

the **LODE STAR**

Charting the course of fisheries development today.

Alaska Fisheries

Development Foundation, Inc.

Volume IX No. 2, Autumn 1991

First time ever:

Pink Salmon Surimi

Western Alaska Fisheries broke new ground this summer when they produced what's thought to be the first commercial batch of pink salmon surimi. "Believe it's the first time it's been done, and we produced a pretty reasonable product," said plant manager Ken Allread. "I haven't heard from the secondary processors yet."

The plant used #2 pinks, those with water marks, seal bites or anything that was too small for the salmon line. The resulting surimi was darker and had a lower gel strength than pollock surimi — Allread said the protein fiber of salmon is much shorter than that of pollock.

"We didn't have any problems with oil, though pinks are oilier than pollock are," he said. "The yields were lower."

Western Alaska sent the surimi to Trans-Ocean Products in Seattle to test-produce analog products — most likely salmon analog products like the imitation lox and salmon flakes. Samples were also sent to Japan. "The key is whether or not the analog producers were pleased with the surimi," Allread said. "But at the prices we were selling at, it probably won't warrant making salmon surimi in the future. Even though the fish price was 12¢/lb., it cost us another 10-20¢ to tender it to the dock. We can bring pollock in for 9¢. Tendering costs take salmon right out of the game."

Western Alaska's production is believed to be the first commercial production of salmon surimi in the U.S. "To my knowledge, it's never been done in Japan either," Allread said. "We had an expert from Japan who came over here who'd been doing experiments in the lab, but I don't think it had been done in a plant before."

This summer, the Hokkaido Federation of Fisheries Cooperative Associations announced they planned to direct 20,000 lbs. of their fall chum salmon harvest to producing salmon surimi. According to the federation, salmon surimi quality is "nearly equal" to pollock surimi.

"I don't know, as long as we keep pumping out more fish than we have markets for, then surimi is a good use for pinks," Allread said. "Most of the other product forms would require new equipment and large cash expenditures."



*Boy oh boy,
are we in the pink!*

One hundred twenty-five million pink salmon got caught on their way home to find fulfillment and die this summer, and Alaska is groaning under the weight of them all. This year's pink harvest was an all-time state record, slashing the previous record of 97 million in 1989. Canneries put up 3.3 million running cases of pinks, hatchery streams were jammed with spawning *gorbuscha*, and the processors couldn't even handle them all. There were so many pinks this year that Alaska Governor Wally Hickel decided to give a bunch away — first to the Soviet Union in a charity pink-lift via Aeroflot, and after a few complaints, to a local food bank.

What's with the pink salmon market? We've now got 6.5 million cases of salmon cans in inventory in a country that wants canned salmon about as badly as Michael Jackson wants an interview. Even at 12¢/lb. off the boat, pink salmon still get nudged off the shelf by the cheaper tuna fish. Bristol Bayers call this year's rock-bottom salmon prices a Japanese conspiracy. Southeast seiners have suggested the

Continued on next page ...

By Krys Holmes

Illustration by Randy Titchenal

Record catch, minuscule prices: Alaska's in the pinks

hatcheries are pumping too many fish into the ocean and straining its "carrying capacity," resulting in smaller fish. Canneries are shipping out more fresh product this year; in Seattle, whole pink salmon sold for 99¢/lb. retail. Some called it "Seattle Spam."

"This is a hell of an industry opportunity," said Chris Mitchell, an independent now working on some product development deals in Seattle. Mitchell was one of those who also saw nickel-ton pollock as an opportunity in the early '80s; he ran AFDF during its surimi industry development project, which began back when most people doubted you could make a profit on pollock.

"The constraint that's relegated pink salmon to never-never land, up till now, is that no one's put forth the effort to develop a new market," Mitchell said. "Developing a value-added market requires two things: consistent supply and reasonable price. These traditional producers might sell more fresh product this year because they can get more money, but if they decide next year to go back to cans because it's easier and the price is good, then you've lost your supply into that new market."

The market Mitchell thinks holds highest promise is in foodservice, somewhere between the institutions and the white tablecloths. "I'm looking at value-added but not necessarily finished products," he said. "More likely secondary raw materials for the middle-of-the-road markets — family restaurants, chains, retirement homes, all those areas below the white tablecloth restaurants where salmon has been too expensive. The folks in this category tell me they'd be pleased to offer salmon products if they could build a business and a market around stable cost and consistent raw material. I'm thinking of the kind of product AFDF and FITC looked at."

He refers to development, in 1986, of a pink salmon block using frozen mince and fillets that, it turned out, could be slacked out later for reprocessing into value-added products like portion-controlled mince logs. AFDF, FITC and the Alaska Office of Commercial Fisheries Development cooperated on the study. No processors took up the idea, however; canned pinks in the late '80s were going for \$75/case — almost twice last year's price and three times this year's price.

"You could use mince, pieces and smaller fillets, the things that wouldn't have decent plate preparation in any other form," Mitchell said. "I've talked with a lot of food reproducers who think they can market this product, but they haven't been able to yet because of the price volatility and lack of consistent supply. If the traditional guys think they can get 10¢ more next year

selling to Japan, then screw the market they've just spent a year building. They'll sell it to Japan."

Fishermen could help

The days when harvesters could unload at the dock and count their money are over. Fishermen need to get behind quality, product development and marketing efforts that will bring more desirable products to consumers, says Southeast gillnetter Geron Bruce.

"Fishermen have to understand what the problem is — and it's not just supply and demand," Bruce said. "Sure, supplies are up, but that's not the problem. The main problem is that the marketing is not keeping up with the challenges. Fishermen have to take a more active role in a consumer-driven market strategy."

Bruce, a 20-year gillnetter and former director of United Southeast Alaska Gillnet Assoc., said every salmon caught in Alaska should be iced on board. Fishermen must think about the end-product, not just about delivered poundage. "Pinks are probably the hardest to deal with," he said. "You put the same amount of labor into filleting a pink as a sockeye or king, but you get less product returned. And they do deteriorate faster. But pink salmon, with its relatively bland taste, is perfect for a microwave-type product with a sauce, the kind of things they do with cod and white fish."

"If you get a good quality whole pink salmon in a vacuum skin pack, frozen, that sucker would be the wildest thing you ever saw."

Bruce said fishermen and processors should work together to create market niches for pink salmon. "We're always going to be harvesting salmon, but whether or not Alaskans are going to make a living doing it, that's what I'm interested in," he said.

Howard Buysman, who's been selling equipment to fish processors for nine years says fishermen could learn from poultry farmers.

"You don't like your raw material price? Follow it to the dinner table," he said. "In the poultry business, we find out what form people want the product



in, and see if we can't do more ourselves to provide that. That's one hell of a handbook for the fish business.

"We used to kill a cow and cut it in quarters," Buysman said of the meat industry he cut his teeth on. "When that didn't make money any more, we broke it down into primal cuts. Now we cut it into portions, vacuum-pack it, dress it up — hell, we'll even cook it for you."

Buysman, owner of Alaska Butcher Supply, has helped fish processors develop salmon mince patties, formed products, sausage-type items and vac-

"If U.S. packers can establish a good relationship with the food-service market, they'll hold their own against the fish farmers."

uum skin-packed salmon. He says salmon producers had better get on the stick, because the rest of the fish business is moving pretty fast.

"There's a company now raising large farm trout, real light colored, almost white," he said. "They're injecting them with color on a Fomaco injector, and because these trout have a real high oil content, they end up looking just like wild salmon. You could do the same with pale chums, and sell them to the East Coast for smoking."

But Buysman thinks the best retail deal for pinks is headed, gutted whole fish, trimmed clean, vacuum skin-packed and sold as a roast. "If you get a good quality whole pink salmon in a vacuum skin pack, frozen, that sucker would be the wildest thing you ever saw," he said.

... and hatcheries could help, too

In Juneau, the Douglas Island Pink and Chum (DIPAC) hatchery arranged to produce and market their own breaded nuggets made of minced pinks. "We've produced 10,000 lbs. so far, which isn't much, but every customer has re-ordered so that's a pretty good sign," said hatchery director Ladd Macaulay. Primary processing is done at several Alaskan plants, secondary processing by Sea Freeze in Se-

attle, and DIPAC has hired its own marketer for the Health Sea-label product.

"It's all traditional stuff, but it helped answer the concerns expressed all last winter about keeping our pinks and chums off the existing grounds market," Macaulay said. "We're pretty enthused about it. There's not too many fish on the market, we just have to figure out the right products."

Bart Watson, director of Southeast Alaska's Armstrong-Keta hatchery, said fishermen should pay attention to DIPAC's example.

"If one podunk hatchery can hire one person to do their marketing and come up with salmon nuggets in a couple months' time, what the hell are processors doing saying there are no markets for pink salmon?" he said.

Mitchell, who is working with some big-name food producers, says non-profit hatcheries are ideal suppliers for long-term product development efforts.

"For those non-profits who've been so successful that they have more salmon returning than fishermen can catch, market development is a good role," Mitchell said. "They are directed to sell product into non-competing markets. They can cost their fish over a period of time to reduce volatility of the base price, and they just need to cover their operating costs at this point. They could be the answer to the problem."

Bill Hall, who's on the board of the Prince William Sound Aquaculture Assoc., agrees. "PWSAC could be the catalyst to propel the seafood industry into the next century," he said. "Or maybe — to push it screaming and hollering into the 20th Century."

PWSAC hopes to sell all its 1992 fish before they see the year's first fin, and they're seeking out product development opportunities as well. "It's frustrating to work with people who think that the problem is we have too much salmon," Hall said. "Maybe Alaska should put a limit on how much oil we produce? For some of the larger markets, we don't have enough wild salmon. I remember in 1987 Rodger Painter wrote a letter to (former Governor) Hammond stating that salmon production was increasing to the point that we needed some serious market development work. We knew it was coming, and nobody did anything."

There's new equipment to try out

Baader North America this fall introduced the Baader 212, a new pollock filleting machine you can't even buy yet. The 212 can remove roe and fillet Alaska pollock at 150 fish/min. using two operators. Baader has also tested the machine out on small pink salmon.

The filets looked good, and went by at about 100 fish/min. But due to the salmon's longer belly cavity, it couldn't remove roe. The machine doesn't cut out the pinbone.

"If you can strip the roe and produce 200 filets per minute of pink salmon on one machine, you can now afford to manually remove that one strip of meat with the pinbone, mince that, and run the balance into block or shatterpack or IQF and still make a comfortable margin," said Baader's Bob Slade.

KVIKK Alaska, part of an Icelandic equipment company, is doing its best to increase salmon packers' profits. This year they introduced a salmon head splitter that recovers meat nuggets from the cheek and necks of salmon. They're so hot on the idea they're offering to install the equipment without cost and let processors pay them back as production allows. Right now they have machines in Cordova and Dutch Harbor — though this year most salmon canners told KVIKK that they'd be too busy canning salmon to start any new product experiments.

How about some other good ideas?

Except for Western Alaska Fisheries' salmon surimi (see story page 1), most salmon product development consists of variations on a theme. Alaskan Gourmet Seafoods packed fresh pink filets for sale in specialty markets in the Lower 48. Their prize pink product, though, is a 7-oz. skinless, boneless smoked fillet packed in a pull-top can, which retails for \$5.99 at their Anchorage outlet.

For more information: Send for AFDF's report, "Alternative Pink Salmon Forms," the final report from a 1988 project to develop new uses for Alaska's underutilized species.

Sea Protein, a secondary processor in Seattle, sells salmon pate, nuggets and patties in retail packs through Fred Meyer, Costco and Food Club on the West Coast. "I just sold 15,000 lbs. of pink salmon nuggets, and that's an area that could grow quite a bit," said Sea Protein's Martin Clark. "But this is the first year we've done anything with pinks. Usually they cost too much. I can't mince a dollar fish without losing my shirt."

Clark said there are a lot of specialty products that could be made in Alaska, if there were a cold storage facility to house them. "My partner and I probably ship 200,000 lbs. of frozen salmon back to Anchorage every year," he said. "That's somebody down here making more profit on your fish. Fishermen don't get anything for it once it leaves their hands."

Buysman, who's fished only for sport and believes a still-wet pink salmon is the best eating on earth, said the most sought-after product in the fish business is the willingness to do something.

"A bunch of us can come up with good ideas," he said. "But we go to the canneries and they say, 'Great — you do it.' They're strictly interested in pink salmon as a commodity. Not value-added."

Mitchell agreed. "If U.S. packers can establish a good relationship with the foodservice market, they'll hold their own against the fish farmers," he said. "If not, they'll get pushed out of that market, too. Fish farmers produce farmed salmon that's consistent in color, in price, and is available year-round. Basically they're going to steal a whole bunch of the possible thunder from our wild guys — unless we match them one for one."

AFDF

MEMBERS ONLY

What's new with AFDF members

Icepro/KVIKK New Alaska division

Icepro/KVIKK has created a division called KVIKK Alaska, and is focusing on development of the KVIKK 210 fish head splitter, which mechanically cuts high-quality meat from fish heads. The KVIKK 210 is now in place cutting salmon heads in Cordova and pollock heads in Dutch Harbor. Information: KVIKK in Iceland - Phone 354-1-18420. Fax 354-1-11691.

Mrs. Paul's Kitchen New breaded pollock nuggets

Mrs. Paul's has introduced a new line of breaded fish portions under its Budget Line label. It's a 25.1-oz. box of 14 breaded fish portions made of minced pollock, designed they say, to respond to the high-priced cod and other premium white fish raw materials. The package retails for about \$4.69.

Information: Dan Lynn, phone (215) 535-1151. Fax (215) 289-8424.

Former ambassador joins Oceantrawl

Ed Wolfe, former fisheries ambassador to Japan, has joined Oceantrawl Inc. as Director of Governmental and International Affairs. Wolfe will lead the company's expansion into international business ventures, says Oceantrawl president Assen Nicolov.

Oceantrawl is now the largest fishing company in the North Pacific, after purchasing Icicle Seafoods. Oceantrawl's three factory trawlers joined Icicle's five processing ships and — along with shore plants in Petersburg, Seward, Homer, Dutch Harbor and Bellingham — they now employ more than 3,000 people and bring in more than \$400 million per year.

Call: Assen Nicolov, Oceantrawl Inc. (206) 448-9200. Fax (206) 448-5055.

Specialty Foods Educating industry about hake surimi additives

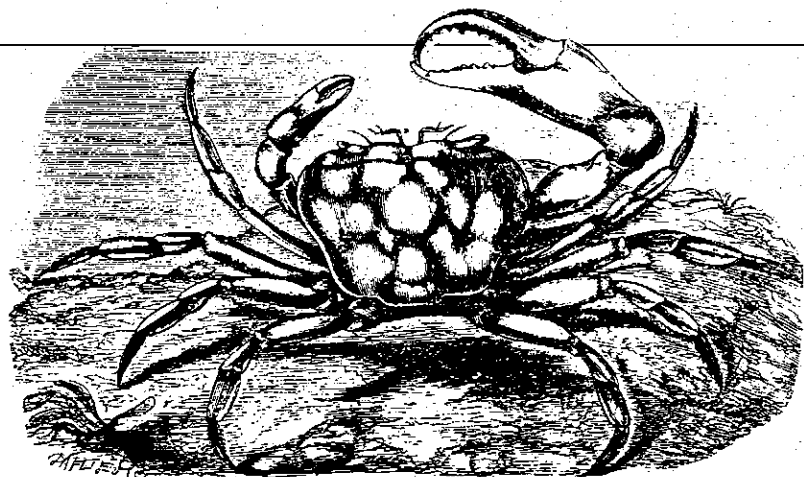
Specialty Foods, Inc. offers surimi processors some background information on hake surimi and the variety of available additives that help inhibit texture degradation. "It's an educational effort, not a sales effort," says Specialty's Marcia Fox. "There is a real lack of knowledge out there about the available alternatives in producing hake surimi. We wanted to take the lead to help our clients understand how to choose the right product for their plants."

By the time you read this, Specialty Foods will already have co-produced the second annual seminar, "The Role of Cryoprotectants in the Manufacture of Surimi." Also sponsored by the University of Washington and AFDF member company **Roquette Corporation**, the seminar featured Dr. Wally Pereyra, fish biologist and fishing company owner, as keynote speaker.

Call: Peter Fox, Specialty Foods, Inc. (415) 236-7400. Fax (415) 236-8082.

AFDF members are top employers

When the Alaska Department of Labor's *Alaska Economic Trends* came out with its list of Alaska's top 100 employers in 1991, we recognized a few names. AFDF member companies that rated in the top 100 were: National Bank of Alaska (6th); Trident Seafoods (8th); Icicle Seafoods (15th); All Alaskan Seafoods (17th); Unisea (23rd); Peter Pan Seafoods (41st); Wards Cove Packing Co. (42nd); North Pacific Processors (45th); and Alyeska Seafoods (67th).



Grab onto a great opportunity

MEMBERSHIP IN AFDF COSTS AMAZINGLY LITTLE (\$100 TO \$500 PER YEAR!) MEMBERSHIP GIVES YOU A UNIQUE OPPORTUNITY TO HELP EXPAND AND STRENGTHEN THE FUTURE OF THE NORTH PACIFIC SEAFOOD INDUSTRY. IF YOU'RE NOT A MEMBER, YOU SHOULD BE. CALL MEL MONSEN AT (907) 276-7315.

Fish frames: No meat is unminceable

High-quality mince can be successfully recovered from frames, and the meat passes quality requirements for use in value-added products.

T

here's a key to higher profits right under the nose of every fish processor in Alaska. Those fish frames — the meat-covered bones left over after filleting the fish — can be turned into high-quality mince that could increase your profits, expand your product line and decrease waste.

The people who ran an AFDF project to mechanically recover usable meat from flatfish and groundfish frames figure that processors could produce a 65¢/lb. product if they mix the frame mince with higher-quality trim meat. Labor costs would be minimal; the system requires three to five people but the frames can be run after processing shuts down for the day (if it does).

Kodiak's groundfish processors alone produce about 100,000 lbs. of frames per day in mid-season. At 45% average yields, fish frame mince could provide roughly \$29,250 per day in additional revenues to Kodiak processors. Spread over a 130-day season, Kodiak could see an increase in processing revenues that approach \$4 million per year.

AFDF conducted the project last spring and summer, with the cooperation of All Alaskan Seafoods, Alaska Pacific Seafoods, Network Seafoods, Diamond Stainless, and the Fishery Industrial Technology Center (FITC). The most important result of the project was the discovery that the high-quality mince can be successfully recovered from the flatfish and round fish frames, and that the meat passes

quality requirements for use in value-added products.

Texture may be the only limiting factor. Flatfish frame mince has a softer texture than that of cod or pollock. Depending on the application, this could be a significant handicap for flatfish frame mince on the market.

The frames of cod, pollock and flathead sole were collected from All

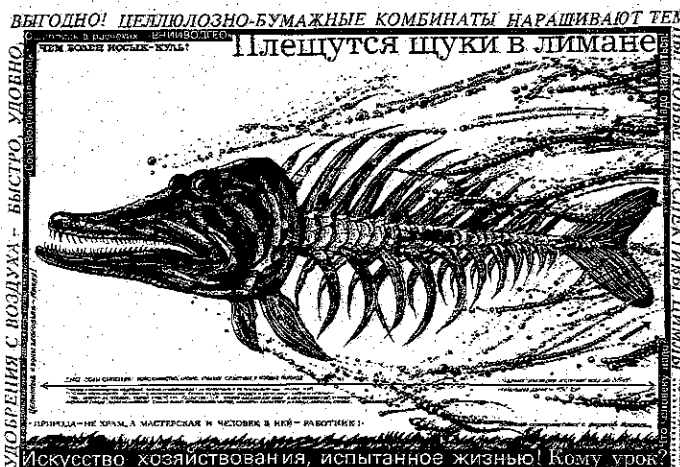
evaluation, and were taste-tested in a controlled lab at FITC.

"The results of Gorton's evaluations showed that it's possible to produce a high-quality mince that passes Gorton's product specifications in color, odor and defects," said Mel Mønsen, executive director of AFDF and supervisor of the project. "But more importantly, we learned what the specifications of such a product might be, and what we would have to do to make it attractive to a major food producer. There are variations to the process that may help us achieve those specifications."

The project team took videos of the test production, kept a daily production log, and collected reams of data about yields, quality parameters and production variables that affected the product. Processors interested in learning how to recover high-quality mince from their flatfish frames should

call Mel Mønsen at AFDF for more information.

Below: (l. to r.) Rae McFarland and Jack Middleton of Diamond Stainless and Stephen Clark of Network Seafoods take a break after mincing up a batch of fish frame meat.



At right: Reproduction of a Russian poster produced by the Soviet Press. Chenerov, Uvanov and Kozlov, 1988. Reprinted from The Amicus Journal.

Alaska Seafoods, and were fed through an M34 rotary processor — a stainless steel twin-screw separator that removed the flesh from the skin and bones. Frames, trim meat or whole fish could be fed through the M34 to produce minced muscle tissue. Next, the mince was dewatered on a press, and some samples were mixed with anti-oxidants. The finished product was frozen into 16.5-lb. blocks.

The research team put up 1,440 lbs. of cod frame mince, pollock frame mince, flathead sole frame mince, and mixtures of pollock and cod frame mince meat with minced trim meat. Samples with and without antioxidants were tested. The samples were then sent to Gorton's of Gloucester for



WANT TO SEE A HYDROLYZER AT WORK?

A

AFDF's fish hydrolyzing project began a new phase this fall. A Bio-Proteus proteolytic fermentation system was installed at the International Seafoods of Alaska (ISA) plant in Kodiak in October, where it will process offal from the ISA production lines into concentrated fish protein.

Bio-Proteus has used their system to recover valuable proteins from field-dead poultry on the East Coast of the U.S. and from fish processing wastes in South America, where their fish-based materials are used in foods, feeds and pharmaceuticals. This will be the company's first pilot production of hydrolyzed fish proteins in Alaska.

Concentrated fish protein has many uses, and AFDF is exploring a few of them. We conducted two fish feed trials and a piglet feed trial earlier this year. The first applications of the Bio-Proteus product produced at ISA will be in a

swine feed, and next year, another fish feed trial. AFDF also will conduct more fish feed trials with this product to compare its applicability to traditional and other hydrolysis-based fish feeds.

You can see the Bio-Proteus hydrolyzer at work at ISA, or receive samples of the finished product for your own tests, by making arrangements in advance. Call Loretta Lure at AFDF, (907) 276-7315 or Dave Cooper at ISA, (907) 486-4768.

For more information: Send for No Guts, No Glory, AFDF's special report on fish hydrolysis in Alaska, for only \$2.00 per copy. Available now from AFDF.

North Pacific inches toward IFQs for halibut and blackcod



The North Pacific Fishery Management Council struggled through an overwhelming agenda and barely survived its longest Council meeting ever in September. They tackled, or were tackled by, the issue of sablefish and halibut Individual Fishing Quota (IFQ) programs, an item which has been on most Council meeting agendas for two years, and which was scheduled for final resolution at this meeting. The Council took a big step toward changing the nature of the sablefish and halibut fisheries by approving, by a 9-2 margin, an IFQ plan for these fisheries.

Their action, while endorsing the concept of an IFQ management regime, in fact represents a tentative approval of the specific IFQ program. The details of implementation, monitoring, and enforcement will be mapped out by a joint group of agency and industry representatives who will report to the Council in December, when final approval could take place. After approval by the Council, the IFQ package would be forwarded for approval by the Secretary of Commerce. Implementation of the program is currently scheduled for early 1993.

The Council will hold a public hearing December 2, the day before the Council's next meeting, to receive further public and industry input on the proposed program.

On the subject of limited entry, the Council also voted to continue analysis of the proposed moratorium on vessel entries into the federally managed groundfish fisheries. This analysis would be reviewed by the Council in April 1992, with a final decision in June 1992. If approved, it would likely go into effect by the start of the 1993 fishing year. The Council is holding fast to the Sept. 15, 1990 cutoff dates for vessel qualification; that is, a vessel must have made a groundfish landing off Alaska by that date. Vessels under construction, or under contract for construction, by that initial cutoff date would be given until Jan. 15, 1992 to make a groundfish landing.

The moratorium analysis is part of the Council's initiative set at the June 1991 meeting to 'rationalize' all fisheries. It will also include consideration of IFQ programs for all groundfish and crab fisheries under Council jurisdiction.

The Council is also figuring out a domestic observer program, which is part of the North Pacific Fisheries Research Plan. The Plan is now scheduled for final action at the December meeting. Though its final form has yet to be decided upon, it will most likely call for some percentage (perhaps 1%) of the ex-vessel value of groundfish fisheries to be extracted to fund the observer program.

One of the primary tasks the Council faces every September is setting preliminary specifications for groundfish Total Allowable Catches (TACs) in both the Gulf of Alaska and the Bering Sea/Aleutian Islands for the next year. These



specifications, both preliminary and final, are subject to final approval by the Secretary of Commerce. For the Gulf of Alaska, the total preliminary TAC amounts to just over 300,000 metric tons of groundfish, about one-third of which is pollock. In the Bering Sea/Aleutian Islands the total preliminary TAC is 1.7 million metric tons of groundfish, which includes 1.2 million metric tons of pollock. In addition to TACs, the Council also set recommended Prohibited Species Catch (PSC) limits for 1992. These limits are set for halibut in the Gulf of Alaska and for halibut, crab, and herring in the Bering Sea/Aleutian Islands.

The issue of marine mammals — particularly the population decline of Stellar sea lions — has haunted the groundfish fisheries off Alaska recently. At this meeting, the Council reviewed and approved proposed groundfish Plan Amendments that were developed to protect sea lion populations. In addition to the quarterly apportionment of the pollock quota in the Gulf of Alaska, that quota will now be divided into three additional subareas to avoid localized depletions of the pollock resource upon which sea lions feed. The amendment includes re-establishing 10-mile buffer zones around sea lion rookeries within which no trawling would be allowed. Similar 10-mile buffer zones are created around rookery sites in the Bering Sea/Aleutian Islands. All trawling would not be prohibited within these buffer zones, but they are established to eliminate directed fishing on pollock stocks around these sites.

Among other actions by the Council at this meeting: they reviewed and released for public comment a Plan Amendment package related to bycatch. The amendment included steps to enhance the current bycatch incentive program and the 'hotspot' authority to close down areas of high bycatch of prohibited species, as well as possible halibut PSC caps for fixed gear fisheries in the Bering Sea/Aleutian Islands. The Council will take final action on these measures in December for implementation sometime in 1992.

More immediately relevant, the Council took emergency action to delay the openings of some fisheries in 1992 to help reduce the high incidence of chinook salmon bycatch that occurred in 1991. If approved by the Secretary of Commerce, all groundfish seasons in both the Gulf of Alaska and the Bering Sea/Aleutian Islands will be delayed until January 20. Directed fishing for rockfish in the Gulf of Alaska will be delayed until July 15.

The Council also voted to create regulations that would prohibit fishing in the international waters of the Bering Sea known as the Donut Hole. This area has been fished without regulation, by both foreign and domestic fleets, to a degree that has severely affected domestic stocks of pollock in the EEZ off Alaska. Stay tuned — the next Council meeting will be December 3-7, and has an agenda just as full as the September meeting.

READ OUR FINE PRINT

These new and informative publications are now available from AFDF:

Groundfish Quality Project Final Report - by Dr. Izabela Bernatt-Byrne, et al. A year-long study of the factors affecting groundfish quality and how they change through the year. \$ 15. Order this report with its companion:

Monitoring and Controlling Performance of Commercial Freezers and Cold Stores - by Dr. Ed Kolbe. How to get the best performance out of your freezer to maximize fish quality. \$5.

Development of Improved Techniques for Bone and Parasite Removal in Alaskan White Fish Production - Phase I Final Report - by C. Bublitz and G. Choudhury, FITC. Assessment of the effect of light intensity and wavelength on bone and nematode detection efficiency during cod filleting operations. \$5.

Fish Feed Trials Using an Experimental Hydrolysate Diet: Chinook Salmon Feeding Study (Univ. of Washington)

and Pink Salmon Starter Diet Trial at ADF&G's Tutka Hatchery - A summary of fish feed trials conducted on hatchery salmon using hydrolyzed fish protein made from pink salmon. \$5.

No Guts, No Glory - by Winterholm Press. The July 1991 issue of a special report on fish hydrolysis in Alaska, including data on fish processing wastes generated in the North Pacific seafood industry. \$2.00.

Please send payment in U.S. dollars with your order to: Shirley Marinelli, AFDF, 508 West Second Ave., Suite 212, Anchorage, Alaska 99510. Phone: (907) 276-7315; Fax (907) 271-3450.

Nature is like a Greek statue: all her

internal power and her idea is in the

outward shape; all that she could express,

she has expressed, leaving it to

humankind to discover

what she could not reveal.

— Alexander Herzen

Director's Log

Let's take a realistic look at seafood quality

By Mel Monsen
AFDF Executive Director

Everyone knows that the U.S. seafood industry produces safe, wholesome product for millions of people. But it's clear that very frequently one link in the long chain between the fisherman and the consumer fails, and that once in a while the retail product doesn't match the high level of quality we all strive to achieve. Based on my limited experience — thirteen years as a commercial salmon fisherman and twelve years as a seafood industry paper pusher — I will attempt to discuss why our system doesn't always produce high quality seafood, and what might be done to change the status quo.

Start with the consumer. He or she has very few options when it comes to buying quality seafood. They either know what quality seafood looks and smells like, and shop at retail outlets that meet their specifications, or they don't

know enough about seafood quality and they buy seafood from their regular grocery store or wherever they run into it. In either case, if the product quality isn't up to snuff, the retailer usually won't hear about it. The educated seafood buyer just chalks up the failure to experience,

and shops somewhere else. The uneducated seafood buyer usually decides to steer clear of the seafood counter for a while.

Few people take the time to return product that didn't taste quite right. It takes time. There's usually no way to verify the date of purchase, or if the quality was affected by the consumer. It's unrealistic to think consumers will increase their feedback to retailers unless there's strong incentive to do so. Because of this, the retailer gets very little feedback, unless repeat sales drop off dramatically.

First of all, retailers should take the "Nordstrom" approach with their customers. They should take any product back, under any conditions, for either a cash or product refund. This type of program can even include short questionnaires which, if filled out and returned, bring the consumer a discount on the next seafood purchase. Returns should be allowed under any circumstances, and comments on the product should be reviewed and analyzed to determine if there are recurring problems with

the seafood supplies.

This system may sound costly and time consuming, but it allows problems to be identified and solved, and it retains customers. If you doubt that it can be cost effective, review Nordstrom's growth over the past fifteen years.

Suppliers of seafood to retailers — and this includes everyone from the primary processor up to a secondary broker — often receive very little feedback from retailers. The suppliers need to focus on developing interaction with their buyers. Do surveys, formal or informal. Visit the retailers that sell your product. This information allows you to evaluate both the retailer's perception of your quality and to see how your product stands up once it's presented to the consumer. This practice, if backed up with good service and improvements in deficient areas, will lead to more consistent markets for your product and better prices in the long term.

Seafood processors have an incentive to buy the best quality fish they can buy from fishermen. Good quality brings in higher prices in the fresh and frozen markets, as a higher percentage of product will end up in the higher grades. It also helps move your product, and means you can depend on quality buyers.

However, fishermen see few short-term economic incentives to deliver the best quality fish. In many fisheries around the U.S., there is a set price for a species of fish. In the Bristol Bay sockeye salmon fishery, for example, the price is almost always set early in the season and nearly all fishermen get the same price. The incentive then is to deliver the most fish. If Fisherman A delivers every six hours and ices his fish in totes, he gets the same price as Fisherman B who delivers every 20 hours and stacks fish in one-ton brailer bags.

Fishermen will respond to economic incentives. Processors have to decide how far they can go with rules and incentives to improve product quality without losing fishermen and fish to other buyers. This delicate balance requires real-time information on your markets and your competition. Rejecting deliveries of low-quality fish will guarantee better quality, but it may not develop incentives for the fishermen if he just finds another buyer who will pay the same or higher price for the rejected load.

Ultimately, the solution to seafood quality will not come from a commitment to quality, from new laws and regulations, or out of the basic good nature of our hearts. Attaining high quality depends entirely on a company's dedication to long-term profitability.

"Retailers should take the Nordstrom approach with their customers. They should take any product back, under any conditions."

Off the Cuff

"The hunter knows that he does not know what is going to happen," wrote Jose Ortega y Gasset, and for the saltwater hunters of the North Pacific surely nothing could be more true. Record salmon returns, drastic declines in pollock stocks, steadily diminishing halibut populations, a mini crab boom in the Bering Sea; oil prices down, the yen up; salmon permits are selling too cheap, and we fear IFQs will cost too dearly.

Ortega y Gasset says the hunter must "prepare an attention of a different and superior style — an attention which does not consist in riveting itself on the presumed, but consists precisely in not presuming anything and in avoiding inattentiveness The hunter is the alert man."

Pay attention, now. He's not talking about how to find fish or shoot a buck. He's talking about living attentively within an environment in which no assumptions count. Fishermen can't just hunt for humpies any more, can't just stalk the stocks. The salmon industry has bet its beans on production-side assumptions for many years, but the environment is changing. It's going to take a hunter's eyes and reflexes to spot and hone in on the right markets, the promising opportunities, the long-term gain.

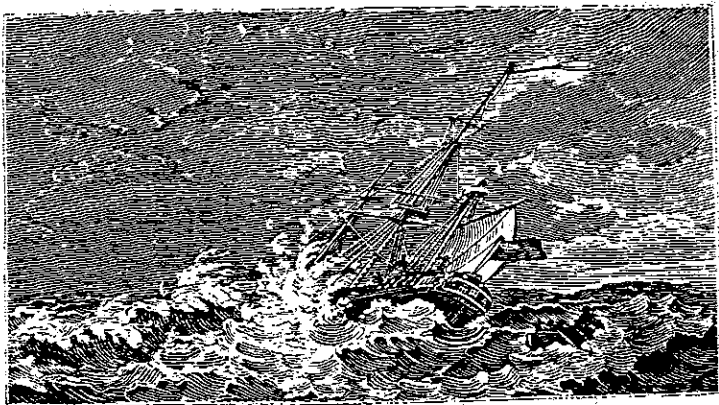
The wise hunter knows the problem is not too many

fish. The trails of fish prices across the last decade reveal clues to the puzzle as clearly as the hop-prints of a Junco in the snow. Markets are changing, shoppers are more sophisticated, buyers demand higher quality and consistent supply. How will we provide this? They say a good fisherman learns to think like a fish. In this business, the best fishermen learn to think like a consumer. What do these people want for dinner? How can we deliver what they want? A tremendous latent demand for salmon lies out there beckoning. If we don't develop it for Alaskan wild salmon, there are hundreds of Atlantic farmers who will do it for themselves. It's time to be attentive, to track our desires from the riverbottom to the ridgeline, the way a hunter tracks prey.

They call commercial fishermen the last hunter/gatherers of our culture. I hope they're right. Fishermen bear the brunt of low prices and sagging markets, and they wait a long time to see the benefits of product development. In my book, it's the men and women who look the fish in the eye who can provide the "attention of a different and superior style" that is needed to make a place in the world for Alaska's wild salmon.

— Kryes Holmes

The Lodestar
is published quarterly for
Alaska Fisheries Development
Foundation, Inc.
508 W. Second Ave., Suite 212
Anchorage, Alaska 99501
(907) 276-7315
Fax (907) 271-3450
Shirley Marinelli, Secretary
Barbara Culver, Controller
Loretta Lure, Project Manager
Mel Monsen, Executive Director
Published by Winterholm Press
Krys Holmes, Editor
(907) 272-9348



the Northern HORIZON

A GLIMPSE OF THE RICHNESS OF ALASKA'S COMMERCIAL FISHING HISTORY

EVERY BIG STEP FORWARD GETS PUNCTUATED WITH A LONGING GLANCE BACK. WE'RE NO DIFFERENT, THOSE WHO MAKE THEIR LIVING BY THE SEA OR THOSE OF US WHO STAND WATCH ON SHORE. IN THESE CHANGING TIMES, WE ALL NEED TO KNOW WHERE WE CAME FROM, TO LOOK SOMEHOW INTO THE EYES OF THOSE WHO CAME BEFORE US AND, IN SEARCHING THEM OUT, FIND SOMETHING OF OURSELVES.

IN THIS EXCERPT FROM RUSS HOFVENDAHL'S AUTOBIOGRAPHICAL TALE *HARD ON THE WIND*, WE LEARN ABOUT AN AMAZING PART OF ALASKA'S FISHING HISTORY. IN 1937, AT THE AGE OF 15, HOFVENDAHL SIGNED ON WITH THE DRESS GANG ABOARD THE SAILING SCHOONER *WILLIAM SMITH* TO FISH COD BY HAND LINES IN THE BERING SEA. HE DESCRIBES THE SOUL-JARRING BUSINESS SCHOONERMEN CALLED "GOING ALOFT."



The next day the weather began to make up on our morning watch, and the wind steadily increased.

To the extent possible, the captain tried to schedule the sail handling for the daylight hours. We were making long tacks across the broad reaches of the North Pacific, and it really didn't matter whether we came about on a new tack at midnight, or six or seven hours later, when there was daylight for sail handling. There were no navigational hazards for him to be concerned about where we were sailing.

This time, as so often at sea, the elements surprised him. We had all assumed that this was a strengthening of the wind that would hold at 30 to 35 knots and get us to our destination that much

sooner. Instead, very gradually, the wind velocity increased. By the time we reported on deck for

our night watch we were still carrying all sails, and the decision had just been made to take in the tops'ls. This led directly to the most dangerous mistake I ever made on the *Smith* — almost my last.

I should have known by then that there was no real urgency about getting the tops'ls in. We obviously had to reduce sail — it was blowing out 40 knots by then — but a few minutes made no difference.

I also had learned by then, I thought, that it is always better at sea, absent the most calamitous crisis, to take a moment to study a situation.

Despite this knowledge, without saying a word to [fellow crew hand] Chris Olsen or waiting for his instruction, I made my way to the port-side leeward rigging of the mainmast and started up. I was wearing my heavy seaboots and foul-weather gear.

It was a combination of factors. Those soaring topmasts of the schooner had intimidated me ever since I had climbed the rigging while we were still at anchor in San Francisco Bay. Subconsciously, I knew I'd better start up without thinking about it too long. Then too, Chris had led the way out on the jib boom, and I wanted to show him I was an able hand, that I didn't have to wait for him to lead me.

It was awkward with my gear on,

but surprisingly as I climbed the rigging in the lee of the mainsail it was as if the wind had stopped there and the sound had died.

When I got about halfway up I thought I heard a shout on deck. It was a black night, and when I looked down I could just barely see someone standing by the rail where the rigging was anchored.

Then I decided it had been my imagination and kept climbing. I wanted to be in those crosstrees before Chris got there. I was also pleasantly surprised to learn that even though I had looked down at the deck I wasn't hit by the vertigo that had bothered me the first time.

I kept climbing. I could see the gaff of the mainsail, inboard and just above

The wind hit me with a blast that almost, but not quite, tore me from the rigging. Aloft there, close hauled as we were in a heavy sea, the roll was probably three times as great as it was on deck.

me. The gaff was smaller than the boom but performed the same function at the head of the sail as the boom did at the foot. The rigging narrowed, and it became more difficult to find a foothold. The crosstrees were about six feet above me. Holding on with my left hand, my left foot planted on the cross bracing, I was reaching for another handhold with my right hand, my right foot stepping up for the next rung. In this position I cleared the mainsail gaff with the upper part of my body.

The wind hit me with a blast that almost, but not quite, tore me from the rigging. Aloft there, close hauled as we were in a heavy sea, the roll was probably three times as great as it was on deck. I was luckier than I deserved to be: The *Smith* rolled to starboard just as that blast of icy air caught me. If the roll had been to leeward, as the force of the wind struck my upper body, that would have been it. As it was, it tore the right side of my body from the rigging. All that saved me was the fact that my left foot slipped off and inboard through the rigging, and my left hand clutched the tarred cable with a deathlike grip.

I hung there, straddling the cross bracing, both hands now gripping the vertical cables of the rigging. I was just below the gaff, out of the force of the

wind again. My heart was pounding and I was sweating under my oilskins.

For one crazy moment I was trying to figure out how I could traverse that space between the gaff and the crosstrees — through the force of that wind. Then it hit me what that shout had been about. I forced myself to think, finally. Of course. If you ever went aloft in a blow you *had* to climb the weather rigging. The force of the wind then would be constant all the way up. It would press you against the rigging. If the topping lift on the gaff let go, or the sheet for that mainsail, the gaff would slam into the leeward rigging and take anyone on it flying into space. On the weather rigging you would be safe. I shuddered as I thought of my stupidity.

Very carefully I planted my right foot on the rung below where I was straddled, extricated my left leg, and started back down.



This time Chris started up first on the weather rigging. I followed — carefully. The wind tore my breath away, but it did press me to the rigging, and I marveled that I had survived that earlier climb on the leeward rigging.

Under Chris's expert guidance I finally clambered into the crosstrees. Working slowly, one hand for the ship and one hand for ourselves, we fought that canvas. When the tops'l halyard dropped the sail, it was like a live thing thrashing in the screaming wind, but finally, little by little, we had it secured.

Holding onto the cross members, I lowered myself out of the crosstrees, feeling carefully for the rigging with my feet. Finally I was climbing down and, after forever, I was back on deck.

Used by permission of the author. *Hard on the Wind* is available from Antler Press, P.O. Box 5458, San Jose, CA 95150. (Price: \$10.95 + \$2.50 shipping.)

Saltonstall-Kennedy program gutted like a fish

The Saltonstall-Kennedy fisheries industry development grants program has been gutted 90% in the past two years and may not survive its most recent cuts. In FY 1992 Congress apportioned \$7 million for the nationwide industry grants program, under which AFDF and other industry-directed groups and private firms have conducted industry development projects. But that \$7 million included an as-yet undistributed \$6 million in grants to be dispersed this year. And National Marine Fisheries Service takes \$500,000 off the top for administration of the program. That leaves \$500,000 for the nationwide program in FY 1992.

S-K funds aren't taxpayers' dollars *per se* — they're Congressionally appropriated funds that come from import tariffs on marine products, a portion of which are supposed to be directed toward industry development. Over the past five years, funding for the S-K industry grants program has been diminished, with increasing proportions of the overall S-K program going to NMFS and NOAA administration.

INDUSTRY News

Surimi quality workshop November 12-13

AFDF, National Fisheries Institute, and Oregon State University are sponsoring a workshop on surimi quality testing methods November 12-13 at the university's Coastal Oregon Marine Experiment Station in Astoria. The workshop covers defining and identifying quality parameters of surimi, measuring texture and functional characteristics of surimi in the lab, how surimi quality affects finished products, and the use of standard quality measurements in formulating surimi seafoods. Discussion panels will focus on standard testing methods in the surimi industry.

Instructors are: Dr. Tyre Lanier and Dr. Donald Hamann, North Carolina State Univ.; Grant MacDonald with New Zealand's Seafood Research Laboratory; Dr. Michael Morrissey and Dr. Ed Kolbe from OSU; and Dr. Jerry Babbitt of NMFS.

To register: Send a fax to Seafoods Laboratory, Coastal Oregon Marine

Experiment Station, Oregon State University (503) 325-2753. Cost: \$300 per person.

Herring Symposium proceedings are out

The 1990 International Herring Symposium produced a 684-page proceedings that's now for sale from Alaska Sea Grant College Program for \$14 (or less in volume purchases). AFDF has one you can review, or you can get your own by writing: Communications Dept., Alaska Sea Grant, University of Alaska Fairbanks, 138 Irving II, Fairbanks, Alaska 99775-5040.

We could be making biodegradable 6-pack rings

A recent issue of Food Technology tells us that an estimated 30% of the fish in the world's oceans have pieces of plastics in their stomach that inter-

fere with digestion. Maybe we should offer them something else to chew on. Chitin and chitosan, byproducts made from refined crab and shrimp shells, have film forming properties comparable to those of available plastics. Also, chitosan-degrading microorganisms are abundant. Some scientists have suggested using biodegradable chitinous polymers to make plastic-like products that would be more environmentally sound and would help reduce waste. Who'll try it first?

Will Taiwan comply with driftnet ban?

The Taiwanese government has promised to comply with a United Nations ban on high-seas driftnetting after U.S. Secretary of Commerce put Taiwan on notice August 13 that economic sanctions may follow if they don't comply. Taiwan and the Republic of Korea were both certified under the Pelly Amendment to the Fishermen's Protective Act, which means the President had 60 days from August 13 to decide whether to ban imports of any or all fishery products from those countries. Sanctions probably won't come, since both countries have vowed compliance. But keep your eyes on this volatile issue.

the **LODESTAR**

Charting the course of fisheries development today

Alaska Fisheries Development Foundation, Inc.

Volume IX No. 2, Autumn 1991

The surf: certainly one of nature's finest edges.
— Russell Chatham

CHILL OUT: Gulf of Alaska is getting colder

Summer lays down her baton in Alaska, and it's fall. As the sun recedes and the snows advance, it's not hard to believe it's also getting colder in the Gulf of Alaska. Scientists now tell us an expected 3- to 4°F drop in average temperatures in the Gulf over the next five to eight years may make a huge difference in the mix of marine species we harvest.

Cooler water temperatures favor shellfish growth but seem to inhibit finfish, biologists say. So as the Gulf continues its cooling trend, they predict increases in crab and shrimp populations, and say salmon, cod, and halibut will continue to decline. The Gulf already has seen fewer halibut and groundfish since the cooling trend started in 1989. Pink and chum salmon in Prince William Sound, Cook Inlet and Kodiak also have been affected.

Oceanographer Ted Cooney of the University of Alaska, Fairbanks, recently told the Prince William Sound Aquaculture Corp. that hatchery stocks of pink and chum salmon may have to carry the fisheries through the upcoming inclement oceanographic period.

Oceanographers say the last warming trend in the Gulf started in the late 1970s and lasted through the '80s. During the cooler periods, crab and shrimp were abundant in the Gulf of Alaska. At the time the warming trend started, crab stocks dropped off dramatically and halibut and salmon stocks began a gentle upswing.

Further down the food chain, zooplankton isn't as plentiful as it was a few years ago. Scientists are studying the food chain's reaction to the now-cooling waters — including evidence that this year was tough on kittiwakes, murrelets and fork-tailed storm petrels, marine-feeding birds that nest throughout the Sound.

the **LODESTAR**

Alaska Fisheries Development Foundation, Inc.
508 West Second Avenue, Suite 212
Anchorage, Alaska 99501

Non-profit organization
U.S. Postage Paid
Alaska Fisheries Development Fdtn.