence regulations designed to provide opportunity for the continued harvest of the rural food supply. While impacts on urban residents have been relatively small, the impacts on rural areas have been great. Rural residents have a legally protected opportunity to fish and hunt to feed families following long-term customs and traditions.

*Robert J. Wolfe, Research Director, Division of
Subsistence, ADF&G, Juneau, March 2000*