HB

229

COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF ALASKA, USDA & SEA GRANT COOPERATING

P.O. Box 521, Cordova, Alaska 99574

March 7, 1985

Clemens A. Ady, Director
Special Projects
Chugach Alaska Fisheries, Inc.
4241 21st Avenue West, Suite 204
Seattle, WA 98199

Dear Clem:

Re: Herring Stripping

I have been asked by your local representa... provide comment on current restrictions ... dumping in Prince William Sound.

As I understand the current interpretation of the statute concerning wastage of fish and game resources, "waste" of herring is defined as failure to use the carcass for things such as reduction to meal, fish or domestic animal food, human consumption, bait, etc.

I understand your company is currently supporting legislation to legalize dumping as an alternative primarily for economic reasons. I'll just relay a few observations on the situation:

1. The current restrictions pose a serious financial burden on herring processors. The economics of fully utilizing herring carcasses are at best marginal and in many cases prohibitive. Also, Japanese import quotas on round herring can present real market limitations.

2. The current restrictions significantly affect several coastal communities in Alaska in that they in effect make it non-profitable to strip locally and thus preclude the positive economic benefits of local processing.

3. The sac-roe fishery is an extremely important one both in timing and in the magnitude of economic benefits

4. Deep water dumping is probably one of the most economic alternatives available to processors.

5. Deep water dumping of stripped carcasses would not, in a strict marine ecological sense, constitute "waste" of organic material. The biochemical constituents of the carcasses will be rather quickly reincorporated into the marine food web that supports biomass production. If carcasses are dumped in deep water, a number of mechanical (wave action, turbulence, etc.), biological (bacterial digestion, grazing by other zooplankters and fish), and chemical (oxidation, etc.) processes will within a relatively short amount of time degrade all the material into its basic organic components which will then be reincorporated into either the benthic (bottom) or pelagic (water column) food webs. Such an addition of nutrients, especially the nitrates from degraded amino acids and proteins, could enhance phytoplankton production on a very limited scale, since most oceanic phytoplankton production seems to be limited by available sources of nitrate. It would be, in effect, fertilizing a very, very small volume of ocean water. The degradation process would be sped along by grinding the carcasses but will occur even if they are not ground. Larger chunks of carcasses might make their way into benthic food webs via crabs or bottom feeding fishes such as black cod, halibut, rockfish, etc. In a strict sense, the nutrient balance of Prince William Sound is being upset by continual removal of organic nutrients incorporated into both salmon and herring and could possibly even exceed the rate of usable nutrient input at specific times and places. If such a situation does indeed exist, then these localized nutrient deficits could actually be limiting the overall productivity of the Sound for things such as wild and hatchery-reared salmon fry, herring, etc. Any reintroduction of nutrients removed by commercial fishing, if done in the proper manner, could only help the productivity of the sound. The University of Alaska Institute of Marine Science presently is involved in a multi-

institution program to study just such a process of nutrient cycling in the Bering Sea. The project is called ISHTAR.

6. The main issue in "wastage" of herring carcasses seems to be more moral/ethical than biological.

7. It would probably be to the long-term economic advantage of Alaskan processors to develop an economical means of fully utilizing herring carcasses, i.e., meal, ensiling, etc. I would be glad to help you analyze any of these alternatives.

If you have any questions on any of this or need any additional information, please give us a call.

Sincerely,

Rick Steiner

RICK STEINER
Assistant Professor of Fisheries

gf

Alaska State Legislature
HOUSE OF REPRESENTATIVES
COMMITTEE ON RESOURCES

POUCH V
JUNEAU, ALASKA 99811
(907) 465-3715

LETTER OF INTENT FOR HOUSE BILL 229

March 29, 1985

It is the intent of the Legislature that the approval process by the Alaska Department of Fish and Game for operations permitted under Section 1 be kept as simple as possible. The Commissioner should base his authorization upon a letter from the operator of the processing plant which details specific plans to operate in accordance with applicable state laws and regulations.

It is also the intent of the Legislature that an ongoing assessment of economically feasible alternatives for the use of herring carcasses should be a priority within existing fisheries programs of the administration, particularly the Department of Commerce. This priority should be made because of (1) the changing economics of the herring industry which sometimes make it impossible for local citizens in some areas of the state to derive benefits from utilization of the herring resource under current Alaska Statutes, (2) the current lack of economically feasible processing alternatives for the developing Bering Sea herring fisheries, and (3) the tremendous potential for increase in employment in Alaska's processing industry, statewide, which might be realized through such ongoing research.

It is the intent of the Legislature that the Department of Commerce will report to the Legislature by the fifteenth day of the first regular session of each legislature, with this information.

Adelheid Herrmann

Representative Adelheid Herrmann
Co-Chairman, House Resources Committee

March 29, 1985

Date

— Letter of Intent

Adopted by House 4/1/85

HISTORY OF HB 229

To: House Resources Committee Files
From: Janet Fries, Committee Aide
Date: March 17, 1985

AS 16.10.172 and 173, the statutes which prohibit the waste of carcasses from herring that have been stripped of roe, were passed by the Legislature in 1977. Section 173 included an exception from these statutes for the Bering Sea until January 1, 1979, because there was little or no infrastructure for the developing herring fishery in this area to support the processing of herring without disposal of the carcasses.

During the 1978 and 1979 herring seasons, many processors in the state who were not equipped to either freeze the roe herring whole or near enough to a reduction plant to have it reduced to fish meal economically, shipped the herring whole, lightly salted, to Japan. This herring was stripped for roe in Japan, Alaska fishermen and processors were paid less for it, and Japanese labor was used to process it, thus leaving Alaska with little economic benefit from this fishery.

In 1980, the Legislature passed Section 1, ch. 27, SLA 1980, Legislative Findings and Policy on Herring Stripping. This law did three things:

(1) It created the language which appears in the statutes (although it is not part of the statutes) following AS 16.10.172. These findings report that in some circumstances, stripping herring may provide such important economic benefits to the state that they may outweigh the waste involved in the process.

(2) It created an exception from the stripping law for the Bering Sea only from September 1, 1980 to July 1, 1982.

(3) This law also added AS 16.10.175 to the statutes, which prohibits removal of herring from the state before it is processed. This was done to solve the problem of herring being shipped from Alaska with little or no processing, that was created when the stripping statutes first became effective.

In 1983, the Legislature passed House Bill 267 which became Chapter 14 SLA. This bill created a third exception from the stripping law for the Bering Sea only until July 1, 1984, because the herring fishery was still developing in western Alaska and there was still no freezing capacity or reduction plant to support many local processing operations.

FISCAL NOTE

Revision Date:

REQUEST
Bill/Resolution No.: HB 229
Title: An Act Relating to Herring Stripping & Providing an Efftv. Date
Sponsor: Herrmann and Fuller
Requestor: Hs.Spec.Conc.Com.Fish + Res.
Date of Request: Mar 4, 1985

FISCAL DETAIL
Agency Affected: Fish and Game
Program Category Affected: Fisheries Resource Conservation
BRU, Program or Subprogram(s) Affected: Commercial Fisheries BRU and Components

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE:						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

(please see attached page)

Prepared By: Robert L. Wilbur Phone: 465-4210
Division: Commercial Fisheries Date: 3-7-85

Approved by Commissioner: [signature] Date: 3-7-85
Agency:

Distribution (by Agency preparing fiscal note):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

7/1/84

Analysis:

HB 260 seeks to repeal an AS16.10.173 exception which allows the roe of commercially harvested herring in the Bering Sea to be stripped and the carcasses disposed of in the Bering Sea. HB 229 seeks to extend that exception through July 1, 1988.

If either bill is enacted, the impacts on state programs and funding requirements will be negligible. The only foreseeable direct costs to the state would involve Board of Fisheries time allocated to public hearing and regulatory considerations, and these should represent comparatively insignificant time and cost requirements under either bill.

Should the exception be repealed (HB 260), some herring fishermen who have traditionally taken herring roe in the Bering Sea by allowing the flesh to decompose prior to roe stripping would have to conform to freezing techniques. While this prevents wastage of the flesh, it may increase capital and processing costs for the affected fishermen and processors and thereby reduce fisherman profits. Some minor impacts to local economics could therefore occur.

5 AAC 27.070. REGISTRATION AND INSPECTION DOCUMENTS. Repealed 4/14/82.

ARTICLE 3.
PROHIBITIONS

Section
90. Unlawful possession of herring or herring gear
92. Unlawful acts within an adjacent seaward biological influence zone
93. Disposal of herring
95. General restrictions
96. Violation of reporting requirements
97. Violation of landing requirement
98. Violation of regulations

5 AAC 27.090. UNLAWFUL POSSESSION OF HERRING OR HERRING GEAR. (a) It is unlawful for any person to possess unprocessed herring aboard a vessel licensed as a commercial fishing vessel within any statistical area unless the season is open or unless the person is acting under the authorization of 5 AAC 27.030(b). This prohibition does not apply to herring possessed for subsistence or personal bait purposes under applicable cable regulations.

(b) It is unlawful for any person to possess aboard a vessel licensed as a commercial fishing vessel within any statistical area any herring or any gear used in the taking of herring if the herring or herring gear are prohibited by other regulations in 5 AAC 27 governing the area, unless the vessel is acting under the authorization of 5 AAC 27.030(b).

(c) It is unlawful for any person to possess, purchase, sell, barter, or transport herring within the state or within waters subject to the jurisdiction of the state if that person knows or has reason to know that that herring was taken or possessed in contravention of the regulations of this chapter. (In effect before 1982; am 4/14/82, Reg. 82)

Authority: AS 16.05.251(a)(4),(7) and (10)
AS 16.05.720
AS 16.05.900
AS 16.05.920

5 AAC 27.092. UNLAWFUL ACTS WITHIN AN ADJACENT SEAWARD BIOLOGICAL INFLUENCE ZONE. It is unlawful for any person to take, attempt to take, cause to be taken, or possess herring, or to operate, attempt to operate, or cause to be operated any vessel or gear or to possess any gear or to take, attempt to take, cause to be taken, or fail to take any action in violation of 5 AAC 27.010(b).

Authority: AS 16.05.251(a)(4),(7) and (10)
AS 16.05.720
AS 16.05.900
AS 16.05.920

5 AAC 27.093. DISPOSAL OF HERRING. In statistical areas N, T, W and Q, herring carcasses may be disposed of only as follows:

(1) any vessel with less than 5 metric tons of herring on board may only dump herring carcasses in waters more than five fathoms in depth;

(2) any vessel with five metric tons or more of herring on board may only dump herring carcasses in waters more than three miles from the mainland;

(3) or as specified by a permit issued by the Department of Environmental Conservation.

Authority: AS 16.05.251(a)(7)
AS 16.10.172–16.10.173

5 AAC 27.095. GENERAL RESTRICTIONS. A person shall obtain a permit from the department before taking herring during the period June 15 through February 28 in statistical areas K, L, M and N. (In effect before 1982; am 4/14/82, Reg. 82)

Authority: AS 16.05.251(a)(2) and (7)

5 AAC 27.096. VIOLATION OF REPORTING REQUIREMENTS. (a) It is unlawful for any person to file a fish ticket representing the catch governed by the fish ticket as having been taken in a particular statistical area when in fact the catch or part of the catch were taken in another statistical area.

(b) It is unlawful to file any fish ticket containing information which has been purposely falsified.

Authority: AS 16.05.251(a) AS 16.05.900
AS 16.05.690 AS 16.05.920
AS 16.05.720

5 AAC 27.097. VIOLATION OF LANDING REQUIREMENT. It is unlawful for any vessel

Article 3. Herring Spawn.

Section
172. Legislative policy on utilization of herring
173. Utilization of commercially taken herring
175. Removal of herring from state

Sec. 16.10.140 — 16.10.170. Taking of herring spawn; exceptions; certain restrictive covenants; penalties. [Repealed, § 2 ch 91 SLA 1970.]

Sec. 16.10.172. Legislative policy on utilization of herring. The legislature finds the following: (1) extensive and valuable herring populations are available for harvest in waters subject to the jurisdiction of the state; (2) commercial markets are available for herring processed in several forms; (3) one processing technique presently employed involves deliberately permitting decomposition of the herring carcass to allow for removal and subsequent sale of the roe product, with the consequence that the flesh is unusable and discarded. The legislature declares that the process referred to in (3) of this section is wasteful and does not constitute utilization of this resource for the maximum benefit of the people. Therefore, it is the policy of the legislature that this process should be eliminated to the fullest extent possible. (§ 1 ch 9 SLA 1977)

Editor's notes. — Section 1, ch. 27, SLA 1980 provides: "LEGISLATIVE FINDINGS AND POLICY ON HERRING STRIPPING. (a) Notwithstanding AS 16.10.172, the legislature finds that in certain circumstances the processing technique described in AS 16.10.172(3), commonly referred to as "stripping", provides benefits of such importance to the state economy that the benefits may outweigh the waste involved in the process.

"(b) It is the policy of the legislature that notwithstanding AS 16.10.173 the disposal of herring carcasses is acceptable only if

"(1) the herring is taken from waters in which the herring population is large enough to support a stripping industry without substantially reducing the availability of the herring for other uses; and

"(2) the stripping process is conducted in an area of the state where local industry either does not exist or, if it does exist, it is insufficient to provide reasonable economic support to the people who live in the area."

Sec. 16.10.173. Utilization of commercially taken herring. (a) A person may not waste or cause to be wasted any commercially taken herring. For purposes of this subsection, "person" has the meaning given in AS 01.10.060 and also includes a joint venture.

(b) As used in this section, "waste" means the failure to use the flesh of commercially taken herring for reduction to meal, production of fish food, human consumption, food for domestic animals, scientific or educational purposes, or round herring bait. Normal, inadvertent loss of flesh associated with the uses described in this subsection which cannot be prevented by practical means does not constitute waste. The com-

missioner may authorize other uses of commercially taken herring consistent with the intent of this section and AS 16.10.172 upon receipt of a request accompanied by a detailed justification.

(c) For purposes of this section, "flesh" means all muscular body tissue surrounding the bony skeleton of the herring.

(d) The Board of Fisheries may adopt regulations under the Administrative Procedure Act (AS 44.62) it considers necessary for implementation of this section. The board may delegate its authority under this section to the commissioner.

(e) The provisions of this section do not apply to herring taken commercially in the Bering Sea (including appurtenant bays, sounds, estuaries, and water of the state) north of 56° North Latitude, until January 1, 1979. (§ 1 ch 9 SLA 1977)

Editor's notes. — Section 1, ch. 14, SLA 1983 reads as follows:

"Section 1. HERRING STRIPPING. (a) Notwithstanding AS 16.10.173 and until July 1, 1984, the stripping of commercially taken herring for the purpose of removing and selling the roe product is authorized if the herring is taken from and the carcass disposal process occurs in the Bering Sea.

"(b) The Board of Fisheries shall adopt regulations in accordance with the Administrative Procedure Act (AS 44.62) regarding disposal of herring carcasses for each administrative area where disposal occurs.

"(c) The provisions of AS 46.03.100 apply to the disposal of herring carcasses under this section."

Sec. 16.10.175. Removal of herring from state. (a) A person may not remove herring from the state before the herring has been frozen or otherwise processed for shipment.

(b) In this section, "processed for shipment" includes, but is not limited to, icing, stripping or salting of the herring; however, it does not include salting of the herring if five percent or more of the body weight of the herring consists of roe. (§ 3 ch 27 SLA 1980)

Article 4. Migratory Fish and Shellfish.

Sec. 16.10.180. Legislative findings. The legislature finds and recognizes these facts:

(1) Migratory fish and migratory shellfish are present in commercial quantities inside and outside the territorial waters of the state.

(2) Migratory fish and migratory shellfish taken from the waters of the state are indistinguishable, in most cases, from those taken from the adjacent high seas.

(3) Substantial quantities of migratory fish and migratory shellfish move inshore and offshore intermittently and at various times during

Sec. 46.03.090. Plans for pollution disposal. The department may require the submission of plans for sewage and industrial waste disposal or treatment or both for a publicly or privately owned or operated industrial establishment, community, public or private property subdivision or development. (§ 3 ch 120 SLA 1971)

Sec. 46.03.100. Waste disposal permit. (a) A person who conducts an operation which results in the disposal of solid or liquid waste material or heated process or cooling water into the waters or onto the land of the state must procure a permit from the department before disposing of the waste material or water. The permit must be obtained for direct disposal and for disposal into publicly operated sewerage systems.

(b) This section does not apply to a person discharging only domestic sewage into a sewerage system.

(c) A permit for disposal of a hazardous waste may not be issued under this section unless the applicant for the permit has furnished proof to the commissioner of financial ability to control the hazardous waste. Proof of financial responsibility may be demonstrated by self-insurance, insurance, surety, or guarantee, under regulations issued by the department. Acceptance of proof of financial responsibility under this subsection expires

(1) one year from its issuance for self-insurance;

(2) on the effective date of a change in the surety bond, guarantee, or insurance agreement; or

(3) on the expiration or cancellation of the surety bond, guarantee, or insurance agreement. (§ 3 ch 120 SLA 1971; am § 3 ch 220 SLA 1976; am § 9 ch 93 SLA 1981)

Cross references. — As to compliance with financial responsibility requirements, see AS 46.03.833.

Effect of amendments. — The 1981 amendment added subsection (c).

Opinions of attorney general. — This section confers upon the Department of Environmental Conservation permit authority over dredge or fill activities, including residential subdivisions, within wetlands, estuaries, and inland and coastal marshes periodically inundated by discernible bodies of fresh or salt water upland from the mean high tide line to the extent of the aquatic or salt water vegetation line. November 13, 1975, Op. Att'y Gen.

Dredge or fill activities in coastal and fresh water wetlands shoreward to the aquatic vegetation line to result in the disposal of solid waste material into the waters of the state within the meaning of this section and thus, to the extent that these activities are of a commercial or industrial nature, do require a permit from the Department of Environmental Conservation. November 13, 1975, Op. Att'y Gen.

Sec. 46.03.110. Waste disposal permit procedure. (a) An application for a permit shall be made on forms prescribed by the department or on forms prescribed by the United States Environmental Protection Agency and shall contain the name and address of the applicant, a description of his operations, the quantity and type of waste material sought to be disposed of, the proposed method of disposal, and

any other information considered necessary by the department. Application for permit shall be made at least 60 days before commencement of a proposed discharge.

(b) Upon receipt of a proper application the department shall publish notice of the application in two separate publications of a newspaper of general circulation within the general area in which the disposal of waste material is proposed to be made. The notice may also be published in other appropriate information media. The notice shall include a statement that a person who wants to present his views to the department in regard to the application may do so in writing to the department within 30 days of the second publication of the notice. The written response entitles the writer to a copy of the application.

(c) When the department receives an application, the commissioner shall immediately send copies of the application to the commissioner of fish and game, the commissioner of natural resources, the commissioner of commerce and economic development and the commissioner of health and social services.

(d) The department may specify in a permit the terms and conditions under which waste material may be disposed of. The terms and conditions shall be directed to avoiding pollution and to otherwise carry out the policies of this chapter. No permit may be effective for a period in excess of five years from the date of issuance.

(e) If the department has certified a National Pollutant Discharge Elimination System permit under sec. 401 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. sec. 1341), and the United States Environmental Protection Agency has issued that permit to a person, the department may waive the requirements of this section, and adopt the federal permit as the permit required under AS 46.03.100. (§ 3 ch 120 SLA 1971; am § 6 ch 104 SLA 1971; am § 116 ch 218 SLA 1976; am §§ 4, 5 ch 220 SLA 1976)

Opinions of attorney general. — This section requires no more than that the Department of Environmental Conservation allow a 30-day public comment period, and that it fully and completely review those comments on receipt. June 11, 1975. Op. Att'y Gen.

The Department of Environmental Conservation cannot issue a waste disposal permit prior to expiration of the 30-day public comment period. June 11, 1975. Op. Att'y Gen.

If the Department of Environmental Conservation has reviewed and considered all public and agency comments prior to the expiration of the 60-day period, and has also completed the preparation of the permit itself within that period, it would be competent for the department to waive the remainder of the 60-day "pre-commencement" period, and issue the permit at that time. June 11, 1975. Op. Att'y Gen.

The public comments received pursuant to subsection (b) of this section function similarly to environmental impact statements for federal agencies contemplating major federal actions significantly affecting the quality of the environment. June 11, 1975. Op. Att'y Gen.

Sec. 46.03.120. Termination or modification of waste disposal permit. (a) The department may terminate a permit upon 30 days written notice if the department finds

Official Business

Alaska State Legislature

Senate

Committee on Labor & Commerce

Pouch V
State Capitol
Juneau, Alaska 99811

CSSSHB 229(Res)am Sectional Analysis:

Section 1) Authorizes herring stripping until July 1, 1986, under the following conditions:

1) herring taken from the Bering Sea or the Prince William Sound Area;

2) carcass disposal process must occur in the Bering Sea or Prince William Sound area;

3) prior authorization must be obtained from the commissioner of ADF&G. The commissioner may authorize the disposal of herring carcasses in the Bering Sea or Prince William Sound Area if the person submits an operational plan demonstrating intent to comply with herring stripping prohibitions by July 1, 1986.

b) Board of Fisheries shall adopt regs regarding the disposal of herring carcasses for each administrative area where the disposal occurs.

c) DEC waste disposal permit does [redacted] apply to the disposal of herring carcasses under this section

Section 2) Repeals section 1 (b), CH 27, SLA 1980 See editor's notes beneath AS 16.10.172 "LEGISLATIVE FINDINGS AND POLICY ON HERRING STRIPPING" in each members packet.

Section 3) Immediate effective date

STATE OF ALASKA
THE LEGISLATURE

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

House Special Committee on fisheries

3-12-85=8:30am

COST OF TRANSPORTING HERRING CARCASSES TO SEWARD FISH MEAL PLANT

To: House Resource Committee Files
From: Janet Fries, Committee Aide
Date: March 27, 1985

Source of Carcasses	PWS	Cook Inlet and Kodiak	Bering Sea
Transportation to Seward by tender[1]	$15/ton[2]	$20/ton[2]	$115 - 240/ton[3]
Offloading charge at Seward Fisheries Fish Meal Plant[4]	10/ton	10/ton	10/ton
Total	$25/ton	$30/ton	$125 - 250 /ton

1. These are estimated costs by sources noted.

2. Source: Mike Meehan, Manager, Seward Fisheries Fish Meal Plant, Seward, based on actual deliveries made during the 1984 herring season. The figures have been rounded to the next higher $5. Since no deliveries were made to the Seward plant from the Bering Sea in 1984, another method of determination was used for those estimates, as noted below. Note that when the figures used to determine a probable range of costs for the Bering Sea are used to estimate the Kodiak and Cook Inlet tendering costs, the lower end of the range is well within the figures cited by Meehan, but the upper range is slightly higher. The reason for this is probably because of the high availability of tendering vessels for hire in both of these areas at this time.

3. Source: Range estimates are based on ranges of costs for each of the transportation variables noted below, made by Tom King, Icicle Seafoods, Seattle. Tendering rates for 100 ft. vessels are approximately $1,800 - 2,400 / day, plus fuel costs @ $500 - 800 / day. Vessels hold a range of 150 - 250 tons of carcasses. The trip from Togiak to Seward is approximately 5 days, however, because most of the tenders in Togiak either travel north after the herring season to Norton Sound, or stay in Bristol Bay to tender the salmon season, it is necessary to compute a round trip, or 10 days of tender time. The trip from Norton Sound to Seward is approximately 10 days, however, all the tenders avsilable in Norton Sound after the herring fishery would most likely be heading back to Bristol Bay for the salmon season, so the round trip to Seward would be approximately 15 days.

4. Seward Fisheries charges $10/ton to offload fish waste at their dock in Seward.

Backup

STATE OF ALASKA

OFFICE OF THE GOVERNOR

BILL ANALYSIS

DEPARTMENT	DIVISION	BILL NUMBER	SPONSOR
Fish and Game	Commercial Fisheries	HB 229	Herrmann

DEPARTMENT POSITION

Neutral

PREPARED BY	DATE	COMMISSIONER'S SIGNATURE	DATE
Robert C. Clasby	2/26/85	/Tim. Kennedy	3/4/85

SUMMAR

OTHER AGENCIES AFFECTED BY BILL	CO[illegible]ENT GROUP(S) AFFECTED BY BILL
DEC	Be[illegible].g Sea Herring Fishermen and Processors
ORGANIZATIONAL SUPPORT FOR BILL	**ORGANIZATIONAL OPPOSITION TO BILL**
Unknown	Unknown

FISCAL IMPACT: ☐ NONE ☐ FISCAL NOTE ATTACHED

BACKGROUND/LEGISLATIVE INTENT

Except for 1984, similar legislation has been in effect since about 1979. The intent is to allow this activity until full processing can take place. Most roe herring are now frozen on the grounds, with a small amount being transported to locations such as Kodiak for shoreside reprocessing. It is this product that is stripped on the grounds.

ANALYSIS OF BILL/PROGRAM EFFECTS

None. Regulations governing herring carcass disposal in the Bering Sea are still in effect; see 5 AAC 27.093.

AMENDMENTS PROPOSED

None.

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS.

01-009 (Rev. 12/83)

Pacific Herring Stocks and Fisheries in the Eastern Bering Sea, Alaska, 1984

A Report to the Alaska Board of Fisheries
November 1984
(Bristol Bay Data Report, No. 84-14)

Submitted by:

Robert C. Lebida
Craig Whitmore
Gene J. Sandone
Bering Sea Herring Program

Alaska Department of Fish and Game
Division of Commercial Fisheries
Anchorage, Alaska

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ABSTRACT

A total of 22,743 metric tons (mt) of Pacific herring and 202 mt of spawn on rockweed kelp (Fucus sp.) was harvested in eastern Bering Sea commercial fishing districts during 1984. This was the third largest Pacific herring harvest recorded in the history of these fisheries. Estimated total value of harvests to fishermen was $8.9 million. Average roe recovery from commercially harvested Pacific herring was 9.8% yielding about 2,229 mt of roe. Approximately 17% of the total estimated Pacific herring biomass of 139,000 mt within the commercial Pacific herring fishing districts was harvested. Subsistence fishermen representing at least 46 families from Yukon River delta villages harvested an estimated 10 mt of Pacific herring. Age 6 and 7 Pacific herring (1978 and 1977 year classes) comprised 29% and 41%, respectively, of the total run and 32% and 46%, respectively, of the total catch. Season openings in Togiak, Security Cove, Goodnews Bay and Cape Romanzof Districts were regulated through Emergency Order during 1984. This allowed a more controlled fishery, enhanced roe yield, resulted in minimal wastage and allowed the Department to make periodic reassessments of the resource. Total spawn sightings for all areas was a record 205 linear kilometers (km) of milt. Due to the continued large returns of age 6 and 7 Pacific herring in 1984, harvestable surpluses of Pacific herring should be available in all districts in 1985. Management strategies for 1985 will be similiar to those followed during 1984.

INTRODUCTION

The objectives of this report are to: 1) provide results from 1984 Pacific herring stock assessment programs, 2) review and evaluate 1984 harvests and management strategies for all commercial fishing districts and the Yukon - Kuskokwim River delta subsistence fishery, and 3) present management strategies for the 1985 Pacific herring fishing season.

A total of 22,743 metric tons (mt) of Pacific herring and 202 mt of spawn on rockweed (Fucus sp.) and 3 mt of imported kelp (Macrocytis sp.) were harvested in eastern Bering Sea commercial fishing districts during 1984 (Table 1, Figures 1 and 2). This was the third largest Pacific herring harvest recorded in the history of these fisheries (Table 2). The spawn on rockweed kelp harvest was about average for the period 1976 - 1983 (average 152.2 mt, range 108.2 - 209.1 mt) (Table 3). Estimated value of total harvests to fishermen was $8.9 million. Wastage of Pacific herring was estimated to be less than 300 mt. Most wastage was due to abandoned gear and loss of gear to sea ice movement rather than to dumping of unwanted Pacific herring. Spawn on kelp wastage appeared to have been minimal. In the sac roe fishery, the number of fishermen increased in Togiak, Goodnews Bay and Cape Romanzof Districts but decreased from 1983 levels in all other districts (Table 4). Twenty-five buyers participated in the fishery compared to 23 during 1983. In the spawn on kelp fishery, the number of pickers nearly tripled in the Togiak District and decreased slightly in the Norton Sound District (Table 3). The number of kelp buyers increased in the Togiak and Norton Sound Districts. Average percent roe recovery from harvested Pacific herring ranged from 8.6 in Cape Romanzof to 11.8 in Security Cove District (Table 2). Percent harvest of estimated Pacific herring biomass ranged from 6.4 in Security Cove to 19.5 in Cape Romanzof District.

Subsistence fishermen representing at least 46 families from three Yukon River delta villages harvested an estimated 10 mt of Pacific herring (Table 5). No subsistence surveys were conducted in Nelson Island or Kuskokwin River delta villages.

The total estimated spawning Pacific herring biomass of 155,100 mt for the surveyed portion of the eastern Bering Sea was lower than the 1983 estimate (Table 6). Recruitment of age 4 Pacific herring (1980 year class) during 1984 was below that documented for age 4 Pacific herring in 1983 (1979 year class).

SEASON SUMMARY

Stock Status

Assessment Methods

Aerial surveys were flown throughout the Pacific herring spawning season in all commercial fishing districts to determine relative abundance, distribution and biomass of spawning Pacific herring. Occurrence and extent of milt, numbers of fishing vessels, and visibility factors affecting survey quality were also recorded. Data collection methods were similiar to those used since 1978. A total of 172 hours (h) was spent in aerial surveys: 83 h in Togiak,

20 h in Security Cove - Goodnews Bay, 8 h in Nelson - Nunivak Islands area, 2 h in Cape Romanzof and 59 h in Norton Sound. Weather and sea conditions were generally fair to good in Togiak and Norton Sound Districts. Storms and turbid water hampered survey coverage much of the season in all other districts.

Standard conversion factors of 1.2 (water depth 5 meters (m) or less), 2.5 (water depth greater than 5 m) and 3.0 mt/50 m2 (water depth greater than 8 m) were used to convert estimated Pacific herring school surface areas to biomass within all districts.

Test fishing with variable mesh gillnets and sampling of commercial landings were conducted in all fishing districts to determine age, size and sexual maturity of Pacific herring and to estimate occurrence and relative abundance of other schooling fishes. Additionally, volunteer purse seine and gillnet vessels collected Pacific herring samples within Togiak District. This information was used during post-season analysis to interpret and modify aerial survey biomass data.

Ground surveys were conducted in most districts to obtain information on the distribution and density of kelp beds and Pacific herring spawn deposition.

Spawning Populations

Togiak District

A total of 37 aerial surveys was flown on 33 days during the 1984 season, from 19 April - 4 June. Half of these surveys were made under fair to excellent conditions.

Test fishing with variable mesh gillnets was conducted from 1 - 29 May. A total of 1,083 Pacific herring was sampled from these catches. Pacific herring comprised 85% of the total catch of pelagic schooling fishes. Test fishing with purse seine gear from volunteer vessels was conducted from 5 - 15 May. A total of 1,321 Pacific herring was sampled from 18 different sets. Test fishing aboard volunteer gillnet vessels was conducted from 11 - 18 May. A total of 268 Pacific herring was sampled. The commercial harvest was sampled from 19 - 21 May. A total of 1,267 and 1,109 Pacific herring was sampled from seine and gillnet catches, respectively.

The in-season Pacific herring biomass was estimated to be 96,100 mt. Analysis of data from aerial surveys, test fishing and commercial harvests resulted in a post-season Pacific herring spawning biomass of 104,200 mt (Table 6). Approximately 73% of the total biomass was composed of age 6 and 7 Pacific herring (1978 and 1977 year classes respectively) (Figure 3). Age 4 Pacific herring (1980 year class) accounted for less than 2% of the biomass. Although the relative proportion of young, newly recruited Pacific herring (age 4 and less) showed a slight increase as the season progressed, it was not possible to identify separate abundance peaks for young and old age (age 5 and greater) Pacific herring.

Spawn deposition appeared to be extensive. A record total of 99 linear kilometers (km) of milt was observed in 171 sightings during aerial surveys with most spawn occurring 18 - 19 May.

Security Cove District

A total of 24 aerial surveys was flown on 16 days during the 1984 season, from 28 April - 1 June. About one-third of these surveys were made under fair to excellent conditions.

Test fishing was conducted during 5 May - 2 June. A total of 1,002 Pacific herring was sampled from these catches. Pacific herring comprised 85% of the total catch of schooling fishes.

During the season, Pacific herring biomass was estimated to be 4,000 mt. A post-season estimate of 4,600 mt was obtained based on post-season aerial surveys and analysis of data from test fishing (Table 6). Age 6 and 7 Pacfic herring represented 71% of the sampled population (Figure 3). Age 4 Pacific herring comprised about 1% of the population. A total of 13 linear km of milt was observed during aerial surveys.

Goodnews Bay District

A total of 15 aerial surveys was flown on 14 days during the 1984 season, from 28 April - 1 June. Survey conditions were the best on record with about 40% of these surveys made under fair to excellent conditions.

Test fishing was conducted from 6 May - 2 June. A total of 719 Pacific herring was sampled from these catches. Pacific herring comprised 70% of the total catch of schooling fishes. During the season, the Pacific herring biomass was estimated to be 3,300 mt. Further aerial surveys and analysis of data from test fishing resulted in a post-season biomass estimate of 3,700 mt (Table 6). Approximately 73% of the total biomass was composed of age 6 and 7 Pacific herring (Figure 3). Age 4 Pacific herring accounted for about 1% of the biomass. A total of 11 linear km of milt was observed during aerial surveys.

Nelson - Nunivak Islands Area

Three aerial surveys were flown during the 1984 season on 30 May, 2 and 15 June. Survey conditions were fair to excellent on all surveys.

No test fishing was conducted in the Nelson Island area. However, a total of 594 Pacific herring was sampled from subsistence catches.

Pacific herring biomass was estimated to be 10,000 mt for Nelson Island and 6,074 mt for Nunivak Island (Table 6). Totals of 10 and 3 linear km of milt were sighted during aerial surveys of Nelson and Nunivak Islands, respectively.

Age 6 and 7 Pacific herring comprised 78% of the subsistence catch (Figure 4).

Cape Romanzof District

A total of two aerial surveys was flown on 2 days during the 1984 season on 30 and 31 May. Under fair surveys conditions, the biomass in Scammon Bay was estimated to be 3,300 mt. Turbid water conditions within Kokechik Bay precluded assessment of that area. Test fishing was conducted during 25 May - 17 June. A total of 764 Pacific herring was sampled from these catches. Pacific herring comprised 94% of the total catch of schooling fishes.

Although aerial survey results could not be used to estimate total biomass, test fishing study results and commercial harvest rates indicated that Pacfic herring were probably slightly more abundant than in 1983. Therefore, a post-season biomass estimate of 5,500 mt was adopted, an amount 500 mt greater than the 1983 estimate (Table 6). Age 6 and 7 Pacific herring comprised 63% of the sampled population (Figure 4). Age 4 Pacific herring comprised less than 1% of the population. In general, spawn deposition extent and intensity appeared comparable to that documented in 1983.

Norton Sound District

A total of 27 aerial surveys was flown on 17 days during the season, from 24 May - 26 June. Sea ice prevented complete district aerial assessment until 25 June, however, about half of the surveys completed over ice free waters were made under fair to excellent conditions.

Test fishing was conducted from 6 June - 1 July. A total of 1,428 Pacific herring was sampled from these catches. Pacific herring comprised 83% of the total catch of schooling fishes.

Due to the extensive distribution of sea ice, the peak aerial survey during the commercial fishing season resulted in a biomass estimate of 10,500 mt. However, the in-season biomass was estimated at 15,000 mt based on projection of 1983 aerial survey and Pacific herring age class composition data. Continued aerial surveys and analysis of data from test fishing resulted in a post-season estimate of 21,000 mt (Table 6). Age 5 and 7 Pacific herring comprised 68% of the total biomass (Figure 4). Peak abundance of Pacific herring occurred 18 - 25 June. A record total of 69 km of milt was observed during aerial surveys. Peak spawning throughout the district occured 10 - 19 June.

SUBSISTENCE FISHERY

Subsistence fishing for Pacific herring is generally most important in villages on the Yukon - Kuskokwim River delta. Average annual Pacific herring subsistence harvests in the eastern Bering Sea have been approximately 100 mt since 1975 (Table 5). About 75% of the total annual harvest is taken in the Nelson Island area at the villages of Tununak, Toksook Bay and Umkumiut (Nightmute). In 1984, subsistence surveys were not conducted in the Nelson Island area. Three villages on the Yukon delta, Scammon Bay, Hooper Bay and Chevak, were surveyed in 1984. Total harvest was 9.9 mt taken by 46 families. Although subsistence survey results are believed to accurately reflect harvest trends, reported catches represent minimum figures since all fishermen cannot be contacted.

COMMERCIAL FISHERY

Togiak District

Commercial Pacific herring fishing has been regulated by Emergency Order since 1981 to eliminate wastage problems and achieve exploitation rate objectives. Four commercial openings were allowed during 18 - 21 May resulting in a total harvest of 17,529 mt (Table 2). Fishing time was regulated by gear type under Board of Fisheries directives, as in the past two years. When commercial

purse seine openings were less than 24 hours, gillnet openings were three times as long. When purse seine openings were 1 hour or less, gillnet openings were 5 hours in duration. Total fishing time during the 1984 season was 11 hours for purse seine gear and 35 hours for gillnet gear. A harvest total of 17,272 mt (98.5%) of Pacific herring was purchased for sac roe, then 152 mt (0.9%) purchased for bait and 105 mt (0.6%) purchased for food. Purse seine vessels accounted for 75% of the total harvest and gillnet vessels accounted for 25%. Average roe recovery for the season was 9.8%, the highest ever achieved. Average roe recovery from purse seine catches was 10.4% and average recovery from gillnet catches was 8.2%. The 1984 Pacific herring harvest was the fourth largest in the history of Togiak District and the highest reported in the State for 1984. Wastage of Pacific herring was estimated at 140 mt. Value of harvested Pacific herring to fishermen was estimated to be $7.2 million. Average price was $385 per short ton (st) for 10% roe recovery, with an increase or decrease of $49 per st for each percentage point above or below 10%. Average price for food and bait herring was $119 per st. Numbers of processors increased 9% from 1983 with 25 companies purchasing Pacific herring (Table 4). Numbers of fishing vessels increased 24% with 196 purse seine and 300 gillnet vessels participating in 1984.

Spawn on kelp harvests were also regulated by Emergency Order in accordance with a plan adopted by the Board of Fisheries in 1984. Three commercial openings were allowed during 21 - 24 May, (30 hours total fishing time) resulting in a total harvest of 184 mt (Table 3). Since several K areas (Figure 5) did not contain marketable quantities of spawn on kelp, all of the harvest came from only two areas (K-4; 98 mt and K-9; 86 mt). Approximately 3% of the estimated total standing stock of rockweed kelp was removed. Six commercial processors purchased spawn on kelp from 330 fishermen, a 64% increase in fishermen from 1983 (Table 3). Value of the total harvest to fishermen was estimated to be $0.2 million. Average price was $0.50 per lb. The 1984 spawn on kelp harvest was about 35% greater than the average harvest for the 1976 - 1983 period (average harvest = 136 mt).

The overall Pacific herring exploitation rate was calculated to be 18.3% of the estimated spawning biomass based on an adjusted total harvest of 19,077 mt (17,529 mt sac roe harvest, 140 mt wastage, 1,408 mt herring equivalent of spawn on kelp) (Table 2). Age 6 and 7 Pacific herring comprised 79% of the harvest (Figure 3). Age 4 Pacific herring represented less than 1% of the harvest. Separate harvest strategies could not be used on young, newly recruited Pacific herring (age 4 and less) and old Pacific herring (age 5 and greater). Although the relative proportion of young Pacific herring did increase slightly as the season progressed, separate abundance peaks for young and old Pacific herring were not evident. This was probably due to poor recruitment of young Pacific herring into the spawning population. Good visibility conditions generally persisted during the season which allowed reliable aerial assessments to be made of Pacific herring biomass. Four commercial openings were allowed 18 - 21 May when biomass was approaching 50,000 mt and Pacific herring were ripening. Test fishing was done with volunteer vessels from 5 - 18 May to monitor sexual maturity and age composition of the Pacific herring spawning population. During this time period, a meeting was held with industry representatives to discuss the quality and roe content of Pacific herring samples. By late May, it became evident that most Pacific herring had spawned and left the district and no

further openings were allowed.

In general, management of the commercial Pacific herring fishery has greatly benefited by adoption of Emergency Order procedures and Board of Fisheries harvest directives since 1981. Wastage has been reduced, catch reporting has been timely and accurate, and stock assessment capabilities have been improved. Increased mobility provided by a chartered helicopter has also aided in efforts to monitor and manage the fishery. Availablity of the Fish and Wildlife Protection vessels P/V WOLSTAD and PUBLIC SAFETY I enhanced efforts to enforce regulations. The most common violations were gillnets fishing after closures and purse seine vessels making sets prior to and after openings. Numerous oil slicks, due to bilge pumping by vessels and various accidents within the large fleet, were again documented. Staff from the Alaska Department of Environmental Conservation and U.S. Coast Guard were present on the grounds to monitor these problems and help reduce occurrences. The effects on Pacific herring spawn (embryos) exposed to oil and fuel in areas such as Nunavachak Bay, where a large portion of the fishing fleet anchors, is not known.

Security Cove District

Commercial Pacific herring fishing has been regulated by Emergency Order since 1981 to provide for a more orderly fishery and allow for periodic reassessment of Pacific herring biomass. The district was opened to the commercial harvest of Pacific herring on 21 May and was closed 4 June for a total fishing time of 345 hours. Total harvest was 294 mt (Table 2). Forty-seven percent of the harvest was taken during 29 May by 13 fishermen. Prior to and after this time period, the number of fishermen making deliveries ranged from 0 - 18 each day. All of the harvest was sold for sac roe. Average sac roe recovery for the season was 11.8%. Wastage of Pacific herring was estimated to be only 10 mt tons. Value of harvested Pacific herring to fishermen was estimated to be $0.1 million. Average price was $272 per st for 10% roe recovery, with an increase or decrease of $37 per st for each percentage point above or below 10%. Four processors, two less than in 1983, purchased Pacific herring (Table 4). Most processors established 8% roe recovery as a minimum required for Pacific herring to be purchased for sac roe. The first processor arrived on the grounds 22 May. A total of 38 fishermen in 39 gillnet vessels participated in the 1984 fishery, the lowest on record. This was a 40% decrease in fishermen and a 53% decrease in vessels from 1983. Area residents (i.e. fishermen living in Platinum, Goodnews Bay, Quinhagak and Bethel) accounted for 16% of the effort and 22% of the harvest.

Overall exploitation rate of Pacific herring was 6.4% of estimated available biomass (Table 2). Age 6 and 7 Pacific herring comprised 79% of the total harvest (Figure 3). Age 4 Pacific herring represented less than 1% of the commercial harvest.

Although weather conditions limited assessment capabilities, management of the 1984 commercial Pacific herring fishery was without major problems. Fish and Wildlife Protection vessel P/V Public Safety I was on the grounds for a portion of the season. Few violations were noted.

Goodnews Bay District

Commercial Pacific herring fishing has been regulated by Emergency Order since 1981. The district was opened to the commercial harvest of Pacific herring on

21 May and was closed 27 May for a total fishing time of 139 hours. Total Pacific herring harvested for the season was 605 mt (Table 2). All of the harvest was sold for sac roe. Wastage of Pacific herring was estimated at 42 mt and was attributed primarily to catches of spawn-outs. Average roe recovery was 10.1% Value of harvested Pacific herring to fishermen was estimated to be $0.2 million. Average price was $250 per st for 10% roe recovery, with an increase or decrease of $25 per st for every percentage point above or below 10%. Four processors purchased Pacific herring, the same number as in 1984 (Table 4). Most processors established 8% as the minimum roe recovery required for Pacific herring to be purchased for sac roe. A total of 130 fishermen in 106 gillnet vessels participated in the 1984 fishery, a 35% increase in fishermen and a 39% increase in vessels from 1983. Local fishermen (i.e. residents of Platinum, Goodnews Bay, Quinhagak and Bethel) accounted for 75% of the effort and about 71% of the harvest.

Overall exploitation rate of Pacific herring was 16.4% of estimated available biomass (Table 2). Age 6 and 7 Pacific herring comprised 81% of the total harvest, (Figure 3). Age 4 Pacific herring accounted for less than 1% of the harvest.

Management of the 1984 commercial Pacific herring fishery was without major problems. Weather conditions permitted continous fishing and the best stock assessment since 1981. Presence of Fish and Wildlife Protection vessel P/V Public Safety I for a portion of the season enhanced efforts to enforce regulations. Few violations were noted.

Cape Romanzof District

Commercial Pacific herring fishing periods have been established by Emergency Order since 1982. Three fishing periods were allowed during 31 May - 3 June for a total fishing time of 90 hours. Total harvest was 1,075 mt (Table 2). All of the harvest was sold for sac roe. Average roe recovery was 8.6%. Wastage of Pacific herring was not a problem in this district. Value of harvested Pacific herring to fishermen was estimated to be $0.3 million. Average price was $300 per st for 10% roe recovery with an increase or decrease of $30 per st for each percentage point above or below 10%. Three processors purchased Pacific herring, the same number as in 1983 (Table 4). A total of 66 fishermen in 59 gillnet vessels participated in the fishery resulting in a 5% increase in fishermen and a 3% increase in vessels from 1983. Fisnermen from the local area (primarily Hooper Bay, Chevak and Scammon Bay) accounted for about 98.5% of the effort and 99.8% of the total harvest, a higher percentage than in previous years. Increased success of local fishermen can be attributed to implementation of exclusive area registration, development of improved catch transfer techniques, use of more suitable commercial gear and excellent weather conditions.

Overall exploitation rate of Pacific herring was estimated to be 19.5% of available biomass (Table 2). Age 6 and 7 Pacific herring comprised about 77% of the total harvest (Figure 4). Age 4 Pacific herring represented less than 1% of the harvest.

Management of the 1984 commercial Pacific herring fishery was without major problems. No Fish and Wildlife Protection vessel or personnel were present in the Cape Romanzof District during the season. However, few fishing violations were observed by ADF&G staff.

Norton Sound

In contrast to other Bering Sea fishing districts, commercial Pacific herring fishing within Norton Sound continues to be opened on a specific date by regulation. During 1984, fishing did not begin until 6 June, although the fishery opened on 15 April. Fishing was continuous and terminated under Emergency Order on 12 June. The total district harvest was 3,240 mt, the fourth highest on record (Table 2). The entire harvest was taken in subdistrict 3 (Cape Denbigh area) since other primary fishing areas were iced over throughout the commercial fishing season. Most of the harvest (92%) was purchased for sac roe and 8% (249 mt) was purchsed as bait. Gillnet vessels accounted for 91% of the total harvest and beach seine vessels accounted for 9%. Average sac roe recovery for the season was 10.3%. Wastage of Pacific herring was estimated at 80 mt and was primarily attributed to abandoned gear due to sea ice movement. Value of harvested Pacific herring to the fishermen was estimated to be $0.9 million. Average price was $250 per st for 10% roe recovery, with an increase or decrease of $50 per st for each percentage point above or below 10%. Average price for food and bait herring was about $50 per st. A total of 8 companies purchased Pacific herring, one less than in 1983 (Table 4). There were 184 fishermen that made gillnet landings and 10 fishermen that made beach seine landings with 5 fishermen making deliveries from both gear types. This was the lowest effort on record since a large scale domestic fishery began in 1980, representing a 28% decrease from 1983 levels. This decline in fishing effort can be attributed to sea ice conditions which prevented Stebbins and St. Michael, as well as some Unalakleet fishermen, from participating in the fishery.

Local fishermen (i.e residents of Nome, Golovin, Koyuk, Shaktoolik, Unalakleet, St. Michael, Stebbins and other area villages) accounted for 42% of the effort and 29% of the harvest. The percentage of harvest taken by local fishermen decreased from 1983, but remained similiar to prior years.

The 1984 commercial spawn on kelp harvest was regulated by Emergency Order for a second consecutive year. This provided for a more controlled fishery and allowed the harvest in subdistrict 1 to be maintained within the 30 mt guideline level. Subdistrict 1 was opened 22 June for only two hours, since below average amounts of spawn on kelp were present. A total harvest of 17.5 mt was made by 32 fishermen (Table 3). Wastage was not a problem. Three companies purchased the harvest. The total value of the subdistrict 1 spawn on kelp fishery was $21,500. The average price paid was $0.56 per lb. The 1984 harvest was about 22% less than the average harvest for 1978 - 1983 (average harvest = 22.4 mt).

Subdistricts 4, 5 and 7 (Norton Bay, Elim and Nome), were opened to the harvest of spawn on kelp on 21 June for an 18 hour period. A total of 3 mt of spawn on imported kelp (Macrocystis sp.) was harvested by a single fishermen-buyer. No rockweed spawn on kelp was harvested from these areas. The value of the spawn on Macrocystis sp. kelp was estimated at $3.00 per lb for a total of approximately $20,000.

Overall exploitation of Pacific herring was 16.5% of the estimated spawning biomass based on an adjusted total harvest of 3,469 mt (3,240 mt sac roe harvest, 80 mt wastage, 149 mt herring equivalent of spawn on kelp) (Table 2). Due to extensive sea ice distribution, a large portion of the biomass did not

become visible until well after the commercial fishery. Age 6 and 7 Pacific herring comprised 67% of the total harvest (Figure 4). Age 4 Pacific herring represented less than 1% of the harvest.

Management of the 1984 commercial Pacific herring fishery was without major problems, however, logistics and biomass assessment were hindered by the presence of sea ice. Catch reporting was timely and accurate. Availability of four Fish and Wildlife Protection officers using a skiff and a single engine aircraft enhanced efforts to enforce regulations. Violations of regulations was greatly reduced over 1983. Only two citations were issued involving licensing requirements.

OUTLOOK AND MANAGEMENT STRATEGY FOR 1985

Based upon continued large returns of the 1977 and 1978 year classes in 1984 (age 7 and 6 Pacific herring respectively), a harvestable surplus of Pacific herring should be available in all districts during 1985. However, since methods to reliably forecast actual returns are still being developed and estimates of recruitment are not available, harvest levels will be adjusted during the season according to observed Pacific herring biomass. If it is not possible to determine Pacific herring abundance using aerial survey methods, stock abundance will be assessed using information from test and commercial catches along with spawn deposition observations. Projections from post-season escapement estimates, using mean rates of natural mortality and growth for each age class, indicate that the 1985 spawning biomass should be 115,700 mt (27% lower than 1984 biomass). However, increased recruitment of ages 3 through 5 year old Pacific herring could increase this figure.

Togiak District

As initiated during 1981, different management strategies will be applied to early run, old age Pacific herring (age 5 and above) and late run, young age Pacific herring (age 4 and below) if these two population components arrive on the grounds at sufficiently different times. Magnitude and age composition of the run will be monitored during the spawning season by aerial surveys, test fishing and commercial catch sampling. Emergency Order authority will be used to adjust the occurrence and length of fishing periods in relation to stock strength and spawning. Projected return, based upon 1984 escapement, is 74,500 mt, which would allow a maximum projected harvest of 14,900 mt (20% exploitation rate). No fishing will be allowed until older age Pacific herring reach a total daily observed biomass of 5,000 mt and spawning has started. This will allow a normal onshore migration, assure commencement of spawning, increase roe quality and content and minimize waste. Harvest of old age Pacific herring will be 10 to 20% of estimated biomass. Spawn on kelp harvests will also be allowed during this period in areas judged to have sufficient spawn deposition and an adequate kelp standing crop. A more conservative approach will be taken in managing harvests of young, newly recruited Pacific herring since these herring will contribute to future harvests and provide future spawning stock. A minimum observed biomass of 20,000 mt of younger age Pacific herring must be present before fishing is allowed. A graduated harvest rate of up to 20% of the biomass of these younger age Pacific herring will be allowed at this time. Additional spawn on kelp openings may also be permitted during this period, if additional spawn deposition and the remaining kelp standing stock are at levels which allow

further harvest.

Security Cove District
Emergency Order authority will be used to adjust the occurrence and length of fishing periods to stock strength and spawning. No fishing will be allowed until total biomass reaches 800 - 1,000 mt and spawning has started. Attempts will be made to maintain an overall harvest of 10 - 20% of the available biomass. Projected return is 3,600 mt. No major change in management strategy from 1984 is anticipated.

Goodnews Bay District
Management strategy for this district will be similiar to that used for Security Cove. The season will be opened by Emergency Order, a minimum total biomass of 800 - 1000 mt will be required on the grounds prior to the first opening, and harvest levels will be maintained between 10 - 20% of available biomass. Projected return is 2,700 mt.

Cape Romanzof District
Emergency Order authority will be used to adjust the occurrence and length of fishing periods so that greater management control, better stock assessment and adequate spawning are assured. A threshold level of biomass cannot be used to determine the first opening, since turbid water conditions usually preclude aerial assessments. Test and commercial catch rates and spawn deposition will be the primary information on which fishery openings and fishing time will be based. Average harvest for the period 1980 - 1984 was 740 mt. Projected return, based upon limited data from 1984, is 3,900 mt.

Norton Sound District
Major changes in management strategy are not anticipated. The season will open by date and will close when 10 - 20% of the available Pacific herring biomass has been harvested. Varied harvests rates will be applied to individual subdistricts based on biomass distribution, roe quality, weather and sea ice conditions. Projected return is 17,000 mt. In-season closures may be used to monitor sac roe recovery so that it can be maximized and to maintain harvest levels within the guideline of 10 - 20% of available biomass. All processors, buyers and tenders will be required to report landings twice each day to allow the Department to adequately evaluate harvest data. The spawn on kelp harvest will be managed to minimize wastage problems and evenly distribute effort levels. Spawn on kelp harvest openings may be of short duration to maintain the guideline harvest level.

Table 1. Pacific herring and herring spawn on kelp harvests by domestic commercial fishermen in the eastern Bering Sea, Alaska, 1909 - 1984.

	Herring (mt) 1/						Herring Spawn on Kelp (mt)		
Year	Aleutian Islands	Bristol Bay	Security Cove/ Goodnews Bay	Cape Romanzof	Norton Sound	Total	Bristol Bay	Norton Sound	Total
1909-1916	-	-	-	-	- 2/	-	-	-	-
1916-1928	-	-	-	-	1,706	1,706	-	-	-
1929	1,142	-	-	-	151	1,293	-	-	-
1930	1,738	-	-	-	400	2,138	-	-	-
1931	958	-	-	-	78	1,036	-	-	-
1932	2,727	-	-	-	480	3,207	-	-	-
1933	1,438	-	-	-	28	1,466	-	-	-
1934	1,391	-	-	-	4	1,395	-	-	-
1935	2,188	-	-	-	14	2,202	-	-	-
1936	1,251	-	-	-	-	1,251	-	-	-
1937	525	-	-	-	5	530	-	-	-
1938	466	-	-	-	9	475	-	-	-
1939	-	-	-	-	5	5	-	-	-
1940	-	-	-	-	13	13	-	-	-
1941	-	-	-	-	3	3	-	-	-
1942-1944	-	-	-	-	-	-	-	-	-
1945	68	-	-	-	-	68	-	-	-
1946	-	-	-	-	-	-	-	-	-
1947-1963	*	*	*	*	*	*	*	*	*
1964	-	-	-	-	18	18	-	-	-
1965	*	*	*	*	*	*	*	*	*
1966	-	-	-	-	11	11	-	-	-
1967	-	122	-	-	-	122	-	-	-
1968	-	82	-	-	-	82	25	-	25
1969	-	43	-	-	2	45	5	-	5
1970	-	25	-	-	7	32	18	-	18
1971	-	-	-	-	18	18	24	-	24
1972	-	74	-	-	15	89	29	-	29
1973	-	46	-	-	32	78	5	-	5
1974	-	112	-	-	2	114	57	-	57
1975	-	50	-	-	-	50	50	-	50
1976	-	-	-	-	8	8	134	-	134
1977	-	2,535	-	-	10	2,545	125	Trace	125
1978	-	7,030	259	-	14	7,303	150	3	153
1979	-	10,115	466	-	1,173	11,754	188	12	200
1980	-	17,774 a	1,039	554	2,215	21,582	86	22	108
1981	639	11,374	1,660	653	3,964	18,290	172	37 b	209
1982	3,234	19,556	1,178	596	3,567	28,131	106	35	141
1983	3,238	24,486 c	1,368	740	4,156	33,988	123	25 d	148
1984	3,246	17,529 e	899 f	1,075	3,240 g	25,989	184	18 3/	202

1/ Pre 1964 harvest primarily in summer and fall for food; post 1964 harvest primarily in spring for sac roe.
2/ Fishery occurred some years but harvest data unavailable.
3/ Additional 3 mt harvested from imported kelp (Macrocystis sp) not included.
* No commercial operations reported.
a-g Wastage not included (mt): a= 5,200; b=5; c=544; d=1-5; e=140; f=52; g=80.

Table 2. Estimated biomass and commercial harvest of Pacific herring in eastern Bering Sea fishing districts, Alaska, 1978 - 1984.

	District	Biomass mt	Harvest mt	% Harvest by Gear: Gillnet	Purse Seine	Beach Seine	Roe %	Estimated Value ($)	% Biomass Harvested
1984									
	Togiak	104,200	17,529 f	25	75	0	9.8	7,178,400	16.8 1/
	Security Cove	4,600	294 e	100	0	0	11.8	109,700	6.4
	Goodnews Bay	3,700	605 d	100	0	0	10.1	168,400	16.4
	Cape Romanzof	5,500	1,075	100	0	0	8.6	305,500	19.5
	Norton Sound	21,000	3,240 c	81	0	9	10.3	887,500	15.4 2/
	Total	139,000	22,743	41	58	1	9.8	8,649,500	16.4 3/
1983									
	Togiak	128,600	24,486 b	19	81	0	8.8	10,517,300	19.1
	Security Cove	5,800	973	100	0	0	9.4	422,300	16.8
	Goodnews Bay	2,900	395	100	0	0	9.4	184,800	13.6
	Cape Romanzof	5,000	740	100	0	0	9.0	367,100	14.8
	Norton Sound	25,500	4,156	100	0	<1	8.6	1,519,200	16.3
	Total	167,800	30,750	36	64	<1	8.8	13,010,700	18.3
1982									
	Togiak	88,800	19,556	31	69	0	8.8	6,174,300	22.0
	Security Cove	4,600	737	100	0	0	9.3	271,000	16.0
	Goodnews Bay	2,400	441	100	0	0	9.5	187,900	18.4
	Cape Romanzof	4,400	596	100	0	0	9.3	221,700	13.6
	Norton Sound	15,800	3,567	100	0	0	8.8	1,046,200	22.6
	Total	116,000	24,897	46	54	0	8.9	7,901,100	21.5
1981									
	Togiak	143,900	11,374	18	82	0	9.1	3,988,000	7.9
	Security Cove	7,500	1,064	100	0	0	8.1	347,070	14.2
	Goodnews Bay	3,900	596	100	0	0	7.7	196,170	15.3
	Cape Romanzof	4,400	653	100	0	0	8.0	211,260	15.0
	Norton Sound	22,800	3,965	100	0	0	8.8	1,500,000	17.3
	Total	182,500	17,652	47	53	0	8.9	6,242,500	9.7
1980									
	Togiak	62,300	17,774 a	16	84	0	9.2	3,205,000	28.5
	Security Cove	1,100	632	100	0	0	8.2	151,000	57.4
	Goodnews Bay	1,100	406	100	0	0	9.5	97,000	36.9
	Cape Romanzof	2,700	554	100	0	0	9.8	132,000	20.5
	Norton Sound	7,600	2,224	100	0	0	8.1	500,500	29.3
	Total	74,800	21,590	31	69	0	8.8	4,085,500	28.9
1979									
	Togiak	216,800	10,115	40	60	0	8.6	6,700,000	4.7
	Security Cove	19,500	385	100	0	0	8.5	327,000	2.0
	Goodnews Bay	6,700	82	100	0	0	4.7	38,500	1.2
	Cape Romanzof	2,700	0	0	0	0	0.0	0	0.0
	Norton Sound	7,000	1,172	29	71	0	7.0	628,200	16.7
	Total	252,700	11,754	41	59	0	8.0	7,693,700	4.7
1978									
	Togiak	172,600	7,033	8	92	0	8.2	2,300,000	4.1
	Security Cove	1,200	259	100	0	0	8.8	78,300	21.6
	Goodnews Bay	400	0	0	0	0	0.0	0	0.0
	Cape Romanzof	2,700	0	0	0	0	0.0	0	0.0
	Norton Sound	4,800	14	100	0	0	-	6,000	0.3
	Totals	181,700	7,306	11	89	0	8.2	2,384,300	4.0

1/ Overall exploitation rate = 18.3% based on adjusted total harvest of 19,077 mt (17,529 mt sac roe harvest, 140 mt wastage, 1,408 mt herring equivalent of spawn on kelp).
2/ Overall exploitation rate = 16.5% based on adjusted total harvest of 3,469 mt (3,240 mt sac roe harvest, 80 mt wastage, 149 mt herring equivalent of spawn on kelp).
3/ Overall exploitation rate = 17.6% based on adjusted total harvest of 24,520 mt.
a-f Wastage not included (mt): a=5,200; b=544; c=80; d=42; e=10; f=140.

Table 3. Commercial harvest of Pacific herring spawn on kelp in eastern Bering Sea fishing districts, Alaska, 1978 - 1984.

	District	Harvest mt	Number of Buyers	Number of Pickers	Estimated Value ($)
1984					
	Togiak	184.4	6	330	203,300
	Norton Sound	17.5 1/	3	32	21,500
	Total	201.9			224,800
1983					
	Togiak	122.8	4	125	284,400
	Norton Sound	25.0 b	1	35	38,500
	Total	147.8			233,778
1982					
	Togiak	106.5	8	214	176,193
	Norton Sound	34.9	1	74	57,585
	Total	141.4			233,778
1981					
	Togiak	171.9	7	108	250,000
	Norton Sound	37.2 a	4	22	45,000
	Total	209.1			295,000
1980					
	Togiak	86.0	21	78	94,600
	Norton Sound	22.2	1	20	73,000
	Total	108.2			167,600
1979					
	Togiak	188.0	16	100	248,160
	Norton Sound	11.8	1	19	15,576
	Total	199.8			263,736
1978					
	Togiak	149.6	11	160	119,800
	Norton Sound	3.4	1	0	2,723
	Total	153.0			122,523

1/ Additional 3.0 mt harvested from 2,000 lb imported kelp (Macrocystis sp) at estimated value of $20,000.

a-b Wastage not included (mt): a=5; b=1.5.

Table 4. Number of buyers and fishermen participating in eastern Bering Sea Pacific herring fisheries, Alaska, 1978 - 1984.

	District	Number of Buyers	Number of Fishermen 1/ Gillnet	Seine Purse	Seine Beach
1984					
	Togiak	25	300	196	*
	Security Cove	4	38	*	*
	Goodnews Bay	4	130	*	*
	Cape Romanzof	3	66	*	*
	Norton Sound	8	189	*	10
1983					
	Togiak	23	250	150	*
	Security Cove	6	94	*	*
	Goodnews Bay	4	84	*	*
	Cape Romanzof	3	63	*	*
	Norton Sound	9	271	*	1
1982					
	Togiak	33	200	135	*
	Security Cove	3	107	*	*
	Goodnews Bay	3	84	*	*
	Cape Romanzof	2	75	*	*
	Norton Sound	7	237	*	0
1981					
	Togiak	28	106	83	*
	Security Cove	7	113	*	*
	Goodnews Bay	5	175	*	*
	Cape Romanzof	4	111	*	*
	Norton Sound	13	332	*	0
1980					
	Togiak	27	363	140	*
	Security Cove	8	175	*	*
	Goodnews Bay	4	165	*	*
	Cape Romanzof	2	69	*	*
	Norton Sound	8	294	*	0
1979					
	Togiak	33	350	175	*
	Security Cove	2	61	0	*
	Goodnews Bay	1	41	0	*
	Norton Sound	7	50	17	0
1978					
	Togiak	16	40	25	*
	Security Cove	3	?	0	*
	Norton Sound	1	11	0	0

1/ Refers to number of vessels in Togiak District only.
* Gear prohibited.

Table 4. Number of buyers and fishermen participating in eastern Bering Sea Pacific herring fisheries, Alaska, 1978 - 1984.

	District	Number of Buyers	Number of Fishermen 1/ Gillnet	Seine Purse	Seine Beach
1984					
	Togiak	25	300	196	*
	Security Cove	4	38	*	*
	Goodnews Bay	4	130	*	*
	Cape Romanzof	3	66	*	*
	Norton Sound	8	189	*	10
1983					
	Togiak	23	250	150	*
	Security Cove	6	94	*	*
	Goodnews Bay	4	84	*	*
	Cape Romanzof	3	63	*	*
	Norton Sound	9	271	*	1
1982					
	Togiak	33	200	135	*
	Security Cove	3	107	*	*
	Goodnews Bay	3	84	*	*
	Cape Romanzof	2	75	*	*
	Norton Sound	7	237	*	0
1981					
	Togiak	28	106	83	*
	Security Cove	7	113	*	*
	Goodnews Bay	5	175	*	*
	Cape Romanzof	4	111	*	*
	Norton Sound	13	332	*	0
1980					
	Togiak	27	363	140	*
	Security Cove	8	175	*	*
	Goodnews Bay	4	165	*	*
	Cape Romanzof	2	69	*	*
	Norton Sound	8	294	*	0
1979					
	Togiak	33	350	175	*
	Security Cove	2	61	0	*
	Goodnews Bay	1	41	0	*
	Norton Sound	7	50	17	0
1978					
	Togiak	16	40	25	*
	Security Cove	3	?	0	*
	Norton Sound	1	11	0	0

1/ Refers to number of vessels in Togiak District only.
* Gear prohibited.

Table 5. Pacific herring subsistence harvest (mt) and effort data from selected eastern Bering Sea areas, Alaska, 1975 - 1984. 1/

Village	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
					Nelson Island					
Tununak	19.8	13.9	51.9	34.6	31.0	59.2	36.0	43.8	85.0	-
Unkumiut	30.0	8.5	2.8	10.4	7.5	3.1	9.0	0	-	-
Toksook Bay	31.0	31.8	19.3	33.5	46.5	26.6	13.0	31.6	-	-
Total	80.8	61.2	74.0	78.5	85.0	88.9	58.0	75.4	85.0	-
Number of Fishing Familes	109	42	90	83	54	70	93	65	43	-
					Yukon - Kuskokwim Delta					
Scammon Bay	-	0.6	-	0.6	5.4	2.8	6.9	3.5	2.3	3.9
Chevak	-	0.6	0.1	-	2.1	3.2	1.7	1.8	1.3	2.3
Hooper Bay	2.5	2.7	2.1	3.5	2.8	3.3	3.6	4.2	4.7	3.7
Kwigillingok	-	9.6	0.9	-	7.2	12.0	-	12.0 2/	-	-
Total	2.5	13.5	3.1	4.1	17.5	21.3	12.2	21.5	8.3	9.9
Number of Fishing Families	34	49	39	29	106	80	45	64	37	46
					Areas Combined					
Total Catch & Number of Fishing Families	83.3 / 143	74.7 / 91	77.1 / 129	82.6 / 112	102.5 / 160	110.2 / 150	70.2 / 138	96.9 / 129	93.3 / 80	6.9 / 46

1/ Other areas with small catches have been surveyed irregularly (1975 - 1978; estimated total coastal yearly subsistence catch averaged 100 mt).
2/ Estimate based on post season observations.
- Not surveyed.

Table 6. Relative abundance index (RAI) and estimated biomass of Pacific herring in the eastern Bering Sea, Alaska, 1978 - 1984.

District	1978	1979	1980	1981	1982	1983	1984
			Relative Abundance Index (RAI) 1/				
Togiak	43,050	137,630	15,249	79,352	49,998	88,806	58,807
Security Cove	246	2,912	435	2,228	486 3/	1,602	3,219
Goodnews Bay	241	3,729	- 3/	1,593	- 3/	815	2,579
Nelson Island	1,079	- 3/	- 3/	1,072	- 3/	2,515	8,300
Nunivak Island	215	-	-	5	-	2,300	5,062
Cape Romanzof	539	- 3/	- 3/	- 4/	- 4/	- 5/	3,060 6/
Norton Sound	1,277	1,860	2,242	6,516	4,548	6,796	13,798
Total	46,647	146,131+	17,926+	90,766+	55,032+	102,534	94,825
			Estimated Biomass in mt 2/				
Togiak	172,600	216,800	62,300	143,900	88,800	128,600	104,200
Security Cove	1,200	19,500	1,100	7,500	4,600 3/	5,800	4,600
Goodnews Bay	400	6,700 3/	1,100 3/	3,900	2,400 3/	2,900	3,700
Nelson Island	5,400	5,400 3/	5,400 3/	3,600	3,600 3/	6,600	10,000
Nunivak Island	731	-	-	17	-	6,900	6,074
Cape Romanzof	2,700	2,700 3/	2,700 3/	4,400 4/	4,400 4/	5,000	5,500
Norton Sound	4,800	7,000	7,600	20,800	15,800	25,500	21,000
Total	187,831	258,100	80,200	186,117	119,600	181,300	155,074
% Fluction 7/	-	40	<69>	132	<36>	52	<14>

1/ Number of fish schools equivalent to 50 m surface area, unadjusted for presence of non-herring pelagic species.

2/ Adjusted for presence of non-herring pelagic species. Estimates for 1978 and 1979 represent low end of estimate ranges from Barton and Steinhoff (1980), 1980 estimates from Kingsbury (1980).

3/ Incomplete data due to inclement weather and/or turbid waters, biomass estimates are questionable and are based on 1978, 1979 or 1981 data.

4/ No aerial surveys made, 1981 and 1983 estimates based upon assumption that commercial harvest represented 15 percent of total biomass; 1981 estimate used for 1982.

5/ No satisfactory aerial survey made, 1983 estimate based on assumption of slight increase in biomass over previous year.

6/ No satisfactory aerial survey made, 1984 estimate based on assumption of slight increase in biomass over previous year.

7/ Based on prior year biomass estimate.

- Not surveyed

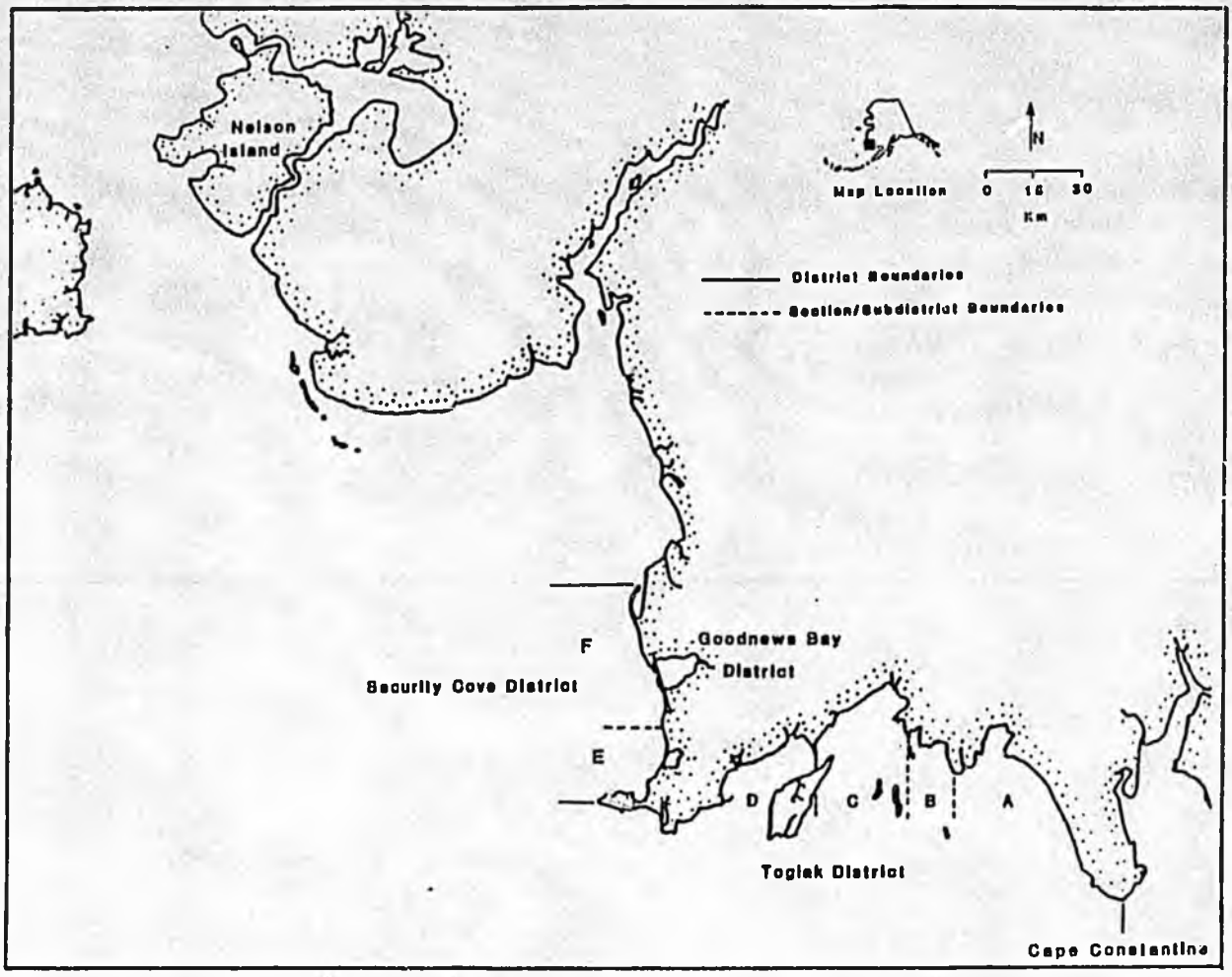

Figure 1. Togiak (A = Kulukak, B = Nunavachak, C = Togiak, D = Hagemeister Sections), Security Cove (E = Security Cove, F = Red Mt. Subdistricts) and Goodnews Bay Pacific herring commercial fishing districts in the eastern Bering Sea, Alaska.

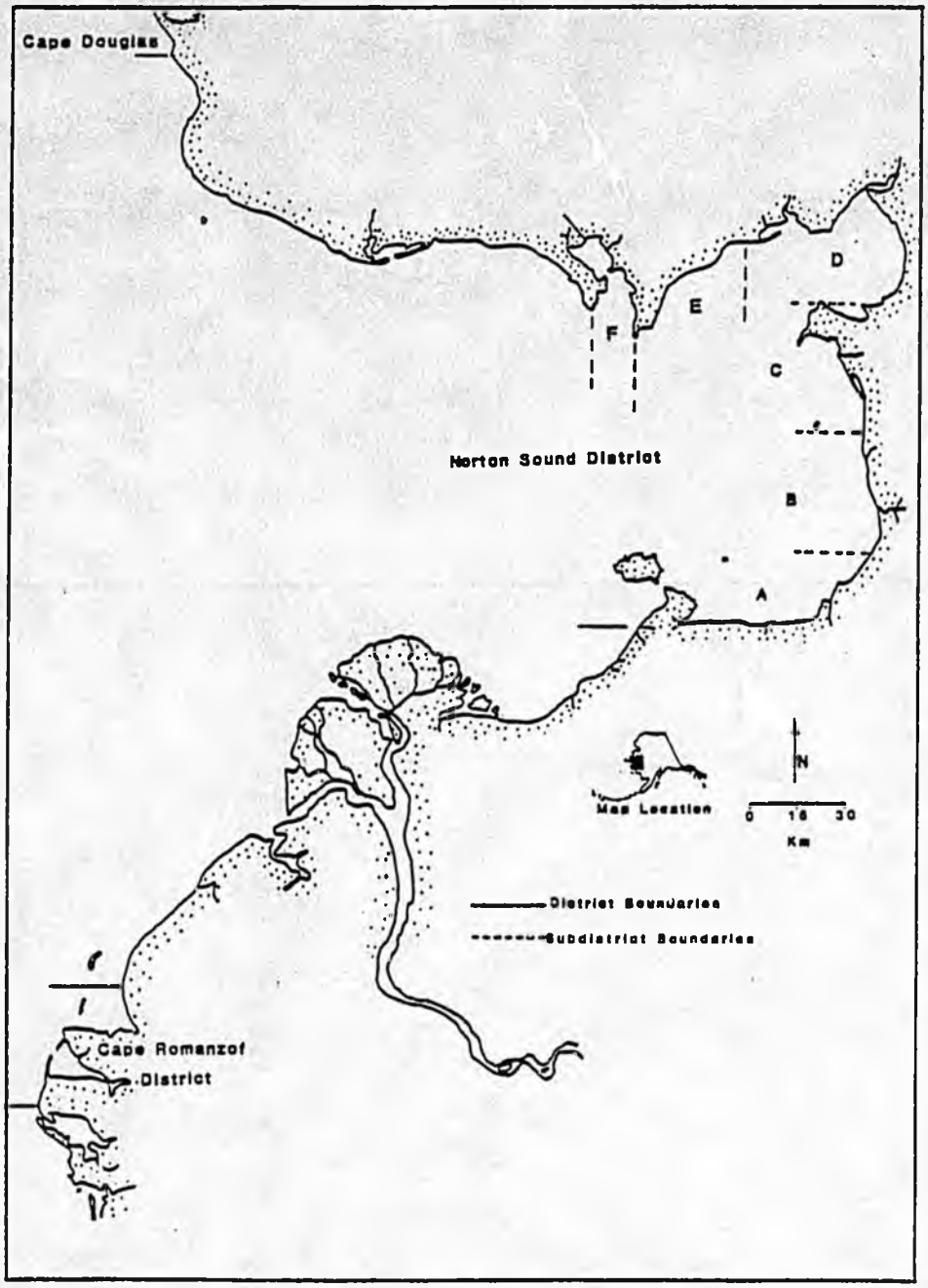

Figure 2. Cape Romanzof and Norton Sound (A = St. Michael, B = Unalakleet, C = Cape Denbigh, D = Norton Bay, E = Elim, F = Golovin Bay Subdistricts) Pacific herring commercial fishing districts in the eastern Bering Sea, Alaska.

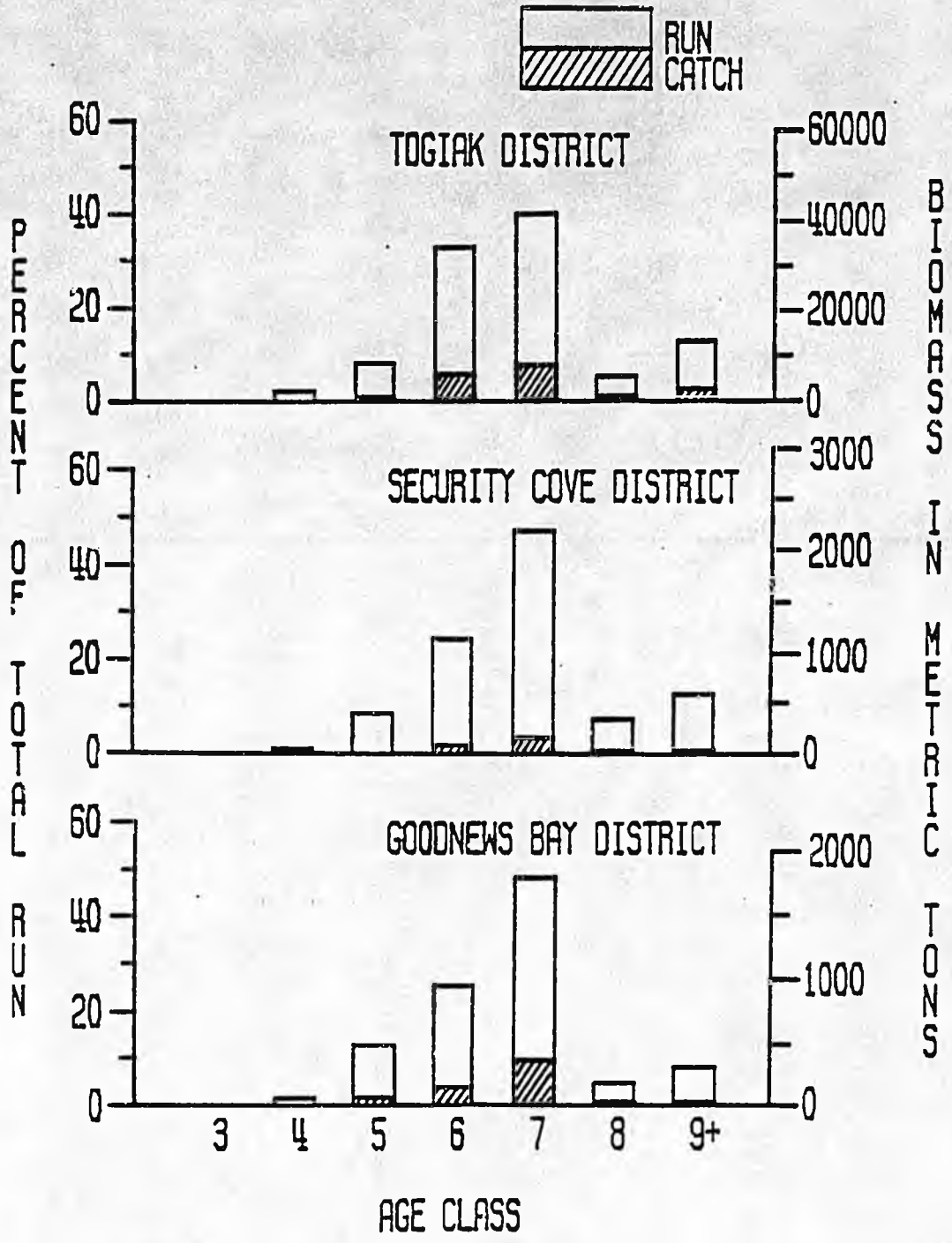

Figure 3. Age composition of Pacific herring in spawning populations and commercial catches in Togiak, Security Cove and Goodnews Bay commercial herring fishing districts in the eastern Bering Sea, Alaska, 1984.

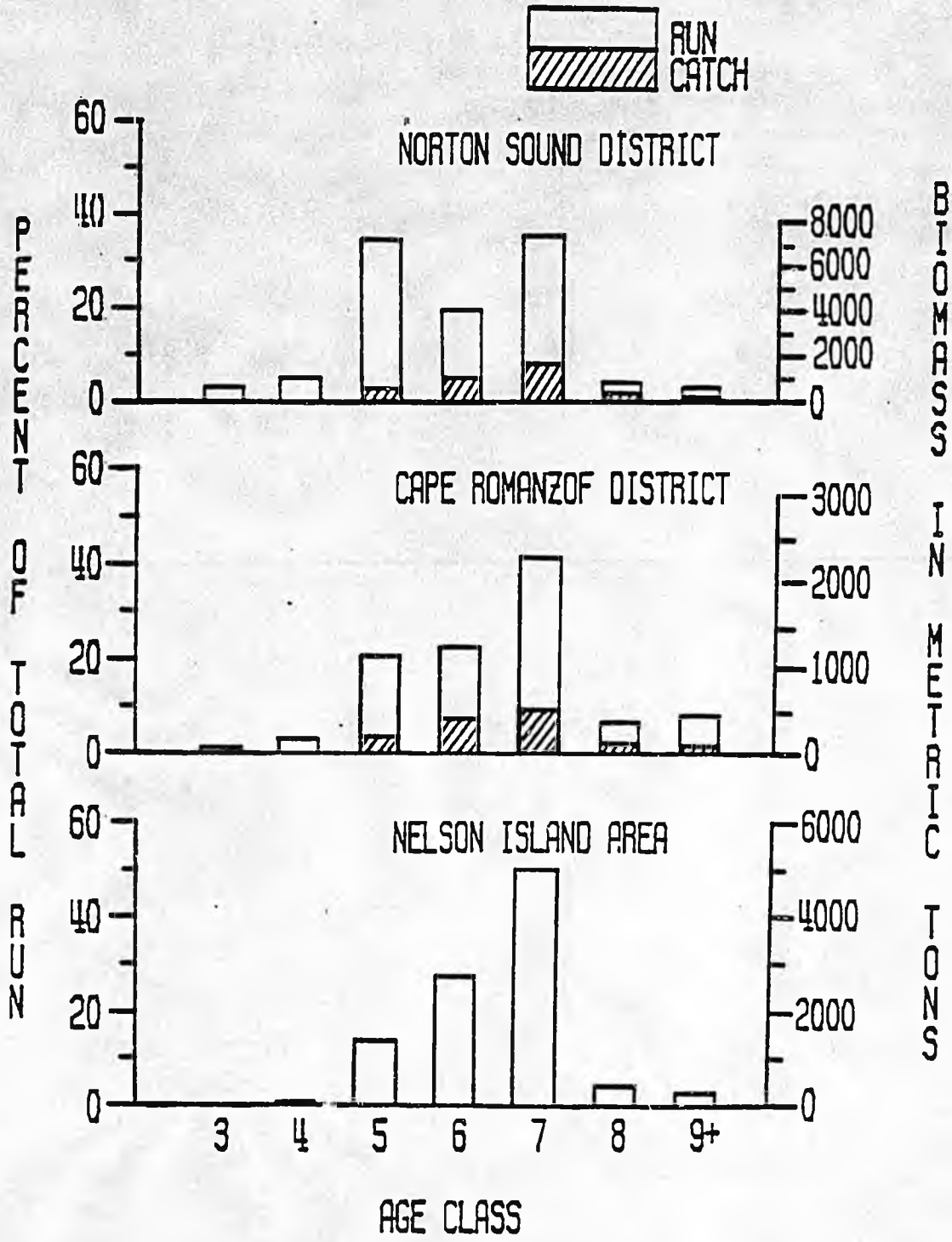

Figure 4. Age composition of Pacific herring in spawning populations and commercial catches in Norton Sound and Cape Romanzof commercial herring fishing districts and Nelson - Nunivak Islands areas in the eastern Bering Sea, Alaska, 1984.

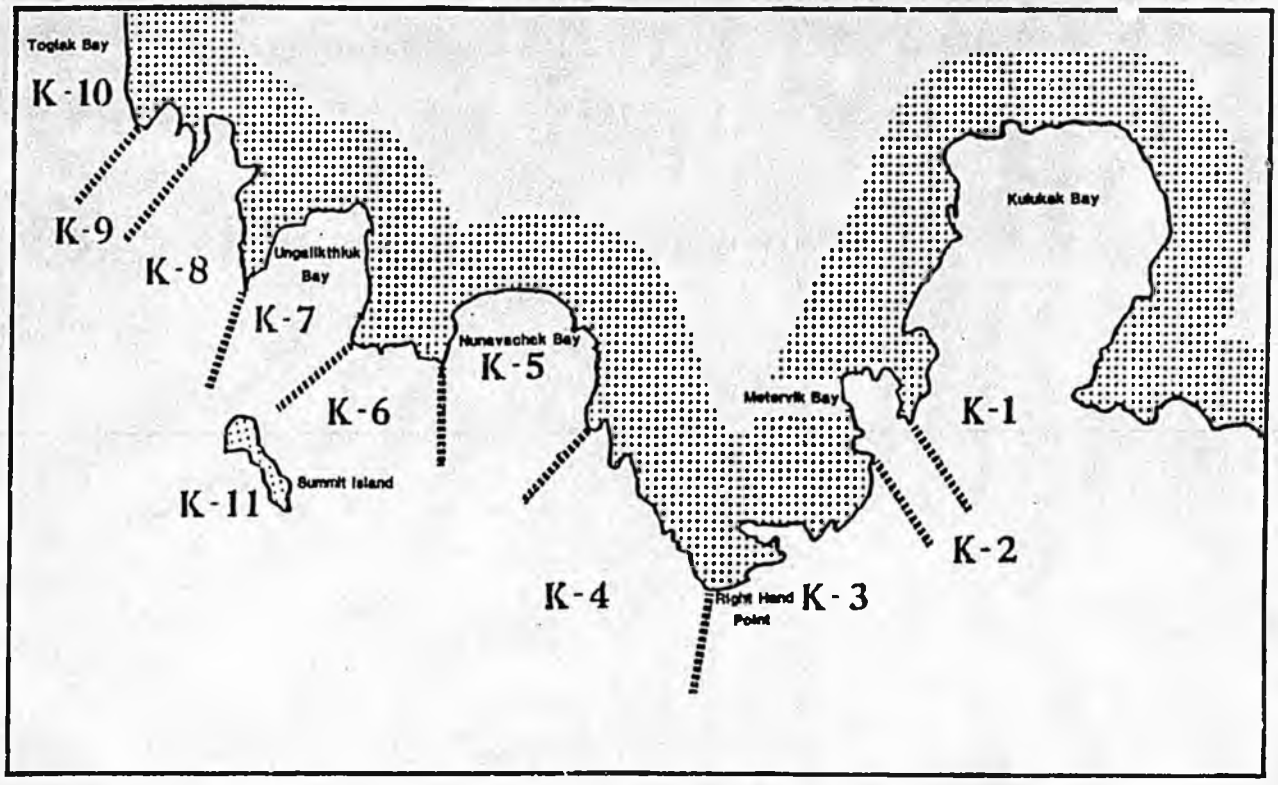

Figure 5. Pacific herring spawn on kelp commercial fishing K areas of the Togiak District in the eastern Bering Sea, Alaska.

ALASKA SPORTS *and* WILDLIFE CLUB

P.O. Box 5122 • Ketchikan, Alaska 99901

March 1, 1985

Mr. Don Collingsworth, Commissioner
Department of Fish and Game
P.O. Box 3-2000
Juneau, Alaska 99802

Dear Mr. Collingsworth:

As you are aware, there has been growing concern over the Herring Roe Fishery for several years. Our membership, which has been increasing rapidly, has indicated to its Directors a solid backing in pursuing efforts to end this needless depletion of our herring stocks.

We have had several meetings on this subject, which included not only our members, but other sportsmen, charter groups and commercial seiners, trollers and gillnetters. All groups oppose the continuation of taking herring for roe. The comments from various members of these groups (some have more time on Alaskan waters than they care to admit) indicate that herring are in short supply in waters where there once was abundance, that King and Silver Salmon no longer have stomachs filled with herring, but are empty or contain only needlefish. It was the general concensus that herring, to continue to support salmon, seal, sea lion, bait, seagulls, eagles, etc., can no longer withstand the tremendous pressure of providing roe to the Japanese and others. It would seem that the harvest of millions of pounds of salmon roe would be sufficient. Further, it is our opinion that if the harvest of Herring Roe ceased today, it would still take years to re-build to marginal stocks. It is suggested by many that our King Salmon shortages are directly related to the lack of herring in our waters.

It should be noted that Senator Frank Murkowski, several years ago, addressed Governor Jay Hammond on this very subject and received a reply that the Fish and Game had a handle on the Herring Fishery and not to be concerned. We are concerned and in all fairness, do not believe the Fish and Game has "a handle on herring fishing". As one of your own biologists once stated, "there is no such thing as having too many herring in the ocean". We cannot stand by and watch our herring stocks disappear, as evidenced by the decline of the southeast deer population, the northern Caribou herds or more recently, the Alaska King Crab, without a fight. We are not interested in spending millions on studies, we just want the Herring Roe fishing stopped NOW.

The State of Alaska is actively promoting new fish hatcheries, fertilizing and stocking lakes and generally promoting programs that will enhance salmon escapement and returns. We applaud these efforts. The Ketchikan Deer

Letters in opposition

Mountain Hatchery alone is providing returns of nearly 10,000 King Salmon from early June into late July and this is just a beginning. The returns of September Silver Salmon to Neets Bay, Herring Cove and Ketchikan Creek are difficult to measure and are providing a harvest bonanza for both commercial and sports interests. With these programs prospering and projecting such promising potential in the years ahead, we fail to see the justification for the continued rape of herring stocks. The disaster of such a gamble, we feel, is totally unwarranted.

Finally, our reports indicate a total of 183 southeastern Herring Roe fishing premits, which include both seine and gillnet. It is interesting to note that a large percentage of these permits are held by individuals who are non-residents. Further, with few exceptions, fishermen holding these licenses also have salmon permits and actively seine or gillnet during the summer season. This should preclude any claims of hardship in eliminating the Herring Roe Fishery.

We would appreciate your comments and what action, if any, your Department is taking in this matter, as soon as possible.

Sincerely,

Dick Borch

Dick Borch, President
Bob DeWitt, Vice-President
Terry Myser, Secretary-Treasurer

Board of Directors:

Terry Clark
A. J. Dennis
Ken Eichner
Gary Imard
Art Hack
Johnny Gilbert
Art McMahon
Paul McGarrigan
Earl Mossburg

cc: The Honorable William Sheffield
The Honorable Frank Murkowski
The Honorable Ted Stevens
The Honorable Don Young
The Honorable Bob Ziegler
The Honorable Bill Ray
The Honorable Dick Elliason
The Honorable John Sund
The Honorable Robin Taylor
The Honorable Mike Miller
Alaska Fish & Wildlife Federation
and Outdoor Council Members, and
its Member Organizations

Tuesday.

Adams, D-Kotzebue and chairman of the House Finance Committee, was spelling out strategy agreed upon earlier in the day by that body's 28-member, Democrat-dominated majority caucus.

The Republican-led Senate, meanwhile, wants to pull an additional $100 million from Sheffield's proposed $2.4 billion operating budget and cut another $63 million from loans and public construction projects.

Those reductions would be in addition to the $300 million already erased from the spending blueprints because of oil-induced revenue shortfalls.

House and Senate leaders met privately Monday afternoon — another in a series of closed-door budget meetings — and resolved some of their differences on spending priorities.

The Senate is "entertaining" the House strategy and another leadership meeting is likely later this week, one observer said.

"We think that would be a little too drastic," Adams said of the Senate's plan to cut yet another $100 million from the operating budget. "The House realizes there needs to be some reductions in the cost of running government, but we'd like to see them be more gradual. We need to keep programs and services."

Adams said he's checking the legality of not funding the employee pay hikes negotiated last year. Instead, he wants to give the governor $43.6 million for "optional salary increases" and drop the issue in Sheffield's lap.

That means not funding the $43.6 million that had been requested by Sheffield for salary hikes negotiated in 1984. And it means taking another $43.6 million from current salary money. That would force Sheffield to choose between funding salary increases or maintaining current staff levels.

Scores of state jobs could rest on that decision.

"Take DEC (Department of Environmental Conservation) for example," Adams said. "We'd take their $600,000 in salaries and shift it to the governor's budget.

"We'd specify in the intent language that it's up to the unions and (the state's) negotiating units to come back to the table and say, 'Do you want fewer employees and salary increases or employees and lower salaries?'"

"That leaves it up to the administration to work out," Adams said.

John Shively, Sheffield's chief of staff, labeled that proposal "a negotiating argument."

"We have neither the desire nor the legal right to go outside the agreements" negotiated last year, he said.

from the operating budget.

—$20 million would be saved by refusing to fund fiscal 1985 supplementary requests.

—$43.6 million in salary increases would not be funded, leaving the pay hike question to Sheffield.

—$13.9 million would come from new Alaska Housing Finance Corporation's revolving loan fund.

—$10 million would come from money appropriated for the Department of Transportation and Public Facilities but not spent.

—$69.7 million would be cut from the capital budget.

End Herring Fishery Now, Longliner Says

By Sentinel Staff

Does Sitka Sound have enough herring to sustain what has been slated to be the largest sac roe harvest ever?

Seiners and pilots acting as spotters say they have never seen so many herring in the area.

However, some Sitkans, most of them fishermen for species that use herring as a food source, say the run doesn't look that big to them.

Bob DeJong, area management biologist for the State Department of Fish and Game, said "we're not seeing as many fish as we normally do," but blamed the problem not to a lack of herring but to a lack of good weather.

At today's meeting of the seiners and fishery managers at the Sheffield Hotel, DeJong said he believes the fish are staying in deep waters off shore rather than heading for the beach.

"There is a delay in spring and this lousy weather," said DeJong. Spawning activity takes place annually over a three-week period, he said.

"Conditions are different this year than in recent years. It's colder and there's storm after storm after storm."

Longliner Mike Mayo, who is not taking part in the herring fishery, attended the meeting and said he believes the 20 percent harvest level set by the state is too high. Mayo is a member of the Sitka Fish and Game Advisory Board.

He asked if the planned harvest level of 7,700 tons could be reduced at this point if biologists continue to see fewer fish on the beach.

DeJong replied he saw no problems with the 20 percent limit, noting that the fish returning are largely the mature stocks, about 4 and 5 years in age.

"I would like to see these fish a few years down the road here in Sitka," said Mayo.

Seiners immediately argued that there are more fish in Sitka Sound now than in many years, and that part of the reason is because of conservation efforts by the Department of Fish and Game and seiners.

This year, the quota is so large that some of the 50 limited entry permit holders are using two seiners. The permit holder is required to be on board whichever vessel has its nets in the water. Once the nets are lifted, he can jump aboard another vessel, which then lowers a new set of nets.

"I'm extremely touchy" about overharvesting the fish I'm dependent on," said seiner Wayne Alex. Seiners have too much invested in the fishery to want to jeopardize its future, he said.

Mayo replied he was not asking anyone to give up a living and had no qualms about the harvest of herring.

"I just haven't seen the stocks I saw last year," he said.

DeJong noted the department conducts acoustical studies during the winter, but during the spring studies are more difficult because the fish scatter.

"Let's not get into a gear war here," said one seiner to cut off the impromptu debate.

On Tuesday the seiners agreed not to ask for an opening today. After today's briefing, they agreed to meet again Thursday morning at the Sheffield Hotel.

Updates on the herring sac roe fishery can be obtained by calling the Sitka office of Fish and Game, 747-5022.

All of Herring Slated for Consumption

By Sentinel Staff

This year, just about 100 percent of the entire mass of 7,700 tons of herring expected to be caught in the Sitka Sound sac roe fishery will be processed for human consumption.

Harold Thompson, manager of Sitka Sound Seafoods, said the entire catch is being frozen whole by the shore-based and American floating processors in the area for the fishery. The frozen herring will be transported to Japan, China and Korea for further

Blatchley Junior High May Get Sister School

decision.

"Take DEC (Department of Environmental Conservation) for example," Adams said. "We'd take their $600,000 in salaries and shift it to the governor's budget.

"We'd specify in the intent language that it's up to the unions and (the state's) negotiating units to come back to the table and say, 'Do you want fewer employees and salary increases or employees and lower salaries?'"

"That leaves it up to the administration to work out," Adams said.

John Shively, Sheffield's chief of staff, labeled that proposal "a negotiating argument."

"We have neither the desire nor the legal right to go outside the agreements" negotiated last year, he said.

ended the meeting and said he believes the 20 percent harvest level set by the state is too high. Mayo is a member of the Sitka Fish and Game Advisory Board..

He asked if the planned harvest level of 7,700 tons could be reduced at this point if biologists continue to see fewer fish on the beach.

DeJong replied he saw no problems with the 20 percent limit, noting that the fish returning are largely the mature stocks, about 4 and 5 years in age.

"I would like to see these fish a few years down the road here in Sitka," said Mayo.

Seiners immediately argued that there are more fish in Sitka Sound now than in many years, and that part of the reason is because of conservation efforts by the Department of Fish and Game and seiners.

Blatchley Junior High May Get Sister School

By Sentinel Staff

Blatchley Junior High School may soon become the "sister school" of a school in another country.

Blatchley Principal Walt Clark told the Sitka School Board during a short meeting Tuesday night that the program would aid curricula in both sister schools.

Under the program, the Alaska Department of Education would put Blatchley in contact with a foreign school, and the two schools would share materials and students would participate in audioconferences, said Clark.

"Sister schools would be an approach in which the state department (of education) would become a brokerage service and match us with a school in, say, Japan," said Clark.

Clark said Blatchley has already applied for the program and is on a Department of Education list. The principal said he hopes the project will be ready by the time school opens in the fall.

The program would be most beneficial in subject areas in which Sitka has difficulty obtaining materials, said the junior high principal. A prime example, he said, would be Pacific Rim studies.

Various committees are in the process of reviewing and revising school curriculum programs. The social studies committee recently recommended more emphasis on Pacific Rim studies, pointing out that a large amount of Alaska's trade is with the countries of this region. While it is possible to find textbooks on individual countries on the Pacific Rim, said Clark, no resource materials seem to be available that include all Pacific Rim nations and their interaction with Alaska.

Initially, said Clark, the junior high will become involved with a project with a Japanese school. In future years, Blatchley probably would expand the program to other nations.

"It's a real interesting way to expose kids to other information," said board member Peter Esquiro about the sister school program.

"It sounds neat," concurred board member Shirley McCoy.

In other business, the board:

— received a report on review and revision of the math curriculum, which coordinates programs from elementary through high school. A detailed report will be made to the board by instructors at a future meeting, said administrators.

— adopted a resolution authorizing Supt. Art Woodhouse to act as the district's representative in procuring surplus property distributed by the federal government. The resolution is required to create an orderly method of distribution, explained Woodhouse.

— heard a report from Woodhouse that a budget for the 1985-86 school year, adopted by the board Thursday night, was presented to city administration Friday. A joint meeting of the board and the assembly is expected in April, said Woodhouse.

Thursday morning at the Sheffield Hotel.

Updates on the herring sac roe fishery can be obtained by calling the Sitka office of Fish and Game, 747-5022.

All of Herring Slated for Consumption

By Sentinel Staff

This year, just about 100 percent of the entire mass of 7,700 tons of herring expected to be caught in the Sitka Sound sac roe fishery will be processed for human consumption.

Harold Thompson, manager of Sitka Sound Seafoods, said the entire catch is being frozen whole by the shore-based and American floating processors in the area for the fishery. The frozen herring will be transported to Japan, China and Korea for further processing.

The real target of the fishery is the roe, or eggs, of the female fish, but the roe only accounts for around 10 percent of the herring "biomass" that is caught. Thompson said the roe is stripped in the Oriental countries, and packed in a brine solution. It is a popular delicacy for the Japanese, especially during the Christmas season, he explained. The small, golden jelly-like eggs are similar to caviar.

After the roe is removed, the remains of the female fish and the male fish are dried and sold for human consumption, Thompson said. It makes a low cost, high protein food, he said.

Thompson noted that the drying of herring is a growing cottage industry in the importing countries. In Korea some of the herring byproduct of the roe fishery is canned, he said.

Only in unusual circumstances would the fish be stripped of roe in the Sitka area, Thompson said.

When the Sitka Sound sac roe fishery first developed in the 1970s, the roe would be stripped at processing plants here. The 90 percent of the catch that was not roe would be discarded onto barges under the docks and then dumped at sea.

After state and federal governments prohibited such dumping and adopted regulations requiring more utilization of the resource, the non-roe portions would be shipped to a Petersburg plant to be ground for fertilizer and fish oil.

Only in recent years have the sac roe herring fishery byproducts been dried and sold as for human consumptic Thompson said.

Grand Camp
Alaska Native Brotherhood
P.O. Box 76
Angoon, Alaska 99820

March 15, 1985

Honorable Peter Goll
Alaska State House of Representatives
Alaska Capitol Building Pouch V
Juneau
Alaska

Re: CSHB 229

Dear Peter:

This is to confirm my phone call to you in which I expressed my feeling on the CSHB 229 concerning the "Stripping of herring." This is a bad bill and should not be put into law. It allows special Privilege to a small area and will be discriminating to other communities that do not waste any part of the harvest of herring.

Only a small amount of "Roe" is taken from a large take of herring from the female species and if the males are included this becomes a large woton waste, this is not including the immature portion of the complete harvest of herring.

Unalakleet, Stebbins and Shaktoolik, has begun to fish herring commercially since 1979 which is about six years ago and still do not have a freezing plant to handle their harvest makes us stop to think if there will be any at all.

The bill CSHB 229 if passed will open the doors to other areas to "strip for the Roe"only. This is what we should stop from becoming law before it results in depletion of the herring population in our State. We should prevent the practise of stripping herring for the "Roe only" from spreading to other areas of our fishing industries which depends on herring.

All species of fish follow the herring and feeds on it, and where there are no feed there are no salmon. We should do all we can to preserve our herring stock.

Let me touch on Personal use, fishing. There are still those that depand on fish for a living. There are those that cannot get a job during the winter months that have to put up enough fish for the hard winter ahead. So when you vote on personal use fishing bill please remember these people when you vote, this is my plea.

Yours with best regards,

Cyrus E. Peck
Grand Secretary Emeritus
Alaska Native Brotherhood

cc: file &
The Senate

Bering Sea
Fishermen's Association
805 West 3rd Avenue
Anchorage, Alaska 99501
(907) 279-6519

March 4, 1985

Representative Binkley
Pouch V
Juneau, AK 99811

Dear Representative Binkley:

I am writing to express our strong support for House Bill 229. The bill proposes to waive, for the Bering Sea, the statute prohibiting fishermen from stripping herring for roe.

A number of fishermen from Nelson Island and Nunivak Island are interested in participating in the herring fishery which will open this year. The Bering Sea Fishermen's Association (BSFA) anticipates training a minimum of 80 fishermen from Nelson Island and Nunivak Island in order to prepare them for the fishery. As you know, these areas are poor in terms of a cash economy, and commercial fishing will be the main source of jobs and income for many.

As this is the first time residents of Nelson Island and Nunivak Island will be participating in a commercial herring fishery, their lack of experience during the first year or two will naturally put them at a significant disadvantage in competing for the limited quota of herring available.

The participation of Nelson and Nunivak Island fishermen during the start-up of the commercial herring fishery is dependent upon their being able to strip for roe. At present, there are no facilities available on either Nelson Island or Nunivak Island for refrigeration and processing of herring carcasses. And, it is neither practical nor feasible to build these facilities prior to initial participation in the fishery.

We see waiving the statute prohibiting the stripping of herring for roe in the Bering Sea as an interim yet crucial measure which will provide the people of Nelson and Nunivak Island the opportunity to become competitive in the fishery. Once the fishery is successful, it would then make sense to build refrigeration facilities and to process

herring carcasses -- thus providing more jobs and income for residents.

If I can provide any further information on this very important issue, please do not hesitate to contact me.

Sincerely,

Henry Mitchell

Henry Mitchell, Director
Bering Sea Fishermen's Association

cc: Adelheid Herrmann
Co-Chairman, House Resources Committee

JLS

February 28, 1985

Representative A. Herrman
Pouch V
Juneau, AK

RE: Herring Carcass Utilization

Dear Rep. A. Herrman:

It has come to our attention that you are introducing legislation towards a moritorium on the Herring Carcass Utilization bill now in effect.

We have been deluged with calls from native fishermen in Togiak Twinn Hills and Manakotak villages on the possibility of our company purchasing drift net herring during the Togiak fisheries.

At this time we are budgeting for 2,200 tons of herring (seine) for processing on the M/V Bering Trader and our shore plant in Dillingham. These facilities are set up to freeze the product and will not be able to take any additional product other than that which is already committed.

Most of these fishermen are alternates on the list for the Japanese Herring Co-op in Dillingham, Alaska. These people in the past have not been able to sell because of the volume already caught by the co-op. We would be able to offer these fishermen a market if we could process at our Togiak facility. But there is no freezing. We would have to strip the roe then grind the carcasses.

We would be able to purchase approximately 350 to 400 of gillnet herring if processing is available in Togiak.

This would mean, in dollars, a total of $297,500 to $340,000 for the fishermen that would not have been there previously. The fish tax would be $2,975.00 to $3,400.00 for a shore based facility. The local labor for the herring processing would be approximately $43,000. This is for the nonfishermen type of local villagers.

Again our company would be happy to offer a market but are unable to do so as the laws stand now. We do not want a total moratorium, only for the next two seasons to place freezers into our Togiak facility.

Regards,

Kemp Paulucci Seafoods

Greg Hull
Togiak Plant Manager

KEMP-PAULUCCI SEAFOODS, INC. 2613 NORTHWEST 54th SEATTLE, WA 98107 206-783-7512

Rep. Jack Fuller
ATTENTION: Linda Wilde
Capital Room # 500/502
Pouch V
Juneau, Alaska 99811

Dear Rep. Fuller:

On behalf of 3NC Fisheries, I am requesting a permit to dump the herring carcasses in the Norton Sound area for this coming 1985 fishing season. We anticipate to open the herring processing in the Stebbins area, in hopes that their economy will benefit both their people and our company. We understand that dumping herring has special guidelines and know that there are certain limits to dumping.

3NC Fisheries consists of the Unalakleet, Shaktoolik, and Stebbins Native corporations and is a profit company. Our main goal is to provide some form of economy for our people and service the people in our region. We have worked with the salmon species for the past two years and look forward for a profitable one this coming season.

We understand the problems that may occur with discarding of the herring and we plan to work on this along with your help. Our latest talk with other companies was to sell the whole female herring and transport them out of the Norton Sound Region. It is also our contention that some plan be made with male herring, and in working with your office, we hope that a solution will be drawn up.

If you need further information please call me at 624-3053 during the workhours and at 624-3931 during the evenings. You may also call Davis Nashalook with the Arctic Sea Fisheries in Anchorage at 562-2322.

Our anticipated tonage with herring for the 1985 season is 300 metric tons.

Thank you.

Sincerely yours,

Henry Oyoumick

Henry Oyoumick, 3NC President

cc: Henry Mitchell, Bering Sea Fisheries

Herrmann

REP. JOHN G. (JACK) FULLER

DISTRICT 23

ALAKANUK
BREVIG MISSION
CHEVAK
DIOMEDE
ELIM
EMMONAK
GAMBELL
GOLOVIN
HOOPER BAY
KOTLIK
KOYUK
NOME
SAVOONGA
SCAMMON BAY
SHAKTOOLIK
SHELDON'S POINT
SHISHMAREF
STEBBINS
ST. MICHAEL
TELLER
UNALAKLEET
WALES
WHITE MOUNTAIN

CHAIRMAN
BUSH CAUCUS
LEGISLATIVE COUNCIL
ADMINISTRATIVE REGULATION
REVIEW COMMITTEE

MEMBER
POLICY COMMITTEE
SPECIAL COMMITTEE ON LOANS
RULES COMMITTEE
COMMITTEE ON COMMITTEES

Alaska House of Representatives

MEMORANDUM

TO: Rep. Peter Goll, Chairman
House Special Committee on Fisheries
FROM: Rep. Jack Fuller
DATE: March 2, 1985
SUBJECT: Additional information regarding HB 229 - herring stripping

Three different groups of fishermen in Western Alaska have contacted either Rep. Herrmann or me requesting a temporary waiver of the herring stripping law.

In my district, 3NC Fisheries, a cooperative effort of the native corporations of Unalakleet, Stebbins and Shaktoolik, has asked for additional time to gear up. These local people began to fish herring commercially in 1979, and at this time don't have enough on-shore freezing capacity to process all of the herring caught by their members.

In the Yukon-Kuskokwim area, the people of Nelson Island plan to begin their first commercial herring fishery next year. Until now, herring was fished for subsistence only, but with the rebuilding of herring stocks they are looking to this new fishery for much-needed cash income.

In Togiak, about 35 local gillnet fishermen without markets have asked Kemp-Paulucci to operate the shore-based plant this year. This plant will be able to provide a market for all their fish. Kemp just recently bought the plant and plans to install freezers within the next two years, but would only be able to operate the plant this season if they were able to strip.

The closest fish meal plant is in Seward, thousands of miles away, and there is not enough freezing capacity for all of the fish. Because the non-local fishermen who come up to western Alaska to fish sell their catch mostly to floating processors with freezing capacity, the herring stripping law affects local fishermen who are relatively new to the fishery and do not have established markets.

Unlike the rest of the state, the herring fishery in western Alaska is in its infancy. The fishery used to be almost entirely within the domain of outsiders, with very few locals participating even as fishermen. Local fishermen are just now learning to take vertical control of the fishery themselves, without total dependence on outsiders. As fishermen and as managers, they have gained much valuable

HOME
P.O. BOX 689
NOME, ALASKA 99762
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WHILE IN JUNEAU
POUCH V
JUNEAU, ALASKA 99811
(907) 465-3789

experience in a short time. With limited entry for Bering Sea herring fisheries looming on the horizon, I want local people to have every opportunity to become established in the fishery. Outside of fishing, there are very few ways of making a living in these villages.

The herring season comes at the end of the long winter and before salmon season starts, a time when cash is very low. On-shore herring processing provides much-needed cash income for local people, as well as markets for local fishermen. In Unalakleet alone, stripping 50-60 tons of fish provides up to twenty people with jobs, and puts up to $35,000 into the economy. With an average annual income of less than $3,000 in rural Alaska this is an important source of cash.

I will be providing you with additional back-up from 3NC, Nelson Island and Togiak Natives Limited, which will set out each group's reasons for requesting an extension of the time they are allowed to strip herring, as well as their plans for compliance as the fishery is developed.

MAR 11 1985

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* DELIVER TO: JPOM                                       *
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* ORIGINAL                                               *
* SENT:          03/08/85  TIME: 14:28                   *
* FROM:          LIOKOD                                  *
* SUBJECT:       KODIAK POM                              *
* PRINT DATE:    03/08/85  TIME: 14:28                   *
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TO: SENATORS ZHAROFF, FISCHER, STURGULEWSKI, HALFORD

TO: REPRESENTATIVES THOMPSON, HERRMANN, FULLER, GOLL, SUND, PEARCE, HURLEY, BINKLEY, NAVARRE, JENKINS, MARROU

FR: NICK SZABO
BOX 1633
KODIAK, AK. 99615
HM: 486-3853

RE: HB 229 - EXTENDING HERRING STRIPPING IN THE BERING SEA

I STRONGLY SUPPORT HB 229 AND OPPOSE HB 260. SINCE THERE ARE NO CARCASS REDUCTION PLANTS IN THE BERING SEA, THE PASSAGE OF HB 229 WILL ALLOW SMALL PROCESSORS AND GROUPS OF FISHERMEN TO PROCESS THEIR OWN HERRING ROE. THIS ADDED VALUE PROCESSED HERRING ROE COULD BENEFIT MANY SMALL COMMUNITIES.

EOM

Cordova District Fisheries Union

Headquarters: Box 939, Cordova, Alaska 99574
(907) 424-3447 (907) 424-7473

3/29/85

Mr & Madam Chairman - Members of the committee:

While you are discussing CS for HB229 we would like the Committee to consider including Prince William Sound in Addition to the Bering Sea. We request your consideration because by doing so you would be increasing the economy of Cordova, Valdez and possibly Whittier, increasing the prices paid for the resource to Alaskan fishermen and subsequently increasing the revenues to the State via the raw fish tax.

The following is a list of reasons we feel are pertanant to your consideration

1- Current market conditions of stripped herring roe far exceed the value of frozen roe herring.

2- Increased profits to processors means increased prices to the fishermen. Higher ex vessel prices means more raw fish taxes to the State.

3- Increased raw fish taxes, return more revenue to the communities.

4- Under present processing restrictions local land based processors can only process about 20% of the 5000 ton herring quota

5- With relief from the present restrictions the local land based processors could process up to 40 or 50% of the quota providing they can purchase that amount from the fishermen.

Cordova District Fisheries Union

Headquarters: Box 939, Cordova, Alaska 99574
(907) 424-3447 (907) 424-7473

6- 5 of the 6 established land based processors are Alaskan owned corporations.

7- A large labor force will be required for a two week period rather than a small labor force for a one week period. Probably a four fold increase in labor requirements.

8- Because of the current market conditions - and if the processing restrictions are not relaxed much of this herring will be transported to Canada or the Lower 48 for processing which will be a substantial loss to the local and state wide economy.

9- There are no objections by PWS residents to this proposal.

We urge your careful consideration of this proposal

Thank you

Bob Blake