

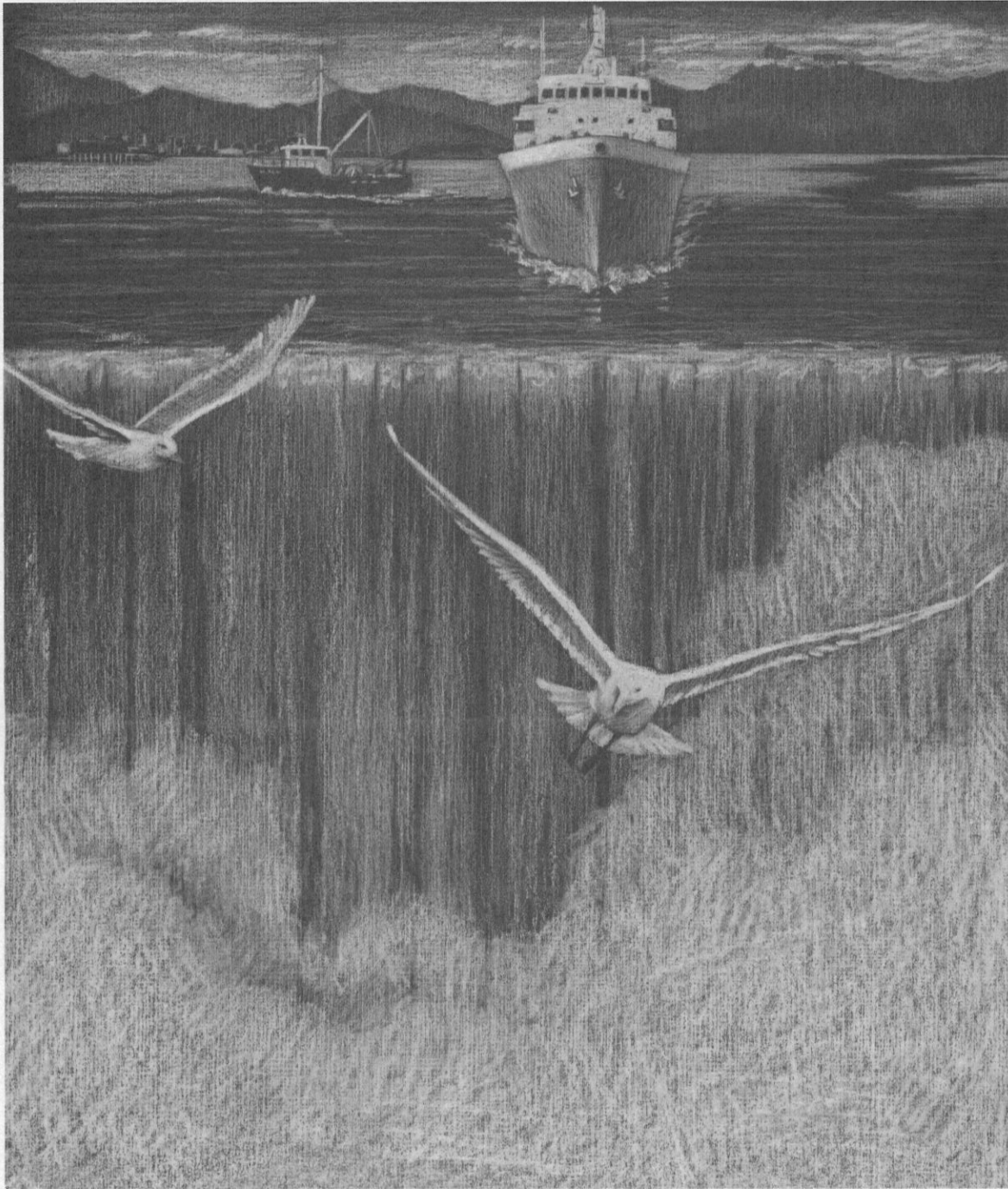
the **LODE** **STAR**

Charting the course of fisheries development today.

Alaska Fisheries

Development Foundation, Inc.

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Whitewater ahead

No more smooth sailing for
Alaska's white fish business

By Krysl Holmes

Illustration by Joe Nedland

These are days of reckoning for Alaska. On March 22, the pollock harvest in Shelikof Straits, Alaska's second-largest pollock fishery, was shut down for the year because the entire 1989 60,000-ton allocation had been harvested. Sixty percent of the catch was stripped of roe and the unused carcasses and meat were discarded.

Three days after that, the Exxon Valdez struck a rock and excreted eleven million gallons of oil into Prince William Sound. The spill shut down that region's herring, sablefish and shrimp fisheries for the season, and threatened the summer halibut and salmon harvests in the Sound. The toxic oil soon covered 1,600 square miles, greased more beaches than make up California's entire coastline, and killed hundreds of fish, birds and sea mammals. It will tilt Nature's delicate balance between genesis and entropy in ways we don't even know yet.

The oil spill and the pollock shutdown cranked up the chaos level in an industry already struggling with an overcapitalized groundfish fleet, the imbroglio of limited entry, the unknown effects of unregulated pollock fishing in international waters, and the known effects of illegal salmon harvesting on the high seas.

The once-expanding universe of Alaska's fisheries now seems to be contracting.

The pressure of the contracting universe was tangibly felt in the North Pacific Fisheries Management Council meetings April 12-15 in Anchorage. The regulatory body responsible for managing Alaska's groundfishing—and for permitting roe stripping of pollock—heard hours of testimony on a knot of problems that, if ever untangled, might lead the North Pacific toward an enduring fisheries management plan.

Some fishermen and shore processors at the meetings condemned roe stripping and called for full utilization of the fish. Trawler/processors defended roe stripping and countered that fillet and surimi producers don't use 100% of the fish, either. A Kodiak coalition requested an emergency opening for pollock in August, and permission to not discard the pollock by-catch that is harvested this year. Several people called for greater accountability of fish mortality as opposed to recorded landings. One group requested a shore-based preference in future groundfish fish allocations. Kodiak dragger Al Burch advocated phasing factory trawlers out of the groundfish fishery altogether. And nearly everybody opposed limited entry in groundfish.

Following the threads of the knot

Its many diversions notwithstanding, the main thread of testimony went like this: 60,552 metric tons of pollock were caught in the Gulf between January 1 and March 22. Shore plants processed 37% of the take in 80 days. Factory trawlers processed 63% in eleven days. Some of the factory ships targeted on roe; some took roe and used the flesh of the pollock in fillets or surimi. Some processing ships were receiving fish so fast their processing lines couldn't keep up with it, so they stopped processing the flesh and just kept the roe. At least one Kodiak shore plant reportedly also discarded carcasses in favor of roe, which is three or four times more valuable than fillets.

The anti-roe stripping coalition complained that the factory trawler fleet had killed in eleven days enough pollock to support the Kodiak community for six months. They figured the factory ships, most of them from Seattle, had earned \$6.1 million from the roe, whereas the same harvest would have earned \$22 million if fully processed on shore

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Alaska is America's seafood leader," wrote Governor Steve Cowper to the members of the National Fisheries Institute who attended the annual meeting April 10-12. "We take great pride in the fine quality of our product, as well as the protection and enhancement programs that ensure quantity. I can assure you that Alaska's seafood supply is, and will continue to be, wholesome and safe.

The Exxon oil spill now covers 2,000 square miles in Prince William Sound and beyond. The state early on mounted its own massive effort to save what we could and clean up the damage. We have been successful in protecting the four primary hatcheries in the region, including the world's largest (in Sawmill Bay). There was no fishing in the Sound prior to the catastrophe and no fishing allowed since. We are carefully monitoring the effect of the crude on the water column and benthos and will continue to cancel openings and delay fry release until we are sure it is safe.

Alaska has a very successful seafood inspection program which will be intensified for any product from the affected region. No contaminated fish left Alaska after the Cook Inlet oil spill two summers ago, nor will it this time. Consumers can maintain confidence in Alaska seafood.

Dealing with this man-made disaster requires clear thinking and rational, rapid response from us all. Our commitment to quality extends from the food chain to the dinner table. Sincerely, Steve Cowper."

For up to date information on the oil spill, call the Oil Spill Response Office in Cordova, Alaska: (907) 424-6246, 6242, and 6247.

in Kodiak. From Kodiak's point of view, it was insult adding to injury: not only were millions of pounds of fish flesh being wasted in the Gulf of Alaska, profits from the waste were going to Seattle-based companies, leaving the Kodiak economy high and dry.

"If it weren't for fish, you wouldn't find one soul living on Kodiak Island," said fisherman Harold Jones, neglecting to mention Coast Guard, the tourist business and the Konyag Natives who settled there about 8,000 years ago. "There's no other town in the U.S. that is entirely dependent on fishing, with no other industry. Imagine the devastation to our town if the factory trawler fleet doubles in size. What if they all targeted on the resource in Kodiak, how long would the fishery last then? Three days? I think the council should ignore the sniveling of the catcher-processors and institute mandatory observers."

Kodiak mayor Jerome Selby underlined for the council that there is

council asked factory trawlers last year to increase activity in the Gulf outside Shelikof Straits. "Last year the council set a catch level for the Gulf to encourage fishing outside Shelikof," he testified. "We had the council's encouragement to do so, we had good roe prices, and found good concentrations of fish. The factory trawlers were just following the regulations set by the council, which has addressed roe-stripping three times in the past two years and has tacitly approved it."

Evans said that a shore-based processor preference would turn factory trawlers into second-class citizens, and that for the council to sanction the factory trawlers, who were primarily responsible for growth in the pollock fishery, would be "unfathomable."

"I'm not here to argue in favor of roe stripping, but for a rational management plan for pollock," he said. "Everyone wants alternatives when the limits are reached. Our alternatives are areas; the shore plants' al-

Seafoods, who together represent 60% of Kodiak's processing capacity, testified that the 2,000-person Kodiak work force could operate successfully year-round at current allocation levels—if they didn't have to com-

"The point is, if this many fish were killed by the oil spill, it would be on national news every night," he said. "The amount of waste out there is incredible. Our boats have to sort the dead fish from their hauls, and

If this many fish were killed by the oil spill it would be on the national news every night."

Paul Fuhs

pete with the factory ships.

"One factory trawler can do in a month what I can do in six months employing 110 people," Allread said. Sevier reported that his plant processed 8,300 metric tons this year, only one-third its 1988 production. "We need to know we're going to have some fishery in the fall," he said. The three called for an end to roe-stripping and a special pollock allocation for the rest of 1989 to keep Kodiak's shore plants operating.

Dave Harville, a Kodiak trawler owner and not one to mince his words, said, "It's all part of the same disease, and that disease is greed. The growth in the factory trawler fleet mandates a different kind of operation." Harville said shore processors and fishermen who deliver to shore are more concerned with the livelihood of their whole community than by greed. "A fisherman deals in the community in which he normally lives," he said. "He's looking for stability. At-sea processing isn't stable."

Unalaska mayor Paul Fuhs requested the Council extend any ban of roe stripping to include the Bering Sea as well. "Roe is an important part of the economics of shore-based plants," he said, "but they also make fillets and surimi and meal—everything but the eyeballs and cartilage is used."

Fuhs said Unalaska plants will invest \$150 million in new plants and equipment next year to increase production capacity including meal and oil.

with some catches the dead are 25%. How much anaerobic material is on the bottom?"

Cries of "wanton waste" and "criminal opportunism" quieted some after trawler David Fraser came forward to testify before the council.

"We have met the enemy and he is me," Fraser said with a touch of irony as subtle as a fillet knife. "We are the cockroach capitalists, operating a small, family-owned operation. I think roe stripping can be conducted as a responsible fishery." Fraser reported yields of 18% in roe stripping, and asserted that this figure applied to the whole catch, not just roe-in females. He compared roe stripping to the herring fishery, where carcasses also are discarded.

Fraser and the other factory trawlers brought up a cogent point: Recoveries of 15-18% would match production yields of surimi processors, whose yields reportedly are 12-18%. Though no council members asked for a yield comparison, the point didn't escape them. The term "full utilization of the resource" was defined at the council meeting as "using the flesh of the fish." It became clear that that definition may be enlarged in the future to include processing flesh, mince, offal, and perhaps even the skin. If the council is going to pick up this ball—and it looks like they are—it will have to play the game to the finish.

We're not here to argue in favor of roe stripping but a rational pollock management plan."

Ted Evans

not enough Alaska pollock to support all the investment in the groundfish fishery. "To continue the practice of wasting fish protein and mucking up the bottom of the ocean in an age of world hunger is criminal," Selby said. "It's also stupid to waste fish when there is not enough fish to keep all the U.S. plants operating. This is a U.S. resource. Use it for the best benefit of the U.S. people, in terms of the economy, jobs, food and the resource."

The argument doubles back

Ted Evans, executive director of the Alaska Factory Trawlers Association, said his members were tacitly encouraged to strip roe when the

alternatives are species."

Evans and several of the factory trawlers who testified called for an increase in harvest allocations, saying that the pollock stocks are in better shape than National Marine Fisheries Service figures would indicate. In fact, the Midwater Trawlers Cooperative, a group of 33 trawlers, has filed suit against NMFS to increase the groundfish catch in the Bering Sea.

Shore processors, however, seemed to think that the existing harvest levels should be enough to go around—if managed equitably.

Tim Blott of All Alaskan, John Sevier of Alaska Pacific Seafoods, and Ken Allread of Western Alaska

Continued on next page

No fish oil jokes, please

While not trying to belittle the catastrophic effects of the oil spill, Alaskan seafood producers are doing their best to quell fears about the Alaskan fish that will make it to market this year. First of all, producers want buyers to know that Prince William Sound is one of fifteen major fish producing areas in Alaska, and the oil spill affects only a portion of Alaska's fisheries.

The valuable Copper River king salmon run, located on the east side of the Sound, is expected to be safe from the spill as long as fishermen can keep their nets clean. Jim Heyden from the Alaska Department of Environmental Conservation (DEC) said the Copper River kings might even be healthier than usual because, since the spring Sound herring fishery was closed, "the kings will have all those herring to eat."

The Sound halibut fishery may be postponed until later in the summer, when the oil is expected to have dispersed enough to conduct a safe fishery.

The Gulf of Alaska flatfish fishery reportedly has been slightly affected by the oil. Some fishermen have had to move from their target fishing areas to avoid oil patches, but as of this printing there was still substantial flatfish harvesting area free from oil. None of the fish landed on the docks had been affected by either oil or the oil dispersants.

DEC and the seafood producers will be testing the fish that are landed this

summer in the Sound and the affected Gulf of Alaska area for signs of damage. The state has guaranteed that no tainted fish will be processed or sold on the commercial market. A smaller oil spill in Cook Inlet two years ago set the precedent for testing of seafood for oil contamination by the DEC. That spill occurred in mid-salmon season in the Inlet, and at that time no affected salmon entered the commercial market.

Seafood marketers say they are not as concerned about the availability of good fish as they are about consumers' perceptions about Alaskan fish. Jon Rowley of Fish Works!, a major West Coast fish marketer, said, "It's hard for people down here (in the Lower 48) to believe that all of Alaska isn't covered with oil. Most people have no concept of how big Alaska is." Cartoons now proliferating in newspapers nationwide—like the one depicting a fishmonger advertising "blackened fish—from Alaska" don't help.

"I think the distribution sector realizes that these are protective measures in place to ensure the quality of the fish that is marketed," Rowley said. "It's a matter of dealing with the public's fears."

It might be a good time to remember the study National Fisheries Institute sponsored last year, which concluded that most American consumers don't know where their seafood comes from, and don't associate fish with Alaska.

Whitewater ahead for white fish business

Continued from previous page

Knit one, purl one

The issues—roe stripping, fair allocation of pollock between shore and at-sea processing, and the spectre of limited entry—distilled throughout the meetings into the soupy matter of how the fisheries are to be divided up now that Americans control both the harvesting and the processing sector, and there are too many of them to all survive.

The amendments and petitions were forwarded to the agenda of the June council meeting, a move that served two functions: First, it allowed some of the petitions to go out for public hearing. Secondly, it gave the council and the industry some time to get in shape for tackling the tough issues: Whether or not shore plants representing small communities should have an allocation preference

over at-sea processors representing big bucks; whether or not 18% recoveries and 82% waste in any fishery should be acceptable for much longer; whether or not the factory trawlers who once represented the greatest hope for Americanization now deserve to bear the brunt of its wrath; whether or not 2.3 million tons of groundfish is enough to keep the North Pacific seafood industry in business.

"We're dealing with some very difficult issues here," council chairman John Peterson said. "And we're going to be dealing with them for a long time to come."

As the meetings continued, the oil slick was bearing down on the Kodiak archipelago, and beyond Kodiak, the Aleutian Islands.

JAC Creative Foods and Seafest to merge

Frank Kawana, chairman of the board of directors of JAC Creative Foods, announced on April 17 that his company, considered by most to be the pioneer in the U.S. surimi business, will merge with Seafest Products. Seafest is a division of International Multifoods, and is one of the nation's top producers of surimi-based products.

"We feel the alliance will create a stronger base to meet future challenges," reads a letter written by Kawana and JAC Creative Foods president Teisuke Ted Suzuki. "The combined energies, production capacities, purchasing power, strongest R&D team in the industry, and the two strategically located plants will give us the ability to better service (the industry's) needs."

AFDF says thanks for the party

AFDF expresses fervent thanks to the following members and companies who contributed food, door prizes and support for AFDF's 10th Anniversary celebration in December 1988. Thanks to:

Alaska Butcher Supply	Kemp Pacific Fisheries
AlaSkins	Kodiak Westmark
Alaska Salmon Leather	MarkAir
Anchorage Westward Hilton	Rae McFarland
Al Burch	JAC Creative Foods
Brian Hawkins	Unisea

For information about membership in AFDF, please contact any staff member at 508 West Second Avenue, Suite 212, Anchorage, Alaska 99501; (907) 276-7315.



Rae McFarland (right) shares some of his Northern Lites with Al Burch, AFDF board president, at a March meeting of the board of directors.

FOR MEMBERS ONLY

News from the plants and offices of AFDF members

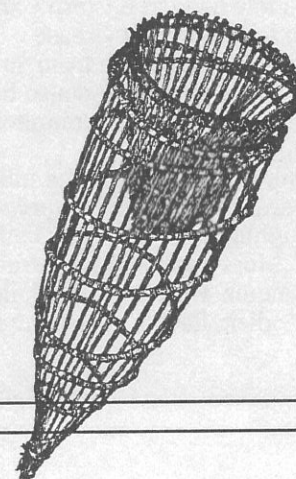
McFarland Foods spawns more offshoot companies than a hatchery spawns baggits. Newly formed Network Seafoods introduced "Northern Lites" seafood patties at ComFish 1989 in Kodiak in March. The patties are the "hamburger equivalent of minced fish," made with pollock mince, vegetables and all-natural flavorings. Network Seafoods now is developing packaging. Information: Barbara McFarland 84 High Country Road, Herriman, UT 84065; (801) 254-7377.

The Iams Company got some unexpected notoriety during the Iditarod sled dog race in March. Iams, who sponsored musher Rick Swenson and even sent a team of dog handlers to the Iditarod start, discovered that world-class dogs aren't the only ones who favor Iams dog food. In a news story in the *Frontiersman* of Wasilla, Iditarod musher and noted gourmet Jan Masek confessed that he had even eaten dog food—in an emergency. "He recommends Iams," the news story said, "and says it is not bad with tea." To find out what Iams is really up to: Dr. Tom Willard, 7250 Poe Avenue, Dayton, OH 45414; (513) 898-7387.

Another musher recommended imitation crab while on the trail, but didn't name his favorite brand.

Unisea, Inc. will break ground this spring for its \$50 million processing plant in Dutch Harbor, scheduled to begin production in April 1990. The 100,000 square-foot plant will process surimi, pollock, crab, salmon, halibut and includes a 6,400-sq. ft. meal plant. News reports about the project say the plant will be equally funded by Unisea, Inc. and its parent company, Nippon Suisan of Japan. Information: Richard Pace, P.O. Box 97019, Redmond, WA 98073; (206) 881-8181.

Arctic Alaska has two new surimi vessels on the ways at Bender Shipbuilding. The 275-foot *Kodiak Enterprise*, scheduled for delivery this summer, will produce surimi, fillets, and headed/gutted pollock. The 304-foot *Island Enterprise*, which will be delivered in 1990, also has a meal plant on board, in addition to its surimi, fillet and H&G line.



AFDF's mission for 1989: Flatfish, full use, quality



As AFDF begins its second decade in Alaska, its activities turn to answering some questions that have been around a lot longer than ten years: How can fish processors who can't afford full-scale meal plants profit from by-products processing? And for those who do produce meal and oil, what does the future hold?

have when they try to market their oil," Lure said. "How will Alaskan fish oil be accepted on the market? How does it compare to other fish oils? And—I hope we can answer this—what will buyers be using it for?"

Quality assurance from the (fishing) grounds up

Quality control is an ongoing process for Alaska's seafood producers, as it is for any food producer. AFDF hopes give processors a jump-start on quality by sponsoring research into the many variables that affect product quality, from the fishing grounds to the dining table.

The study will include flesh quality comparisons at different times of year, how different handling techniques affect finished product quality, and what chemical activities occur in the deterioration of groundfish flesh.

Loretta Lure said a request for proposals from Alaskan plants will be issued soon.

"We plan to train plant employees to take the samples for the research," Lure said. "We'll sample different species of groundfish and test each species according to different regions—like fish held on ice vs. RSW, or fish that were taken in September as opposed to pre-spawn fish. We'll also take fish from different places in the processing line and evaluate various chemical characteristics of the fish during processing."

The project will include a study of different freezing methods and equipment, Lure said. Much of the project work will be done in cooperation with the NMFS lab in Kodiak.

"These are questions that QC people have been asking as they watch processing go on in their own plants," Lure said. "But nobody has ever sat down and systematically analyzed how the quality of the finished product is affected by all the conditions in which the fish are processed."

AFDF now is formalizing a contract with the Fishery Industrial Technology Center in Kodiak (part of the University of Alaska) to study new methods of bone and parasite detection using a specially-designed lights in an imaging

table. One problem with white-fleshed fish is that parasites are usually the same color as the flesh, making them hard to pick out using a standard candling table. Bones usually are detected manually by processing line workers. But plants use pretty cold water, and it can be tough to feel a 1-mm. bone with cold, numb fingers.

"FITC has evaluated the use of three different kinds of light, and with at least one of them you could see defects much more clearly," Lure said.

There are 1.3 million harvestable flatfish in Alaska's waters, and AFDF aims to help processors make the most of them. While fish marketers are revving their engines over Alaska's newest seafood offering, AFDF is helping flatfish producers pioneer some new ground in value-added flatfish products.

This year, AFDF's flatfish project at Eagle Fisheries in Kodiak will include a small-scale vacuum packaging line for production of microwavable arrowtooth flounder fillets. The fillets will be seasoned, packaged, frozen and labeled for retail marketing.

"This part of the project continues some work done by the NMFS lab in Kodiak last year," said flatfish project manager Peter Moore. "Once we get them produced we will be sending out samples in the same way we did sample shipments of flatfish fillets. We will try to work through a food-service distribution chain. I expect it will take some hand-holding, because this is not the kind of product you can easily slide into an existing product line, as you can with flatfish fillets. Who knows? Maybe we'll crack the arrowtooth nut with this approach."

Moore reported that Eagle Fisheries now is operating two flatfish filleting lines on a full-time basis, and has purchased a second TRIO skinner.

"I don't consider this a pilot scale project any more," he said. "Now the plant is completely into commercial production of flatfish. They have their fleet organized, two full processing lines, and a fully operational trim table that is widely used in Eastern Canada. The trim table should increase worker productivity both from an ergonomic point of view, and also because the plant can better monitor trimming activity."

"I think in that respect, the full-scale operation at Eagle Fisheries will be the highlight of this year's flatfish project," Moore said. "With the current problems with the pollock fishery off Kodiak, flatfish is starting to

look like a pretty good alternative."

All Alaskan Seafoods and International Seafoods both produce flatfish as well. According to plant manager Neil Shuckerow, International produces a million pounds per year.

"I'd be very surprised if we don't see other companies get into flatfish this year as well," Moore said.

AFDF also hopes to add another component to the flatfish project—either at Eagle or at one of the other Kodiak flatfish processing plants—to mechanically remove the backbone and recover mince from frames.

Moore said that when European flatfish processors instituted mince recovery from frames, they reported increased yields of 5-8%. Reportedly, some major U.S. buyers have expressed interest in flatfish frame mince.

"We have calculated that adding this one step to the flatfish processing line could increase overall yields by 25% and, even with the labor costs resulting from the new equipment, could reduce finished product cost by 6¢ per pound," Moore said.

Prices for frame mince could be 10-20% higher than cod mince, which currently sells at 60¢/lb. FOB Kodiak.

AFDF continues to send out flatfish samples, and also publishes a monthly news sheet called "Sole Source," which logs the progress of the flatfish project. (To receive the newsletter, call anyone at AFDF.)

Let by-gones be by-products

AFDF and its members believe that Alaska's greatest marine resource is yet to be developed: fish by-products. In groundfish processing alone, an estimated 1.6 million metric tons of seafood proteins—including skin, viscera, bones and flesh—are discarded every year. Every step toward recovering more of these protein materials brings more profits to seafood producers and cuts the amount of waste dumped into the sea.

Last year, AFDF helped Kodiak Reduction, Inc. buy \$202,000 worth of equipment to improve the quality of its meal, and sponsored several stud-

ies of Alaskan fish oils and how they can be produced. KRI's meal quality improved dramatically, allowing them an average 50-60% increase in price per short ton.

This year, AFDF will investigate the potential uses for concentrated fish protein in animal and aquaculture feeds. The market for fish and shellfish feeds is expected to become more lucrative as aquaculture activities increase worldwide. If the droughts continue in the U.S., and the greenhouse effect alters agriculture patterns in the future, farmers too will have to turn to the sea for sources of high-protein animal feeds—assuming that the ecological balance of the sea is not as dramatically upset as other systems.

Feeds can be made of paste and pellets formed of the concentrated, pasty protein left over from fish oil rendering.

"One of the things we did last year was to look at salmon oil and its potential for human consumption," said project manager Loretta Lure. That work was begun at North Pacific Processors and at Ketchikan Seafoods, where

hydrolyzing equipment was installed to reduce salmon head oil. "But hydrolyzing isn't cost effective unless you have a use for both products. We kept hearing, 'This oil is great, but what can we do with the paste?' So this year we're focusing on different applications for the paste, particularly in feeds."

Lure and the processors she works with will investigate and test different feed formulas, and send samples to scientists and fish hatcheries for evaluation.

"Another part of our study is to answer questions fish oil producers will

"I'd be very surprised if we don't see other companies get involved in flatfish this year..."

Continued in box at right

Dilemma in Dillingham

Can a near-shore groundfish fleet grow in the shadow of the factory trawlers?

DILLINGHAM, Alaska — March is breakup time in Dillingham. A world that has been still and frozen for many months is beginning to let loose. First, the Tikchik River dislodges itself from its winter holdings and begins moving slowly out toward Nushagak Bay. Water droplets free themselves from the icicles that hang from the rooftops of town. Tiny rivulets form under the ice crust on the streets. Water flees the snowbanks, gathers momentum at the bottom of the street, then hurries off toward the school district parking lot.

On the surface, the town still appears to be frozen. But underneath, all of nature is moving. You can hear the trickle and pop of water moving under the ice. Time passing underfoot. It is a restless feeling.

March was a good time for Western Alaska fishermen to gather to discuss the role they might play in the developing groundfish fishery of the Bering Sea. Time is passing underfoot for Western Alaska fishermen, too.

Fishermen in Western Alaska face a harsh irony. They are mostly independent operators of 32-foot Bristol Bay boats, who fish for salmon and herring in the spring and summer, but are looking for ways to participate in the year-round groundfish fishery in near-shore waters.

This year, the North Pacific Fisheries Management Council (NPFMC) is considering options for limiting participation in the 2 million metric-ton



groundfish fishery in Alaska's waters. If the fishery keeps growing, it could be reduced to a chaotic, two-month derby by 1992. On the other hand, limited entry virtually shut out Western Alaska fishermen from the \$4 billion harvest before they have a chance to get started in it.

Alaskan groundfish—pollock, cod and flatfish—are generally high-volume, low-value fish harvested by \$20-million factory trawlers in the Bering Sea. Participants in the Dillingham meeting (which was sponsored by the Marine Advisory Program, Southwest Alaska Municipal Conference and the Bristol Bay Native Association) came to find out how they could compete in the fishery with 32-foot boats and no guaranteed market, using community members as crew, and without spending \$20 million apiece.

Paula Cullenberg of the Marine Advisory Program in Dillingham told the group that in setting up a limited entry system, the NPFMC could not give preference to any area or state, but will consider the socio-economic needs of the communities affected by the limited entry system. How Western Alaska fishermen will fare in the future will depend at least in part on what they decide they want from the groundfish fishery, and how they plan to participate.

"There are a lot of questions to answer before you decide to get into groundfish fishing," Cullenberg said. "First is, can a 32-foot boat make a profit in groundfish? What fisheries will you target on, what gear is required, and is there a processor nearby who will take your delivery?

What price can you get, and what will your expenses be?"

Participants discussed pair trawling of pollock as well as targeting on yellowfin sole, rock sole, rex sole and surf clams. For example, 20¢/lb., yellowfin sole in this area of the Bering Sea would generate \$74 million in revenue, according to the NPFMC. Pair trawling for pollock or sole, though it has not been proven in the Bering Sea, is considered a viable harvesting option because it involves the use of two small boats working cooperatively to maneuver one large trawl.

Start-up costs

Kodiak dragger Al Burch outlined about \$750,000 in startup costs for a small trawl operation, including boat conversion, trawls and cables, nets, doors, reels, winches, hydraulic equipment, crew wages, and between \$50,000 and \$175,000 a year for insurance. Burch estimated an operator should expect \$500,000 in yearly operating costs for any trawl fishery.

"But before we send 32-foot vessels out to the Bering Sea to compete in groundfish, we must know about the stability of the vessel," he said. "Maybe we could do a demonstration project to see how feasible they would be. The first effort will be a tremendous risk, but I believe it can be done. There were a couple of boats teamed up to do pair trawling on pollock here last year, and their results were successful. I believe the success can be transferred to 32-footers."

Finding a buyer

Fish doesn't bring in money unless it sells. Mark Carpenter from Kemp Pacific Seafoods said fishermen must work with processors from the start to help develop markets for their fish.

"You'd need to come to us with a plan," he said. "You'd need to be geared up to deliver a certain number of tons per day, and be prepared to meet our delivery needs. Receiving deliveries of a new species sometimes requires special equipment, so you have to work with us from the start."

Carpenter said a processor might need a commitment for 15-20 tons per day in deliveries before gearing up for a new fishery.

"But how can we afford to gear up if we're not sure what price we'll get from the processor?" one fisherman asked him. "We can't afford to take the risk ourselves."

Chris Blackburn of the Groundfish Data Bank in Kodiak, interjected, "In Kodiak, some of the fishermen pressed processors into taking free samples of some species and trying to develop a market for it. So it takes teamwork, but it's not always at the willingness of the processors."

Bringing work onshore

To land any enduring profits from the groundfish industry, communities will have to bring processing onshore. The people here will not only have to gear up their boats but also their harbors, their canneries, their equipment and their utilities. Onshore groundfish processing seemed to excite the group of participants, but scare them also, as Tiny Shasteen said it ought to.

Shasteen is city manager of Unalaska, where the bottomfish boom of the Bering Sea has come ashore. Most of his town's economic benefit comes not from boat owners and crew members, he said, but from the support services that have grown up around the seafood industry—banks, grocery stores, fuel suppliers, utility companies.

"It costs a lot of money for a community to grow to that point," Shasteen said. "Supporting the needs of a shore-based seafood industry is incredibly expensive. The surimi plants in Dutch Harbor use a million gallons of water a day. Unalaska didn't have a choice about developing like that. Dillingham has a choice. If I were in your position, I'd try to come up with a team to work cohesively toward your development goal."

Blackburn said that in Kodiak, the long-time fishermen used their knowledge to start their own gear, welding, chandlery and other support businesses. "Our development has come as a result of industry push, not the community going after it," she said. "It's been controversial, because everyone has a certain idea of what kind of development they want to see. Everyone has their own definition of profitability."

Shasteen said, "The cost of bringing in money to your community is

Continued on next page...

Surimi quality

AFDF hasn't left the surimi project behind completely. As more surimi plants open, and the at-sea surimi fleet grows, the need for an institutionalized quality program increases. This year, AFDF continues to support development of a HACCP (Hazard Analysis and Critical Control Point) program for surimi production. A HACCP plan will help producers identify quality hazards in the processing line and adhere to optimum processing practices. HACCP programs are being developed for meat and poultry producers, and a HACCP program for surimi may help Alaskan producers sell surimi to meat processors.

Two interim reports from the HACCP project now are available free of charge. "Hazard Analysis Critical Control Points: An Outline for the Surimi Industry" and "Partial Quality Control: Surimi/Meat Products" can be had by calling AFDF at (907) 276-7315.

Dillingham dilemma*Continued from page 5*

that you give up a neat lifestyle. It also costs a lot of money to support all the needs that accompany the groundfish industry."

Community concerns

Unalaska on an average day is like Dillingham at the height of salmon season. Forty thousand people migrated in and out of Unalaska with the fishing business in 1988. The plants ship out 200 million lbs. of product per week.

In Kodiak, the Gulf groundfish comes ashore for processing seven months a year, and salmon, crab and halibut the rest of the time. The Kodiak population has sprung from 2,000 to 14,000 people. Eleven plants have made Kodiak the highest-valued fishery port in the U.S.

You can't help wondering what that kind of growth would do to a town where people still gather at the grocery store for a gab, or identify children by the names of their grandparents.

"If you go after development, you change your town," Blackburn said. "You may have to decide between a small fishery and a large one. Can you be a successful fisherman and live where you want to live?"

NPFMC chairman John Peterson told the crowd that if they really wanted full participation in the groundfish fishery, they'd have to prepare to take on new challenges, and new responsibilities.

"What kind of community do you want to have in the future?" he asked. "Do you want lots of jobs? factories? What lifestyle do you want? These things should also govern your decisions. What will you do with your offal here? I just urge you to caution."

Of all the options open to them, most in the crowd seemed to favor small-scale trawling for at-sea processors or tender boats. They already are prohibited from halibut fishing. They don't want to lose cod, pollock and flatfish, too. Their questions could have been asked by fishermen anywhere: How well can trawlers learn to avoid prohibited species? If you have a 20-ton cod end, can you lift it on board, or do you need a stern ramp? Can I fish salmon and herring and still find a buyer for yellowfin sole the rest of the time?

But few fishermen have stood on the precipice these people do. Either they invest in the unknown or they lose their hold on it.

"My concern is that young people are coming up who don't have any opportunity to own a salmon permit," said Senator Fred Zharoff (D-Kodiak). He predicted that, if limited entry is instituted, 80% of the allocations will belong to Outside (non-Alaskan) companies.

"When you take activities away from a community you virtually destroy the culture in that area," he said.

A few blocks from the building where the group was gathered, the Tikchik River gently flowed toward the bay. Its rising waters washed up new debris along the shores, and silently carried other things away. As the future comes to Dillingham, it will do the same.

Director's Log:**Time to find some lasting answers**

By Mel Monsen
AFDF Executive Director

It's finally coming to a head.

The problems brought on by the sudden domestication of Alaska's groundfish industry now have become dramatic. The incident that brought attention to the problem is the closure of the Gulf of Alaska pollock fishery, with a total 1989 season of less than three months. What was believed just four months ago to be an adequate quota for an entire year has become nothing more than another of Alaska's "short season" fisheries.

The finger-pointing has begun. Blame is being thrown on various segments of the seafood industry by other segments. But no laws were broken—or even bent—in the activities leading to this confrontation. Prudent economic decisions, all within the law, were made by seafood companies and carried out in an efficient manner.

The blame does not belong with any one segment of our industry. It belongs to everyone, and must be cooperatively solved.

Our fisheries management system has not been able to keep up with the needs of the developing industry and this rapid pollock harvest is not the only example. We do not have a handle on how we want the fishery to develop, how we are going to collect data, how we will handle by-catch, how we will fund increasing management efforts, and whether or not we

want to face continually shorter seasons.

In the Alaska groundfish industry, everyone wants everything—open access to the resource, year-round harvests, unfettered processing schemes,

"Everyone wants their fair share. But there is not enough resource to feed these limitless needs."

and their fair share of the valuable pollock roe. But there simply is not enough resource to feed these limitless needs. Certainly the Alaska pollock stocks are not endangered—there are still 2 million metric tons of annually harvestable groundfish in the Bering Sea, and 230,000 in the Gulf. The problem is that even the largest fishery in the world is not big enough to handle the sudden and uncontrolled growth in the U.S. groundfish industry. Ours is not a resource problem—yet. It is a management problem.

If we attempt only to address the Gulf of Alaska roe stripping problem by itself—i.e., with some short-term solution—without looking at the bigger picture, we will be doomed to a future of crisis management. We will be caulking leaks as they come up without dry-docking to solve the source of the problem.

In the past, I have not been optimistic that an overall direction and purpose in groundfish management could be realized in time to avoid major crises. In fact, by some industry's perspectives, we have reached that point. But recently I have seen some constructive signs in the seafood industry. The industry, through the National Fisheries Institute, appears to be ready to demand a federal seafood inspection program. This decision is monumental when one considers the interests involved.

It will take a similar coalition of interests, and a similar commitment to long-term solutions, to resolve a management plan for the future of Alaska's seafood industry. Interest groups that have nothing but animosity for each other will have to meet and give something up for anything to be effective. The reward will be a level of stability which can support a growing, dynamic seafood business.

Our systems of government and fisheries management demand this participation. Without it we face a future of endless fire-fighting and disruption.

On the value of private development dollars

By John Chancellor

You know what makes the world go round these days? Something called R&D, research and development. The use of a country's science to make it competitive. The success of Japan, Inc. is based in large measure on its R&D, which is heavily supported by government.

Japan spends about 95% of its R&D money on civilian projects—research into everything from superconductivity to high-definition television.

The United States always had a leading position in civilian research and development, but that changed eight years ago. Government spending on civilian research was cut back, while money for military R&D increased by almost 80%. A lot of that went into Star Wars. Last year, Washington spent twice as much on military than on civilian research and de-

velopment. And why are the Japanese and the West Germans laughing? Because they're doing just the reverse; they're supporting the scientists and inventors who are designing things the world wants to buy. If the United States is going to compete, it's got to do the same thing. And here's an opportunity for George Bush.

We know spending on Star Wars is going to be cut. Take some of those billions and put the money back into civilian R&D. America became great not through military might, but through civilian inventiveness and productivity, Yankee ingenuity, building better mousetraps. This country could lose its greatness if that lesson is ignored.

John Chancellor is a commentator for NBC News. This piece was aired February 2, 1989, and is used here by permission.

**Ahem...
a correction**

In the Lodestar Update of January 1989, the University of Rhode Island was credited with developing a method to identify the species of fish used in surimi. Dr. Chong Lee of URI pointed out that, though he participated in the research, primary credit should go to Dr. Wei at the University of Florida, who initiated and directed the project.

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OFF THE CUFF

By Kryst Holmes

Silent spring has come to Prince William Sound. It's an eerie silence, the Sound of no sound. The glad confusion of birds that normally tumbles into this rest stop at the top of the Great Pacific Flyway is quiet this year. Standing on the shoreline of an oil-blackened beach you are overwhelmed by the sound most unsettling to the human soul: the sound of nothing.

To me, hearing silence where birds should be hooting is the most profound sorrow of the oil spill in Prince William Sound. Eleven million gallons of oil is too much to comprehend; 2,000 miles of oil slick is unimaginable. But the sound of shore birds is a personal thing. In my book there are three things worth living for: my husband's shrimp curry, Rubenstein on the piano, and the really loud honk of a cormorant in the early morning.

Like most of us, I have seen my world diminished by the acts of fatuousness and folly that led up to the largest oil spill in the history of this country. Like most of us, I've tried to find some act or word to hang onto that would lend some sense to our sorrow. But I can't find it, and I think most of us can't find it, and so we scrub oil from sea otters even though we know most of them will die, and we plant home-made booms in the water even though they probably won't protect our beaches, and we go home and hold our children tightly, even though we suspect that it won't make the world a better place.

As I put this issue of the newsletter together, amid all the reports of roe stripping of pollock, the oil slick, the continued thievery of our salmon by high seas fishermen, and the wanton groundfish harvest in the Donut Hole, I was filled with a new kind of trepidation, a feeling I hadn't felt before. I couldn't really put my finger on it until I read something Bernard Goldhirsh,

the founder of Inc. magazine, wrote in the April issue.

"Recently I spent a few days on Wall Street," it said. "I was struck by the way people in that world talk and think in terms of 'exit strategy'—getting in and out quickly is their driving force. It's almost as if they have lost their confidence in the existence of a future."

In my view, that seems to be the way a lot of companies work, not just on Wall Street or in the fish business, but also in the rainforests and the polystyrene plants and the auto industry and the oil business and in Congress as well: Get in, make a buck, get out. An exit-strategy attitude in business may reap great first-quarter profits, get Congressmen re-elected, and make some top dogs rich. We all benefit from the convenient life we're buying on credit from these and other industries. But an exit-strategy attitude in business leads to an exit-strategy attitude about the world, and about life, and in many small ways we all begin to lose confidence in the existence of a future.

One thing we have learned from this oil spill is that there is no exit. We have seen the future, or one of them anyway, and it isn't very pretty. The future may have toxic hydrocarbons polluting Prince William Sound for decades to come; it may see the ozone depleted at the North Pole; it may include a ten-day pollock fishing derby where 90% of the harvest is wasted; it might include no pollock at all, if processing waste and unregulated harvesting and natural stock declines combine to create a "triple-witching hour" in the fishery.

But more important than losing Prince William Sound, more important than losing our grip on the groundfish business, is the threat of losing our belief in the existence of a future. That belief we surely must find, and once found we must care for it as if it were our own. It is.

GOOD READS AND NEW FLICKS

INFORMATION YOU CAN GET FROM AFDF FOR FREE OR PRETTY CLOSE TO IT

The Sole Source is a 20-minute video produced by Ninestar Productions for AFDF. It documents the developing Alaska flatfish fishery, and takes you from trawl net to tabletop with simple language and spectacular footage. \$20 from AFDF.

McCrae-Manning Test to Determine Gel Strength and Functionality of Surimi

is a mouthful of a title, but a straightforward method of testing surimi. AFDF now offers an explanatory video, a training manual and the final report from the project developing this test.

Still available: **Hazard Analysis Critical Control Point System: An Outline for the Surimi Industry**; and **Product Development: Surimi and Meat**, both by Manning, Batson & Associates. Free from AFDF.

Fisheries Institute board votes for inspection

The National Fisheries Institute board of directors in April voted unanimously to:

Accelerate as much as possible the process of designing and legislating a new seafood inspection program by supporting immediate legislation of a mandatory seafood inspection program consistent with existing NFI policies, which include administration by a single federal agency; certification of plants and vessels; surveillance of operators consistent with HACCP principles, not continuous inspection; inspecting imports at the same level as domestic products; and regulation of labeling.

Recognizing the difficulty this organization faces in accomplishing this goal effectively and without prejudice against any agency, NFI asks the immediate assistance of the Bush administration to help obtain a seafood inspection program as soon as possible to reinforce the industry's commitment to provide the highest quality seafood products to the American public.

Fisherman's Foreboding

By Bill Hall
February 25, 1971

The pulse that pushes through the vein
Betrays the heart that seeks the gain.

For with the black blood of the earth,
We kill the sea that gives us birth.

To lubricate the works of man
We pump the crude that stains the hand.

While in bondage to our selfish goals
We burn the oil that blacks our souls.

And as we lust for less than life
Then must we bear the stain
That marked Macbeth the murderer
And makes us one with Cain.

Bill Hall, now with the Commercial Fishing and Agriculture Bank in Anchorage, was mayor of Cordova, Alaska in 1971 when the oil pipeline terminal was first being considered.

Surimi production triples

The U.S. produced an estimated 126 million lbs. of surimi in 1988, triple the 1987 production of 40 million lbs., according to NMFS. Exports to Japan were estimated at 67 million lbs., up from 12 million in 1987. Their 1989 projection estimates surimi production for this year at 344 million lbs. produced in six shore plants and 19 surimi vessels. Surimi exports are expected to be 249 million lbs., with 215 million lbs. going to Japan; the rest to Korea and Europe. NMFS estimates that U.S. surimi will make up one-fifth of Japan's 1989 supply. This information comes from a draft of the valuable "Situation and Outlook for Surimi and Surimi Seafoods," 1989 version, compiled by John Vondruska in the St. Petersburg, Florida NMFS office. Copies of the final report from: NMFS Southeast Regional Office, 9450 Koger Blvd., St. Petersburg, FL 33702.

EEC reduces tariffs

The European Community announced that as of April 1, duties on selected fisheries products including pollock, cod, hake, haddock and shrimp would be reduced. The tariff reduction applies only up to a certain quota, and will stand through the rest of 1989. More information: Office of European Community Affairs, (202) 377-2905.

INDUSTRY News

Flying fish guidelines

"Guidelines for the Air Shipment of Seafood" is a 10-page guide to packing, handling, labeling, loading and documentation for those who ship seafood products by air. It briefly discusses air carriers' requirements for transporting fresh or frozen whole, dressed and filleted fish as well as live seafood. The copy AFDF received also included some special requirements from Alaska Airlines for shipping seafood from Alaska. The guide was co-authored by National Fisheries Institute and the Air Transport Association of America. Copies free from NFI, (202) 296-5171.

No more plastic in the sea

Dumping plastic debris at sea was banned worldwide on December 31, 1988. The law, Annex V of the MARPOL Treaty, cited commercial fishermen, merchant shippers and the navy as the primary source of marine dumping. To find out how the ban on ocean dumping might affect your op-

eration, contact the Pacific Coast Marine Debris Information Office, an information bank set up by NOAA to help marine-related companies adjust to the new regulations. Information: (415) 391-6204.

France launches surimi ship

The *Captaine Pleven*, a French surimi processing vessel, was launched recently and will produce 10 tons of surimi per day. The ship will harvest blue whiting off the coasts of Ireland and the Faroe Islands; surimi reportedly will be exported to Japan and the U.S.

Surimi activity is increasing in France. Three French companies now are marketing a new kind of sausage made with three different types of crab sticks in the formulation. Another new application is called *Bouchee a la Reine*, a small pie baked with pieces of meat, fish and vegetables. According to Mr. Pelletier of Isnard Zyraz, the fish ingredients in the *bouchee* is replaced with surimi-based crab, and is quite popular.

"Surimi products are well appreciated by consumers," Mr. Pelletier told AFDF. "Big French companies are, or are going to launch different products made from surimi. Some very new ideas will appear quite soon." Information: contact AFDF.

Cod by-products research

Norwegian fisheries researchers are investigating how to extract biochemicals and other organisms from cod for possible use in biotechnological industries. "The cod stomach is rich with enzymes that can be developed into high nutrition, and eventually replace "chymosin," reads a pamphlet from the Fisheries Technology Institute in Tromso, Norway. "The market for such a product runs in the millions. In 1985 the market value for a chymosin substitute was worth about \$3500 per pound." The pamphlet was translated for AFDF by Gunnar Pedersen.

Surimi smoked salmon

The Berelson Company in February introduced "Mox Lox," the first surimi-based imitation smoked salmon—"A blend of Pacific fish and smoked salmon." The company first developed the idea ten years ago, but had to wait for surimi technology to catch up with their idea, according to company literature. Mox Lox is sold thin-sliced in 3-oz vacuum pouches at a retail price "under \$2," the company says. Information: David Berelson, (415) 956-6600.

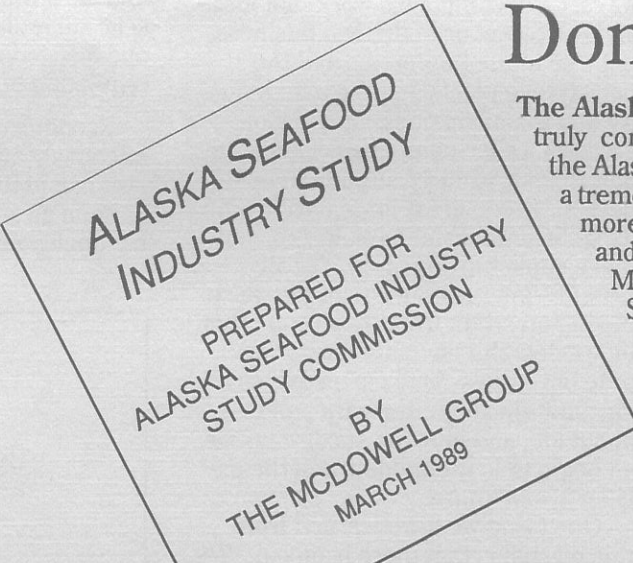
the **LODESTAR**

Charting the course of fisheries development today

Development Foundation, Inc.

Volume VII Number 1, Spring 1989

"The best way to manage a fishery is to sink every boat but one." -- Senator Magnusson



**ALASKA SEAFOOD
INDUSTRY STUDY**

PREPARED FOR
ALASKA SEAFOOD INDUSTRY
STUDY COMMISSION

BY
THE MCDOWELL GROUP
MARCH 1989

Don't miss it.

The Alaska Seafood Industry Study is the first truly comprehensive collection of data about the Alaska seafood industry. It is the result of a tremendous cooperative effort on the part of more than thirty companies, organizations and agencies, and was compiled by The McDowell Group of Juneau. The Alaska Seafood Industry Study outlines the breadth of economic activity in Alaska including employment, production, infrastructure, capital investments and Alaska's role in the U.S. and world seafood industries. Want your own copy? Call AFDF.

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