

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

2221 SCOMM 87: HOUSE SPECIAL COMMITTEE ON FISHERIES, 1993-94

- 1 and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and
- 2 the Honorable Don Young, U.S. Representative, members of the Alaska delegation in
- 3 Congress.

Alaska State Legislature
Representative Carl E. Moses

CHAIRMAN
HOUSE RULES COMMITTEE

CHAIRMAN
HOUSE SPECIAL COMMITTEE FISHERIES

MEMBER FINANCE SUBCOMMITTEES ON:
DEPT. OF FISH AND GAME
DEPT. OF PUBLIC SAFETY



SESSION:
CAPITAL BUILDING, ROOM 104
JUNEAU, ALASKA 99801-1182
PHONE: (907) 465-4451
FAX: (907) 455-3445

INTERIM
718 W. 4TH AVE. #630
ANCHORAGE, AK 99501-2133
PHONE: (907) 258-8167
FAX: (907) 258-8468

January 20, 1994

Mr. Frank V. Kelty, Mayor
City of Unalaska
P. O. Box 89
Unalaska, AK 99685

Dear Mayor Kelty:

I have introduced a resolution modeled after the City of Unalaska's resolution on the Comprehensive Rationalization Plan. I have enclosed a copy.

The resolution has two committee referrals on the House side -- the House Special Committee on Fisheries and House Resources. As chair of the House Special Committee on Fisheries, I have scheduled this resolution for a hearing on Wednesday, January 26.

At this time there is a slight chance that I may have a scheduling conflict and may have to reschedule this hearing. I will keep you informed on the progress on the resolution.

Sincerely,

A handwritten signature in cursive script that reads "Carl E. Moses".

Representative Carl E. Moses
Chair
House Special Committee on Fisheries

Enclosure

CITY OF UNALASKA
UNALASKA, ALASKA

RESOLUTION NO. 93-115

A RESOLUTION OF THE UNALASKA CITY COUNCIL URGING THE NORTH PACIFIC FISHERIES MANAGEMENT COUNCIL TO CONSIDER THE CONTINUED PARTICIPATION OF THE SHOREBASED PROCESSORS IN THE COMPREHENSIVE RATIONALIZATION PLAN.

WHEREAS, the shorebased seafood processing industry contributes jobs, taxes, stability to the Alaska economy; and

WHEREAS, according to the State of Alaska Departments of Commerce, Labor, and Revenue and the Alaska Seafood Marketing Institute, in 1992 the Alaska seafood processing industry harvested more than 5.5 billion pounds of fish, processed this fish in more than 500 large and small Alaska seafood processors registered with the state, paid fish harvesters \$1.4 billion, provided a total shorebased payroll exceeding 35,000 Alaskan jobs, spent \$280 million to support its activities, paid over \$60 million in taxes and cash benefits to the state and Alaska's coastal communities, paid \$10 million for salmon enhancement, paid \$700,000 in fisheries related and marine mammal research and \$3.2 million for marketing Alaska's seafood domestically, invested \$1 billion in shoreside plants, paid \$11 million to local governments in municipalities fish taxes, and paid over \$3 million in local real and property taxes; and

WHEREAS, in Unalaska, Western Alaska, the Aleutians and Kodiak, Alaska's shorebased processors pay over \$400 million annually to harvesters; process 1.25 billion pounds of crab, groundfish, salmon, herring, and halibut; employ over 13,000 people; pay over \$90 million in annual payroll; purchase \$45 million in goods, services, and utilities; pay over \$7 million in local raw fish taxes; and in 1992 paid over \$900,000 in grants to non-profit organizations; and

WHEREAS, the North Pacific Fisheries Management Council (NPFMC) is considering the adoption of individual fishery quotas (IFQ) as a management scheme for the groundfish and crab fishery; and

WHEREAS, the concept of IFQs means granting individual fish harvesters or boat owners ownership of a share of these offshore groundfish and crab resources to the exclusion of others currently participating in the fisheries; and

WHEREAS, the IFQ system provides no incentives or requirements for fish harvesters and boat owners to sell their catch to onshore processors and creates incentives to deliver and to sell to offshore motherships and factory trawlers; and

WHEREAS, that result would greatly reduce the groundfish and crab sold to shorebased processors; and

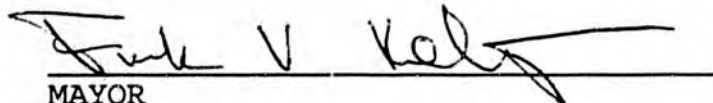
CITY OF UNALASKA
RESOLUTION NO. 93-115
PAGE TWO

WHEREAS, the shutdown or reduction in shorebased processing operations will greatly reduce the contribution made to state and local taxes and the economy by shorebased processors and, thus, severely and adversely impact the jobs, taxes, social and economic stability of coastal communities in Alaska; and

WHEREAS, the current open access fishing regime coupled with an onshore allocation of a percentage of the groundfish and crab to the shorebased processors was contained in the 1992 groundfish plan of the NPFMC and did allow the continuation of the shorebased processors' participation in the fishery and contribution they make to the jobs, taxes, social and economic stability of Alaska's coastal communities.

NOW THEREFORE BE IT RESOLVED that the Unalaska City Council urges the North Pacific Fisheries Management Council to incorporate fairness, equal rights of access, and equity to the current participants in the groundfish and crab fishery in the management plan it is now considering in order to ensure the continued participation of the shorebased processors in these fisheries and the benefits they bring to Alaska's coastal communities and the State of Alaska.

PASSED AND ADOPTED BY A DULY CONSTITUTED QUORUM OF THE UNALASKA CITY COUNCIL THIS 14 DAY OF December, 1993.


MAYOR

ATTEST:


CITY CLERK

CITY OF UNALASKA

P.O. BOX 89
UNALASKA, ALASKA 99685
(907) 581-1251
FAX (907) 581-1417



December 21, 1993

Representative Carl Moses
Room 204
State Capitol
Juneau, Alaska 99801

Dear Representative Moses,

Enclosed please find a copy of City of Unalaska Resolution No. 93-115 which urges the North Pacific Fisheries Management Council to consider the continued participation of the shorebased processors in the comprehensive rationalization plan. Similar resolutions have also been passed by the Alaska Municipal League and the Alaska Conference of Mayors.

This issue is a very important one to the community of Unalaska and we would request that a similar resolution be introduced at this upcoming session.

Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank V. Kelty", with a long horizontal line extending to the right.

FRANK V. KELTY
Mayor

/dkm

enclosure

CARL-
WOULD YOU LIKE TO
HAVE A RESOLUTION
DRAFTED?

Green

A handwritten signature in black ink, appearing to read "Carl Green", with a stylized "C" and "G".



ALASKA CRAB COALITION

*Cancel -
I'll file this
with the HJR 50
file (please
return to me
after reading)*

*CS: ✓
CM: ✓*

3901 Leary Way (Bldg.) N.W., Suite #6 • Seattle, WA 98107 • (206) 547-7560 • FAX (206) 547-0130

February 14, 1994

Representative Bill Williams, Chairman
House Resources Committee
Alaska State Legislature
State Capitol, Room 128
Juneau, Alaska 99801-1182

RE: COMMENT AND CLARIFICATION ON HJR NO. 50; THE BERING
SEA CRAB FLEET, AN INTEGRAL PART OF THE ALASKAN
SHORE-BASED SHELLFISH PROCESSING COMPLEX

Dear Representative Williams:

The Board of Directors of the Alaska Crab Coalition (ACC) have recently reviewed HJR #50, a resolution which calls for the Alaska Legislature to support inshore allocations of crab and groundfish and fairness and equal rights of access for all fisheries participants and to ensure the continued participation of the shore-based processors and the contributions they bring to coastal communities and the State of Alaska as the North Pacific Fishery Management Council moves ahead to develop a comprehensive rationalization plan.

After reviewing this resolution, the ACC feels it is appropriate to provide a description of the Bering Sea crab fisheries and to clarify a few misleading statements in regards to the comprehensive rationalization analysis underway within the NPFMC leading to not only finfish, but shellfish being processed offshore and potential economic disruption within coastal communities, unless some undefined measures are taken to insure that does not occur.

DESCRIPTION OF THE BERING SEA CRAB FISHERIES:

Bering Sea crab fisheries occur predominantly in the 200 mile EEZ, outside the Alaskan 3 mile limit. However, a federal oversight Fishery Management Plan delegates management authority to the State of Alaska. Crab harvests from this region alone presently account for 90% of Alaskan shellfish production and exports and 30-35% of all Alaskan seafood production, shared equally with statewide salmon and groundfish production.

There are an estimated 270 boats harvesting king and tanner crab and 18 companies involved in the processing and marketing of these species of shellfish. Within the fleet, an estimated 250 of the vessels deliver their products to either shore-based plants or to floating processors, anchored inside the Alaska 3 mile limit. The other 20 vessels, which all have ADF&G certified observers on board, catch and process crab on the high seas within the EEZ

The exvessel revenues for Bering Sea crab fisheries over the past four years have rebounded and average over \$300 million dollars per year. The catcher boat/shore-based component has been contributing an average of 4% of their revenues to the State General Fund and 1.5 - 3% additional taxes to municipalities and boroughs, a total of 5.5 to 6% in resource taxes alone.

Presently, the catcher boat fleet harvests an estimated 87% of the king and tanner crab and the catcher processors are harvesting and processing the balance of 13% of the quotas. Recent analysis of the catch share by the NPFMC shows that the catcher processor share has been declining in recent years.

The catcher boat fleet, accounting for 87% of the harvest of crab, is contributing over \$15,000,000 per year in fish tax contributions to the State of Alaska and to municipal governments in Southwest Alaska. The offshore catcher/processor fleet will begin paying a 3.3% landing tax for its share of the catch, effective January 1, 1994.

Although approximately 65% of the fleet is comprised of boats from Washington and Oregon, it is apparent they are making significant economic contributions to the State of Alaska, particularly when consideration is given to fees paid for non resident licenses and fishing permits, marine fuel taxes and expenditures for repairs to vessels, groceries, hotels, restaurants, air fares and other goods and services purchased in Alaska.

In addition to the direct tax contributions and expenditures in the State of Alaska, both the inshore sector and the offshore sector of the industry pay more than \$2.5 million dollars for observers stationed aboard floating processors and catcher processors, to insure minimum size limits are enforced and to collect catch and biological data for management purposes.

The State of Alaska presently invests an estimated \$1,000,000 on Bering Sea crab management, most of which is expended on administrative staff within the Westward Region Office in Kodiak.

From the description above it is clear that the Bering Sea crab fisheries are an integral part of the shorebased economic complex of the Alaskan seafood industry.

POLICY CLARIFICATIONS ON COMPREHENSIVE RATIONALIZATION:

The ACC membership supports the development of the comprehensive rationalization program, as the crab fisheries are becoming increasingly overcapitalized. The ACC is supporting the analysis of two alternatives at the NPFMC, license limitation and an IFQ proposal. It is up to the Council and the industry to decide the outcome.

1. IFQ allocations represent a use privilege; however, the Council can alter or rescind the allocations without compensation. It is clear that IFQs do not convey ownership rights to fishery resources. This has been recognized by the North Pacific Fishery Management Council and Senator Stevens who has stated this in a Congressional Hearing in 1993.

2. The IFQ proposal for crab is being structured to create incentives and requirements for fish harvestors and boat owners to sell their catch to shore-based processors.

The ACC has publicly testified to the NPFMC that in the event an IFQ program is established for Bering Sea crab, the boat owners do not intend to enter the processing business. They intend to continue in their present mode of business, delivering product to shore-based plants and floating processors inside the Alaskan 3 mile limit.

The ACC has also endorsed non-transferrability of catcher boat quotas to offshore catcher/ processors. This will freeze the level of crab that is caught by catcher processors and it is one requirement that will help insure that crab will be processed onshore.

If there is an incentive for crab to be processed offshore, then offshore processing of crab would be increasing now, since there is no restrictive onshore/offshore allocation program in place for crab. Instead, offshore processing is declining, due to the economics of the industry and the catcher boats preference to remain harvestors within the shore-based complex.

Sincerely,



Arni Thomson, Executive Director
Alaska Crab Coalition

cc: Carl Moses, Chairman, House Special Committee on
Fisheries

Alaska State Legislature

Representative Carl E. Moses

CHAIRMAN
HOUSE RULES COMMITTEE

CHAIRMAN
HOUSE SPECIAL COMMITTEE FISHERIES

MEMBER FINANCE SUBCOMMITTEES ON:
DEPT. OF FISH AND GAME
DEPT. OF PUBLIC SAFETY



SESSION:
CAPITAL BUILDING, ROOM 204
JUNEAU, ALASKA 99801-1182
PHONE: (907) 465-4451
FAX: (907) 455-3445

INTERIM
716 W. 4TH AVE. #630
ANCHORAGE, AK 99501-2133
PHONE: (907) 258-8167
FAX: (907) 258-8468

TESTIMONY TO THE SENATE JUDICIARY COMMITTEE April 15, 1994

HJR 50 - North Pacific Fishery Management Council Comprehensive Rationalization Plan

Good afternoon, Mr. Chairman, and members of the Senate Judiciary Committee. I am Cheryl Sutton, aide to the House Fisheries Committee and Representative Moses. I will be testifying on behalf of HJR 50 today. Thank you for hearing this resolution.

HJR 50 reaffirms the importance of the shorebased processing industry to Alaska and asks the North Pacific Fishery Management Council to incorporate fairness, equal rights of access, and equity to this sector of the commercial fishing industry as it considers its current comprehensive rationalization plan.

I have distributed copies of two documents to you today. The first is the Executive Summary from a report entitled, "The Economic Impact of the Shoreside Processing Industry Upon Alaska During 1992." This report was prepared by Pacific Associates in conjunction with Capitol Associates. The report quantifies the economic impact of the shoreside seafood industry during 1992 upon Alaska, its communities and regions. Additionally, it substantiates the assertions of HJR 50.

The seafood industry is Alaska's largest private sector employer: more than 35,000 are employed in the harvesting and processing sectors of the

ADAK • AKUTAN • AMCHITKA • ATKA • ATTU • BELKOFSKI • CHERNOFSKI • CHIGNIK • CHIGNIK LAGOON • CHIGNIK LAKE
COLD BAY • DUTCH HARBOR • EGEGIK • EKWOK • FALSE PASS • IVANOF BAY • KING COVE • KING SALMON • KOLIGANEK • LEVELOCK • NAKNEK
NELSON LAGOON • NEW STUYAHOK • NIKOLSKI • PEDRO BAY • PERRYVILLE • PILOT POINT • PORT HEIDEN • PORT MOLLER • SAND POINT
SHEMYA • SQUAW HARBOR • SOUTH NAKNEK • ST. GEORGE ISLAND • ST. PAUL ISLAND • UGASHIK • UNALASKA • UNGA

industry. In some coastal regions of Alaska, the seafood industry generates nearly all economic activity.

The shoreside processing sector of the industry is composed of over 550 facilities. In order to acquire accurate information on this component of the seafood industry, the Pacific Seafood Processors Association provided detailed, confidential information from its members who identified in-state and local spending by plant location in Alaska. Municipal and borough governments, and various state and federal agencies also provided information.

In 1992, over \$64 million in goods and services were purchased directly by the shoreside processing sector in Alaska communities from local vendors and municipalities. This includes \$32 million for consumables, \$22 million for services, and \$10 million for water, sewer, and utilities.

In addition, the shoreside processing sector also paid over \$57 million in state and local raw fish taxes for their purchases of fish and shellfish. Of this amount, approximately \$36.5 million was paid directly to the communities and regions served by the shoreside processing sector; one-half of the state raw fish tax (\$21 million) and all of the local raw fish tax (\$15.5 million).

The total economic impact of the industry upon Alaska communities during 1992 was nearly \$4 billion. These are not economic contributions to be ignored.

The second document I have provided is a copy of the January issue of the North Pacific Fishery Management Council newsletter which addresses the comprehensive rationalization plan under consideration by the Council.

HJR 50 first expresses the economic and social value of the shorebased processing industry and then requests the North Pacific Fishery Management Council to equitably consider this sector of the seafood industry when allocating groundfish and crab under any comprehensive rationalization scheme it considers.

Representative Moses thanks you for hearing HJR 50 and respectfully requests your support and passage from committee. I would be glad to answer any questions you may have. Thank you.

SCRIPT

Testimony to House Resources Committee
February 9, 1994

HOUSE JOINT RESOLUTION 50

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL COMPREHENSIVE RATIONALIZATION PLAN

Good morning. For the record, I am Representative Carl Moses and am the sponsor of HJR 50 which addresses the North Pacific Fisheries Management Council's Comprehensive Rationalization Plan.

HJR 50 reaffirms the importance of the shore-based processing industry to Alaska and asks the North Pacific Fisheries Management Council to incorporate fairness, equal rights of access and equity to this sector of the commercial fishing industry as it considers its current comprehensive rationalization plan.

Rick Lauber from the Pacific Seafood Processors Association will update this committee on the recent actions of the Council. While they have changed directions slightly, this resolution is still pertinent and timely.

The investment of the shore-based processing industry in Alaska is substantial. Yearly contributions to the state through taxes, payrolls, goods and services, utilities and payments to fishermen add social and economic stability not just to coastal communities, but all of Alaska.

The Alaska shore-based processing industry must be considered equitably in any actions pursued by the North Pacific Fisheries Management Council and HJR 50 simply asks for this to be done.

IFQs - GROUND FISH AND CRAB

SPECIES FOR INCLUSION

- Option A:** All species under Council jurisdiction, including PSCs, excluding demersal shelf rockfish.
- Option B:** Under Option A, a percentage (either 45% or historical split) of BSAI Pacific cod would be set aside for a fixed gear License Limitation program.

AREAS

IFQs for all species and PSCs will be awarded based on current management areas.

CRITERIA FOR INITIAL QS QUALIFICATION

Initial QS will be awarded to vessel owners as of the date of final Council action, based on the catch history of their vessel(s). In addition, the Council is considering the following:

Suboption: For GOA fixed gear fisheries, allocate initial QS to owner at time of landing.

The Council also is considering the following recent participation requirement for QS qualification:

Vessel must have fished in three-year period before June 24, 1992 and/or 3-year period before date of final Council action. If vessel is lost during this period, owner at time of loss is still eligible.

COMMUNITY DEVELOPMENT QUOTA (CDQ) CONSIDERATIONS

In addition to allocating QS to current vessel owners, the Council may make initial allocations to CDQs as shown below:

- Option A:** No allocations to CDQs.
- Option B:** Initially allocate 3%, 7.5%, 10%, or 15% (options range up to 15%) as CDQs; may apply to any or all groundfish/crab species; but only for BSAI communities meeting current CDQ eligibility requirements, patterned after current pollock CDQ program, with no sunset provisions.

IFQs - GROUNDFISH AND CRAB

SKIPPER CONSIDERATIONS

The Council is also considering the following options for including skippers in the IFQ program.

Option A: No allocations to skippers.

Option B: Initially allocate 3%, 5%, or 10% (options range up to 10%) to 'bona fide' skippers (based on landings attributable to each skipper, or based on time spent in a given fishery).

Suboption A: For the purposes of initial allocations, a 'bonafide skipper' is any skipper who ran a vessel and landed groundfish or crab in a relevant fishery.

Suboption B: QS allocated under Option B shall form a separate QS pool. Subsequent transfers of QS in this pool shall be restricted to 'bona fide skippers.' For the purposes of subsequent transfers, a 'bona fide skipper' is any individual who received an initial skipper pool QS allocation or any individual who meets an industry approved 'professionalization qualification scheme.' (The intent is to provide for an entry-level access mechanism and to promote safety through professionalization. The qualifications cannot be overly restricting so as to create a closed class.)

PROCESSOR CONSIDERATIONS

The following options are being considered relevant to processors:

Option A: Assign separate processor QS (2-pie system). See separate description for elements of this program.

Option B: Require a minimum percentage of harvest IFQs to be delivered shoreside (% will be based on last two years' average for each species for BSAI & GOA separately).

Option C: Direct allocation of harvesting QS to catcher boats, catcher-processors and shorebased processors (1-pie system).

Note: The analysis will include the impacts of providing no protection to onshore processors.

IFQs - GROUND FISH AND CRAB

INITIAL QS CALCULATION

The following primary options are being considered for calculating QS of qualified recipients (all options will be analyzed on the basis of retained (when available) and reported catch):

Option A: QS based on catch of vessel from 1976 to either June 24, 1992 or date of final Council action (pre-1984 JV catch assigned based on average by fishery, by year, for vessels which participated).

For Option A, the following suboptions are being considered for weighting factors:

Suboption A: No weighting by sector.

Suboption B: Weight DAP 3.5:1 JV.

Suboption C: Weight DAP 2:1 JV.

Suboption D: For JV before 1986 and for DAP before 1989, weight at 2:1.

Option B: QS based on catch of vessel from date of full DAP (by species) to either June 24, 1992 or date of final Council action.

Option C: QS based on catch of vessel from 1993 only.

Option D: Analyze QS based on catch for 1990-91-92.

Option E:

- (1) To qualify, vessel must have fished in 1991, 1992, or 1993.
- (2) Owner chooses best year from 1991, 1992, or 1993 as base for QS calculation (BSAI and GOA separately.)
- (3) QS credit then weighted based on length of involvement of vessel in each fishery since 1983. Base QS would be multiplied by length of involvement to determine total QS credit.

Suboption: The length of the involvement period multiplier may be further modified for the BSAI longline cod fishery to account for the relatively recent opening of that fishery. (Using 1983 as the base, each year in the fishery may be multiplied by 1.0, 1.5, or 2.0.)

In addition to the options shown above, the Council is considering the following possible alternatives which are specific to Pacific cod in the BSAI. If either of the options below is chosen, the calculation alternatives shown above would still apply for the remaining fisheries.

Option A: Allocate Pacific cod QS at 45% for fixed gear recipients/55% for trawl gear.

Option B: Allocate Pacific cod QS by gear types based on historical split. We will examine: (1) back to 1976, (2) back to date of full DAP for Pacific cod, and (3) 1993 only to determine historical split.

Unless otherwise directed, same initial QS calculation options apply to divide QS among participants in each sector.

IFQs - GROUND FISH AND CRAB

TARGET/BYCATCH CALCULATIONS

For the QS calculation alternatives described above, the following species will be considered target species:

BSAI
pollock
Pacific cod
Atka mackerel
yellowfin sole
other flatfish
rockfish
squid (fixed gear only)
rocksole
turbot

GOA
pollock
Pacific cod
deepwater flats
shallow water flats
Atka mackerel
rockfish

Whichever option is chosen, QS amounts for each species will be calculated based on catch, then adjusted based on average bycatch rates (or industry-derived bycatch rates) to achieve initial 'bundles' of target/bycatch species and PSC species. The Council has discussed the issue of basing QS calculations on retained, as opposed to reported, catch. As noted earlier, options will be analyzed on the basis of retained, when available, and reported catch.

TRANSFERABILITY PROVISIONS

Any or all of the following options may apply:

- Option A: No restrictions.
- Option B: Two year restriction on sales only (could lease).
- Option C: For groundfish only, non-transferable between fixed and mobile gear categories.
- Option D: For crab fisheries only, non-transferable across catcher vs. catcher/processor categories.
- Option E: IFQs will not be tied to a particular gear type after initial issuance.
- NOTE: Normal legal gear regulations will still apply, i.e., unless the Council changes its regulations, trawl gear could not be used to harvest crab.*
- Option F: Restriction on QS transfers between inshore and offshore sectors. Range (of duration) for analysis to include 5 years, 10 years, and no transfers. This applies to both groundfish and crab.

With regard to PSC QS/IFQ, 3 options are being considered:

- Option A: PSC QS/IFQ are tied to initial bundles and are not transferable.
- Option B: PSC QS/IFQ are tied to initial bundles and must be transferred with bundles.
- Option C: PSC QS/IFQ are transferable separately from the initial bundles.

LICENSE SYSTEM FOR GROUNDFISH**NATURE OF LICENSES**

A groundfish license system would not apply to longline sablefish, halibut, or demersal shelf rockfish.

Alternatives include:

- Option A:** A single groundfish license applying to all species/areas.
- Option B:** Licenses for each species.
- Option C:** General license with endorsements for each species/area.

Suboption A: separable endorsements

Suboption B: non-separable endorsements

In addition to the options above, the Council is considering the following suboptions:

Suboption A: Separate licenses for catcher and catcher/processor operations.

Suboption B: Licenses for three catcher vessel size categories <60', 60' to 125', and >125'.

Suboption C: Licenses would be designated inshore or offshore based on 1993 activity.

Additionally, the Council is considering the following option, which is related to the IFQ alternatives described separately:

Licenses for BSAI Pacific cod fixed gear fishery only; would apply to 45% (or historical split) of the TAC set aside for fixed gear.

WHO WILL RECEIVE LICENSES

Alternatives include:

- Option A:** Current vessel owner is defined as date of final Council action and must be a U.S. citizen pursuant to Title 46.

Suboption A: Vessel owners at the time of landings.

Suboption B: Permit holders.

These two suboptions are only relevant if license is not attached to vessel.

Additionally, the Council is considering the two-tier skipper license program. (Under this option, at least one skipper license holder must be onboard the vessel when fishing.)

LICENSE SYSTEM FOR GROUND FISH

CRITERIA FOR ELIGIBILITY

Alternatives include issuing a license to any vessel (or person) who made landings between:

Option A: January 1, 1978 and December 31, 1993.

Option B: January 1, 1990 and December 31, 1993.

Option C: Vessel must have fished in the three-year period before June 24, 1992 and/or the three-year period before the date of final Council action. If a vessel is lost during this period, owner at time of loss is still eligible.

In addition to the options above, the Council is considering the following:

Suboption: Must have made at least 2 landings (per area/species combination) or made total groundfish landings of 5,000, 10,000, or 20,000 pounds (3 options) in any one year. (In addition to #1 or #2 above).

TRANSFERABILITY AND OWNERSHIP

Alternatives include:

Option A: Licenses could be transferred (sold or leased) only to "Persons" (as defined by Title 46), i.e., U.S. citizens or U.S.-owned corporations.

Option B: Vessels must be transferred with license.

Option C: License may be transferred without vessel (can apply to "new" vessel).

Suboption A: Non-transferable across size categories identified above (Nature of Licenses).

Suboption B: Licenses may be combined in a manner similar to that described in the Pacific whiting fishery.

Methods for effective license caps will also be examined.

BUYBACK PROGRAM (OPTIONAL)

An industry funded buyback program, using funds collected through a fee assessment of exvessel of groundfish, run by NMFS/RAM, will be initiated to govern all transfers of licenses. This program will have first right of refusal on licenses to be sold. All licenses purchased by the program may be permanently retired to adjust participation levels.

LICENSE SYSTEM FOR GROUND FISH

COMMUNITY DEVELOPMENT QUOTA

Option A: ~~No~~ allocations.

Option B: ~~CDQs~~ ~~of up to 15%~~ of up to 15% (range of 0% to 15%) of any or all groundfish TACs, but only for BSAI communities meeting current CDQ eligibility requirements, patterned after current pollock CDQ program, with no sunset provisions.

Option C: Would grant CDQs in the form of additional non-transferable licenses (3%, 7.5%, 10% and 15% of initial licenses).

LICENSE SYSTEM FOR BSAI KING AND TANNER CRAB FISHERIES

NATURE OF LICENSES

Alternatives include:

- Option A:** A single crab license applying to all species/areas.
- Option B:** A separate license for each species.
- Option C:** Separate licenses (permits) for each species and each area.
- Option D:** A general license with endorsements.

The following two suboptions (to be applied to the above) are being considered:

- Suboption A:** Separate licenses for catcher and catcher/processor operations.
- Suboption B:** Licenses for three catcher vessel size categories <60', 60' to 125', and >125'.
(These can be matched with pot limits.)

WHO WILL RECEIVE LICENSES

Current vessel owners as of Council final action. ("Persons" are defined as in Title 46.)

- Suboption:** Permit holders: Each permit holder not receiving a permit, could receive a fractional share of a license. Only full shares may be fished, and these must be utilized on a "moratorium qualified vessel."

Additionally, the Council is considering the two-tier skipper license program. (Under this option, at least one skipper license holder must be onboard the vessel when fishing.)

CRITERIA FOR ELIGIBILITY

A vessel must have made landings between:

- Option A:** January 1, 1978 and December 31, 1993.

- Option B:** June 28, 1989 and June 27, 1992. (This corresponds to the existing fall/winter crab seasons in the BSAI, and includes the 1989/90, 1990/91 and 1991/92 registration years.) A vessel (person) must have made at least 1 landing in the red and blue king crab fisheries, (3 landings in each of the brown king crab, *C. opilio* (snow crab) and *C. bairdi* Tanner crab) fisheries during the qualifying period.

The qualifying period for the Dutch Harbor red king crab fishery would be June 28, 1980 and June 27, 1983.

The qualifying period for the Pribilof blue king crab fishery would be June 28, 1985 and June 27, 1988.

(NOTE: a fish ticket is considered a landing. During longer seasons, Tanner or brown king crab catcher processors fill out weekly fish tickets).

LICENSE SYSTEM FOR BSAI KING AND TANNER CRAB FISHERIES

TRANSFERABILITY AND OWNERSHIP

Alternatives include:

Option A: Licenses could be sold only to "Persons" (as defined by Title 46), i.e., U.S. citizens or U.S.-owned corporations.

Option B: Vessels must be transferred with license.

Suboption: Replacement/upgrades will be restricted as per the language in the moratorium regulations.

Option C: License may be transferred without vessel (can apply to "new" vessel).

- Suboptions:**
- (a) Non-transferable across size categories identified above.
 - (b) Transferable across size categories.
 - (c) Species/area licenses will be non-transferable.
 - (d) Transfers of vessel license may occur only within the classification of the vessel (Catcher vessel v. Catcher processors). Catcher vessel licenses may be traded to catcher vessels, catcher processor licenses to catcher-processors, catcher processor licenses to catcher vessels (as a catcher vessel only), but not catcher vessel licenses to catcher processors for catching and processing.
 - (e) Replacements/upgrades will be restricted as per the language in the moratorium regulations.

POT CAPS

Alternatives include:

Option A: No caps on the total number of pots.

Option B: Caps are established on the total number of pots.

An Individual Transferable Pot (ITP) quota is initiated, such that the number of pots equates to the existing pot limit relative to the number of vessels with licenses for each fishery. An ITP would allow stacking of pots to occur, where a person owning multiple vessels could combine pots and vessels as they wished. Effort reduction could occur in each fishery, if necessary, by reducing some percentage of the number of individual pots over time until an optimal fishery pot cap is obtained.

LICENSE SYSTEM FOR BSAI KING AND TANNER CRAB FISHERIES

BUYBACK PROGRAM (OPTIONAL)

An industry funded buyback program, using funds collected through a fee assessment of ex-vessel of crab, run by NMFS/RAM, will be initiated to govern all transfers of licenses. This program will have first right of refusal on licenses to be sold. All licenses purchased by the program may be permanently retired to adjust participation levels.

COMMUNITY DEVELOPMENT QUOTAS

- Option A:** No allocations to CDQs.
- Option B:** Initially allocate 3%, 7.5%, 10% or 15% of the GHL by species and CDQs may apply to any or all crab species, but only for BSAI communities meeting current CDQ eligibility requirements, patterned after current pollock CDQ program, with sunset provisions.
- Option C:** Would grant CDQs in the form of additional, non-transferable licenses (3%, 7.5%, 10% and 15% of initial licenses).

IFQs - GROUND FISH AND CRAB

USE/OWNERSHIP PROVISIONS

The following options are being considered relative to accounting under the IFQ program. These options will affect an operator's ability to match IFQs to catch, and also relate to the ability to manage the program effectively within the overall TACs.

Option A: Must control IFQs to cover expected catch before fishing.

Option B: Overage program as with sablefish and halibut program.

The following use/ownership provisions may also be considered by the Council:

Option A: Require a percentage of harvest IFQs to be delivered shoreside (% will be based on last 2 years' average for each species). This option was also included under 'PROCESSOR CONSIDERATIONS'.

Option B: Ownership caps would be set at .1%, 1%, 5%, 10%, or any number in that range and would apply to the BSAI and GOA separately. Same caps would apply to the skippers' quota share pool. Skippers' shares keep their identity after initial distribution. Initial allocants would be grandfathered.

GENERAL PROVISIONS

- Allocations represent a use privilege; however, the Council could alter or rescind the program without compensation.
- Council should pursue some level of administrative fee extraction to fund program, if Magnuson Act is amended.
- The U.S. ownership definitions used in the Halibut/Sablefish IFQ regulations should be used in analyzing both the initial issuance and the subsequent transfer of QS/IFQs. Would examine the implications of foreign ownership including an analysis of the Pacific Council's foreign ownership provisions.
- An analysis of the impact of various fee collection levels and mechanisms is required. This analysis will differentiate between administrative fees and rents.

PROCESSOR QUOTAS - GROUNDFISH AND CRAB

SPECIES FOR INCLUSION

Option A: All species for which IFQs are issued, except longline sablefish, halibut, demersal shelf rockfish, and PSQs.

AREAS

Processor shares/individual processor quotas (PS/IPQs) are not area specific.

CRITERIA FOR INITIAL PS QUALIFICATION

Initial PS will be awarded to current processor (shorebased or at sea) owners as of the date of final Council action, based on the processing history of their processor(s). In addition the Council is requiring that a processor must have processed groundfish/crab in the three-year period before June 24, 1992 and/or the three-year period before the date of final Council action. If processor is lost during this period, owner at time of loss is still eligible.

Option A: PS designated by inshore and offshore sectors.

Option B: PS is not designated by inshore/offshore sectors.

In addition, the Council is considering the following suboption:

Suboption: For all GOA fixed gear fisheries, allocate to processors at the time of processing.

COMMUNITY DEVELOPMENT QUOTA (CDQ) CONSIDERATIONS

In addition to allocating PS to current processor owners, the Council may make initial allocations to CDQs as shown below:

Option A: No allocations to CDQs.

Option B: Initially allocate 3%, 7.5%, 10%, or 15% (options range up to 15%) as CDQs; may apply to any or all groundfish/crab species, but only for communities meeting CDQ eligibility requirements patterned after the current BSAI pollock CDQ program, with no sunset provision.

PROCESSOR QUOTAS - GROUND FISH AND CRAB

INITIAL PS CALCULATION

The following primary options are being considered for calculating PS of qualified recipients. Whichever option is chosen, PS amounts for each species will be calculated based on fish tickets and weekly processor reports, then adjusted based on average bycatch rates to achieve initial 'bundles' of target/bycatch.

- Option A:** PS based on activity by processor from 1984 to either June 24, 1992 or date of final Council action.
- Option B:** PS based on activity by processor from date of full DAP (by species) to either June 24, 1992 or date of final Council action.
- Option C:** Based on retained catch rather than reported catch, where data available.

TRANSFERABILITY PROVISIONS

Any or all of the following options may apply:

- Option A:** No restrictions.
- Option B:** Two year restriction on sales only (could lease).
- Option C:** Non-transferable between fixed and mobile processors.
- Option D:** Transferability between inshore and offshore processors to be limited such that inshore processing is not less than the current inshore proportion of total processing ("current proportion" to be based on last two years' average processing activity by species, for BSAI and GOA separately).

PROCESSOR QUOTAS - GROUND FISH AND CRAB

USE/OWNERSHIP PROVISIONS

- Option A:** Must control IPQs to cover expected processing before activity.
- Option B:** Overage program as with sablefish and halibut program.

GENERAL PROVISIONS

- Allocations represent a use privilege; however, the Council could alter or rescind the program without compensation.
- Council should pursue some level of administrative fee extraction to fund program, if Magnuson Act is amended.
- The U.S. ownership definitions used in the Halibut/Sablefish IPQ regulations should be used in analyzing both the initial issuance and the subsequent transfer of PS/IPQs. Would examine the implications of foreign ownership including an analysis of the Pacific Council's foreign ownership provisions.
- An analysis of the impact of various fee collection levels and mechanisms is required. This analysis will differentiate between administrative fees and rents.

**NORTH PACIFIC FISHERY
MANAGEMENT COUNCIL
P.O. BOX 103136
ANCHORAGE, AK 99510**



U.S. OFFICIAL MAIL

PENALTY
FOR
PRIVATE
USE \$300
METER
2311027

U.S. POSTAGE

0.52

FIRST CLASS MAIL

**MOSES, CARL - REP
STATE CAPITOL
POUCH V - MS 3100
JUNEAU, AK 99801-1182**

**RECEIVED
JAN 27 1994
Ans'd.....**

TESTIMONY TO SENATE RESOURCE COMMITTEE
March 25, 1994

**HJR 50 -- North Pacific Fishery Management Council Comprehensive
Rationalization Plan**

My name is Karen Brand, legislative aide to Representative Carl Moses, and will be testifying to HJR 50 today.

I apologize on behalf of Representative Moses and Cheryl Sutton, the House Fisheries Committee aide, for their absence. They are both attending the Spring Fisheries Conference in Bristol Bay. Representative Moses wanted to thank the committee for scheduling a hearing on this bill and HJR 34 today.

HJR 50 reaffirms the importance of the shorebased processing industry to Alaska and asks the North Pacific Fishery Management Council to incorporate fairness, equal rights of access, and equity to this sector of the commercial fishing industry as it considers its current comprehensive rationalization plan.

I have distributed copies of two documents to you this morning. The first is the Executive Summary from a report entitled, "The Economic Impact of the Shoreside Processing Industry Upon Alaska During 1992." This report was prepared by Pacific Associates in conjunction with Capitol Associates. The report documents the value of the shoreside processing industry and

substantiates the assertions of HJR 50.

The second document is a newsletter from the North Pacific Fisheries Management Council which addresses the comprehensive rationalization plan under consideration by the Council.

HJR 50 first expresses the economic and social value of the shorebased processing industry and then requests the North Pacific Fisheries Management Council to equitably consider this sector of the industry when allocating groundfish and crab under any comprehensive rationalization scheme it considers.

Representative Moses respectfully requests your support of HJR 50 and passage from committee. Thank you.

**THE ECONOMIC IMPACT OF THE
SHORESIDE PROCESSING INDUSTRY
UPON ALASKA DURING 1992**

prepared for the

Pacific Seafood Processors Association

by

Pacific Associates

in conjunction with

Capitol Associates

March, 1994

Executive Summary

The purpose of this report is to quantify the economic impact of the shoreside seafood industry during 1992 upon Alaska, its communities and regions. The report is organized into several chapters that address purchases of fish and shellfish (in pounds and ex-vessel value) on a statewide and regional basis, purchases of goods and services within regions, the generation of revenues to the state, local municipalities and boroughs through taxation, the economic impact of employment, and a review of the regional economic impacts of the shoreside industry.

The seafood industry is Alaska's largest private sector employer; more than 35,000 people are employed in the harvesting and processing sectors of the industry. In some coastal regions of Alaska, the seafood industry generates nearly all economic activity. The shoreside processing sector of the industry is composed of over 550 facilities. Although the bulk of the industry consists of approximately 100 plants, the huge impact of the industry in Alaska is reflected by the large number of small processing facilities; many families throughout Alaska derive a substantial portion of their livelihood from small scale, shoreside seafood processing.

This report identifies the economic impact of the direct and indirect expenditures by the shoreside seafood processing industry upon various regions within Alaska. The indirect expenditures constitute a multiplier. Since there is no commonly accepted multiplier for the seafood industry, we have used a factor of 2.5 to determine the total direct and indirect expenditures (for every \$1 spent in directed expenditures, an additional \$1.50 is generated). This seems reasonable given the conservative estimates of direct expenditures and the very substantial impact the industry has on coastal Alaska.¹

The expenditures identified in this report were generated from a number of sources, including detailed, confidential information from members of the Pacific Seafood Processors Association, who identified in-state and local spending by plant location in Alaska. Municipal and borough governments, and various state and federal agencies, also provided information.

The information received from state and federal agencies on harvests and landings in Alaska conflicted at times. This was due to confidentiality provisions that restrict the type of information available to the general public. In some instances, the data generated by this report (with regard to landings) will vary from the total harvest levels of a species. In part this is due to the data, and in part it is due to the transfer of fish and shellfish outside of Alaska for processing.

¹ A 1987 report by Matthew Berman and Teresa Hull for the Institute of Social and Economic Research, University of Alaska, Anchorage, entitled The Commercial Fishing Industry in Alaska's Economy, identified a statewide multiplier of 1.73 (for every \$1 spent, an additional 73¢ is generated) for the seafood industry. The authors cautioned that this could easily be a conservative estimate based upon several variables; additionally, they reasoned that changes in the industry during the near future could generate an increase in the multiplier.

Executive Summary

The regions used in this report consist of the following:

Alaska Peninsula: Chignik and the Aleutians East Borough (minus Akutan).

Bristol Bay: The Bristol Bay region.

Bering Sea/Aleutian Islands: Unalaska/Dutch Harbor, Akutan, villages in the Aleutians west of Unalaska, and the Pribilof Islands.

Kenai/Cook Inlet/Anchorage: The Kenai Peninsula, including Seward, and Anchorage.

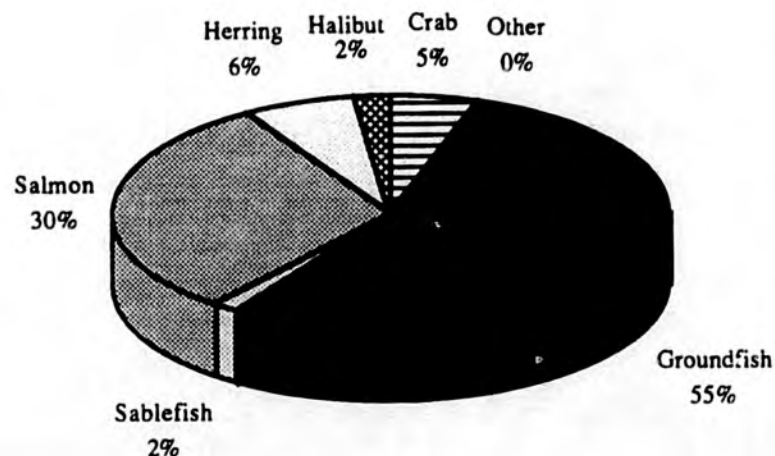
Kodiak: All communities in the Kodiak Island Borough.

Prince William Sound: Cordova, Whittier, and Valdez.

Southeast: All communities south of, and including, Yakutat.

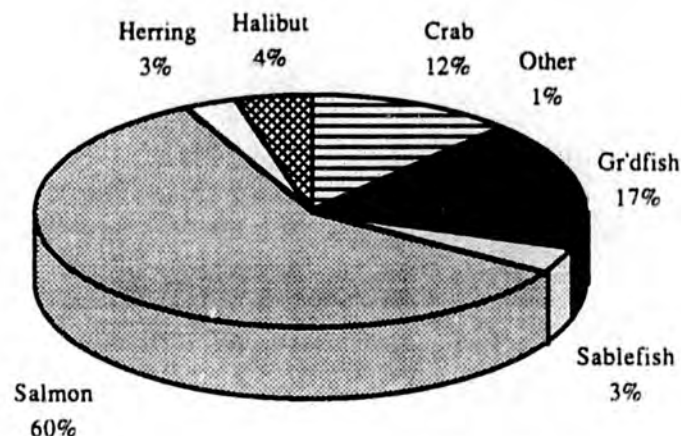
In 1992, the shoreside seafood industry processed 2.26 billion pounds of fish and shellfish in Alaska communities — an average of 6.2 million pounds per day. Each day's production by Alaska's shoreside processing sector produced enough food to feed 774,000 people.

Figure 1
Distribution of Fish & Shellfish by Major Species Category Purchased by the Shoreside Processing Industry in Alaska during 1992 (in percent of total pounds)



The ex-vessel value of the species harvested was over \$1 billion. On a quarterly basis, 15% of the value occurred during the first quarter, 34% in the second quarter, 44% in the third quarter, and 7% in the fourth quarter.

Figure 2
Distribution of Fish & Shellfish by Major Species Category Purchased by the Shoreside Processing Industry in Alaska during 1992 (in percent of total value)



The Bering Sea/Aleutians region accounted for \$215.5 million of total fish and shellfish purchases, followed by Bristol Bay with \$220.5 million, Southeast Alaska with \$165 million, the Alaska Peninsula with \$124 million, Kodiak with \$110 million, and Prince William Sound with \$56 million. (See Figure 3.)

An average of 11,233 individuals per month were directly employed by the shoreside sector in Alaska during 1992; at peak employment, over 16,000 individuals were employed in processing facilities. The total direct payroll during 1992 was \$271 million; an additional \$101 million was spent on employee fringe benefits and other related costs, bringing the total directly expended for shoreside processing employees to \$371.5 million. (See Figure 4.)

The seafood industry is the economic engine for many communities and regions within coastal Alaska. The purchase of fish and shellfish by shoreside processors sets in motion an entire economic structure that affects all ways of life in each community. In preparation for the fishing season, harvesters employ crew members and purchase goods and supplies; following the delivery of the harvest and production, the products must be transshipped to the market. Each individual employed and each dollar expended in the community, contributes to another job in the community — which, in turn, generates additional employment and expenditures within the community.

Executive Summary

Figure 3
Distribution of Fish & Shellfish Purchased by the Shoreside Processing Industry
in Alaska during 1992 by Region (in percent of total value)

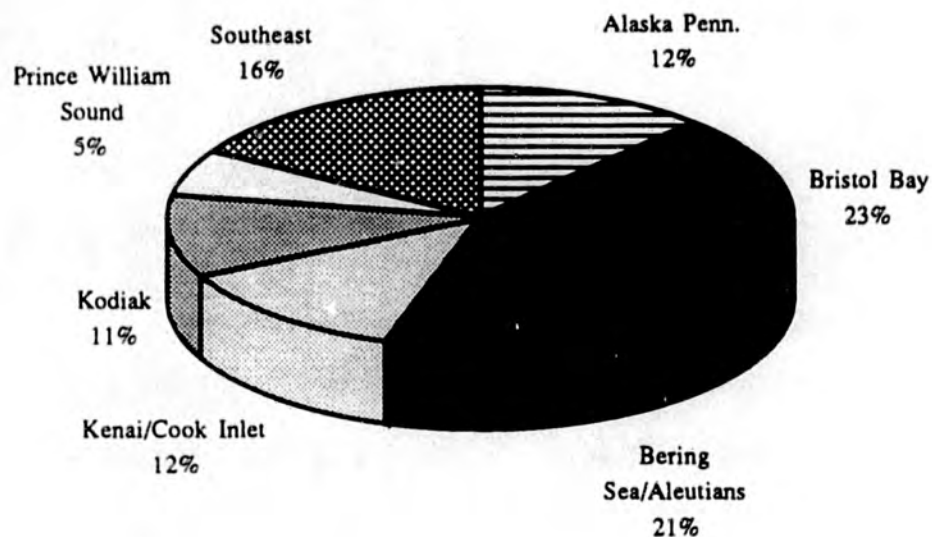
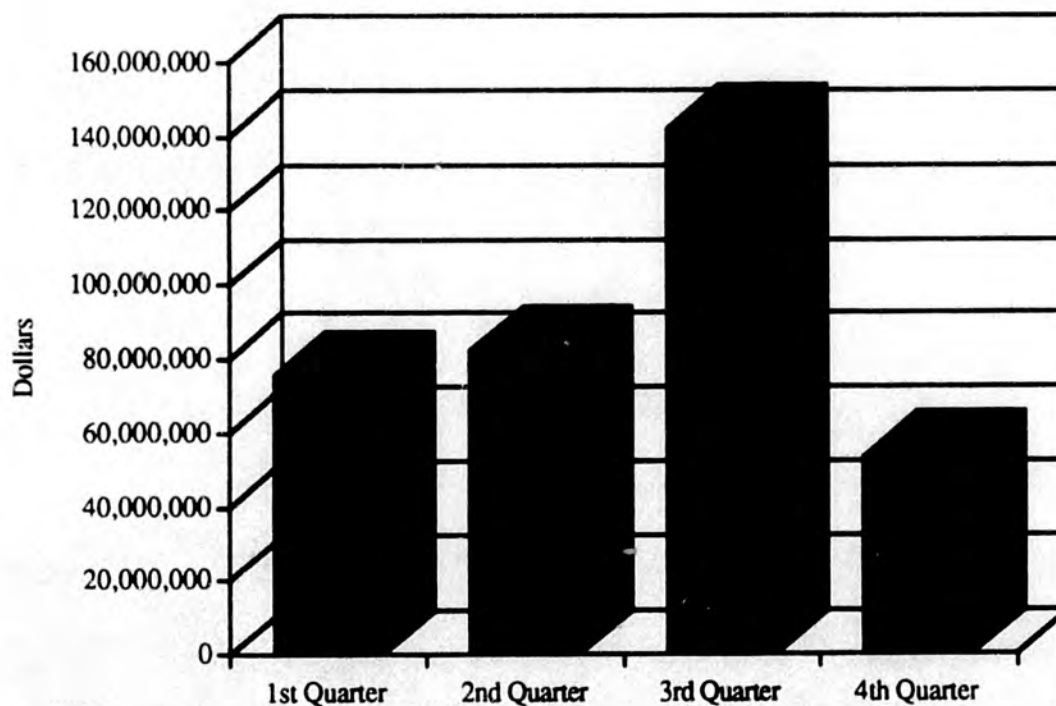
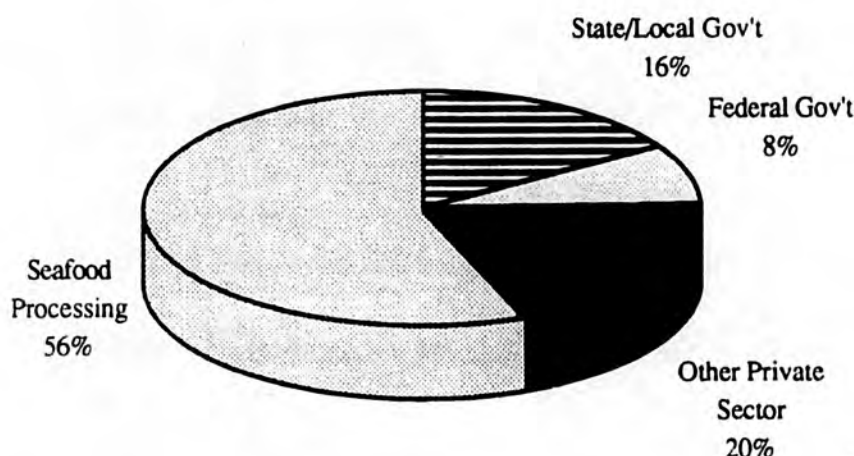


Figure 4: Distribution of Shoreside Processing Employee Wages & Benefits during 1992 (all regions combined)



For example, in the region encompassing Kodiak, Bristol Bay, the Alaska Peninsula, and the Aleutian Islands during 1992, 56% of total employment opportunity during 1991 consisted of seafood processing — the remainder was split between other private sector employment (20%), and government (24%). (See Figure 5.) Bear in mind the 56% seafood processing figure does not include crew jobs or captain positions on fishing vessels. Most of the other private sector jobs are in industries that directly provide services to the shoreside seafood processing industry; as processing employment increases, so does employment opportunity elsewhere in the private sector.

Figure 5
Percentage of Available Jobs in the Region Encompassing Kodiak, Bristol Bay, the Alaska Peninsula, and the Aleutian Islands during 1992



Over \$64 million in goods and services were purchased directly by the shoreside processing sector in Alaska communities from local vendors and municipalities. This includes \$32 million for consumables, \$22 million for services, and \$10 million for water, sewer, and utilities. (See Figure 6.)

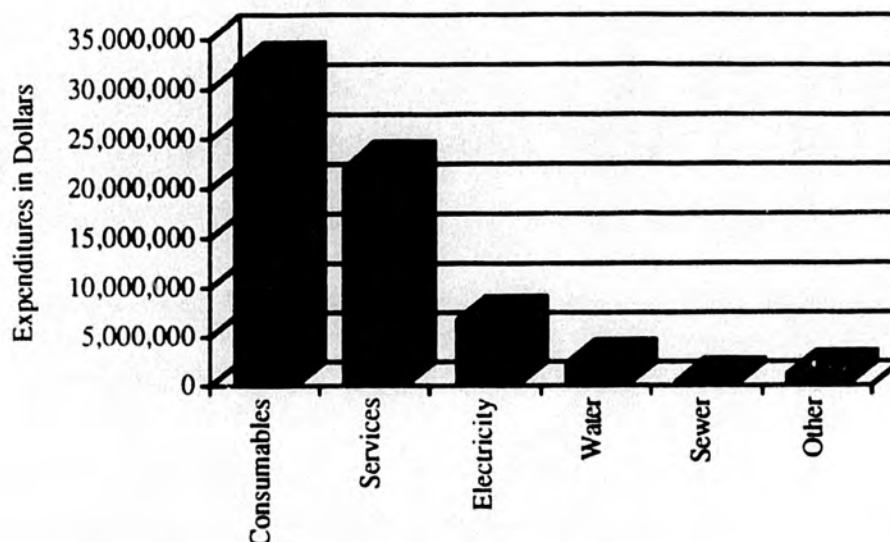
The shoreside processing sector also paid over \$57 million in state and local raw taxes for their purchases of fish and shellfish. Of this amount, approximately \$36.5 million was paid directly to the communities and region served by the shoreside processing sector; one-half of the state fish tax (\$21 million) and all of the local raw fish tax (\$15.5 million).

Payments of taxes and other fees made by the shoreside seafood processing industry constitute significant contributions to the overall revenues available to most municipalities and boroughs in coastal Alaska. In the Aleutians East Borough, for example, 80% of total revenues during 1992 were composed of fish taxes paid by the shoreside processing industry. (See Figure 7.)

Executive Summary

Additionally, the shoreside processing industry contributed over \$1 million to local charity, scholarship, and other programs.

Figure 6
Distribution of Expenditures of Goods & Services Made by the
Shoreside Processing Industry in Alaska during 1992 (in dollars)



The total economic impact of the industry upon Alaska communities during 1992 was nearly \$4 billion. On a regional basis, the total economic impact consisted of the following:

Alaska Peninsula	\$ 526,127,727
Bristol Bay	\$ 708,301,858
Aleutians/Bering Sea	\$ 959,740,898
Kenai/Cook Inlet/Anchorage	\$ 418,255,167
Kodiak	\$ 424,491,064
Prince William Sound	\$ 182,081,210
Southeast	\$ 546,556,690
Other Alaska	\$ 120,762,976

<u>Total</u>	<u>\$ 3,886,317,589</u>
--------------	-------------------------

Figure 7
Comparison of Revenue Sources for Aleutians East Borough 1992 Revenues
(in percent of total dollars)

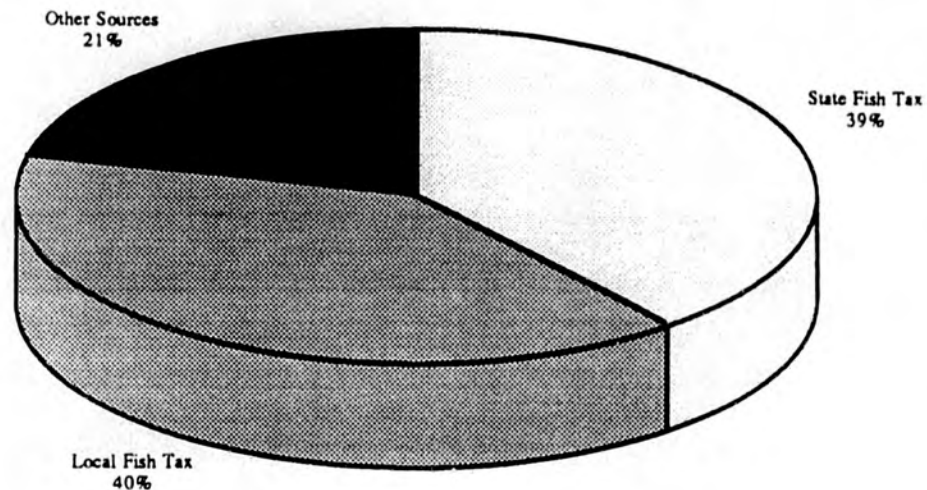
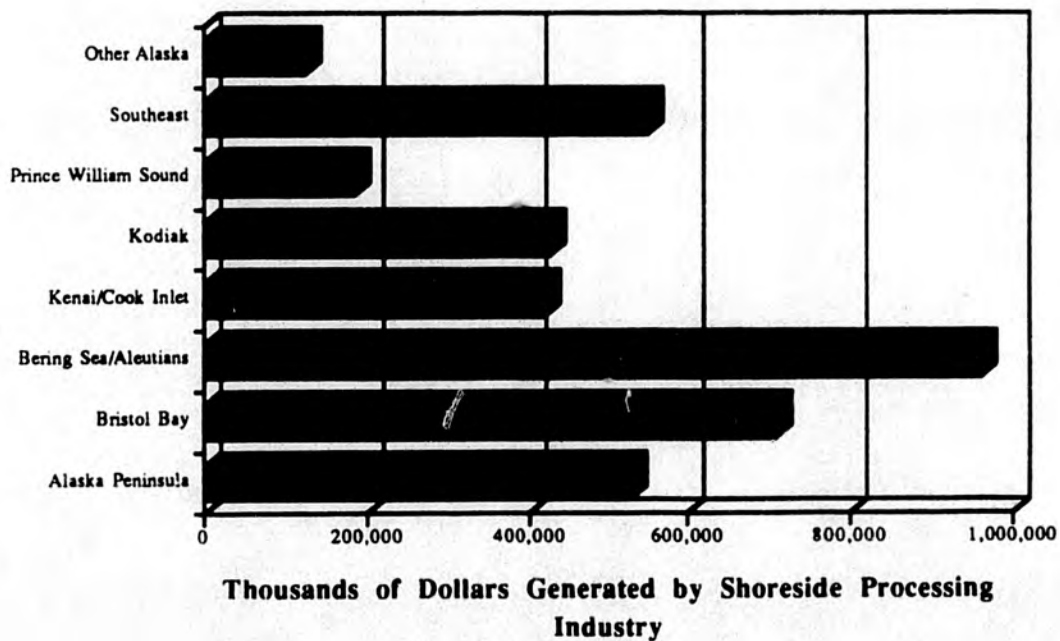


Figure 8
Economic Impact of the Shoreside Processing Industry in Alaska during 1992
(by region, in thousands of dollars)



North Pacific Fishery Management Council

Richard B. Lauber, Chairman
Clarence G. Pautzke, Executive Director

605 West 4th Avenue
Anchorage, Alaska 99501



Mailing Address: P.O. Box 103136
Anchorage, Alaska 99510

Telephone: (907) 271-2809
FAX (907) 271-2817

#1-94

NEWSLETTER

01/25/94

North Pacific Fishery Management Council Meeting Summary

Discussion of comprehensive rationalization of the groundfish and crab fisheries dominated the agenda for the Council's January meeting held in Anchorage. The Council directed staff to concentrate on a license limitation management system for those fisheries at this time. Analysis of individual fishing quotas have not been completely abandoned but will be pursued more slowly. The Council also approved a regulatory amendment which will establish an early season "set-aside," with trip limits for halibut Area 4B. Superexclusive registration was also approved for the Norton Sound red king crab fishery. In addition, the Council received recommendations from its Halibut Charter Working Group on management measures for the halibut sports charter industry, and initiated an analysis of measures to monitor the high bycatch of chum salmon in the Bering Sea/Aleutian Islands groundfish fisheries. Details of these and other actions are included in this newsletter.

The Council will meet next the week of April 18 at the Hilton Hotel in Anchorage, Alaska. A draft agenda for that meeting should be available by April 1st. It is expected that issues on the agenda will include: final action on proposed management measures for the scallop fisheries, final action on proposed trawl closures around the Pribilof Islands, final details on the Sablefish/Halibut IFQ program, further discussion of a potential moratorium on entry to the halibut charter boat fisheries, potential increases in observer requirements to monitor chum salmon bycatch, a report on total weight measurement in the groundfish fisheries, and, further discussion of progress on the comprehensive rationalization program.

SSC Elections Held

The Scientific and Statistical Committee elected Terry Quinn as Chairman and Keith Criddle as Vice Chairman for 1994. Dr. Quinn, Professor of Population Dynamics at the Juneau Center for Ocean Sciences, University of Alaska, has been a member of the SSC for seven years and served as vice chairman for three years. Dr. Criddle, a Professor of Economics with the University of Alaska-Fairbanks, was appointed to the SSC in December of 1992.

IN THE NEWSLETTER

<i>NPFMC MEETING SUMMARY</i>	1
<i>SSC ELECTIONS</i>	1
<i>SABLEFISH/HALIBUT IFQs</i>	2
<i>COMPREHENSIVE RATIONALIZATION</i>	
<i>PLAN</i>	2
<i>DOCUMENTS AVAILABLE FOR REVIEW</i>	2
<i>NORTON SOUND KING CRAB</i>	3
<i>HALIBUT CHARTER ISSUE</i>	3
<i>HALIBUT MANAGEMENT</i>	4
<i>CHUM SALMON BYCATCH</i>	4
<i>UPCOMING MEETINGS</i>	4

Sablefish/Halibut IFQ Program

The Council was scheduled to discuss details of the sablefish/halibut IFQ program at the January meeting, but postponed this agenda item until the April 1994 meeting due to lack of time. The unresolved details will not affect the application and appeals process currently underway, and will be addressed by the Council in April.

Comprehensive Rationalization Program (CRP)

The Council devoted considerable time at the January meeting to the CRP issue, spending nearly four days discussing the specific elements and options for both Individual Fishing Quota (IFQ) and License Limitation alternatives. The specific alternatives and subalternatives identified by the Council at this time are detailed in Attachment 1 to this newsletter. A major directional decision was made by the Council concerning the timing and priority of the potential alternative management systems. The Council adopted a recommendation of its Advisory Panel, which voted 17-2 to identify License Limitation as the priority management system for both groundfish and crab. This action does not abandon IFQs as a potential management solution in the future, but does, at a minimum, indicate a step-wise process whereby License Limitation would be a necessary first step. There were several reasons the AP advanced this recommendation to the Council. First, a license system would bound the fleet and would be more straightforward and faster to implement; second, any form of IFQ system would be very complex and require extensive analysis and implementation time; and, third, the sablefish/halibut IFQ system will not be up and running until 1995. The original timeline for comprehensive planning assumed that IFQs for sablefish and halibut would be implemented earlier than 1995 and allow for observation of changes brought about to the fisheries. Many industry members are wary of moving ahead too quickly with IFQs for all fisheries until IFQ-related changes in the sablefish and halibut fisheries are more closely studied.

Over the next several months the Council staff will devote the majority of their time toward an analysis of the various License Limitation alternatives identified by the Council in Attachment 1. Some of the groundwork for these analyses, such as data bases and economic models, will be similar to those which may be used in a detailed analysis of IFQs in the future. The current workplan developed by the Council does not include a formal analysis of IFQs against License Limitation. Again, the charge of the Council is to develop, as expeditiously as possible, a License Limitation program for the groundfish and crab fisheries. Such a system could be up for initial review in June 1994.

As part of the License Limitation analysis, the Council also directed staff to begin examining two proposals related to the Full Utilization issue. Full retention of all groundfish as well as a 'Harvest Priority' proposal will be looked at as possible management measures to be implemented in conjunction with a License Limitation program. The Harvest Priority proposal would grant harvesting priorities to those operators who demonstrate low bycatch rates.

Council Documents Available for Public Review

Draft Scallop Harvesting Plan

Deadline for Comments: April 6, 1994

Council will consider final decision at their next meeting the week of April 18.

Analysis of Proposed Trawl Closure around Pribilof Islands

Deadline for Comments: April 8, 1994

Council will consider final decision at their next meeting the week of April 18.

Norton Sound King Crab

In September, the Council initiated an analysis of a proposal to establish the Norton Sound red king crab area as a superexclusive registration area, under Council authority as a Category 1 management measure in the crab fishery management plan (FMP). That fishery has the smallest biomass and quota of the Bering Sea/Aleutian Islands crab fisheries, and has proved difficult to manage. Three alternatives were examined: status quo, an FMP amendment to make the Norton Sound king crab area a superexclusive registration area, and recommending to the Board of Fisheries that Norton Sound be designated an exclusive king crab registration area. The Council initially reviewed the analysis in December and released it for public review.

At the January meeting, the Council recommended amending the plan to establish Norton Sound as superexclusive. Vessels that participate in that fishery cannot participate in other BSAI king crab fisheries, such as Adak, Bristol Bay, Dutch Harbor, Pribilof, St. Lawrence, or St. Matthew, during the same registration year. Norton Sound will be the only superexclusive registration area authorized and will remain so unless amended. Rulemaking should be complete by the July 1, 1994 opening date for the fishery.

Halibut Charter Issue

The Council will continue to evaluate options to manage the guided sport halibut fishery in Alaska. The original proposal to set a cap on charter catch specified that action was needed because recreational halibut catches were increasing, halibut abundance was declining, and less halibut would be available to the directed commercial fishery. The sport catch, along with mortality from waste, bycatch, and personal use, are taken off the top of the overall halibut annual quota, and the directed setline fishery is allocated the remainder.

Last September, the Council considered this issue and received public testimony. Information indicated that the charter industry has grown and may be fully capitalized and that some type of limited entry program might be appropriate. A control date of *September 23, 1993* was set to notice the industry that a moratorium on the guided sport fishery may be implemented. The Council also established the Halibut Charter Working Group comprised of three commercial fishery representatives, one non-guided sport fishing representative, and six charter vessel representatives to examine traditional management tools and identify potential alternatives for managing this fishery.

The Working Group reported in January and recommended that the Council evaluate regional management areas and a logbook program for charter vessels, expand the creel survey, and evaluate individual annual catch limits (4 to 12 halibut per fisherman per year) for all recreational halibut fishermen. The legality of restricting the amount of recreational caught halibut that can be exported out of state will also be examined. The Council requested the Working Group to provide additional detail on these recommendations for the April meeting. The Council also tasked the Working Group to provide a clear description of regional-charter operations and to develop suitable elements and options for a regional or statewide moratorium on new entry of halibut charter vessels instead of further considering a cap on the charter boat catch. The Working Group will report back to the Council in April.

Halibut Management

The Council took final action on a proposal by the Atka Fishermen's Association to set an early season set-aside with a trip limit in Area 4B (western Aleutian Islands). The objective of the proposal is to establish fishing opportunities for small local vessels by allowing multiple openings of short duration. In 1993, 10% of the Area 4B quota was reserved for early season openings (with no trip limit), resulting in 21, 12-hour openings. For 1994, the Council recommended that 15% of the Area 4B quota be set aside (reserved) for 12-hour halibut periods prior to a general opening in August, and that a 10,000-pound trip limit apply to the early season openings. These openings will be set at the International Pacific Halibut Commission meeting January 24-27. In 1995, 20% of the annual halibut quota is scheduled to be available for the halibut community development quota (CDQ) program to communities in Area 4B if the Council's halibut/sablefish IFQ program is implemented.

Chum Salmon Bycatch

As requested by the Council in December, a report on the status of Arctic-Yukon-Kuskokwim (AYK) chum salmon was presented by ADF&G. Commercial and subsistence harvests of chum salmon in the AYK region were reviewed relative to conservation concerns. A report on chum salmon bycatch in the Bering Sea and Aleutian Island groundfish fisheries was presented by NMFS. In 1993, the BSAI groundfish fisheries incidentally caught 245,000 chum salmon, a large increase over historical levels (4,000 to 72,000 chum salmon). Most of the 1993 bycatch occurred in the 'B' season pollock fishery that opened August 15. Both historical and recent data indicate that most chum salmon bycatch consists of age 3 fish and occurs northwest of Unimak Pass, in the Catcher Vessel Operational Area (CVOA) and Federal Reporting Area 517.

Although the high bycatch in 1993 may have had only a minimal impact on 1993 AYK escapement, the Council remains concerned about the health of AYK chum salmon populations and associated social and economic impacts on the region. Towards that end, the Council urged NMFS to move ahead quickly with analysis of a regulatory amendment that would (1) expand current observer coverage to improve data collection, and (2) evaluate use of hotspot authority as a measure to reduce bycatch. The following observer changes would be made for the "B" pollock season that starts August 15, 1994:

1. 100% observer coverage for all trawlers under 125' in the BSAI CVOA (south of 56°N latitude between 168° and 163°W longitude) and Area 517.
2. Two observers on all trawlers over 125' in Area 517.

The Council will take final action in April and may vary the observer requirements based on the analysis provided.

Upcoming Meetings

February 9, 1994, 9:00 a.m.
Pacific Northwest Crab Industry Advisory
Committee
Alaska Fisheries Science Center
7600 Sand Point Way N.E., Bldg 4, Room 2039
Seattle, Washington
Contact: Arni Thomson, 206-547-7560

February 18, 1994, 8:30 a.m.
NPFMC Crab Consultation Committee
Old Federal Building, Room G45
605 W. 4th Avenue
Anchorage, Alaska
Contact: Clarence Pautzke, 907-271-2809



Alaska State Legislature

Representative Carl E. Moses

CHAIRMAN
HOUSE RULES COMMITTEE

CHAIRMAN
HOUSE SPECIAL COMMITTEE FISHERIES

MEMBER FINANCE SUBCOMMITTEES ON
DEPT. OF FISH AND GAME
DEPT. OF PUBLIC SAFETY



SESSION:
CAPITAL BUILDING, ROOM 204
JUNEAU, ALASKA 99801-1182
PHONE: (907) 465-4451
FAX: (907) 455-3445

INTERIM
716 W. 4TH AVE. #630
ANCHORAGE, AK 99501-2133
PHONE: (907) 258-8167
FAX: (907) 258-8468

HOUSE JOINT RESOLUTION 50

North Pacific Fishery Management Council Comprehensive Rationalization Plan

SPONSOR STATEMENT

House Joint Resolution 50 reaffirms the importance of the shore-based processing industry to Alaska and asks the North Pacific Fisheries Management Council to incorporate fairness, equal rights of access and equity to this sector of the commercial fishing industry as it considers its current comprehensive rationalization plan. Under this plan certain allocations of groundfish and crab will be made. HJR 50 simply acknowledges the important role of the shore-based processing industry in consideration of these allocations.

The investment of the shore-based processing industry in Alaska is substantial. Yearly contributions to the state through taxes, payrolls, goods and services, utilities and payments to fish harvesters add social and economic stability to coastal communities in particular.

The Alaska shore-based processing industry must be considered equitably in any actions pursued by the North Pacific Fisheries Management Council.

ADAK • AKUTAN • AMCHITKA • ATKA • ATTU • BELKOFSKI • CHERNOFSKI • CHIGNIK • CHIGNIK LAGOON • CHIGNIK LAKE
COLD BAY • DUTCH HARBOR • EGEGIK • EKWOK • FALSE PASS • IVANOF BAY • KING COVE • KING SALMON • KOLIGANEK • LEVELOCK • NAKNEK
NELSON LAGOON • NEW STUYAHOK • NIKOLSKI • PEDRO BAY • PERRYVILLE • PILOT POINT • PORT HEIDEN • PORT MOLLER • SAND POINT
SHEMYA • SQUAW HARBOR • SOUTH NAKNEK • ST. GEORGE ISLAND • ST. PAUL ISLAND • UGASHIK • UNALASKA • UNGA

SCOMM

87:31

Alaska State Legislature

Representative Carl E. Moses

CHAIRMAN
HOUSE RULES COMMITTEE

CHAIRMAN
HOUSE SPECIAL COMMITTEE FISHERIES

MEMBER FINANCE SUBCOMMITTEES ON:
DEPT. OF FISH AND GAME
DEPT. OF PUBLIC SAFETY



SESSION
CAPITAL BUILDING, ROOM 204
JUNEAU, ALASKA 99801-1182
PHONE: (907) 465-4451
FAX: (907) 455-3445

INTERIM
716 W. 4TH AVE. #630
ANCHORAGE, AK 99501-2133
PHONE: (907) 258-8167
FAX: (907) 258-8468

SPONSOR STATEMENT

House Joint Resolution 59

Reduction of wanton waste in North Pacific Ocean and Bering Sea fisheries.

House Joint Resolution 59 addresses an issue of immediate concern to Alaska and its commercial fishing industry. In a May 1993, report prepared for the Alaska Department of Fish & Game by Pacific Associates, the wanton waste of fishery resources in the North Pacific Ocean and Bering Sea fisheries was documented.

Discards of either dead or live fishery resources occur in these commercial fisheries for three basic reasons: economics, management policies and fishing practices. Discards sometimes occur because of the economic loss associated with processing the entire harvest. When species of little or no value are harvested along with the target species, there is no real economic incentive to discourage discarding.

Management induced discards occur for several reasons. There are federal regulations which prohibit fishermen utilizing certain gear types from retaining certain species. The fact that the fish may be dead or alive does not matter. This is called prohibited species catch. Groundfish fisheries in the North Pacific are managed by an open-access method with species quotas. Fishermen are interested in targeting their particular species as rigorously as possible before the allotted quota is reached. This method also lends itself to waste through discards of non-target species.

Fishing practices discards may be the result of direct action by fishermen or through a combination of management requirements and fishing practices. Some fishermen "prospect" for a closed-fishery species while targeting another species. Because they will harvest prohibited species while doing this, there is mortality associated with the non-targeted species. Technical modifications to gear to make it "legal" (e.g. modifying on-bottom trawl gear to mid-water trawl) can cause increased bycatch mortality.

HJR 59 urges Congress to either amend the Magnuson Fishery Management and Conservation Act or to enact other legislation to address the waste of fishery resources in the North Pacific Ocean and Bering Sea fisheries. Congress can utilize a variety of means to disallow fishery resource waste.

ADAK • AKUTAN • AMCHITKA • ATKA • ATTU • BELKOFSKI • CHERNOFSKI • CHIGNIK • CHIGNIK LAGOON • CHIGNIK LAKE
COLD BAY • DUTCH HARBOR • EGEKIK • EKWOK • FALSE PASS • IVANOF BAY • KING COVE • KING SALMON • KOLIGANEK • LEVELOCK • NAKNEK
NELSON LAGOON • NEW STUYAHOK • NIKOLSKI • PEDRO BAY • PERRYVILLE • PILOT POINT • PORT HEIDEN • PORT MOLLER • SAND POINT
SHEMYA • SQUAW HARBOR • SOUTH NAKNEK • ST. GEORGE ISLAND • ST. PAUL ISLAND • UGASHIK • UNALASKA • UNGA

BE IT FURTHER RESOLVED that the Alaska State Legislature urges Congress to amend the Magnuson Fishery Conservation and Management Act or to enact other legislation encompassing a broad range of measures to reduce wanton waste in North Pacific fisheries including harvest priority incentives for clean fishing practices and other management tools.

COPIES of this resolution shall be sent to the Honorable Ron Brown, Secretary of the U.S. Department of Commerce; Richard B. Lauber, chair of the North Pacific Fishery Management Council; and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

UNALASKA NATIVE FISHERMAN ASSOCIATION

1994 BOARD MEMBERS:

EMIL W. BERIKOFF, PRESIDENT
BOBBY STORRS, VICE-PRESIDENT
JOHN MOLLER, SECRETARY/TREASURER
VAL HOLMES, BOARD MEMBER
CONSTANTINE (KUSTA) LEKANOFF, BOARD MEMBER
CHRIS SKELLY, BOARD MEMBER
MICHAEL E. SWETZOF, BOARD MEMBER

*****P.O. BOX 591, UNALASKA, ALASKA 99685--(907)581-2920*****

UNALASKA NATIVE FISHERMAN ASSOCIATION
P.O. BOX 591
UNALASKA, ALASKA 99685

RESOLUTION 94-03

OK with change { **WHEREAS, more fish were discarded ~~and~~ in federally managed fisheries in the North Pacific than were landed in the U.S. North Atlantic in 1992; and**

OK { **WHEREAS, over 500,000,000 pounds of marine life were dumped overboard in the Bering Sea and Gulf of Alaska, including 20,000,000 pounds of halibut, 1,000,000 pounds of herring and over 20,000,000 crab; and**

WHEREAS, in 1993 over 360,000 salmon were intercepted by the trawl fishery; and

OK { **WHEREAS, these discarded herring, crab and salmon intercepted in offshore federal waters are State of Alaska managed resources; and**

OK { **WHEREAS, these resources are the economic and cultural lifeblood for many Alaskans who depend on the sea for their livelihoods and subsistence; and**

WHEREAS, this continued wanton waste undermines any long term management strategy of sustained commercial, subsistence, and recreational fisheries, and places our rural communities at risk; and

OK make amendment to section
OK not capitalize { **WHEREAS, Alaska marine waters face declining ~~wildlife~~ populations and potential Endangered Species listings of several marine species that depend on fish for food; and**

OK with change { **WHEREAS, minimizing the catch of undersize species and reducing wanton waste will conserve fisheries resources for present and future generations of subsistence users, commercial and recreational ~~fishery~~ seafood industries, coastal communities, consumers, and the nation;**

OK with change { **NOW THEREFORE BE IT RESOLVED that the wanton waste now occurring in federal fisheries of the Bering Sea and the Gulf of Alaska is of utmost importance ~~culturally,~~ economically, and ecologically; and**

OK with change { **BE IT FURTHER RESOLVED that the Unalaska Native Fisherman Association urges Congress to amend the Magnuson Act to enact a broad range of measures to reduce wanton waste in North Pacific fisheries, including Harvest Priority incentives for clean fishing practices and other management tools.**

MY NEW #1
MY NEW #2 We, the President and the Secretary/Treasurer of the Unalaska Native Fisherman Association, certify that the above resolution was passed and approved at a meeting of the Board of Directors therefore duly called and held this 13th day of February 1994. By a quorum of 6 out of 7 Board members, with a vote of 6 ayes, 0 nays, and 0 abstaining.

Emil W. Burikoff, President

John Moller, Secretary/Treasurer

Post-It™ brand fax transmittal memo 7671 # of pages >	
To <u>DAVID</u>	From <u>CHERYL</u>
Co. <u>2014</u>	Co. <u>WANT TO ASK</u>
Dept.	Phone # <u>YUM A COME</u>
Fax #	Fax # <u>QUESTIONS - PLEASE CALL</u>

ALASKA MARINE CONSERVATION COUNCIL

Box 101145 Anchorage, Alaska 99510
(907) 277-5357 (kelp) 274-4145 (Fax)

To: Cheyrl Sutton
The Honorable Carl Moses

From: Nevette Bowen
Coordinator

Date: Feb. 17, 1994

Re: Bycatch and Waste
Request for Fisheries Committee Resolution

PLEASE CALL

Post-It™ brand fax transmittal memo 7671		# of pages ▶	
To	DAVID	From	CHEYRL
Co.		Co.	DAVID - WHAT A
Dept.		Phone	YOU THINK OF
Fax #	2014	Fax	NEVETTE'S SUGGESTED ADDITIONS.

Howdy down there in the lost city in the clouds - hope you are enjoying your new job. I just got back from DC with Chris M, Myra, Dave Benton, Dale and Lloyd Lowery - Citizen's Advisory Committee - hope we made some headway.

We understand that the Unalaska Native Fishermen's Association has forwarded a draft resolution they would like the Fisheries Committee to introduce regarding the impacts on coastal resources and communities from the bycatch and waste occurring in federally managed offshore fisheries and urging Congress to address this problem in the reauthorization of the Magnuson Act.

They have requested we provide enclosed back-up material for such a resolution.

Based on the draft we have seen we also suggest the following additional whereas statements you might wish to include in a resolution:

1 Whereas E.S.A. listings will override coastal fisheries management by ADF&G;

2 Whereas avoiding the harvesting of juveniles and other undesired fish produces the highest future value to the marine ecosystem;

3 Whereas fisheries can technically or operationally reduce the incidental taking of non-target species given economic incentives, waste and

Hope you can make this happen - its important to emphasize that federal management is harming State of Alaska resources and peoples not to mention the ecosystem itself. Please give me a call.

AROUND THE PORTS

Environmentalists decry fish waste

By Tim Fry
Anchorage Daily News



Environmentalists are decrying the massive amounts of fish waste dumped in the Bering Sea by the fishing industry. They say the waste is a major threat to the marine environment and that the industry is not doing enough to protect it.

Alaskans form new conservation council

HOMER, Kan.

A group of Alaskans announced the formation of a new conservation council. The council is intended to provide a voice for the state's conservation interests and to work with the federal government on marine conservation issues.

Environmentalists speak out against effects of fish bycatch

Continued from page 1

Environmentalists are speaking out against the effects of fish bycatch. They say that the bycatch is a major threat to the marine environment and that the industry is not doing enough to protect it.

Hearings

Hearings were held on the proposed changes to the Magnuson Fishery Conservation Act. The hearings were held in Anchorage, Alaska, and were attended by a large number of people interested in the issue.

Alaska marine conservation group testifies at UN meeting

UNESCO World Commission on the Limits and Development of the Sea

The Alaska marine conservation group testified at a meeting of the UNESCO World Commission on the Limits and Development of the Sea. The group presented a report on the state of the marine environment in Alaska and the need for conservation measures.

WASTED: 70 million pounds of fish in the Bering Sea

Continued from page 1

Species	Amount
Salmon	25 million pounds
Crab	100,000 tons
Halibut	25 million pounds
Other	1 million tons

The report estimates that 70 million pounds of fish were wasted in the Bering Sea. This is a massive amount of waste and it is a major threat to the marine environment.

The report also estimates that 70 million pounds of fish were wasted in the Bering Sea. This is a massive amount of waste and it is a major threat to the marine environment.

The report also estimates that 70 million pounds of fish were wasted in the Bering Sea. This is a massive amount of waste and it is a major threat to the marine environment.

The report also estimates that 70 million pounds of fish were wasted in the Bering Sea. This is a massive amount of waste and it is a major threat to the marine environment.

The report also estimates that 70 million pounds of fish were wasted in the Bering Sea. This is a massive amount of waste and it is a major threat to the marine environment.

The report also estimates that 70 million pounds of fish were wasted in the Bering Sea. This is a massive amount of waste and it is a major threat to the marine environment.

The report also estimates that 70 million pounds of fish were wasted in the Bering Sea. This is a massive amount of waste and it is a major threat to the marine environment.

PAGE 2

FRIDAY, NOVEMBER 5, 1983

THE DUTCH HARBOR FISHERMAN

Group aims to curb bottomfish bycatch

By Charlie Eise
For Alaska Newspapers

A grass-roots group is gaining a lot of momentum these days for its efforts in reducing bycatch within the bottomfish fleet. The group is called the Alaska Marine Conservation Council.

The Alaska Marine Conservation Council is a diverse group made up of local fishermen, scientists and others concerned about marine conservation. The AMCC already has earned the attention of Interior Secretary Bruce Babbitt and has been invited to the United Nations since its first official meeting in March.

The AMCC is a group of people who are taking care of their own back yard. It is a group whose goal is to put conservation back at the top of the list when the Magnuson Act comes to Congress next year for reauthorization.

The AMCC is a group of people who are taking care of their own back yard. It is a group whose goal is to put conservation back at the top of the list when the Magnuson Act comes to Congress next year for reauthorization.

Forage loss endangers sea lions, birds

Continued from page 1

Forage loss endangers sea lions, birds. The loss of forage fish is a major threat to the marine environment and it is a major threat to the marine environment.

Forage loss endangers sea lions, birds. The loss of forage fish is a major threat to the marine environment and it is a major threat to the marine environment.

Do not copy

"As people who know first-hand the threat to the marine environment, we intend to provide a responsible voice for the sustained health of our waters, resources and local communities."



FISHERMAN'S FORUM

Bycatch—it's Not a Secret Anymore

by Buck Laukitis

The genie is out of the bottle. Larry Cotter's Discard Study for the Alaska Department of Fish and Game helps illuminate the issue of enormous wanton waste in our federal groundfish fisheries. Apparently, members of the North Pacific Fisheries Management Council believe that their mandate to manage the resource is first and foremost tied to profit. The reduction of waste, bycatch, and discards is a secondary concern. Indeed the Magnuson Act seems to justify economic efficiency over clean fishing and protection of marine habitat. This is the old guard approach to resource management alright—the same kind that brought about a Forest Summit in another part of the country. But you can count the days until public outrage bites us all in the backside. The issue of bycatch and waste is ripe for exposure by the national media, and I have to wonder if the indignant housewife in Peoria is going to be able to differentiate between the small boat coastal fisherman, the factory dragger and the highseas driftnetter when venting her outrage.

Regardless, every coastal Alaskan and every fisherman who fishes in Alaska should sit up and take notice. Twenty million pounds of halibut, twenty million crab, millions of pounds of herring, and 100,000 salmon (half of them kings) all thrown overboard dead or dying in 1992. Half a billion pounds of waste—either the wrong species or size—is the estimate by fishermen's reports, but fishermen have a habit of bending the truth. Federal fisheries observers' estimates of bycatch for the BSAI pollock trawl fishery was 237% higher than fishermen's. Apparently, longliners disregarded their reporting requirements entirely and reported zero bycatch and discards in the sablefish and P. cod fisheries. These are very conservative estimates, folks.

Remember that what federal managers call "prohibited species" is what I make a living on. What they call "bycatch" is what all of the subsistence users in western Alaska depend on to eat. What they call the "cost of doing business" is what will bankrupt coastal communities.

The Council and the high biomass priest-accountants of the National

Marine Fisheries Service act like they believe that they have created the resource—fish—and therefore they can dispose of it anyway they see fit. They set the level of accepted bycatch mortality. I wonder whether what is acceptable to them is acceptable to a hungry world? Turn the moralists loose on that one. What does dumping between a half-billion and a billion pounds of commercially valuable fish mean to coastal fishermen? For one thing, the draggers are hi-grading enough "product" to keep a healthy population of sea lions and seals from Baja to Kamchatka fat and happy. Ultimately, it will be salmon and herring fishermen in Bristol Bay and the Alaska Peninsula who will take the real hit of any ESA listing.

The latest salmon bycatch figures from NMFS are in for 1993: about 350,000 salmon have already been caught in federal fisheries this year—most of them chums in the Bering Sea by the mid-water trawl pollock fishery. AYK chum stocks face serious conservation concerns. Every year, folks around here have had to suffer through the divisive False Pass vs. AYK chum debate at Board of Fish meetings. According to ADF&G's 1987 tagging study, somewhere around 20 percent of the June False Pass fishermen's catch is bound for AYK systems—around 100,000 fish. False Pass fishermen always have the brunt of the accusations pointed at them. Researchers don't know how many of the 350,000 salmon caught in federal waters are chums bound for AYK. But once again it is coastal Alaskan fishermen who suffer the effects of by-catch and waste in federally managed fisheries.

I choose not to follow the intricacies of the Council's allocation debates. But when I read in the state of Alaska's Discard Report that 93% of the groundfish discards in the Bering Sea came from one gear type—trawlers, and that 47% of these discards consisted of the species being targeted(!), I have to wonder why there is much debate. The United States is a signatory to UNCED Agenda 21 which states: "promote the development and use of selective gear and practices that minimize bycatch of non-target species." Unfortunately, international protocols do not carry the

same weight as U.S. law. It is imperative that we incorporate a commitment to "clean fishing" in the Magnuson Act re-authorization this year.

In the meantime, the Council is spellbound by the workings of their Comprehensive Rationalization Plan. They have bought wholesale into the argument that there will be greater incentive to use catch more fully and to fish more cleanly after Comprehensive Rationalization is in place. Comprehensive Rationalization does address the problem of over-capitalization, but it doesn't address the problem of by-catch in most fisheries. Giving quota to unselective gear types just perpetuates "dirty" fishing practices, and ownership by its nature makes it even more difficult to curb these practices. Meaningful waste and bycatch solutions should precede granting quotas.

A few people are also tossing around the idea of full utilization or full retention. The "You catch it, you keep it" approach at first sight is certainly palatable to the general public and may be a good disincentive system for fishermen. Maybe it should be explored. Trouble is once you are required to process everything you catch, you create a constituency for those products. Next thing you know the food bank folks are complaining because there isn't enough by-catch in the world. Or, in the case of using the proceeds from the sale of by-catch or fish meal to support NMFS research, who could imagine a more incestuous relationship? Wouldn't it be better to concentrate our efforts on not catching non-target species in the first place?

A reasonable approach might be to promote the development and use of selective gear and practices by rewarding those members of the industry who successfully minimize by-catch with a harvest priority system. Fishermen who can demonstrate their ability to fish cleanly would be given the opportunity to fish earlier or longer. This can work within gear types and



between gear types. Good fishermen within gear types would benefit as would the more selective gear types and practices in cases where there are various harvesting methods. The fishermen and companies who can't stay on target species (or

who trawl rocksole where over half of what they catch is discarded) will fight this approach tooth and nail. No matter how we address the bycatch problems in the Bering Sea—even if we don't address them at all—the dirty dinosaurs who can't adapt are going to die. The economic incentive of a harvest priority could lead to a rapid, voluntary change towards cleaner fishing. This economic incentive approach was used to Americanize our fisheries in the 80's—it could be used to clean them up.

So there you have it:

The Council invites outside regulation and litigation by not dealing head-on with the problem of bycatch and waste.

The direct weight of the problem of waste and by-catch in federal fisheries is strapped to the backs of coastal Alaskans.

There is a solution to the problem, but it is not down the road of status quo.

You can bet that the genie has acquaintances in Peoria, and once word about what is going on in the Bering Sea reaches them, the solution to this problem will be out of our hands. □

Buck Laukitis is a commercial salmon, herring and halibut fisherman who lives on a homestead near False Pass, Alaska. He is also on the board of the Alaska Marine Conservation Council—a state-wide group of Alaskan fishermen, subsistence users and researchers whose way of life, and often livelihoods, depend on healthy marine ecosystems. He hails from Peoria.

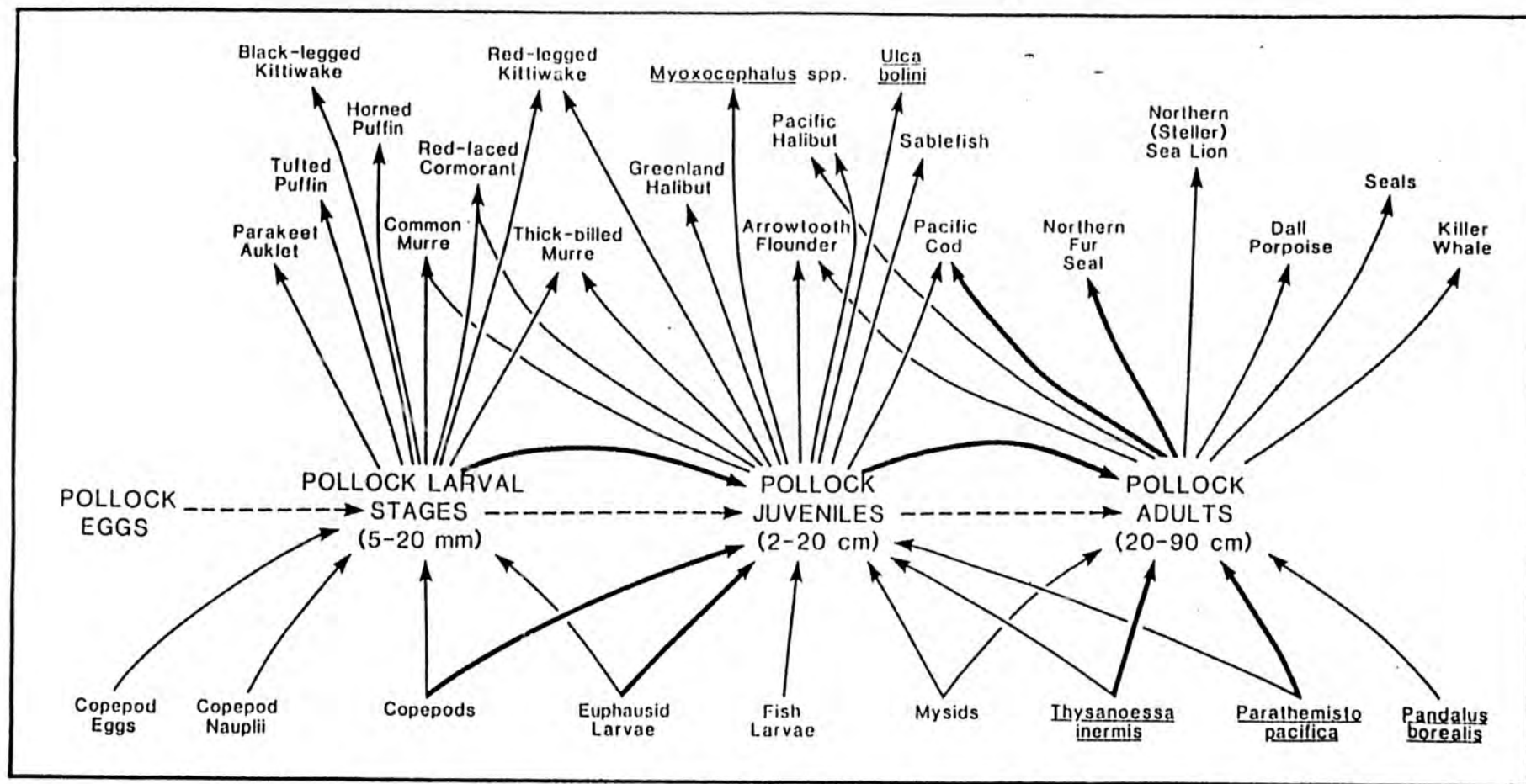


Figure 1.--The apparent food web based upon walleye pollock over the eastern Bering Sea continental shelf (from Smith 1981).

BUSINESS

ANCHORAGE DAILY NEWS



Predetermined shares for tanner crab harvests are a possibility.

Quota battles just starting

By HAL BERNTON
Daily News business reporter

January is harvest time in the North Pacific, and out in the Aleutian Islands boom town of Unalaska, the big ships of the bottom-fish and crab fleets are stocking up on groceries and preparing to head out to sea. But at least during this week, the hottest action will be taking place far from the fishing ground.

In an Anchorage hotel ballroom, the North Pacific Fishery Management Council will again grapple with the question of the decade: How to reform mad-dash harvests that nearly everyone agrees are out of whack? And the council's decisions will have multibillion-dollar consequences over time, determining winners and losers as the industry heads into the next century.

Those who conduct these harvests say there are just too many boats pursuing too few fish. A fleet that once could fish over most of the year now has grown to such a size that it can scoop up almost 3 billion pounds in a few months. The current rules — grab as much as you can as fast as you can — result in "dangerous, inefficient and embarrassingly wasteful harvests," according to a Dec. 22 letter to the council from seven major fishing industry groups.

"The fishermen and women of the North Pacific deserve better; the resources of the North Pacific deserve better and the people

BATTLES: Change in Alaska fisheries has only just begun

Continued from Page E-1

of the United States ... deserve better," the letter stated.

The council, a mix of industry, state and federal officials, is trying to come up with a final reform plan by this fall, and put that plan in place by January 1996.

Now that it's clear the council is taking on the issue, everyone is fighting to try to make sure they come out all right in the final plan. And it's not just the industry that's joining in the battle. Conservationists are increasingly alarmed over the more than 500 million pounds of dead or dying fish the fleet wastes each year.

The Alaska Marine Conservation Council is trying to get the council to consider a plan that would base the reform on waste reduction. Under their proposals, vessels that reduced waste and the accidental catch of prohibited species such as salmon and halibut would be rewarded with more fish. That approach recently gained support from the Alaska Fishermen's Journal, which editorialized that, "Maybe it's just a pipe dream — but it's too beautiful to ignore."

At least for the moment, that plan is not under council review. Instead the council, which drafts policy for the federal government, is considering six options that range from doing nothing, to limiting licenses or creating fishing quotas.

The quotas have gotten the most attention. The council is considering carving up the nearly \$1 billion-a-year harvests of bottom fish and crab into shares, then doling them out to vessel owners, who could either fish them or sell them.

The plan is patterned after a halibut and black cod "shares" system the federal government is planning to introduce next year. Those harvests are largely the domain of small-boat operators who skipper their own vessels.

But the bottom-fish and crab harvests are much more complex. The catch is taken by huge catcher-processor vessels operated by large corporations or by smaller boats that deliver fish to onshore processing plants.

In these fleets, skippers are often hired hands who get paid according to the size of their catches. They acknowledge that corporate investors risk capital. But they say they risked their lives in the tumultuous harvests of the past decade and should now share in the rewards. They want from 3 percent to 15 percent of any bottom-fish or crab shares.

"As far as the risks go, I can't count on both hands the number of close friends I have lost to fishing," wrote Daniel Hanson, master of the Arctic Storm, in a letter to the council. "I look at my time away from home and my contribution to the industry as my investment."

The skippers have gained the support of several council members, who have asked that the proposal be studied. But it is opposed by the American Factory Trawler Association, a trade group that includes many of the skipper's bosses.

The factory trawler association also is at odds with shore-based processors. The share system could bankrupt coastal processing plants, said Vince Curry, president of the Pacific Seafood Processors Association. He said the shares would bestow on the factory trawlers an enormous asset that would allow them to monopolize the catch.

Under a federal policy scheduled to end next year, the onshore plants are guaranteed a fixed percentage of the catch. Under the new system, processors have proposed claiming a share of the catch, or creating a "two-pie" system in which the federal government would award both harvesting and processing rights. But that system — which would force a certain percentage of the fleet to sell to shore plants — was viewed as illegal in an initial review by the National Marine Fisheries Service.

The factory trawlers have long fought any special reservation of some of the catch for onshore plants. They said let the market determine winners and losers. But Joe Blum, head of the trawlers association, said his group is talking with the shore group about a compromise on the share issue.

Other groups lobbying for shares include western Alaska communities, which want some of the fish to be reserved them to help build fishing economies. These communities right now are getting 7.5 percent of the Bering Sea pollock. But this experiment is scheduled to end next year. So far, the development groups formed by the villages have managed to parlay this temporary share into more than \$30 million in joint-venture agreements with bottom-fish companies.

If the bottom-fish companies are willing to pay the villages for their fish, why not the government?

"The public should get something," said Clem Tilton, a state fishery official who has served on the council.

Please see Page E-2, BAT LES

FORUM / LETTERS

Council, fishermen had better cut the waste

By BUCK LAUKITIS

The genie is out of the bottle. Hal Berntson's recent article about bycatch in the Bering Sea helps illuminate the issue of enormous wanton waste in our federal groundfish fisheries.

Apparently, members of the North Pacific Fisheries Management Council believe that their mandate to manage the resource is first and foremost tied to profit. The reduction of waste, bycatch and discards is a secondary concern. Indeed the Magnuson Act seems to justify economic efficiency over protection of habitat and clean fishing.

This is the good ol' way of doing things, all right. But you can count the days until public perception bites us all in the backside. Every coastal Alaskan should sit up and take notice. Twenty million pounds of halibut, 20 million crab, a million pounds of herring, and 100,000 salmon (half of them kings) all thrown overboard dead or dy-



ing in 1992. Half a billion pounds of waste — either the wrong species or size — is the estimate by fishermen's reports, but fishermen have a habit of bending the truth.

Federal fisheries observers' estimates of bycatch for some fisheries were 237 percent higher than fishermen's. These are conservative estimates, folks. Wait 'til you see the salmon bycatch figures for 1993

Remember that what federal managers call "prohibited species" is what I make a living on. What they call "bycatch" is what all of the subsistence users in western Alaska depend on to eat. What they call the "cost of doing business" is what will bankrupt coastal communities.

The council and the high bio-

mass priest-accountants of the National Marine Fisheries Service act like they believe that they have created the resource — fish — and therefore they can dispose of it anyway they see fit.

They set the level of accepted bycatch mortality. I wonder whether what is acceptable to them is acceptable to a hungry world? Turn the moralists loose on that one. I choose not to follow the intricacies of the Council's allocation debates and political movements. But when I read in the state of Alaska's Discard Report that 93 percent of the groundfish discards in the Bering Sea came from one gear type — trawlers, and that 47 percent of these discards consisted of the species being targeted (!), I have to wonder why there is much debate. If they were truly managing for sustainable yield and for the health and diversity of the Bering Sea and its coastal inhabitants it seems that we could figure this out and clean up our federal

fisheries.

The council is so spellbound by the working of their Comprehensive Rationalization System that they have forgotten that there is a realistic approach to bycatch reduction.

Although arguments are made that there will be greater incentive to use catch more fully and to fish more cleanly after Comprehensive Rationalization is in place, I believe that granting ITQs legitimizes certain unselective gear types and practices.

A better approach is to promote the development and use of selective gear and practices by rewarding those members of the industry who successfully minimize bycatch with a harvest priority system. Fishermen who can demonstrate their ability to fish cleanly would be given the opportunity to fish earlier or longer. This can work within gear types and between gear types. The economic incentive of a harvest priority would lead to

a rapid, voluntary change toward cleaner fishing. This economic incentive approach was used to Americanize our fisheries in the '80s — it could be used to clean them up. Remember the Magnuson Fisheries Conservation Act is up for re-authorization this year.

So there you have it:

The big commercial fishing interests are unwilling to reform themselves.

The council invites outside regulation and litigation by ignoring the problem of bycatch and waste.

There is a solution to the problem, but it is not down the road of status quo.

You can bet that that genie has acquaintances in Peoria and when word about what is happening in the Bering Sea reaches them the solution to this problem will be out of our hands.

☐ Buck Laukitis is a fisherman and homesteader in False Pass.

Anchorage Daily News

VOL. XLVIII, NO. 290 418 PAGES

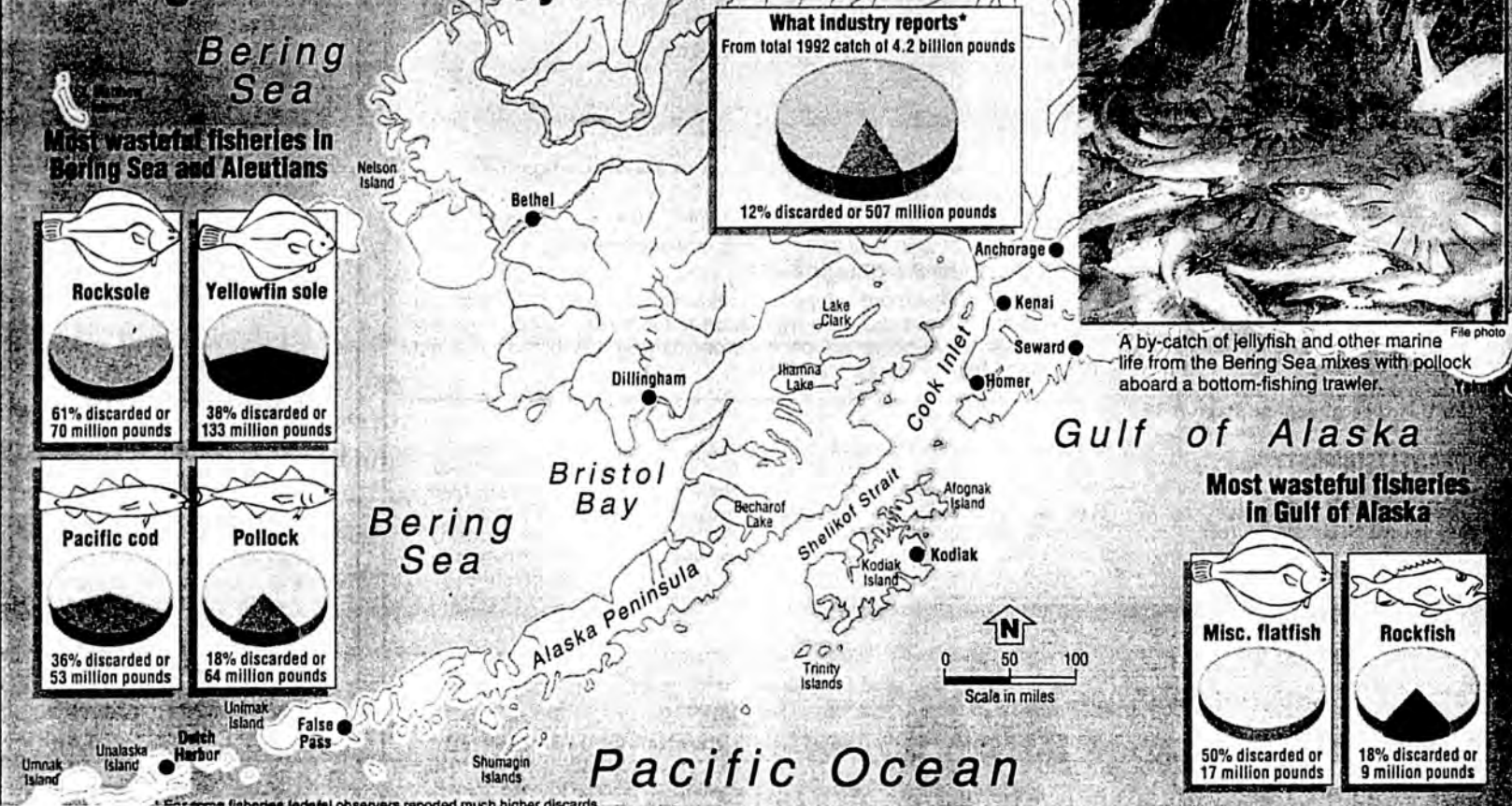
ANCHORAGE, ALASKA, SUNDAY, OCTOBER 17, 1993

PRICE \$1.00

Bering fishery throws 61% back

Reports by captains, observers document 'disgrace' in bottom fisheries off Alaska

Alaska groundfish industry discards



By HAL BERTON

Daily News business reporter

The most wasteful fishery in Alaska takes place in the dead of winter on the bottom of the Bering Sea. A fleet of more than 35 trawlers drags huge nets across that bottom, searching for female rocksole filled with roe prized in Asia.

But most of the fish they bring up are the wrong sex or species. Dead and dying, they are tossed overboard. Male rocksole. Yellowfin sole. Pollock. Cod and other fish.

From a total 1992 harvest of 114 million pounds, 70 million pounds — 61 percent of the haul — was dumped, according to the 1992 log-books kept by skippers.

"It epitomizes what is wrong in the Bering Sea," said Larry Cotter, a Juneau fishery consultant who wrote a report on fish dumping in the Bering Sea. "There's no way you can justify that fishery."

Cotter's report — submitted to the state Department of Fish and Game — offers the most detailed analysis yet of waste in the nation's largest fishery, the bottom-fish harvest off Alaska's coast.

THE BACK PAGE

WASTED: 70 million pounds of fish in the Bering Sea

Continued from Page A-1

Fishermen dumped 507 million pounds of bottom fish overboard, roughly 12 percent of the 1992 catch, according to skippers' logs reviewed by Cotter.

But the skippers appear to be greatly underestimating the waste, Cotter said. A second set of estimates of the pollock harvest was compiled by federal observers aboard most of the ships. Based on those estimates, the industry deep-sixed at least 650 million pounds of fish, or close to 16 percent of the harvest.

That's enough pollock, cod, and other whitefish to stock a fish fry that would feed nearly everyone in the nation an evening meal.

The total would go even higher if observer reports of other species were included in the estimates, Cotter said.

The sheer volume of edible fish dumped overboard is triggering wide-ranging calls for reform.

"It's a national disgrace," said Bob Storrs, an Unalaska fisherman who is a board member of the Alaska Marine Conservation Council, a group formed this year that is trying to reduce the waste.

The waste results from fishermen seeking to maxi-

BYCATCH Prohibited Species Taken By Groundfish Industry	
Species	Amount
Halibut	20 million pounds
Salmon	100,000 fish
Crab	20 million animals
Herring	1 million fish

mize profits by weeding out the least valuable fish that may not be worth the time or money to process and try to market.

"Is it a sick system? Yes," said Clem Tillion, a fishery adviser to Gov. Wally Hickel, who has sought to reduce the discards.

The report's total does not include a second category of seafood — known as prohibited species — that federal regulations seek to preserve for separate harvests. Those species must be dumped overboard, and in 1992 those discards include 20 million pounds of dead halibut, 1 million pounds of herring, more than 100,000 salmon and more than 20 million crab.

The waste has been a continual part of the fishery, but only in recent years have skippers and federal observers been submitting

reports to document the scope.

The Cotter report measured the dumping in both the trawl net and hook-and-line fleets. The bulk of the dumping — some 93 percent — occurs in the trawl fleet. That fleet also catches more than 90 percent of the bottom fish.

The report shows that trawl fishermen can be relatively efficient when they tow at midwater and target big schools of pollock.

But the fishing gets dirty when they place their nets close to the bottom and scoop up a potpourri of sealife that dwells on the bottom. They keep only the fish worthy of precious cargo space aboard their vessels.

"Why fill up your hold with copper nuggets, when you're panning for gold," said Steve Pennoyer, Alaska regional director of the National Marine Fisheries Service, the agency that enforces harvest regulations.

In some harvests, such as Pacific cod, the hook-and-line fleet appears to fish much cleaner than trawlers. This year, for instance, trawl boats threw away half their catch, while the hook-and-line fleet threw away less than 5 percent, Cotter said.

But in some instances, the

hook-and-line fleet — fishing with thousands of baited hooks attached to lines set on the bottom — pulled in large quantities of halibut that had to be tossed back, Cotter said.

The report also cited the Gulf of Alaska's hook-and-line fleet for what appears to be a near total disregard of a federal regulation that requires the reporting of discards in cod and black cod harvests. That fleet documented hardly any of its discards, Cotter said.

Nearly everyone involved in the North Pacific fishing industry wants to cut down on discards.

But there are sharp differences about the best way to reduce the waste without crippling an industry that creates employment for thousands of people and produces seafood products worth more than \$1 billion each year.

Cotter calls for changing the harvest rules to require fishing boats to keep just about everything they catch.

Cotter is a former member of the North Pacific Fishery Management Council, a federal advisory group that helps set the harvest rules. He claims the "catch it, keep it" rule would prompt skippers to make all sorts of changes in their fishing tac-

tics to slow down and avoid taking the wrong kinds of fish. The rule might prompt fishermen to abandon some of the most wasteful fisheries such as the rocksole harvest, he said.

Others say Cotter's plan would be a disaster for the industry, forcing it to process fish it couldn't market.

"That's a socialist approach to solving the problem," said Wally Pereyra, a North Pacific Fishery Management Council member who also operates factory trawlers. "Harvest something for nothing and provide it to the masses. The Soviet Union collapsed because of that kind of thinking."

Pereyra also questions the definition of waste. He says sometimes it may be better to dump fish overboard than to waste time and money processing a catch that won't make any money.

Pereyra is pushing for a major overhaul of the current harvest rules that prompt everyone to race to the fishing grounds.

Under the current system, boats try to catch as much as they can before a collective total is reached and the government orders everyone to haul in their gear.

The council is considering

a new system in which each fishing boat or company would have its own quota for pollock, cod, crab and other species, and could take those quotas at their leisure. Pereyra said the harvest would slow down, and fishermen would then have a financial incentive to make much better use of what they catch.

"I like a market-based approach," Pereyra said.

But such a system may take years to develop. And in the interim, some fishing boat operators want to see a new system of fines created to penalize those boats with sloppy fishing practices that result in lots of waste. The system might involve fines or temporarily banning those boats from the harvest, said Joe Blum, executive director of the American Factory Trawler Association.

Others want to see a fundamental change in the Magnuson Act, the federal law that regulates harvests off the 200-mile zone off Alaska. The change would order the federal government to give a fishing preference to those who waste the least.

"We want a system that rewards clean fishing," said Storrs of the Conservation Council.

CORRECTION

**THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY**

Anchorage Daily News

VOL. XLVIII, NO. 290 418 PAGES

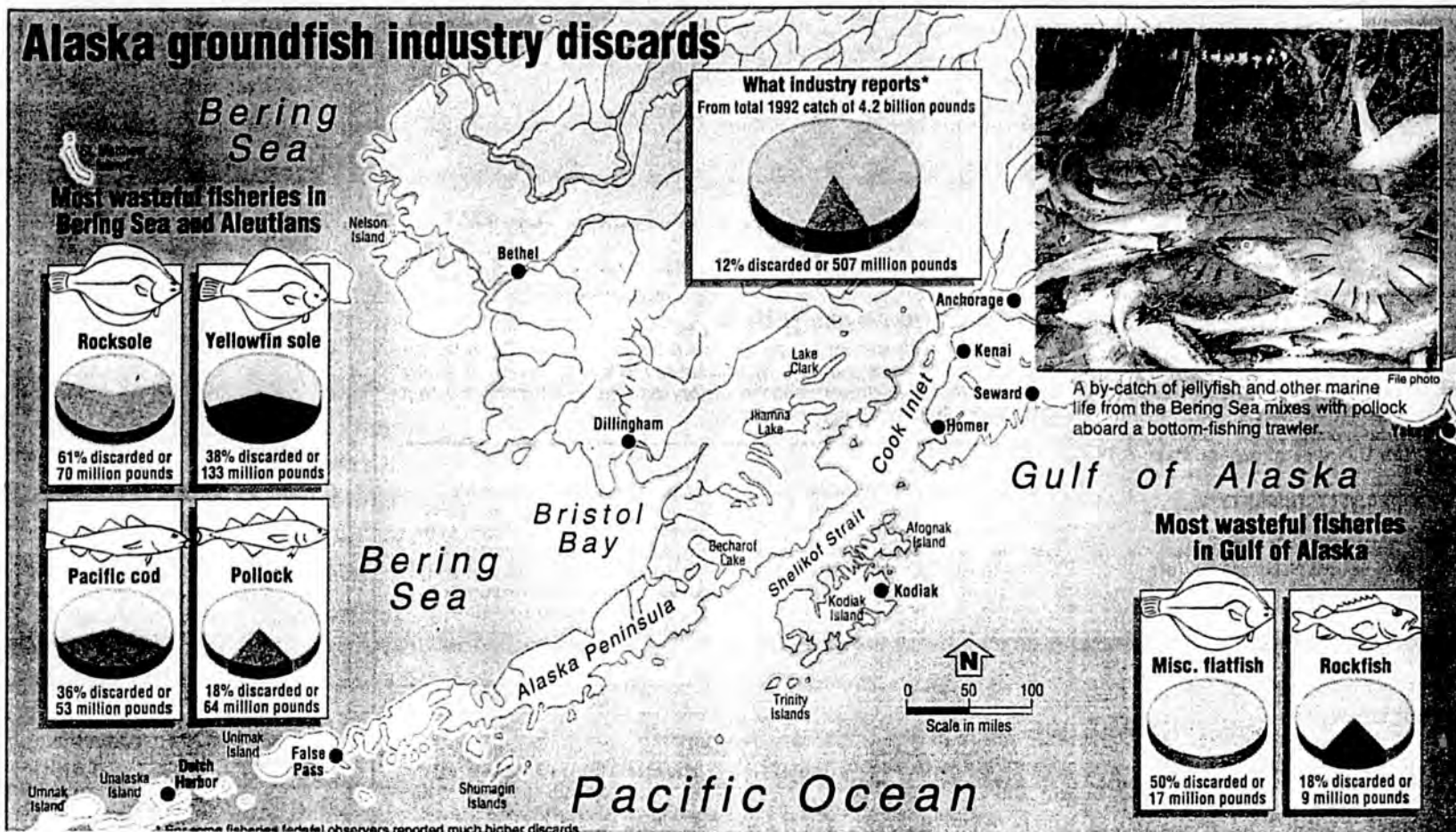
ANCHORAGE, ALASKA, SUNDAY, OCTOBER 17, 1993

PRICE \$1.00

Bering fishery throws 61% back

Reports by captains, observers document 'disgrace' in bottom fisheries off Alaska

Alaska groundfish industry discards



By HAL BERTON

Daily News business reporter

The most wasteful fishery in Alaska takes place in the dead of winter on the bottom of the Bering Sea. A fleet of more than 35 trawlers drags huge nets across that bottom, searching for female rocksole filled with roe prized in Asia.

But most of the fish they bring up are the wrong sex or species. Dead and dying, they are tossed overboard. Male rocksole. Yellowfin sole. Pollock. Cod and other fish.

From a total 1992 harvest of 114 million pounds, 70 million pounds — 61 percent of the haul — was dumped, according to the 1992 log-books kept by skippers.

"It epitomizes what is wrong in the Bering Sea," said Larry Cotter, a Juneau fishery consultant who wrote a report on fish dumping in the Bering Sea. "There's no way you can justify that fishery."

Cotter's report — submitted to the state Department of Fish and Game — offers the most detailed analysis yet of waste in the nation's largest fishery, the bottom-fish harvest off Alaska's coast.

THE BACK PAGE

WASTED: 70 million pounds of fish in the Bering Sea

Continued from Page A-1

Fishermen dumped 507 million pounds of bottom fish overboard, roughly 12 percent of the 1992 catch, according to skippers' logs reviewed by Cotter.

But the skippers appear to be greatly underestimating the waste, Cotter said. A second set of estimates of the pollock harvest was compiled by federal observers aboard most of the ships. Based on those estimates, the industry deep-sixed at least 650 million pounds of fish, or close to 16 percent of the harvest.

That's enough pollock, cod, and other whitefish to stock a fish fry that would feed nearly everyone in the nation an evening meal.

The total would go even higher if observer reports of other species were included in the estimates, Cotter said.

The sheer volume of edible fish dumped overboard is triggering wide-ranging calls for reform.

"It's a national disgrace," said Bob Storrs, an Unalaska fisherman who is a board member of the Alaska Marine Conservation Council, a group formed this year that is trying to reduce the waste.

The waste results from fishermen seeking to maxi-

BYCATCH	
Prohibited Species Taken By Groundfish Industry	
Species	Amount
Halibut	20 million pounds
Salmon	100,000 fish
Crab	20 million animals
Herring	1 million fish

mize profits by weeding out the least valuable fish that may not be worth the time or money to process and try to market.

"Is it a sick system? Yes," said Clem Tillion, a fishery adviser to Gov. Wally Hickel, who has sought to reduce the discards.

The report's total does not include a second category of seafood — known as prohibited species — that federal regulations seek to preserve for separate harvests. Those species must be dumped overboard, and in 1992 those discards include 20 million pounds of dead halibut, 1 million pounds of herring, more than 100,000 salmon and more than 20 million crab.

The waste has been a continual part of the fishery, but only in recent years have skippers and federal observers been submitting

reports to document the scope.

The Cotter report measured the dumping in both the trawl net and hook-and-line fleets. The bulk of the dumping — some 93 percent — occurs in the trawl fleet. That fleet also catches more than 90 percent of the bottom fish.

The report shows that trawl fishermen can be relatively efficient when they tow at midwater and target big schools of pollock.

But the fishing gets dirty when they place their nets close to the bottom and scoop up a potpourri of sealife that dwells on the bottom. They keep only the fish worthy of precious cargo space aboard their vessels.

"Why fill up your hold with copper nuggets, when you're panning for gold," said Steve Pennoyer, Alaska regional director of the National Marine Fisheries Service, the agency that enforces harvest regulations.

In some harvests, such as Pacific cod, the hook-and-line fleet appears to fish much cleaner than trawlers. This year, for instance, trawl boats threw away half their catch, while the hook-and-line fleet threw away less than 5 percent, Cotter said.

But in some instances, the

hook-and-line fleet — fishing with thousands of baited hooks attached to lines set on the bottom — pulled in large quantities of halibut that had to be tossed back, Cotter said.

The report also cited the Gulf of Alaska's hook-and-line fleet for what appears to be a near total disregard of a federal regulation that requires the reporting of discards in cod and black cod harvests. That fleet documented hardly any of its discards, Cotter said.

Nearly everyone involved in the North Pacific fishing industry wants to cut down on discards.

But there are sharp differences about the best way to reduce the waste without crippling an industry that creates employment for thousands of people and produces seafood products worth more than \$1 billion each year.

Cotter calls for changing the harvest rules to require fishing boats to keep just about everything they catch.

Cotter is a former member of the North Pacific Fishery Management Council, a federal advisory group that helps set the harvest rules. He claims the "catch it, keep it" rule would prompt skippers to make all sorts of changes in their fishing tac-

tics to slow down and avoid taking the wrong kinds of fish. The rule might prompt fishermen to abandon some of the most wasteful fisheries such as the rocksole harvest, he said.

Others say Cotter's plan would be a disaster for the industry, forcing it to process fish it couldn't market.

"That's a socialist approach to solving the problem," said Wally Pereyra, a North Pacific Fishery Management Council member who also operates factory trawlers. "Harvest something for nothing and provide it to the masses. The Soviet Union collapsed because of that kind of thinking."

Pereyra also questions the definition of waste. He says sometimes it may be better to dump fish overboard than to waste time and money processing a catch that won't make any money.

Pereyra is pushing for a major overhaul of the current harvest rules that prompt everyone to race to the fishing grounds.

Under the current system, boats try to catch as much as they can before a collective total is reached and the government orders everyone to haul in their gear.

The council is considering

a new system in which each fishing boat or company would have its own quota for pollock, cod, crab and other species, and could take those quotas at their leisure. Pereyra said the harvest would slow down, and fishermen would then have a financial incentive to make much better use of what they catch.

"I like a market-based approach," Pereyra said.

But such a system may take years to develop. And in the interim, some fishing boat operators want to see a new system of fines created to penalize those boats with sloppy fishing practices that result in lots of waste. The system might involve fines or temporarily banning those boats from the harvest, said Joe Blum, executive director of the American Factory Trawler Association.

Others want to see a fundamental change in the Magnuson Act, the federal law that regulates harvests off the 200-mile zone off Alaska. The change would order the federal government to give a fishing preference to those who waste the least.

"We want a system that rewards clean fishing," said Storrs of the Conservation Council.

THE BACK PAGE

WASTED: 70 million pounds of fish in the Bering Sea

Continued from Page A-1

Fishermen dumped 507 million pounds of bottom fish overboard, roughly 12 percent of the 1992 catch, according to skippers' logs reviewed by Cotter.

But the skippers appear to be greatly underestimating the waste, Cotter said. A second set of estimates of the pollock harvest was compiled by federal observers aboard most of the ships. Based on those estimates, the industry deep-sixed at least 650 million pounds of fish, or close to 16 percent of the harvest.

That's enough pollock, cod, and other whitefish to stock a fish fry that would feed nearly everyone in the nation an evening meal.

The total would go even higher if observer reports of other species were included in the estimates, Cotter said.

The sheer volume of edible fish dumped overboard is triggering wide-ranging calls for reform.

"It's a national disgrace," said Bob Storrs, an Unalaska fisherman who is a board member of the Alaska Marine Conservation Council, a group formed this year that is trying to reduce the waste.

The waste results from fishermen seeking to maxi-

BYCATCH Prohibited Species Taken By Groundfish Industry	
Species	Amount
Halibut	20 million pounds
Salmon	100,000 fish
Crab	20 million animals
Herring	1 million fish

mize profits by weeding out the least valuable fish that may not be worth the time or money to process and try to market.

"Is it a sick system? Yes," said Clem Tillion, a fishery adviser to Gov. Wally Hickel, who has sought to reduce the discards.

The report's total does not include a second category of seafood — known as prohibited species — that federal regulations seek to preserve for separate harvests. Those species must be dumped overboard, and in 1992 those discards include 20 million pounds of dead halibut, 1 million pounds of herring, more than 100,000 salmon and more than 20 million crab.

The waste has been a continual part of the fishery, but only in recent years have skippers and federal observers been submitting

reports to document the scope.

The Cotter report measured the dumping in both the trawl net and hook-and-line fleets. The bulk of the dumping — some 93 percent — occurs in the trawl fleet. That fleet also catches more than 90 percent of the bottom fish.

The report shows that trawl fishermen can be relatively efficient when they tow at midwater and target big schools of pollock.

But the fishing gets dirty when they place their nets close to the bottom and scoop up a potpourri of sealife that dwells on the bottom. They keep only the fish worthy of precious cargo space aboard their vessels.

"Why fill up your hold with copper nuggets, when you're panning for gold," said Steve Pennoyer, Alaska regional director of the National Marine Fisheries Service, the agency that enforces harvest regulations.

In some harvests, such as Pacific cod, the hook-and-line fleet appears to fish much cleaner than trawlers. This year, for instance, trawl boats threw away half their catch, while the hook-and-line fleet threw away less than 5 percent, Cotter said.

But in some instances, the

hook-and-line fleet — fishing with thousands of baited hooks attached to lines set on the bottom — pulled in large quantities of halibut that had to be tossed back, Cotter said.

The report also cited the Gulf of Alaska's hook-and-line fleet for what appears to be a near total disregard of a federal regulation that requires the reporting of discards in cod and black cod harvests. That fleet documented hardly any of its discards, Cotter said.

Nearly everyone involved in the North Pacific fishing industry wants to cut down on discards.

But there are sharp differences about the best way to reduce the waste without crippling an industry that creates employment for thousands of people and produces seafood products worth more than \$1 billion each year.

Cotter calls for changing the harvest rules to require fishing boats to keep just about everything they catch.

Cotter is a former member of the North Pacific Fishery Management Council, a federal advisory group that helps set the harvest rules. He claims the "catch it, keep it" rule would prompt skippers to make all sorts of changes in their fishing tac-

tics to slow down and avoid taking the wrong kinds of fish. The rule might prompt fishermen to abandon some of the most wasteful fisheries such as the rocksole harvest, he said.

Others say Cotter's plan would be a disaster for the industry, forcing it to process fish it couldn't market.

"That's a socialist approach to solving the problem," said Wally Pereyra, a North Pacific Fishery Management Council member who also operates factory trawlers. "Harvest something for nothing and provide it to the masses. The Soviet Union collapsed because of that kind of thinking."

Pereyra also questions the definition of waste. He says sometimes it may be better to dump fish overboard than to waste time and money processing a catch that won't make any money.

Pereyra is pushing for a major overhaul of the current harvest rules that prompt everyone to race to the fishing grounds.

Under the current system, boats try to catch as much as they can before a collective total is reached and the government orders everyone to haul in their gear.

The council is considering

a new system in which each fishing boat or company would have its own quota for pollock, cod, crab and other species, and could take those quotas at their leisure. Pereyra said the harvest would slow down, and fishermen would then have a financial incentive to make much better use of what they catch.

"I like a market-based approach," Pereyra said.

But such a system may take years to develop. And in the interim, some fishing boat operators want to see a new system of fines created to penalize those boats with sloppy fishing practices that result in lots of waste. The system might involve fines or temporarily banning those boats from the harvest, said Joe Blum, executive director of the American Factory Trawler Association.

Others want to see a fundamental change in the Magnuson Act, the federal law that regulates harvests off the 200-mile zone off Alaska. The change would order the federal government to give a fishing preference to those who waste the least.

"We want a system that rewards clean fishing," said Storrs of the Conservation Council.

Anchorage Daily News

Fuller A. Cowell
Publisher



Howard Weaver
Editor

Michael Carey, Editorial Page Editor
Patrick Dougherty, Managing Editor

Gerald E. Grilly, Publisher, 1984-1993
Katherine Fanning, Editor and Publisher, 1971-1983
Lawrence Fanning, Editor and Publisher, 1967-1971
Founded in 1946 by Norman C. Brown

What a waste

The shame on Alaska's Bering Sea

Congress is finally starting to wake up to rapacious fishing practices that wantonly waste millions of pounds of Alaska's high-seas fish.

Alaska's two U.S. senators are helping draw attention to the problem. Sen. Frank Murkowski last week trumpeted a bill he introduced to reduce the thousands of tons of fish accidentally caught by offshore fishermen targeting other species. Meanwhile, Sen. Ted Stevens is working more quietly on the same subject. He's likely to carry more clout, since unlike his Alaska colleague, he's on the relevant Senate committee.

We're glad to see Congress tackle one of Alaska's biggest environmental outrages. We hope it won't wimp out and pass a bill that promises more than it delivers.

Sen. Murkowski's bill, for example, would entrust the job of cutting accidental fish kills to the nation's regional fishing councils. These panels are dominated by the industry they're supposed to regulate. They are not likely to seriously crack down on wasteful fishing unless Congress sets a mandate the councils can't undercut.

Some have suggested requiring fishermen to keep and process everything they catch. Fish caught illegally or by accident would have to be processed and given away for free. Others have suggested forcing operators to stop wasteful practices by imposing heavy, escalating fines or taxes on fish taken by mistake.

We don't know which approach might work best, but we do know Congress needs to do something drastic. If lawmakers don't put sufficient pressure on the industry's bottom line, the wholesale waste of protein in Alaska's seas will continue.

The Almanac

Fish kills on Alaska's high seas

Pounds of fish thrown overboard during 1992 in Alaska's Bering Sea (conservative estimate, based on reports by skippers): **507 million.**

Odds that a pound of fish caught in the Bering Sea was taken improperly in 1992 and thrown back to rot: **1 in 8.**

Approximate number of meals that could be served with fish from last year's wasted catch in the Bering Sea: **260 million.**

Retail value of the halibut that Alaska's offshore fishermen improperly caught in 1992 and threw back to die (assuming a price of \$5 per pound): **\$100 million.** Percentage of the 1992 rocksole catch in the Bering Sea and Aleutians that was thrown away: **61.**

Percentage of yellowfin sole: **38.**

Percentage of pacific cod: **36.**

Pounds of fish wasted in those three fisheries during 1992: **256 million.**

Number of crabs improperly caught in 1992 and thrown back by Bering Sea fishermen: **20 million.**

□ Source: Anchorage Daily News, citing research by fisheries consultant Larry Cotter, Oct. 17, 1993.

'Economic discards' or just abject waste?

By Terry Johnson
For The BayTimes

There is a huge waste of fisheries resources occurring just off our shores, and many in the industry believe it is time to stop it.

If you shoot a moose and just take its antlers, or if you catch a load of salmon and then dump them because you don't have a market, you can be fined for wanton waste. Not so the offshore fishing industry.

According to figures supplied by State and Federal fishery management agencies, more than 500 million pounds of fish were discarded by the offshore fleets in the waters around Alaska last year, and it looks like the figure for 1993 will be higher.

That is equivalent to more than twice the entire Bristol Bay salmon catch this year.

Why so much waste?

Most of it was non-target species, caught by indiscriminate gear. Vessels towing trawl nets fishing for one species catch quantities of another species for which they don't have a market.

All the non-target species fish is dumped overboard.

This is called "by-catch" and is a problem to one degree or another in nearly all the fisheries in the country. The salmon gillnet fishery is one of the cleanest, with only minimal levels of by-catch. But in some fisheries, by-catch is 65-85 per cent of the entire catch.

By-catch is only part of the problem. Even when a vessel succeeds in catching fish of the target species, the individual fish may be too small, too soft, of the wrong sex, or for some other reason not desirable to the operator. When these fish are dumped they are called "economic discards" meaning they are thrown away for economic reasons.

What does this all mean to us here in Bristol Bay? If the wasted fish are economically undesirable bottom fish, what do we care?

First of all, all the creatures in the sea are part of the marine food web, and are used by someone—person, animal, bird or other fish—for food. It is possible that bycatch and discards are partially responsible for the disappearance of the

Stellar sea lion and other depleted species. If the sea lion is classified endangered under federal law, there will be serious consequences for all fisheries, including salmon.

Secondly, today's scrap fish may be tomorrow's target species. Fishermen all over the state are fishing for fish they once shunned, as markets open up and the value of alternative species increases.

More importantly, however, consider this: Trawl bycatch in the Bering Sea this year (through Sept. 4) included more than 120,000 salmon. And in the Gulf of Alaska (through August 14) it included almost 198,000 salmon. Most of these salmon were believed to have been chums.

Last year a million pounds (500 tons) of herring were discarded. And 20 million pounds of halibut.

Since trawl-caught halibut average less than one pound apiece, the loss represented a potential halibut catch of close to a billion pounds of those wasted fish had lived to grow to commercial size.

In 1991 about 85,500 metric tons of pollock was discarded by fishing operations in the Bering Sea.

Tidelines

Terry Johnson is the Marine Advisory Program agent with the University of Alaska Fairbanks Bristol Bay Campus.

Since 7.5 per cent of the Bering Sea pollock quota is allocated to the CDQ groups, and 20 per cent of that specifically to the Bristol Bay CDQ group, the fleets discarded 1,285 metric tons of pollock that would have belonged to us. In addition, some 8,000 metric tons of cod (which is also shared by the CDQ communities) was discarded in the Bering Sea.

Remember that under comprehensive rationalization plans being developed by the North Pacific Fishery Management Council, all species may eventually come under quota plans, and possibly under the CDQ system. If so, the coastal villages will share ownership of the entire Bering Sea fishery, and therefore for a share of the economic loss caused by the waste of all species.

OK, so the problem is big, and expensive to all of us, but what can we do about it? Well, there are several possibilities.

At least one national public interest group has proposed simply prohibiting all bycatch and discard by shutting down all fisheries which have the problem. Obviously that would put a lot of people out of work and deprive many communities of valuable income.

Another suggestion has been to require full retention of all fish caught, causing vessel operators the inconvenience and expense of handling and processing unwanted fish and requiring that the fish be donated to food banks or in some other means disposed of at no profit.

A more constructive approach would be to institute a set of harvest priority incentives into the fishery management plans, at least at the federal level, to reward "clean" fishing.

The way it would work would be this: with each fishery for which there is a known total allowable catch, a sizable portion of that catch would be set aside for the exclusive use of vessels which had demonstrated through observer reports that they have low levels of bycatch and discard.

The incentive could be in the form of specific vessel quotas, earlier starting dates for open periods, or other rewards.

The action need not be punitive to the vessels which fish "dirty", it only needs to provide an incentive to clean fishing and the others will see that it is to their advantage to improve their performance.

The system would work in CDQ fisheries just as well as in those which don't have the property rights assigned.

It could be used to favor cleaner fishing gear types (pot gear has very little bycatch while bottom trawling is generally higher), or to favor vessel operators within a gear type who are more careful in where and how they fish.

You will be hearing a lot about bycatch and the "Fish Clean" campaign in the coming months, both at the state and national levels.

If you want more information on bycatch, clean fishing, or how to help promote the harvest priority incentive concept, contact me at the Marine Advisory Program, 842-1265.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Public Workshops are being held around the state to discuss the process that will be used to re-write the state's air pollution regulations during the next year. These regulation changes will primarily address what is called the air quality permit program. Under a new state law, permits are required for many additional sources of air pollution. Also the process used to issue permits will change.

These changes are being undertaken to comply with new federal mandates contained within a new state law (HB-167) signed this past summer by Governor Wickersham.

Town Meetings were held at several locations during August to initiate this regulation re-write. After considering many suggestions, ADEC now proposes a specific process to bring interested Alaskans into the process of changing these regulations.

The Proposed Development Plan for Air Quality Regulation Changes is ready for distribution. If you would like to obtain a copy of the proposal or otherwise have questions, please call us at:

1-800-770-8818.

Pub. Oct. 14, 1993

AO-1841615

What if you don't have skills?

If you're between 16 and 24, you may qualify for FREE job training at Job Corps. The following is provided "FREE" to you as a Job Corps student:

- A place to live
- Medical Care
- Dental Care
- Vision Care
- Life Skills
- Counseling
- Pay and Clothing Allowance
- Driver's Education
- The opportunity to earn a GED or high school diploma
- Job placement assistance

Get FREE training for good paying jobs
Don't Delay. Call Today!
(800) 478-0531
562-6200

Vocational Training in the following skills:

- Health Services
- Building Trades
- Food Services
- Business Clerical
- Automotive Trades
- And many, many more

Train for Your FUTURE

STEP UP WELCOME TO THE ANCHORAGE HILTON

Shopping In Anchorage is always exciting. Stores to visit. Places to go. Run here. Run there. You're treating yourself to a big day on the town, so why sacrifice quality when choosing your hotel?

- Comfort
- Convenience
- Value

Rest easy at the Anchorage Hilton. Choose from one of our three, money-saving room plans. Enjoy all the quality of the Hilton Hotel for a price that fits your budget very comfortably.

Step up to the quality of the Anchorage Hilton. Your choice of rooms. Your choice of rates.



Anchorage Hilton
SO NICE TO COME HOME TO

INVITATION FOR PUBLIC COMMENTS

Alaska Department of Transportation and Public Facilities

The draft capital project priority needs list is available for public review and comment. This list includes proposed transportation projects for the State of Alaska. The formal comment period ends November 5, 1993. For a copy of the list contact us.

Southeast Region **Central Region** **Northern Region**
Andy Hughes, Acting Planning Chief John Tolley, Planning Chief Steve Sisk, Regional Director

ALASKA MARINE CONSERVATION COUNCIL

Box 101145 Anchorage, Alaska 99510
(907) 277-5357 (kelp) 274-4145 (Fax)

To: The Honorable Frank Murkowski
Attn: Bill Wolfe

From: Paul Seaton
President

Date: November 5, 1993

Subj: Magnuson Act - Waste and Discard problems
Harvest Priority

After meeting with you and with others, both in Alaska and in Washington D.C., our board has decided to amend our proposed harvest priority language for your consideration. We recommend the following language be incorporated in both the National Standards and in Section 303., Contents of Fishery Management Plans:

"Conservation and management measures shall assign harvest priority to fishermen who minimize waste of catch of target species, minimize bycatch of non-target species and minimize disruption to habitat."

We are convinced a system that rewards fishermen for their efforts to reduce discard and waste will have a direct effect in reducing the tremendous amount of waste in our fisheries and in conserving our marine resources over the long term.

Thank you very much for your active interest in helping solve this problem.

GROUNDFISH FISHERIES AND DYNAMICS OF THE NORTHEASTERN PACIFIC ECOSYSTEMS

**A Report to Greenpeace
March 31, 1993**

**Prepared by:
Raquel Goni, MS. MMA.¹
Hans Hartmann, PhD.²
Kathleen Mathews, PhD³**

¹ Current Address: CEC, DGXII/E (MAST), SDME 3/48, 75 Rue Montoyer, B-1040 Bruxelles, Belgium

² Current Address: Group de Zoologie et Protistologie, Universit  Blaise Pascal, 63177 OBR CEDEX, France

³ Current Address: 2515 Alva, El Cerrito, 94530 California, USA

marine ecosystems; induce changes in marine biodiversity; and pose grave threats to populations of marine mammals, seabirds, and other important predators in the marine food web. The dilemma at this juncture is that these impacts are not quantifiable given the limited research and knowledge currently available. However, important changes have

already occurred in the species composition of the groundfish communities of the EBS, AI and GOA during the 1980s. In the EBS, pollock and Greenland turbot have declined significantly since 1979 (40 percent and 35 percent respectively), whereas flatfish and skates which have not been targeted commercially have increased dramatically (450 per



Throughout its Alaskan range, the once ubiquitous Steller sea lion is steadily declining. Since 1960, the sea lions have decreased from more than 160,000 to little more than 20,000 today.

cent and 600 percent). In the AI, pollock is relatively much less abundant, while the abundance of Pacific Ocean perch and Pacific cod has almost doubled. The GOA groundfish community has also undergone major changes in recent years. From 1984 to 1990, pollock has halved, thornyheads have almost disappeared, and the abundance of flatfish species has increased by 20 percent. In addition, overfishing appears to have ramifications throughout the ecosystem. For example, the expansion of the pollock fishery in past decades has coincided with significant population declines in marine mammals such as Steller sea lions, Northern fur seals, and harbor seals. For all of these species, pollock makes up an important portion of the diet. Steller sea lions have suffered the most severe downturn. In Alaska,

the sea lion population has declined by over 80 percent since the mid-1950s, and was recently (1990) listed as "threatened" under the Endangered Species Act (ESA).

Seabirds, such as blacklegged and redlegged kittiwakes and common and thick-billed murres, have also shown significant declines in abundance during the past 20 years. Since 1976, these species of birds have decreased by 50 to 90 percent in the Bering Sea. These declines are also apparently caused by the unavailability of food, in this case, young pollock.

An over-arching problem with fisheries is the single-species approach to management, which views each fishery individually and discounts the relationships between both commercial and non-commercial species and the ecosystem. This approach fails to consider food web interactions between fish populations, thereby ignoring the impacts of removing fish that are either predators of or food sources for other species. Instead, each stock of fish is managed in a vacuum, ignoring the potential longterm effects on the



Common murres are one of a number of seabirds that are experiencing severe population declines in the Northeast Pacific. Like the Steller sea lion, these birds rely heavily on pollock for food.

entire marine system. The "boom and bust" style of fisheries exploitation, where one species is targeted, depleted and then replaced by another target species, only exacerbates the problem.

In the North Pacific, there is continued denial of the importance of pollock and other forage fish in the diets of various seabirds, marine mammals and other marine species. Quotas for commercial fish species continue to increase, irrespective of the potential impacts on the food web.

BYCATCH AND DISCARDS: UNIMAGINABLE WASTE

Marine creatures including mammals, seabirds and fish (regardless of commercial value) that are not part of the "directed catch" (i.e., species that a vessel is targeting in a particular fishery) are often killed and discarded in the course of commercial fishing operations. Portions of the directed catch are also discarded in the form of individual fish deemed too small, or of the wrong age or sex to be of value to the fisher. The problems of bycatch and discards are pervasive in many fisheries, and are aggravated significantly by indiscriminate fishing practices.

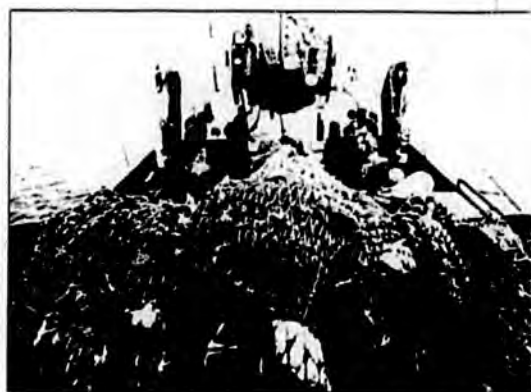
In Alaska alone, over 500 million pounds of fish are discarded annually, most of which is thrown overboard dead. Fish brought to the surface from great depths can suffer fatal internal injuries due to pressure change, and others often suffocate on deck long before the day's catch is sorted and the incidental catch returned to the sea. Many fish are also fatally damaged by various fishing gear.

Data collected by government biologists on board fishing vessels in 1990 shows that discards in the EBS/AI amounted to 13.4 percent of the total catch, and were 26 percent of the total catch in the GOA. These discards amount to a substantial fraction of the total biomass of fish removed from the U.S. EEZ in the North Pacific. Pollock, flatfish, skates, sculpins, and sharks suffered the largest discards. Smaller quantities of other species or groups of fish were also discarded. The impact on these populations may be significant if the stocks are depleted and/or the species have slow growth rates.

Overall, discard mortalities have not been properly accounted for, and tend to increase annual catch quotas beyond acceptable biological limits. In addition, severe mortalities of non-target species as bycatch have serious implications for the marine environment. Since little is known about marine species that are not commercially valuable, the impact of removing these may never be known. Yet, these species may include indicator species (rays, sculpins), food fish (sandlance, capelin), and other forage fish for top predators and invertebrates, all of which are critical to the healthy functioning of the ecosystem.

Recycling of discards into the marine food web may affect ecosystem relationships in more indirect ways. Artificial additions of dead fish may cause changes in community structure and diversity by increasing the number of scavenger and decomposer species. There is also some concern that discarding could have adverse effects on the seabed, including the possibility of oxygen depletion.

In addition to the problems of bycatch and discards, indiscriminate fishing (e.g., bottom trawling) has other detrimental side effects. Trawling directly and indirectly damages the rich benthic (bottom-dwelling) communities. Direct effects include physical destruction of organisms and the sea floor as gear is dragged along the bottom. Indirect effects include the resuspension of sediments, toxic chemicals and nutrients with a direct impact on overall ecosystem productivity.



In Alaska alone, over 500 million pounds of fish are wasted each year, dumped back into the ocean, dead or dying.

Worldwide, bycatch amounts to an estimated 12 to 20 billion pounds of sea life every year.

In sum, predation pressure through fishing is an important factor affecting the dynamics of ecosystem structure and function. This review of the limited available data has indicated that links between fishing pressure and ecosystem changes exist in the NE Pacific. The evidence is qualitative, yet the problem of cascading effects points to the need that these connections be considered in the study and management of marine ecosystems.

5. TECHNOLOGICAL INTERACTIONS: INDISCRIMINATE FISHING PRACTICES: BYCATCH AND DISCARDS

a. Mortality Due to Bycatch and Discards.

Discarding of fish and other organisms caught while fishing is a widespread feature of commercial fisheries operations around the world. Major reasons for discarding include regulations (e.g., prohibited species, season closures, etc.), market economics, and size of the fish. But underlying all that, discarding occurs because of the indiscriminate nature of fishing activities, which result in high rates of catch of undersized or unwanted species (bycatch) that are subsequently discarded. In most fisheries and for most species, discarded organisms are dead when returned to sea (e.g., Saila, 1983; Van Beek et al., 1990).

The discarding of captured fish and other organisms in the Alaska groundfisheries amount to a substantial fraction of the total biomass of fish removed from the waters of the Gulf of Alaska and the Bering Sea. The study by Hartmann et al. (1992) of groundfish discards in NE Pacific fisheries based on observer data collected in 1990 yielded values of overall discard mortality of 13.4% of total catch in the EBS/AI and of 26% in the GOA. Together, all the groundfish fisheries off Alaska during the 1990 season discarded between 375,000 MT and 555,500 MT (in-season or post-season data) of groundfish, with a composite discard rate of at least 15% (Table IV). The discarding of a minimum of 290,000 MT in the EBS/AI and 88,000 MT in the GOA represent 15% and 35% of the landings, respectively. Pollock, flatfish, and the "other species" group suffered the largest discards (141,177 MT, 133,506 MT, and 80,806 MT respectively). Although smaller amounts of other species or groups of species, such as "slope rockfish" were discarded (7,844 MT), the impact on these populations may be large if the stocks are depleted and/or the species have low growth rates.

To put the discarded quantities into perspective, it should be noted that the amount of fish discarded in the EBS/AI during 1990 exceeded the entire retained commercial

groundfish catch of the GOA by 14%. Likewise, the combined discards in the GOA exceeded the reported landings of pollock (77,800 MT) by a minimum of 13% (Hartmann et al., 1992).

When including discards, the total groundfish catch for the US EEZ off Alaska in 1990 was at least 2.5 million MT (2,492,717 MT), of which 2.15 million MT were caught in the BS/AI, and 0.34 million MT in the GOA (Table IV). Official total catches, which included 1990 discards reported by vessel captains (NMFS-ABB), were substantially lower. The comparison indicates an official underreporting of 46.3% of discards and of 14.4% of the total catch in the EBS/AI. In the GOA, the underreporting was yet more pronounced. Groundfish discards were underreported by 66.4% and total official catches were underestimated by 17.2% (Table IV) (Hartmann et al., 1992).

As a result of this underreported discard mortality, the optimum yield (OY) of groundfish allowed in the EBS/AI, currently set at 2 million MT (NPFMC, 1990), was exceeded by 7.2-16% (Hartmann et al., 1992). In the GOA, the combined ABC for all major species groups, excluding flatfish, was exceeded by about 22%. In sum, total catches for pollock, Pacific cod, rockfishes, and sablefish were 251,793 MT in 1990 (Ibid.), while their combined ABC was only 189,800 MT (NPFMC, 1989).

The results of the study by Hartmann et al. (1992) show that discard mortalities have not been properly accounted for, resulting in periodic exceeding of annual catch quotas and allowable biological catches. Since the nature of the fishery has varied little in recent years (i.e., trawl-dominated, mixed species targets) and boat capacity has increased (e.g., Alverson, 1992), it can be assumed that similar excesses of catch quotas occurred throughout most of the 1980s, ever since US domestic operations began to dominate Alaska fisheries. These excesses are not exclusive to Alaska groundfisheries: similar overruns due to discards were observed in the US Pacific coast trawl fishery off Oregon. There, during three successive years (1985-1987), total annual catches of rockfish and sablefish were underestimated by 11-20% (Pikitch et al., 1988).

The importance of bycatch mortality resulting in discards is two-fold. The first concerns target and prohibited species (Table I), for which information on bycatch mortality is collected and accounted for in separate assessments of the status of the stocks. If discards are not reported, or are under-reported, then true fishing mortality is underestimated and actual exploitation rates are higher than calculated. This systematic error in total mortality calculations can lead to overexploitation of har-

vested populations. If such species are exploited near their biological limits, they may be unexpectedly driven to low population levels from which they may not recover. Species most likely to be affected are those with a high current exploitation rate, such as Pacific cod and pollock in the Bering Sea. Territorial species with low reproductive rates, e.g., many rockfish species, would be especially sensitive to mortality levels above those biologically acceptable. Finally, abundant species with very high discard rates, e.g., several flatfish species, may prove vulnerable to long-term excessive discarding (leading to over-harvesting).

Second, species included in the "other species" group or "non-allocated species" (Table I) are subject to substantial bycatch mortalities. In the EBS/AI, 94.4% of the "other species" were discarded in 1990, and altogether accounted for 20% of all biomass discarded in that area. In the GOA, 97% of the "other species" caught were discarded in 1990, making up almost 30% of all discards in the area (Hartmann et al., 1992). Non-allocated species, rarely retained, are considered "non-exploited" because they are not targeted upon by any fishery. The population dynamics of these species cannot be ignored because they may include indicator species (e.g., rays, sculpins), food fish (e.g. sandlance, capelin), and other forage fish for top predators, as well as invertebrates, all of which are important to the healthy functioning of the ecosystem. Indiscriminate fishing practices in the North Pacific are impacting these populations with consequences that we cannot foresee, and thus, cannot prevent.

In addition, the present system of managing fisheries does not take into consideration of potential responses of the ecosystem to discarding. Assessment of the effects of discards at the community and ecosystem levels would require knowledge about the fate of discards and about predation and competition patterns within the pelagic and benthic communities of the affected areas. As shown by studies in other regions, it is indeed possible to obtain that information. In some studies, discarding of bycatch has been identified as a major contributing factor in changing community structure or affecting biomass levels of both exploited and unexploited species (e.g., Powers et al., 1987; Tiews, 1983; Harris & Poiner, 1991).

At a minimum, consideration of technological interspecific interactions in fisheries management requires that information be collected on indirect fishing mortality of non-target species. Currently, the observer program collects data on a number of non-target marine species, but for most species the information is not processed or utilized at this time. Situations such as this show how little importance is given to species of no

apparent commercial interest within the traditional single-species management system.

b. Waste Inputs and Potential Effects.

Besides the direct effects of discard mortality on bycatch species, recycling of discards into the marine food web may affect ecosystem relationships in more indirect ways. Artificial additions of detritus (e.g., dead fish and body parts; dissolved organic matter) may cause changes in community structure and diversity by increasing the number of scavenger and decomposer species (Hartmann et al., 1992). Assessment of these effects requires knowledge about the fate of discards, which until recently has been largely ignored in studies of fishery-ecosystem interactions. There is also a wide-spread perception that the problem can be ignored because nutrients and oceanic energy fluxes will not be altered by the dead organic matter introduced from discarding (e.g., Browder, 1981). However, this perception overlooks the concentrated area- and time-specific distribution of fisheries operations and its associated discarding. This is important because most groundfish operations in the EBS/AI and the GOA occur outside the inshore areas where discarding is formally regulated by anti-pollution laws.

Little published information is available on the effects of discarding on the seabed (Jones, 1992). Wasseberg & Hill (1990) estimated that Australian prawn trawlers discarded 3,000 MT of material while catching about 500 MT of prawns. This dumping apparently provides some food for birds and predatory fish, but most likely reaches the seabed causing potential problems of oxygen depletion. Another study in the Wadden Sea found that most discards were cleared by predators (Berghahn, 1990 in Jones, 1992).

As further example, oxygen depletion near the seabed of at least 2 g m⁻³ (which would reduce oxygen concentrations to 45-55% saturation) has been described for Hoki wastes dumped over a 60-day period off the West coast of New Zealand (Rutherford, 1987). In the NE Pacific, the outer continental shelf and upper continental slope, as well as coastal waters of the EBS are most likely to be affected by concentrated discarding: maximum possible fluxes of organic matter due to discarding may locally reach 25% and 14% of the organic matter input expected from primary production and lower food-web activities in the water column respectively (Hartmann et al., 1992).

It must be kept in mind that the discards represented here do not include fish-processing waste (offal). Input of detritus from offal by catcher-processor ships is likely to exceed input from bycatch-related discards, considering that most fishery products (surimi, fillets) extract < 50%

of the wet weight biomass of retained fish, and factory trawlers processed about 1.4 million MT (about 73% of the retained catch of Alaska waters) in 1990 (Hartmann et al., 1992).

FISHERIES INFORMATION SERVICES
20007 Cohen Drive, Juneau AK 99801
Phone/FAX 907-789-5580

Bill Coffey
Deep Pacific Fishing Company

November 8, 1993

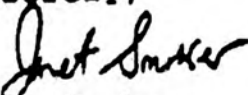
Dear Bill,

Here are the total salmon bycatch numbers, as listed on the official NMFS bulletin board, for 1992 and 1993. The total Alaska-wide trawl catch of all salmon is 3.5 times higher this year than last.

TOTAL 1992: 102,381 fish

1993 thru 10/30: 360,403 fish.

Sincerely,


Janet Smoker

Post-it™ brand fax transmittal memo 7871		8 of pages = 2	
To	B. J. Coffey	From	Janet Smoker
Co.	DPFC	Co.	FIS
Dept.		Phone #	
Fax #		Fax #	

Food banks will get discarded salmon

*Fish now wasted
will be used to feed
the poor in Seattle*

BY MARY ANN GWINN
Seattle Times business reporter

Thousands of Alaskan salmon will soon wind up on the tables of needy Seattle families, thanks to an innovative program mounted by fishing companies in Alaska and Seattle.

The experimental program, which began with the Bering Sea pollock season that commenced Aug. 15, could mean the beginning of the end of a practice widely considered wasteful by the fishing industry, said Bruce Buls, project spokesman.

At issue are "bycatch" salmon, those accidentally caught by trawlers fishing for pollock. In the past, federal regulations required that the fish be discarded so that fishing companies could not sell or otherwise benefit from the catch.

"They're absolutely nice, bright, ocean-run fish," said Buls. "But you're not going to save them. They're dead."

Fishermen are not even allowed to eat them on board, Buls said.

If the experimental program wid-

*The program could mean
millions of pounds of fish
for food banks.*

ens its scope, it could mean millions of pounds of fish for food banks. Because the commercial-seafood industry is concerned about competition from fish that would otherwise not be on the market, a strict coding and accounting system will attempt to ensure that all fish are used exclusively for nonprofit hunger-relief programs. Seattle's Food Lifeline will distribute the fish.

Terra Marine, a nonprofit organization on Bainbridge Island, received a contract from the National Marine Fisheries Service to oversee the project. Several different fishing companies are involved: UniSea and Golden Age, two Seattle-based fish-processing companies, and one Alaskan firm.

SeaLand, a shipping firm, will donate a refrigerated container to ship the fish to Seattle.

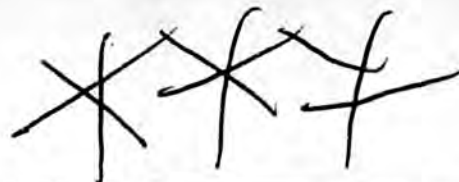
Buls said the project represents a cooperative effort among sectors of the fishing industry normally at odds with one another. Both offshore and onshore fish processors, which have been at odds over Alaskan fishing rights, are involved.

The program covers only salmon, after the International Pacific Halibut Commission rejected a proposal to include the incidental halibut catch.

If halibut were included, millions more fish could be sent to food banks, said Tuck Donnelly of Terra Marine. Donnelly said 16 million pounds of halibut were discarded at sea last year by trawlers and hook-and-line fishermen.

While the experimental program expires in April, advocates hope to make it permanent.

*What about not
catching them in
the first place? →*



Biologists concerned over chum interception

Associated Press

ANCHORAGE — Government biologists overseeing the North Pacific bottom-fish industry say the incidental harvest of 176,000 chum salmon is troubling when subsistence chum seasons on the Yukon River and elsewhere in Alaska are closed.

The commercial fleet's catch was incidental to the taking of pollock and other fish in the Bering Sea and the Gulf of Alaska. State and federal agencies reported the chum catch through Sept. 4.

Chuck Meacham, state deputy Fish and Game commissioner, said the trawl catch could not be blamed for the absence of more than 2.5 million chum salmon from the Yukon River and other western and Interior rivers.

"It's receiving increased atten-

tion on our part," Meacham said. "It's not the right thing to do."

Yukon River subsistence fishing — the traditional harvest of fish by rural Alaskans, many of them Alaska Native — was closed Sept. 3 for the first time in state history.

The state cited a weak return of fish, prompting a court challenge and complaints from villagers who say their salmon was intercepted in the huge commercial harvest off the tip of the Alaska Peninsula.

Will Mayo, president of Fairbanks-based Tanana Chiefs Conference, which represents Interior Natives, called for "real research" to discover any link between the incidental catch and the chum crash.

"This is distressing," Mayo said.

Statistics on the chum catch

are compiled by federal fishery observers assigned to the trawl ships to sample the harvest for salmon and other species, the National Marine Fisheries Service said.

Figure show:

• In the Bering Sea, much of the chum harvest apparently came in a burst of late-summer fishing. Estimates show 129,000 salmon, which observers said were not kings, were landed through Sept. 4.

The accidental catch of salmon other than kings is more than triple last year's total of roughly 37,000 fish.

• In the Gulf of Alaska, a smaller trawl fleet took an estimated 56,000 salmon identified as fish other than kings. Federal catch data shows those fish were taken in early summer.

The gulf's 1993 accidental

catch was more than four times higher than in 1992, federal statistics show.

Mike Guttormsen, a fisheries service biologist, said chums make up 95 percent of the incidental catch of salmon that are not kings in the gulf and the Bering Sea.

It was unclear why the trawler's chum catch soared while western Alaska runs have crashed. Officials say around 350,000 chum entered the Yukon in time for the crucial fall harvest, and 400,000 fish were needed to ensure healthy returns in future years.

Few studies are available to indicate where the trawl-caught salmon would have spawned, said Kate Myers, a University of Washington researcher. The North Pacific is a mixing zone for Japanese, Russian and North

American chum.

Myers said the trawl fleet's increased chum catch may be a sign that future runs will be abundant. Trawl catches of king salmon in the late 1970s and early 1980s were followed years later by strong runs of kings in western Alaska.

Federal law states that salmon incidentally caught must be thrown overboard, although a new program allows some of it to go to food banks for the poor.

Joe Blum, spokesman for the American Factory Trawler Association, said the group favors a plan requiring that all bycatch salmon be sent to charities, and calling for a contribution of \$20 towards research for every king salmon brought aboard.

Studies would shed light on where the salmon are headed, to avoid the incidental catch.

In Juneau, have that I.D. ready

Associated Press

JUNEAU — Buyers of beer kegs in Juneau will have to fill out registration forms and indicate where the beverage will be consumed starting next month.

The goal of the new ordinance requiring the forms is to curb underage drinking.

Kegs frequently are bought and used at teen parties in Juneau, police say.

minors in possession of the beer.

The Juneau Assembly approved the ordinance Monday. Buyers will have to fill out forms when they buy the beer, provide identification and promise to serve it only at addresses listed on the form.

Buyers also will be required to display a copy of the form within 5 feet of the keg after it is tapped.

A violation will be a misdemeanor punishable by up to a year

Get Involved With Your Schools.



Run for Bethel A.S.B.

THERE ARE 4 OPENINGS ON THE
BETHEL ADVISORY SCHOOL BOARD

If you wish to run, please submit your name in
writing to any of the 3 Bethel School Principals

METRO

MONDAY, August 16, 1993

ANCHORAGE DAILY NEWS

SECTION B

Yukon fisheries restricted

Fall chum salmon runs fail

The Associated Press

FAIRBANKS — Commercial, sport and personal-use fishing for chum salmon in the Yukon River drainage has been closed, and starting today the chum subsistence fishery will be limited too.

Commercial fisheries biologist Keith Schultz in Fairbanks said chums had a poor

Biologists hoped to see at least 620,000 chums entering the Yukon drainage. But they are projecting a total run of between 350,000 and 500,000.

declared the chum run in the Yukon-Kuskokwim Delta a disaster.

Schultz said cold weather in 1988-89 may have had something to do with it, but also said there may be something happening in the ocean, where the fish spend three years before returning to spawning grounds.

midsummer showing, and that the fall showing is even worse.

Runs of chums, the bread-and-butter fish for interior Alaska commercial fishermen and an important subsistence item, have failed this year throughout western Alaska.

So far, biologists do not know why. The department will be working with a special task force formed by Gov. Wally Hickel to evaluate possible causes, Schultz said. Hickel earlier this summer

Biologists hoped to see at least 620,000 chums entering the Yukon drainage, Schultz said. But they are projecting a total run of between 350,000 and 500,000.

The average commercial harvest of fall-run chums alone during the past five years has been 161,000 fish, Schultz said. But the total commercial harvest for summer and fall will be only 142,000, he said.

The times and dates of subsistence restrictions will vary along the river, but each area's fishing will be limited to 48 hours per week.

The first of the Yukon River area restrictions begin today. Tanana River restrictions will begin on Aug. 22.

The sport-fishing season for chums in the Yukon-Tanana drainage closed Sunday. Few chums are taken by sport anglers, although many were harvested last fall in the Tanana River near Salcha.

Silver salmon may arrive to give fishermen a break, Schultz said. The Kuskokwim River experienced a poor chum run, but silvers arrived in numbers enough to allow a commercial opener, he said.

Biologists expect to see an average run of silvers into the Yukon, and may ease the subsistence restrictions later, when the silvers represent most of the runs coming through the drainage, Schultz said.

ALASKA MARINE CONSERVATION COUNCIL

Box 101145 Anchorage, Alaska 99510
(907) 277-5357 (kelp) 274-4145 (Fax)

January 4, 1994

Mr. Tom Elias, Chair
The Alaska Board of Fisheries
1255 W. 8th Street
Juneau, Alaska 99802-5526

Dear Mr. Elias,

The Alaska Marine Conservation Council is a community based organization of people in coastal Alaska and throughout the state who are concerned about the health of our marine resources.

The interception of over 360,000 salmon by the trawl fleet this year is of growing concern to many people in Alaska facing subsistence closures, commercial fishery shutdowns and the decline of several runs of wild salmon stocks.

As a group whose primary focus is promoting the reduction of bycatch in all fisheries off our coast, we commend the efforts by western Alaskan fishermen to bring attention to the salmon bycatch problem and work with the trawl industry to negotiate a proposal to aid research and reduce the intercepted catch of salmon.

We are concerned, however, that the measures as currently proposed in the salmon initiative need to be strengthened to actually minimize the bycatch of salmon. Without stronger disincentives and improvement, the initiative could simply be incorporated into the cost of doing business as usual with little benefit to conserving our salmon runs.

Avoidance not retention should be the goal in this or any other bycatch reduction program. Without adequate assurances that the program will significantly reduce bycatch it may be premature to change our state landing regulations. However, should the Board act to do so, meaningful benchmarks should be included to evaluate the effectiveness of this voluntary program in actually decreasing the numbers of salmon caught. In fact, a sunset provision might be included to coincide with the North Pacific Council's review of the program in 1996.

Some of our concerns include, but are not limited to, the following:

Without adequate assurances that salmon bycatch will be reduced, the public give-away program could be manipulated to legitimize dirty fishing practices.

AMCC - Page Two
Salmon Bycatch

Stronger disincentives and penalties are needed. Twenty dollar fees coupled with tax right-offs for charitable donations are not enough to discourage bycatch.

The research portion of the program needs to be expanded to include chums, steelhead, sockeye, kings, and pinks in both the Gulf and Bering Sea.

One hundred percent observer coverage by all participating trawlers including those under 60' in this volunteer program is not guaranteed. (Double coverage is needed for Pollock "A" participants that now have 100% coverage).

In addition to putting more teeth into this approach, **we favor the use of economic incentives (earlier fishing times, reserved portion of the catch or some other harvest priority) to reward those fishermen who demonstrate avoiding bycatch in the first place through the use of selective gear and practices.**

Salmon are not the only state fisheries resource being "wasted" at sea each year in the federally managed bottom fisheries off our coast. Last year over 20 million crab and 1 million herring were dumped back over the side dead or dying. In all over 500,000,000 pounds of marine life are thrown back including 20 million pounds of halibut. However, if it is implemented, the salmon initiative could be a precedent setting approach for reducing bycatch of other species.

In conclusion, if you enable this program to go forward we urge you to implement benchmark measures and possibly a sunset provision to evaluate and revisit its effectiveness in minimizing the catch of salmon by the trawl fleet. Further, the Department should be encouraged to provide leadership and to commit its full resources to reducing all bycatch and discard.

Thank you for your careful consideration of this issue.

Sincerely,



Nevette Bowen
Coordinator

Overfishing, and new competition for meals are possible reasons for food shortages for sea lions, such as these on Chirikof Island.

Forage loss endangers sea lions, birds

By CRAIG MEDRED
Daily News reporter

Food shortages in the Gulf of Alaska are decimating sea lion and sea bird populations, a group of scientists has concluded.

But the complexity of the North Pacific ecosystem makes it impossible for them to say what is causing the problem.

Some suspect overfishing by a billion-dollar commercial fishery that harvests 2 million tons of pollock a year. Others, noting declines in fish species that are lightly or seldom harvested, think envi-

ronmental changes may be to blame.

"It is a complicated issue," said David Lavigne, a zoologist from the University of Guelph in Ontario.

Sea lions, seals and sea birds make up a complex food chain. They sometimes eat big fish, sometimes compete with big fish to eat little fish, sometimes get eaten by killer whales, and sometimes get killed by man.

Lavigne and other scientists said the problem may be that pinnipeds and birds are losing out in the competition for little fish — herring, capelin, sand lance, eula-

chon and immature pollock. Those populations all appear to have declined.

The reason could be overharvest by bottom-fish trawlers. Another possible reason is that overly large populations of adult pollock or salmon — millions of which have been added to the North Pacific by hatcheries in recent years — devour too many of the forage fish.

Lavigne was one of 35 scientists from Canada, the United States, Norway, England, the Soviet Union and Scotland who

Please see Back Page, FOOD

A10 Anchorage Daily News Wednesday, March 27, 1991

THE BACK PAGE

FOOD: Supply running short

Continued from Page A-1

met at the University of Alaska Fairbanks to discuss how this all relates to the declines in Steller sea lions, northern fur seals, harbor seals and sea birds in the North Pacific.

Many of those species have registered alarming declines in the past decade, but the drop in sea lions has been the most dramatic. The federal government now lists the species as threatened, one step away from classification as an endangered species.

Sea lion populations around the Gulf of Alaska from Prince William Sound to the Aleutian Islands have fallen 82 percent since 1958, crashing from 140,000 animals to about 25,000.

For several years, Alaska scientists have theorized that sea lions suffered from shortages, but that position has been challenged by commercial fishery interests worried about cutbacks in a bottom-fish industry employing 5,000 people. The in-

dustry is a powerful lobby in the halls of government.

The scientists meeting in Fairbanks looked at the shrinking populations of sea lions and sea birds, the slow growth rates of seals and sea lions, the low pup survival among sea lions and the decreases in average weight of sea lions, said Lloyd Lowry, a marine mammals specialist for the Alaska Department of Fish and Game.

"You didn't have to be a rocket scientist," Lowry said. "It all corresponds to what we would expect from a food-stressed population."

The conference, however, never got beyond that conclusion. Lavigne said he was disappointed in that.

"There seemed to be some reluctance to look at some of the data (on fisheries)," he said. "It's unfortunate."

There is, for instance, a direct correlation between increases in the harvests of pollock along Alaska's coast over the past decade and the decline in sea lions, he said. And while there is no data to indicate a cause and effect

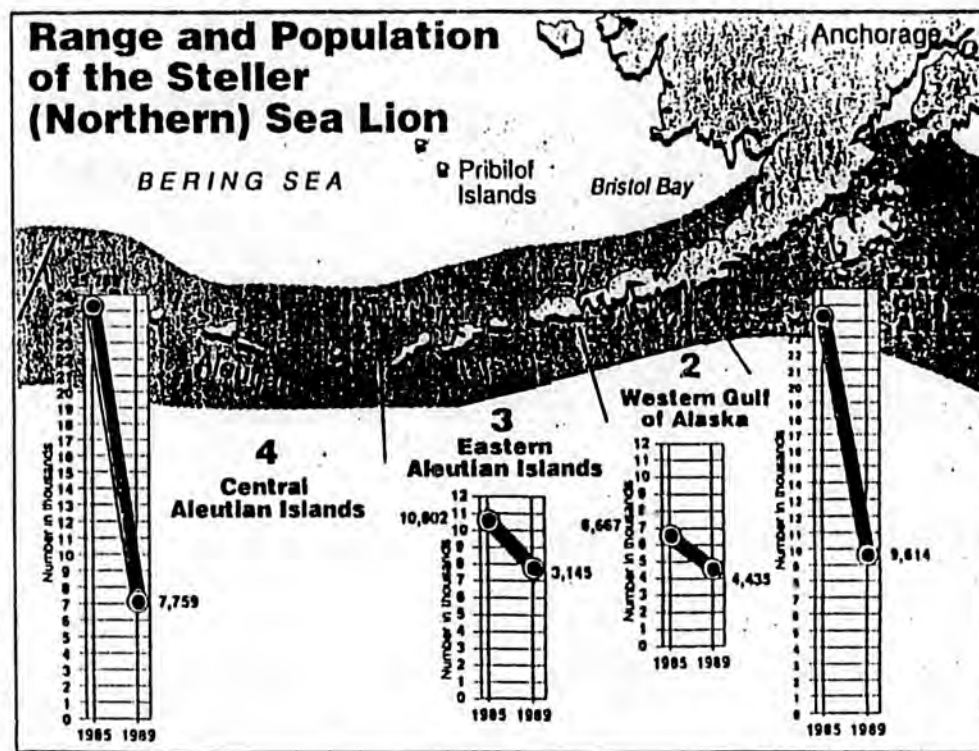
relationship, Lavigne added, the correlation deserves more discussion.

"It becomes a question of what is affecting the food supply," Lowry said. "The environment is probably the biggest cause, but there's no question that in certain areas the fishing industry is playing a role. You look at all those boats taking fish. The fish aren't there for the marine mammals."

Fisheries biologists at the conference, however, defended fisheries management in the Gulf of Alaska and the Bering Sea. Pollock stocks remain high, they said, and commercial fishermen avoid the young pollock considered most important to sea lions and other species.

"In one sense, the finding exonerates the industry," according to Jeremy Collie, a fisheries researcher at the University of Alaska Fairbanks, Juneau Center for Fisheries and Ocean Sciences. "We discussed pollock, but could only con-

Range and Population of the Steller (Northern) Sea Lion



Source: Federal Register

RON ENGSTROM / Anchorage Daily News

clude that pollock stocks are up and sea lions are down." Collie's comments came in a press release issued by the

Alaska Sea Grant College Program, the sponsor for the conference. Collie later refused to answer a reporter's

questions about sea lions and pollock because of the sensitive political nature of the issue.

BERING: Sea ecology to be probed

Continued from Page C-1

tion's study said every species of bird, fish and marine mammal that feeds on pollock is in decline because they are hungry.

"We believe the decline will have a ripple effect throughout the entire Bering Sea and North Pacific ecosystem, possibly causing ecosystem collapse or, at a minimum, bringing certain species to the brink of extinction," the coalition's study concluded.

David Policansky of the National Research Council said Monday that he is not sure what is causing the disruption in the Bering Sea's marine life.

While he said its study will track the development of commercial fishing as a possible cause, it also will look into weather changes over the past two decades.

Policansky said there was a "major oceanic shift" involving winds and barometric pressure since 1976-77 that may be affecting the ecosystem. He said lower than normal pressures have been recorded during storms and that seasonal changes in wind flows have been delayed by a month or so.

The National Research Council will hold meetings in Anchorage in September and in Seattle in November to receive comments from fishermen, Natives and others on what changes they have seen in the Bering Sea.

Among the purposes of the project is to determine what additional research is necessary and to explore the need for tougher fishery management.

The study is to be completed by September 1994.

Canon
ELECTRONIC TYPEWRITERS
Arctic Office Products
100 W. Fireweed Lane - Anchorage
(907) 276-2222

Study probes Bering

Health of sea is in question

By DAVID WHITNEY
Daily News reporter

WASHINGTON — The State Department is financing a \$450,000 study by the National Research Council on the health of the Bering Sea, which others have said is on the verge of ecologic collapse because of overfishing.

The study was outlined Monday at a meeting of the council's Polar Research Board. The council is a division of the prestigious National Academy of Sciences.

Curtis Bohlen, special State Department adviser, said the Clinton administration's concerns about the Bering Sea were the result of population declines of sea birds and fish stocks such as pollock, the largest single commercial fishery in the country.

Bohlen said the declines "raise serious concerns about the health of this ecosystem."

The study follows release of an April report by the Bering Sea Coalition, an organization of Alaska coastal communities, which said cutbacks in the pollock fishery may be the only alternative for staving off an ecological disaster.

A Greenpeace U.S.A. report is expected to buttress the coalition's findings.

"A lot of scientists are working on this issue," said Greenpeace fisheries activist Penny Pagels of Seattle. "There has been a cascading effect on the Bering Sea ecosystem that may be related to commercial fishing."

The Bering Sea Coali-

ecosystem itself are likely to be significant, although not quantifiable given the current state of knowledge (NMFS, 1991a).

a. Impacts on Marine Mammals and Birds.

The North Pacific Ocean supports some of the world's largest bird and mammal populations (Bakkala et al., 1979). During the summer, the Bering Sea contains more mammals per unit area and more birds than the rest of the Northern Hemisphere (Laevastu & Favorite, 1981). Both mammals and birds are apex predators, i.e., their effect in the ecosystem being similar to the effect of fishing by humans. An estimate in the late 1970s of the total consumption of fish by mammals and birds in the Bering Sea was about 3 million MT (Ibid.).

During the expansion of the pollock fishery in the past decades (1960s in the EBS and 1970s in the GOA), there have been concurrent population declines in Steller sea lions, Northern fur seals, and harbor seals (Springer, 1992). In all these species, pollock make up an important portion of the diet (Lowry et al., 1989).

Steller sea lion (*Eumatopias jubatus*) declines have been documented since the 1960s but reliable counts are only available since the mid 1970s. In the core range (central GOA to central AI), counts of adults have dropped by 76% since 1975-79 (Merrick et al., 1992). Statistically significant declines in juvenile and adult numbers since the 1970s have occurred throughout the range, except in the Eastern GOA and Southeast Alaska (Ibid.). These declines resulted in the listing of Steller sea lions as threatened under the Endangered Species Act (ESA) in November 1990 (55 FR 49204). It is believed that much of the cause of the decline is due to decreased juvenile survival (Merrick et al., 1992; Loughlin & Merrick, 1989). Additionally, signs of food stress have been observed in female sea lions off the western GOA (Lowry et al., 1989). It has been estimated that pollock comprises 33% and 58% of sea lions diets in the EBS and GOA, respectively (Lowry et al., 1989; Pitcher, 1981). Young sea lions eat smaller pollock (mean length 22.4 cm) than older individuals (mean length 26.9 cm) (Frost & Lowry, 1986).

Northern fur seal (*Callorhinus ursinus*) pup production in the Pribilof Islands has decreased by about 60% since 1950 (Springer, 1992; Braham, 1991). Although losses before 1968 were related to intentional female kills for alleged management purposes, after a short stabilization, pup production continued to fall since the mid-1970s. The declines since 1975 appear to be caused by a high mortality of juveniles and adult females (Trites & Larkin, 1989). Pollock contributes an estimated 90% to the summer diet of fur seals (Springer, 1992) and 33% in the

EBS and 5% in the GOA on an annual average (Lowry et al., 1989).

The harbor seal (*Phoca vitulina*) population in the western GOA appears to be reduced to 15% of its 1970s size (Pitcher, 1990; Braham, 1991). It has been estimated that pollock constitutes 21% to 35% of harbor seals diet in the GOA (Lowry et al., 1989; Pitcher, 1981).

Piscivorous sea birds are also heavily reliant on pollock in the EBS/AI and the GOA, and several species also have undergone declines around various nesting sites of the EBS/AI and the GOA (Springer & Byrd, 1989; Frost & Lowry, 1981). There are strong data from the Pribilof Islands that show declines of about 50% in the number of murre (common and thick-billed, *Uria aalge* and *U. lomvia*) and kittiwakes (red- and black-legged, *Rissa brevirostris* and *R. tridactyla*) breeding there since 1976 (Springer, 1992). This decline was apparently caused by inadequate food availability and paralleled the decline of young pollock since the late 1970s (Springer & Byrd, 1989). It is estimated that age 0-1 pollock comprises 30-90% of the diets of these birds depending on species and location (Springer and Byrd, 1989; Hunt et al., 1981).

On March 9-14, 1991, a workshop (Is it Food?) was convened to examine the possible causes of recent declines in marine mammal and sea bird populations in the Bering Sea and Gulf of Alaska (Alaska Sea Grant, 1991a,b). The marine mammal working group concluded that the population trajectories of sea lions and fur seals could be best explained by reduced juvenile survival. No data exist to address this issue for harbor seals. The modeling exercise done for the GOA indicated that there may not be enough young pollock to support the pinniped (seals and sea lions) populations. The group concluded that "food limitations and a possible shortage of the appropriate prey type are limiting the pinniped populations" (Alaska Sea Grant, 1991a). The evidence available to the sea bird working group also strongly supports that food limitation is the cause of the decline of the bird populations on the Pribilof Islands (Alaska Sea Grant, 1991b). However, while a strong positive correlation between the mean abundance of murre and kittiwakes on the Pribilofs and the abundance of age 1 pollock appears to exist in the EBS, a negative correlation was found between productivity of piscivorous birds on the Pribilofs and sea surface temperature as well as overall pollock biomass (Ibid.). As a result, there was no consensus on the importance of the role played by pollock in the declines of sea bird populations.

The abundance of young pollock in both the EBS and the GOA has declined steadily since the early 1970s, with an overall decline of about 80% (Wespestad & Dawson,

1992 and Hollowed et al., 1992) coincidental with a setback in bird and marine mammal populations (Springer, 1992). Juvenile sea lions and fur seals need smaller fish (e.g. 0 or 1 age pollock) than adults as food (Lowry et al., 1989; Frost & Lowry, 1986). Because it appears that the decline of sea lions and fur seals is primarily related to increased juvenile mortality, rather than to adult mortality (Merrick et al., 1992), reduced availability of young fish appears to be a determinant factor.

As Springer (1992) points out, pollock stocks may not be able to sustain past and current levels of exploitation and still provide food for higher predators in the ecosystem. Estimated exploitation rates of pollock in the US EEZ have increased from 10% to 23% since 1986 (Wespestad & Dawson, 1992). Bering Sea-wide exploitation rates are still much higher. In 1988 and 1989, the total catch of pollock was nearly 4 million MT annually (BSFAB, 1991), or 42%-47% of the US and Soviet estimates of total exploitable biomass (about 8.5-9.5 million MT in 1988; NPFMC, 1988). Under this pattern of exploitation, it is not surprising that pollock abundance is following a declining trend and that it may be acting as a limiting factor on marine mammal and bird populations.

An alternative hypothesis suggests that declines of rockfishes and fatty pelagic fishes (e.g., herring, capelin, sandlance) in the 1960s and 1970s may have affected the abundance of sea lions (e.g., Alverson, 1992). Evidence for this comes from samples of sea lions' stomachs taken in the 1950s which contained little pollock and greater amounts of rockfish and other species (see Pitcher, 1981). It is possible that pollock have replaced the depleted rockfish stocks in the GOA ecosystem (e.g., Alton et al., 1987) and that, due to the much reduced availability of former prey species, sea lions have switched to pollock as the most abundant prey item. If sea lions are declining due to lack of herring and rockfishes, the implication would be that driving these populations down by heavy fishing has caused potentially irreversible damage to the sea lion populations. Similarly, then, continued driving down of the pollock stocks may accelerate the rate of decline for the predator populations currently heavily reliant on pollock. This again highlights the need to take into account interspecies interactions when managing fisheries.

Nevertheless, the speculated decline in fatty fish, with the exception of herring, is poorly documented due to lack of adequate survey data for these species. Data on unexploited species (such as sandlance, capelin, smelt, etc.) are non-existent, sparse, or unreliable. When available (exploited species), abundance estimates are only made for large areas and little is known about the local prey abundance and availability in feeding areas,

which may not be correlated with large scale abundance estimated from population models (Wooster, 1992). Research surveys are designed to assess near-bottom fish biomass, not biomass of small pelagic schooling fish. Commercial fishing nets are too coarse-meshed to catch small schooling fish. In summary, fishery data are collected to assess exploitation potential and often disregard the importance of gaining knowledge of ecosystem structure and functioning.

Other possible causes of the marine mammal and bird declines have been discussed and ruled out as being not significant or able to withstand close scrutiny. Causes acknowledged to have contributed to historical (pre-1980s) declines of Steller sea lions were legal direct harvest, subsistence harvests, shooting, and incidental takes.

Finally, the role of oceanographic changes in the declines is also being discussed (Wooster, 1992). Accordingly, long term changes in oceanic conditions and resulting recruitment fluctuations of the populations of species that make up the BS, AI, and GOA ecosystems could cause the carrying capacity of the systems to vary on time and space scales comparable to those of changes in pinniped and sea bird populations. Therefore, changes in climate and ocean conditions in the North Pacific since the mid-1970s may have affected fish stocks and the main species that consume them (Ibid.).

Oceanographic conditions undoubtedly influence variability in fish development and food-web structure, as observed not only in the NE Pacific (see Wooster, 1983), but also in other oceans of the world (e.g., Harris et al., 1991). These changes probably contribute to low-frequency cyclic fluctuations observed in fish populations (e.g., Bulatov, 1989; Ware, 1991; Ware & Thompson, 1992) and in predators (e.g., Testa et al., 1991). Nonetheless, the above summary shows that availability of adequate food is a common link in recent declines of predator species in the North Pacific. Climatic or fisheries driven fluctuations in predator abundance apparently are mediated through changes in prey availability. Unfortunately, most, if not all, links between oceanographic conditions or fisheries exploitation and food abundance cannot be readily quantified.

As Springer (1992) points out, it is important to keep in mind that the impacts of ocean variability on predators and competitors of harvested species are likely to be now greatly amplified due to the fact that, unlike during pre-exploitation times, the most recent biomass blooms in the North Pacific have been heavily harvested. Finally, although there is no evidence of a direct link between fisheries and the declines in predator species, the strongest evidence points to food deprivation. Therefore,

it is reasonable to give serious consideration to the possibility that fisheries are implicated, and to take a precautionary approach.

b. Ecosystem Impacts and Other Species.

Marine scientists are becoming aware that the impacts of fishing pressure (and overfishing) on other marine species through competition and predation can be expected to cascade through the entire food chain (Sherman, 1991). This phenomenon has been documented for some time by benthic ecologists and limnologists (e.g., Paine, 1980; Post & McQueen, 1987). According to the trophic cascade model, the effects of environmental conditions climb upward through the system to meet the effects of fishing cascading down from the top (Daan, 1989; McQueen et al., 1986). Hence, it is very difficult to separate natural and man-induced causes of the changes observed at different levels of the ecosystem. The traditional single-species focus of fisheries management and research is partly responsible for our current lack of understanding of these interactions in marine systems. As a result, declines of major commercial fish stocks are well documented, but it is usually unknown whether or not populations of no economic interest have changed in abundance concomitantly (Daan, 1980).

Macroscopic ecosystem changes associated with intense exploitation of fish resources have been well documented in several areas of the world, e.g., the North Sea (Daan, 1989), the Yellow Sea (Tang, 1989), Georges Bank (Sherman, 1991), the Gulf of Thailand (Piyakarnchana, 1989), the Barents Sea (Borisov, 1991), and the southeastern Australian shelf (Harris & Poiner, 1991). In Georges Bank (US Northeast Continental Shelf), the marine ecosystem has shifted from a species assemblage once dominated by Gadoids (fish in the cod family) to one dominated by sharks and skates. Biomass flips on the order of thousands of metric tons among the dominant pelagic components of the fish community off the Northeastern US have also occurred as a result of overfishing (Sissenwine, 1986). In lake systems, collapses of fish populations resulting from intense sustained exploitation have also been described (Holling, 1973).

Although complex species shifts in the NE Pacific of the kind described in other marine regions cannot be documented in detail, major community changes have occurred there since the great expansion of fishing operations in the 1960s. Changes in biomass composition of the major commercial species over time, although difficult to quantify, currently are the best available indicators that fish communities of the Alaska shelf waters have significantly changed over the past

three decades (see Section 3; Figures 7, 8, 9). Additional well-documented indicators of ecosystem changes are the declines of several marine mammal and bird species over the past 20-30 years (Section II.4.a.).

It is evident that large scale changes in abundance of main fish species of the demersal and pelagic communities have taken place during the decades of commercial fish exploitation in the North Pacific (Section II.3.). The early decline of rockfishes in both the EBS/AI and GOA, and Greenland turbot and herring in the EBS can be traced to intensive fishing exploitation. Populations of groundfish that increased during the late 1970s (perhaps in response to the depletion of previously overfished stocks), such as pollock and Pacific cod, are now declining. Meanwhile, most flatfish are thriving at high population levels (see Table III). Unexploited species for which information from resource surveys exists are skates, sculpins, sharks, and octopus. Skates in the Eastern Bering Sea have increased six-fold since the late 1970s (Dawson, 1992b), while octopuses appear to have nearly disappeared from the sampling nets (Ibid.). Changes of these species in the GOA do not seem to be dramatic (Wilderbuer, 1989). Changes in other fish and invertebrate species have been poorly documented and are difficult to quantify due to the lack of adapted routine survey sampling methods.

Although not enough is known about non-commercially valuable members of the ecosystem potentially affected by fishing, some of the changes described here seem so precipitous as to be signaling a significant shift in community structure. These changes have been propagated either from the bottom-up (e.g., environmental variations affecting recruitment success) or from the top-down (i.e., competition, predation, fishing pressure) (Springer, 1992). While biomass flips in species abundance in pelagic marine ecosystems appear to be attributed to density independent environmental changes (affecting nutrient entrainment, primary production, and recruitment success), dominance flips in several continental shelf marine ecosystems are attributed to density-dependent predation that includes fishing (Sherman, 1989). The rapid increase in the abundance of skates and flatfishes in the EBS may be signaling a change similar to that which occurred in Georges Bank. Increases of flatfish stocks, apparently indicating an increased energy flow to the shelf bottom, have been associated with replacements of collapsed fish stocks in the Gulf of Thailand (Ursin, 1982). Clear cases of replacement of depleted stocks are difficult to find due to lack of information. Also it is possible that replacements are not detected if depleted fish populations are replaced by invertebrates depending on the same food source (e.g., squid, jellyfish) (Ibid.).

Harbor seals

Time for the big-picture approach

If the North Pacific were a coal mine, it would be littered with dead canaries. Steller sea lion, northern fur seal, seabird and now harbor seal populations are plunging, sounding a warning that sea life, along with communities and economies that depend on the sea, are at risk.

We can no longer afford to look at these problems one at a time. Scientists always have rushed in when populations crashed. But the ocean ecosystem was considered too



complex, the countries involved too many and too varied, to consider the big picture and look for related problems.

For example, with harbor seals, the problem doesn't appear to be overhunting. Since 1972, only Alaska Natives have been allowed to hunt seals under the federal Marine Mammal Protection Act, and that harvest is relatively small.

Instead, scientists are investigating disease or pollution, along with declining food sources. Harbor seals, along with other sea mammals and sea birds, feed on small fish like herring and immature pollock, whose populations also may be declining. So the real problem may be what is causing the drop in these fish populations.

One of the suspects is overharvest by bottom-fish trawlers, another is added competition from millions of hatchery salmon and pollock. Russian, Japanese and U.S. scientists are studying changes in weather and ocean temperature.

Anchorage Daily News

Fuller A. Cowell
Publisher



Howard Weaver
Editor

In his visit to Alaska last summer, Interior Secretary Bruce Babbitt not only supported this kind of study of ecosystems but expressed concern in particular for the problems of the North Pacific. This is a promising start that needs to be translated into more action and continued cooperation.

Key players will be coastal Natives, who are considering forming a Native-run harbor seal commission similar to the already established whaling, walrus and sea otter commissions.

It's important for Native subsistence hunters to have a say in any restrictions federal agencies may impose should harbor seals be declared depleted. But more than that, a Native harbor seal commission could give scientists needed information.

Scientists have the same problem here that they have in Prince William Sound and other areas of Alaska: So little previous research had been done on harbor seals there's little with which to compare. Alaska Natives have a store of knowledge passed down from elders about what pelts looked like and how plentiful the animals were. This knowledge can be put to work ensuring that harbor seals remain healthy and plentiful for future generations.

SEABIRDS AS INDICATORS OF ENVIRONMENTAL CHANGE IN THE GULF OF ALASKA AND BERING SEA

There are indications that marine ecosystems in the northeastern Pacific are ecologically stressed, and concerns are mounting that human intervention, especially the removal of large quantities of biomass by national and international fisheries is a contributing factor. Populations of seabirds, murres and kittiwakes in particular, have declined by half on the Pribilof Islands since the mid-1970's (Fig. 1). In the eastern Aleutians and Gulf of Alaska, harbor seals and Steller sea lions have declined even more drastically since the 1970's. A sea lion rookery in the Semidi Islands (western Gulf of Alaska) that contained some 7,000 adults and subadults in 1978 had but 250 animals remaining in 1993. Possibly related to this phenomenon are the recurrent breeding failures observed in seabirds, especially kittiwakes (black-legged kittiwakes throughout Alaska, red-legged kittiwakes in the Bering Sea). On Middleton Island, north-central Gulf of Alaska, black-legged kittiwakes have failed completely to raise young in 9 of the last 11 years, and the colony (formerly 150,000 birds) has declined about 70% since 1980 (Fig. 1). Statewide, the productivity of kittiwakes has declined since the mid-1970's, as shown by running 5-year averages (Fig. 2). There is evidence that the food base of kittiwakes and other seabirds may be similar to that of juvenile Steller sea lions, which is thought to be the critical life stage of this failing and threatened species.

An important focus of attention is the harvest of walleye pollock, which currently support the world's largest single-species fishery (more than 5 million metric tons annually). The concerns of marine bird and mammal biologists are based on the fact that pollock comprise an important food source for many seabirds and pinnipeds. Tufted puffins, for instance, deliver up to 75% pollock by weight to their young in some colonies. Studies have shown that kittiwakes and murres rely heavily on pollock at some colonies in the Bering Sea, as do Steller sea lions in the Gulf of Alaska. The role of fishing in this situation is unclear, however, because the adult pollock (age 2+) taken in the fishery are important predators on juvenile pollock and other forage fish. Seabirds, and presumably the juvenile stages of the Steller sea lion, consume young pollock (ages 0 and 1) which are not harvested. Thus, the fishery could theoretically benefit piscivorous birds and mammals by reducing competition for their principal foods. Alternatively, the wholesale removal of huge amounts of fish biomass from the ocean may be having detrimental, if poorly understood, effects on the higher consumers that are showing signs of stress. Still another possibility is that food availability to seabirds and pinnipeds is determined by physical processes that are unfavorable at present, and possibly cyclic. The fact is, we do not know enough about these systems to distinguish among any number of reasonable hypotheses. The stakes, however, are high--both ecologically and economically.