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Alaska Fisheries

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News to Use

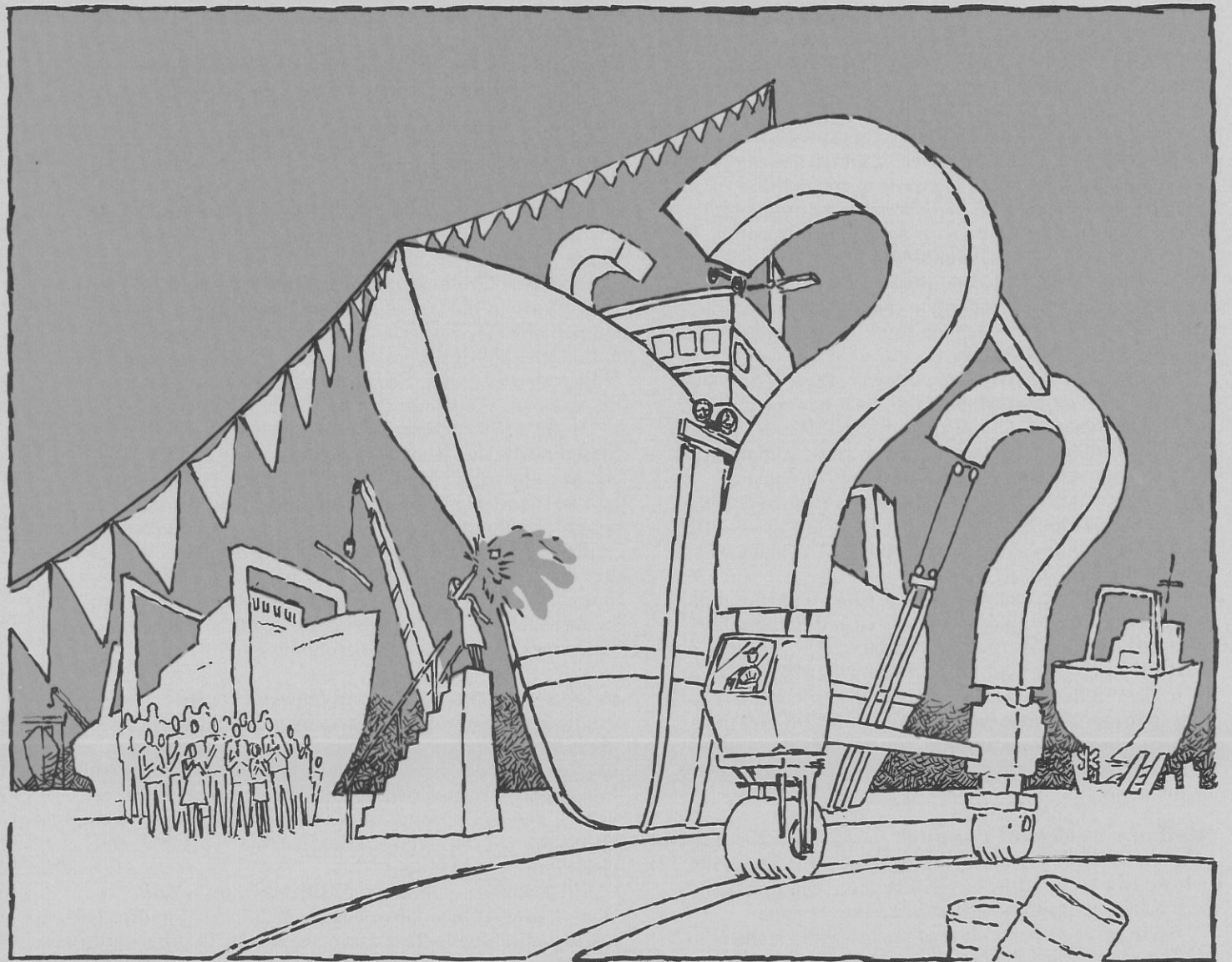
"Americanization of the Bering Sea and the Gulf of Alaska groundfish fisheries has outpaced all predictions," reads a document from the North Pacific Fishery Management Council. As this issue goes to press, the industry is gearing up for the December council meetings, where next year's domestic processing allocations will be decided. Many of the goals set by AFDF's board of directors at its creation are now in sight: full domestic handling of the resource, a diversity of product forms, and expanded market opportunities for Alaska's white fish.

There's still far to go, as the contents of this journal will attest. As the factory trawler fleet expands, new problems and opportunities arise on a scale equal to the size of the resource. Can the industry deal with such growth? Can it become a world-class competitor without it?

The foundation's 1988 priorities continue to be identified with increasing opportunities for processors to make more profit from the resource they handle.

AFDF will receive slightly more than \$1 million in 1987-88 from the Saltonstall-Kennedy grants program for work toward three fisheries development objectives: Increasing efficiency of surimi processing, demonstrating the profitability of flatfish processing, and turning seafood waste into by-products.

The AFDF annual membership meeting December 3 at the Anchorage Westward Hilton will give all foundation members an opportunity to help set future goals, comment on current projects, become more active in committees, and (for voting members) vote on five open seats on the AFDF board of directors. All members are encouraged to attend. Members will receive an agenda by mail soon. Others interested can get one by calling Nikki Delaney at AFDF.



New ships on the way(s): What's in store for the factory trawler fleet?

By Krys Holmes

No one knows for sure, but if all the rumored new factory trawlers come on line in 1988, the U.S. processing capacity aimed at Alaska's bottomfish resource will increase by 50 percent—maybe even 100 percent—in a single stroke.

"Next year will be a big guesstimate," said National Marine Fisheries Service's Janet Smoker about next year's U.S. processing capability in the Gulf of Alaska and the Bering Sea. NMFS was only halfway through an industry survey in mid-November. "I'd hesitate to even try to guess at this point. Some of the big ships coming might not be able to do what they say they will, or be on schedule. But I think it's fair to say next year's U.S. processing capacity will be significantly increased—from 30 to 50 percent, or even more."

Doug McNair from Natural Resources Consultants said his company estimates that by 1990 the Alaska factory trawl fleet will produce 500,000 metric tons of finished product annually, including fillets, surimi and headed/gutted product.

"Last summer, when we counted, there were 19 factory trawlers in the fleet. There were eleven more boats that we knew would be coming into the fleet between now and 1990, either refitted or rebuilt," McNair said. "That's

probably conservative. Of course there will be boats that aren't even in the planning stages yet, but then again some boats might drop out of the fleet because conditions change so quickly."

Boats dropping out of the newly-developed bottomfish industry? Aren't we in the middle of a boom here?

"Some people think the door is already closed on bottomfish," said Chris Mitchell, owner of Koru North America. "It's not *legally* closed. There's still not enough domestic catching and processing capacity to catch all the pollock out there. But I think it's nearly closed from the perspective of market access. So many of these guys planned to zip in and take this big chunk of pollock, convert it into surimi, and sell it all to Japan. But suddenly the Japanese now take 700,000 tons out of the donut hole, which they didn't take before, and they really don't need our fish as badly as we thought they would."

Will there be a shakeout in the bottomfish fleet? Some say there will, and that it will be good for the industry—a form of natural selection. Others say if the "rape, ruin and pillage" attitude were tempered with more careful planning, the fishery could develop more sensibly and there would be room for all. But people generally agree that the key to competitiveness from now on is not aggressiveness in fishing or the size of the boat. The line between the

Continued next page...

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winner and the loser will be drawn in the marketing department.

Expanded markets needed

"How are all these fish that, theoretically, are going to be caught going to be marketed?" asks McNair. "So far, the conditions have been ideal for these boats. It couldn't be better. And it won't be better, probably. Every time you add a factory trawler to the fleet that will produce fillets, you get closer to a situation where the boat competes for the same markets as the boat before it. Seafood consumption is growing, sure, but the pollock fillet market is not that broad-based yet. It takes time to expand markets, especially markets for pollock fillets."

Todd Shaw is co-director of sales and marketing for Marine Resources Company and marketed seafood for Trident before its merger with Con-Agra. He has a pretty good idea of what it's going to take to survive the increased competition: energetic marketing and a little courage.

"The industry has never been in this situation before," Shaw said. "For the first time we've joined the world market and we're going to have lots of competition from the Soviets, the Japanese, the Koreans, and from other species like whiting. The successful companies will be those with a huge diversity of product lines."

Shaw said Alaskan seafood producers can no longer depend on markets to respond to products that are uniquely Alaskan. It's time to stop thinking provincially, and start playing the big leagues.

"People will have to become more creative. If a product just goes through normal channels, as it has been, it just isn't going to work," according to Shaw. "We've learned to live with short-term oversupplies of crab, salmon, or halibut, because those are unique out of Alaska, and inventories usually work themselves out. But there are over a million tons of harvestable pollock out there—that's enough for the industry to bury itself in. And some will bury themselves."

MRC is working to diversify its product offerings, but the large companies like Arctic Alaska and Trident Seafoods will have to take the lead, Shaw said.

"It's the big guys with lots of boats who will have to be the leaders in this effort, who will have to spend the millions to break into new markets, he said. "The rest of us will just have to take advantage of what they do. And if they don't do it, it's not going to be a very exciting future for the product."

"Hell of a shakeout coming"

At Arctic Alaska Seafoods, where stock is going public and two new factory trawlers will be launched this year, the marketing department has heard the message.

"We're going to be producing new pollock products, starting with pollock blocks," said Arctic Alaska marketing director Graham Redmayne. "As one market weakens, another becomes firm. Fillet prices are sliding now, but block prices are firming. So we'll rig boats to do blocks and expand H&G production. My feeling is the more closely marketing is tied to production, the more successful they (the new factory trawlers) are going to be. In the case of so many companies, production rules. There's evidence of that happening already (in the factory trawler fleet)."

One danger the industry faces is that most of the new factory trawlers plan to sell their product in the domestic market. Arctic Alaska sells 45 to 50 percent of its product to Japan.

"You have to keep marketing growth effort parallel with growth in production," he said. Redmayne also recommends processors look seriously at other species, such as sole, perch and other flatfish. "The two most important aspects now are marketing and flexibility. In the next year or two, there's a hell of a shakeout coming."

The new factory trawlers will be introducing their product to a U.S. market that in November looked as bright as the Dutch Harbor skyline—for the short term at least. NRC's McNair said no one seems sure why the pollock market has stagnated.

"To some extent, this is a signal of a situation that will probably get worse before it gets better," he said. "One of the problems is that the standard fillet size used to be 3-5 ounces. Now it's 2-4 ounces because there's a preponderance of smaller fish. So it's confusing to make price comparisons, but the 2-4 oz. fillets are down around \$1.20 (per pound), and typically through the latter half of 1986 and early 1987, the 3-5 oz. price was \$1.40 to \$1.50. It's still at profitable levels, but it's coming down."

Meanwhile the Japanese are getting raw material from the donut hole and from New Zealand. Processors who envisioned moving into the bottomfish opportunity created by Americanization of the North Pacific, and easily taking over the task of supplying pollock to markets left by the departing foreign processors, may be disappointed—or worse.

"They may be up for sale in a couple of years," Mitchell said.

Adventuresome pollock marketers will look to Europe, predicts Ted Evans, executive director of the Alaska Factory Trawlers Association (AFTA).

"Europe looks very good as a market, even though it's difficult to do business at such a distance, plus the fact that Europe has a 15% duty on pollock products. But it's an available market," Evans said.

What effect for shore processors?

Trident Seafoods, the giant of the Alaskan shore processors, won't feel much effect from the onslaught of factory trawlers. Trident's Bill Woods said, "We are pleased to see increased development in the DAP (domestic processing) sector, from other shore plants and from factory trawler operations. We believe both kinds of development, ashore and at sea, are consistent with developments of the Magnuson Act."

Some Kodiak shore processors aren't as confident about their future in the face of increased competition. Pauline Dunlap of Eagle Fisheries said factory trawlers, attracted to the Shelikof Strait pollock resource, will consume most of the resource at sea, Seattle companies will profit heavily, and coastal communities will be left high and dry.

"If the factory trawlers take all the fish, it will devastate coastal towns like Kodiak," she said. "The economy will go down the tubes. No two ways about it. With the quota as it is, the trawlers will take the majority of the fish, will not process them on shore, and the money will go back to Seattle, it won't come to Kodiak. Some operators say they'll be using shore facilities for fuel docks and sometimes offloading. But that couldn't possibly make up for the fact that our plant employs 300 people who live here, buy homes, and support the economy."

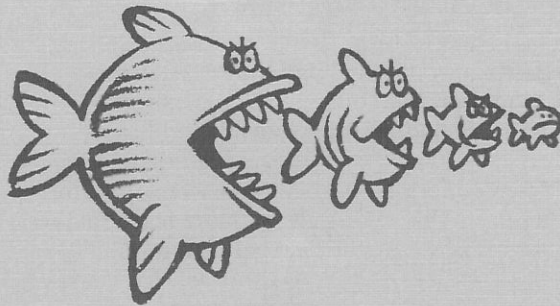
Where will the displaced foreigners go?

The Japanese seafood processing industry, world pioneers in fisheries development, already are pursuing other sources of supply in New Zealand hoki, Faroese blue whiting, pollock directed fishing and joint ventures in Soviet waters, and in the donut hole of the North Pacific. Japan also is helping develop fisheries in Chile, Thailand, and elsewhere.

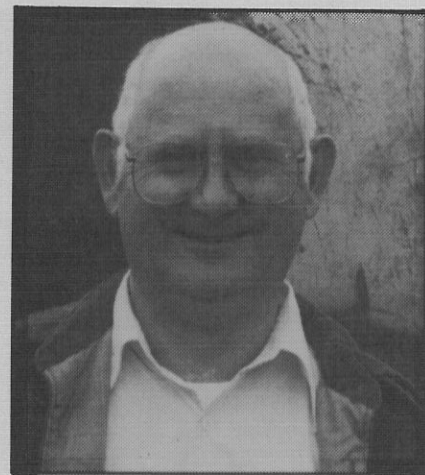
Bill Atkinson, publisher of Bill Atkinson's News Report, said, "Once Japan has reached its goal in directed fishing and joint venture arrangements (with other countries) they will turn to imports. But imports don't always tend to come from the U.S. People think Americanization will automatically increase U.S. exports, but it's not always the case. The U.S. doesn't always come through."

With a potential doubling of the bottomfish processing capacity next year and its challenge to current pollock markets, coupled with an industry that has yet to prove itself on a global scale, what will the bottomfish boom really bring to Alaska's fishermen and processors? Discipline, expansion and creativity, most people say. For the first time, North Pacific producers will have to learn how to compete in the big leagues, to produce consistently high-quality product for major U.S. food companies and the discerning Japanese market, and to try new, creative marketing ideas. Who will survive? Who will excel? And who will be up for sale or scheduled for conversion before the decade is out?

For a reasonably up-to-date listing of the new and upcoming factory trawlers, read "1987 Factory Trawler Directory," by Kris Freeman, which appeared in Pacific Fishing in September, 1987.



MEMBERS ONLY



Al Burch named Highliner of the Year

Al Burch, executive director of Alaska Dragger's Association, was named Highliner of the Year by National Fishermen at a Fish Expo reception Oct. Burch is a long-time member and director of AFDF, and has actively contributed to Alaska's developing fisheries. Congratulations, Al.

Roquette Corp: The sorbitol source

Surimi producers and other sorbitol users should know that Roquette Corp. of Gurnee, Ill., producers of sorbitol from dextrose, supplies crystalline sorbitol made specifically for surimi. Their product, manufactured by a patented process, is specifically formulated for surimi. Roquette makes custom-formulated sorbitol for many applications including foods, gums and candies. "We make each batch to order, and our product is manufactured to specifications," said Roquette's Howard Wolfmeyer.

"Roquette Frere, based in France, has been making sorbitol for the Japanese surimi industry for many years."

For more information contact Howard Wolfmeyer at 1550 Northwestern Ave., Gurnee, Ill 60031. Call toll-free (800) 233-5305, or (312) 680-0300.

Baader introduces rockfish filleter

Baader North America unveiled its new Baader 153 rockfish filleter at Fish Expo in October. The 153 processes ungutted rockfish 23-38 cm. long or weighing 230 to 750 grams. Using computerized robotics similar to the Baader 182, the 153 processes 80 fish per minute, producing 160 fillets per minute. The 153's controls can be programmed according to the type of belly cut desired. It is designed to operate in conjunction with the Baader 51 skinning machine.

"So far we've sold out our entire production, with exception of one machine we have reserved for further tests on West Coast species," said Baader marketing manager John Sackton. "We are interested in testing it out in plants on the West Coast." Interested processors can write to Baader North America Corp., 3601 Gilman Avenue West, Seattle, WA98199, or call Sackton at (617) 995-5900.

Coast towns have their say

Things are heating up west of 165 degrees. As winter closes in on the Aleutian Chain, a group of processors, civic leaders and state officials are working to make sure Western Alaska doesn't get iced out of the opportunities that come along with the bottomfish boom.

The Southwest Alaska Municipal Conference (SWAMC) has taken on some big fisheries and community development issues, created four task forces, and is pursuing legislative and regulatory support for its priorities, all of which would help Western Alaska maximize its opportunities in the current rapid development of Alaska's bottomfish industry.

"One of the things being pursued is a proposal to amend the Magnuson Act to require that the foreign fishing fleet operating in Alaska give preference to local on-shore support servi-

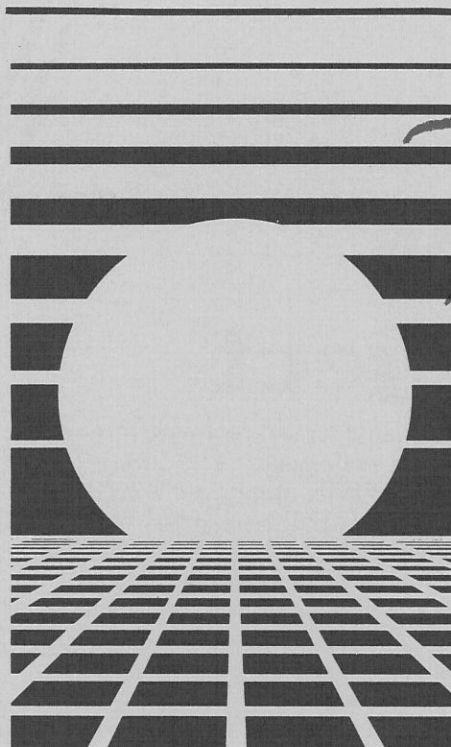
ces," said John Levy, executive director of SWAMC. "Our members are also fighting the proposed increase in pollock allocations."

The four task forces were created to help establish a domestic observer program; to address federal fishery management issues, including high seas interception of Alaskan salmon, fish tax, and other concerns; to increase fisheries education and information programs throughout the Alaskan educational system, and to pursue alternate sources of funding for Alaska's coastal communities to build better infrastructure support for the fisheries industries.

For more information about the SWAMC or its community development activities, contact Levy at 1007 West Third Ave., Suite 201, Anchorage, Alaska 99501 or phone 274-7555.

INDUSTRY

Development



Pribilof harbor to open next summer

As the North Pacific's fisheries grow and the nation's support of the region's native fur seal hunt deteriorates, residents of the Pribilof Islands in the Bering Sea have pinned their hopes on establishing port facilities that will bring a better economic future to these remote islands.

Russian explorers came to St. Paul and St. George islands 200 years ago and quickly established the mini-archipelago as a fur supplier for the Tsar. The primarily Aleut population, whose lifestyle is still rich with Russian culture and religion, have long sustained themselves by fur seal hunting. But these days, island residents are seeking new economic opportunities, aided in part by federal grants.

The mainstay of the economic future for the Pribilof Islands is a set of harbor projects that will accommodate commercial fishing activity. At St. George Island, engineers Peratovich, Nottingham & Drage are overseeing construction of a breakwater and industrial dock that will handle large trawlers. The city of St. George also is

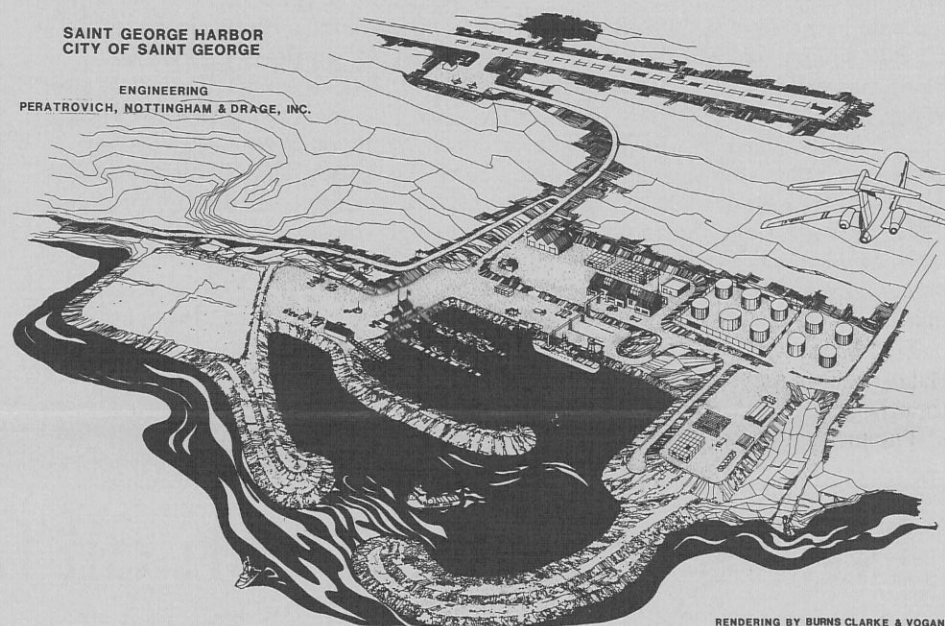
pursuing funding for a small boat harbor, a fuel tank farm, a commercial-sized airstrip for transportation of fish products, and support facilities for a seafood processing and cold storage plant that is also planned for the dock area.

"The harbor project is moving along real well," said Brent Drage, partner in the engineering firm. "The breakwater will be finished by mid-December, and the dock foundation will be installed." The city is doing the work itself, after losing some time and money on the project over problems with another contractor.

The next step in the spring is to dredge the harbor to minus 20 feet. The project will be completed by the end of next summer, Drage said.

"Once the harbor is finished, then the city will be able to attract private companies interested in building the support facilities," he said.

Several processing companies have expressed interest in helping develop the area but are waiting for the harbor to be completed.



An artist's rendition of the St. George harbor and dock project, designed by Peratovich, Nottingham & Drage, Inc. The dock is scheduled for completion next summer.

A brief update of the St. Paul Island harbor project will appear in the next issue.

Mrs. Paul's wants to buy from Alaska

By Loretta Lure

One of the nation's major pollock and cod buyers is turning to Alaska for a new source of supply.

Barbara Belkin, manager of seafood resource development for Mrs. Paul's Kitchens of Philadelphia, visited Kodiak in November to explain to processors her company's criteria for minced flesh and fillets made from bottomfish. She also demonstrated how to make 19x10x2½-inch pollock and cod blocks at the seminar, which was hosted by Dr. Jerry Babbitt, laboratory director of the National Marine Fisheries Service (NMFS) Gibson Cove pilot plant.

Belkin said her company's latest research and development efforts are aimed at developing products from minced cod and minced pollock blocks, and from IQF flatfish fillets. During secondary processing, Mrs. Paul's will temper a frozen block of pollock or cod fillets or mince and slice

it according to their product needs. This block must be free from voids and ice pockets to produce an optimal yield. The company's product specifications set the minimum quality requirements for blocks purchased for reprocessing. Sample blocks are chosen at random and thoroughly inspected by quality control personnel who look for uniformity of product. All blocks must be bone- and parasite-free, have acceptable color and no bruises. The dimples and flaps of the cardboard boxes in which they are packed must be on the outside, the edges of the block straight and the top flat. Government regulations allow 10 percent bits and pieces of fish (to fill voids) in a fillet block, with drip loss no greater than 7 percent of the total weight of the block. Mince blocks are allowed 10 percent drip loss, preferably using mince from a 3-4 mm drum.

Two 16¾ lb. sample blocks were produced during the demonstration. In

a fillet block, the fillets are lined up laterally in the same direction against the sides of the box making sure that folds are avoided. This is important since the fillets will twist during cooking if muscle fibers are not oriented in the same direction. The bottom layer is the only layer placed with the skin side up. There is no size requirement for the fillets; however, it takes less time to process a block using larger fillets, and Mrs. Paul's prefers fillets that are 2 oz. or more in weight.

When working with smaller fillets, it is easiest to work inward from the edges of the box. Gaps in the middle of the block can be filled with smaller pieces of fish. The fish is layered and fitted so every bit of space is filled. When the box is completely filled, the lid is closed and pressed down a bit, and the box is plate frozen. A plastic bag wrapped around each box will prevent dehydration.

Mrs. Paul's Kitchens currently is investigating products using frozen fillets of flounder and sole. A number of species have been quite acceptable in sensory analyses and taste tests, including Dover, rex, rock, English and flathead soles, and arrowtooth flounder. Quality criteria for flatfish include:

Approved species with good color, no bruising, parasites or bones;
Weight: preferably 3 oz; 2 and 2½ oz. fillets are acceptable;

Size: fillets should be no longer than 9½" due to the box size of the final product; rock and flathead soles generally fit into this category;

Most flatfish items are only in the R&D stages at this point, Belkin said, but the company sees great potential for them in the packaged frozen seafood market. For more information about product specifications for Mrs. Paul's Kitchens, contact Dr. Babbitt at (907) 486-8558.

FOUNDATION

Projects

Eagle grabs flatfish project

Eagle Fisheries of Kodiak and AFDF signed a contract Nov. 9 representing the first step in a concentrated flatfish filleting demonstration project that could bring the million-metric-ton resource into the forefront of Alaska's fisheries.

AFDF selected Eagle Fisheries in mid-October from among five candidates for the flatfish project. Eagle was chosen because the company already is hand-filleting flatfish, has worked with fishermen using different handling techniques, and has made strides in developing new U.S. markets for flatfish products.

Eagle Fisheries now is constructing a 1,800-square-foot addition to its plant that will house the flatfish line. When it is completed, AFDF and Baader North America will provide a Baader 175 flatfish heading and filleting machine, a wash tank, a brine bath table, an inspection table, a packout table, and various conveyors and ancillary equipment. The processing machinery is valued at \$180,000.

AFDF also will provide Eagle with a Baader technician for the first three months of the 12-month project.

The project will also serve as a prov-

ing ground for a variety of flatfish processing equipment. AFDF project manager Peter Moore said TRIO Industrier AS of Norway has agreed to donate the use of their newest refrigerated drum skinner, the TRIO model FDS2N, for the project. Other equipment solicitations are in the works, including a size grading and sorting machine, a Japanese-made skinning and slicing machine and a Dutch-made de-frilling and skinning machine.

Eagle will produce flatfish fillets at full capacity for the term of the project, and will continue its hand filleting operation so comparisons can be made between the two processes. Under the agreement, Eagle will also work with local fishermen, focusing specifically on boats under 65 feet.

"We designed the flatfish project to create new opportunities for operators of small trawlers and seiners whose vessel size limits their participation in bottomfish," said AFDF executive director Mel Monsen. "Probably 80 percent of Kodiak's local fleet and 25 percent of the Alaskan fishing fleet fits into this category. We hope to demonstrate some year-round opportunities

for those fishermen."

Eagle will process and market yellowfin sole, rock sole, flathead sole, Dover sole, rex sole and English sole. Arrowtooth flounder will be processed only as new commercial markets are developed for it.

Flatfish now are being processed only by a few companies who receive flatfish as by-catch with bottomfish deliveries. Most of the 378,000 metric tons harvested annually are caught by

foreign fishermen or for joint venture buyers. But the huge resource represents a sleeping opportunity for many processors.

Throughout the flatfish project the plant will be open to other processors, fishermen and potential users of flatfish products. For more information or to schedule a plant visit, contact Peter Moore at AFDF.



News from the fish oil front

"We still don't know what it is about fish oil that is important," said Dr. Virginia Stout, research chemist with National Marine Fisheries Service (NMFS) at a fish oil seminar in October. But the lack of hard facts didn't keep away up to 50 seafood processors who attended the AFDF-sponsored seminar, held in conjunction with Fish Expo in Seattle.

The seminar, hosted by AFDF's Peter Moore, was part of the foundation's new effort to expand processing opportunities to include seafood wastes. Fish oils currently are not produced on a large scale in Alaska, although the U.S. market for fish oils is expanding.

Dr. Stout spoke on the extensive fish oil studies she is directing at the NMFS Northwest and Alaska Fisheries Center, and of the lab's development of new technologies for purifying, fractionating and storing fish oils. She identified cod, pollock, whiting and flounder as the West Coast species showing the greatest oil potential, but said the North Pacific seafood industry is too spread out, or operating at-sea, and is not able to efficiently process fish oils.

"There has not been a new process developed for fish oil production since the 1950s. It's time we started thinking about new possibilities," she said.

Stout and the NMFS staff are currently experimenting with pressurized containers, restructured triglycerides, and supercritical fluid carbon dioxide fractionation, a newly-developed production method that could significantly reduce the cost of manufacturing Omega-3 fatty acids.

Dr. Marion Childs, nutritionist with the University of Washington, vividly explained the causes of heart disease and arterial plaque, and how arterial distresses may be ameliorated by constituents found in fish oils. Dr. Childs also discussed studies that suggest fish oils might be helpful in reducing arthritic pain, psoriasis and bronchial asthma. Would it work for everyone? "We don't know yet," she said.

Tom Hyland, Bethel plant manager for Kemp Pacific Fisheries, outlined his plant's fish oil production line.

"No one has to be an expert to operate fish oil equipment," he told processors. "Our staff required one day of expert assistance and a little more time in telephone consultation, and beyond that it takes one person per shift to operate, plus a part-time person."

Hyland's succinct description of Kemp's equipment, handling, supplies and personnel gave attendees, most of them Alaskan seafood processors interested in fish oil processing, a good view of one plant's experience.

"The price of fish oils is consistently lower than the price of other vegetable and animal fats," said Frank Lee-Poy of the Cambrian Engineering Group, Ltd. Lee-Poy presented numerous charts and graphs showing potential fish oil production in Alaska, price comparisons with other oils, new potential industrial and human uses for fish oils, and some cost-effective refining processes.

Dr. Sharon Gwinn, marine biologist and fish oil consultant, explained why fish oils are so hard to understand. Their many constituents, which vary from species to species and—for pollock at least—from season to season, are each important for different reasons and in different applications.

Gwinn explained the various factors that influence the value of fish oil for human consumption, gave an overview of the current U.S. market for edible oils, and outlined some of the obstacles to those markets.

Proceedings of the seminar will be available in January. For more information about the conference, or about AFDF's waste utilization project, contact Peter Moore at AFDF.



New seafood items star in AFDF's road show

Some called it "the most revolutionary thing to happen to surimi since crab extract."

Producer Rae McFarland said, "All I know is, when we were through there wasn't a bite of it left."

McFarland's new surimi-based chicken analogue, made on a standard crab-flake analogue machine at Uni-Sea and flavored with chicken broth and fat, attracted attention, comments, and even a few interested buyers at AFDF's booth at Fish Expo in October. The product looks like flakes of cooked chicken breast meat and contains about 3% total fat, McFarland said, comparing favorably to skinless white chicken meat, which contains about 8% fat. The chicken analogue was labelled "Old McFarland's Chicken Salad Topping," and samples set out at the Pacific seafood industry's biggest exposition were gobbled up by curious booth cruisers.

McFarland said his company, McFarland Foods, chose the product's name because salad topping has no standard of identity, unlike the term "chicken salad." He said the product would cost about the same to produce as flaked crab analogues and would sell for about \$3.95/lb. retail.

"Compare that price to \$6.95 you'd pay for boneless cooked chicken, and it's a pretty good deal," McFarland said.

McFarland now is refining his formulation and looking for buyers to commercially distribute the product.

AFDF also demonstrated an array of other new surimi products, including several lunchmeats, sausages and a crepe product, at the American Meat Institute (AMI) convention in Chicago in early October.

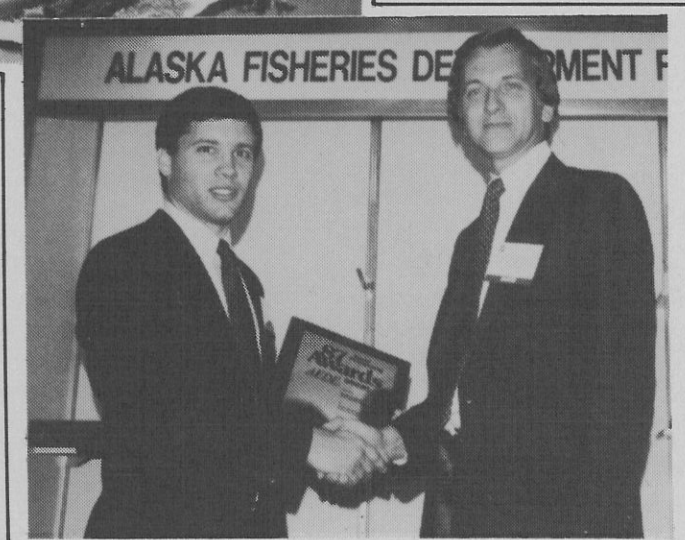
"It's important to take test products like these to meat shows to demonstrate new ideas for meat processors," said Barbara Culver, AFDF's controller and administrator of its surimi sample program. "We hope we can stimulate interest in research and development using surimi as an ingredient in processed meat products. Surimi has a unique ability to become part of the protein matrix of a meat system and to replace other high-calorie and high-fat binders with a low-calorie, low-fat, more nutritious binder. Some of the meat packers are very interested."

At AFDF's AMI booth, the staff distributed samples of five different products: Bay-loni, the all-surimi lunchmeat made by Ocean Foods Hawaii and one winner of AFDF's New Product Development Contest last summer; Suram, a surimi/pork ham product produced by Mt. McKinley Meat and Sausage Co. in Palmer, Alaska, and now distributed to state-wide institutions; Pepperoni Protein Sticks, a jerky-like pepperoni stick made with 40% surimi and 60% moosemeat, made by Alaska Butcher Supply, Anchorage; Surimi Summer Sausage, another 40/60 surimi and moosemeat formulation seasoned like



Summer sausage, ham, pepperoni sticks, Italian sausage, Bay-loni and a filled crepe, all made with surimi, were part of AFDF's road show.

The editor of Food Processing magazine presented Mel Monsen with a Food Processing Award at AMI recognizing AFDF's work with surimi.



summer sausage, also made by Alaska Butcher Supply; Italian sausage using 90% chicken and 10% surimi, made by McFarland Foods; and Sea Crepes, made by Rheon USA, using surimi and egg in the crepe, with a vegetable filling.

"We get very positive responses from showing these products at selected trade shows like AMI, where we can meet directors of R&D face to face," Culver said. "Already, several companies have started experimenting with surimi as a result of the AMI show."

Micro study to 'scope' out surimi quality

A study of the microbiological characteristics of surimi during production will begin next month, opening one more door between surimi and potential new markets in processed meats.

The study will identify critical points in the surimi production line where microbiological problems are likely to arise and pinpoint specific microorganisms that may cause problems during processing. The work will be done on the surimi processing line at Alaska Pacific Seafoods (APS) in Kodiak, a plant helping AFDF pave the way for U.S. Department of Agriculture approval of surimi use in processed meats.

"This is the next in a series of steps required to gain regulatory approval for surimi in processed meats," said AFDF executive director Mel Monsen. "And in addition to addressing our needs for regulatory approval, results of this micro work will also teach us a lot about how to improve the quality and consistency of the product."

The study is part of AFDF's current three-phase push for USDA approval for surimi/meat products. The effort also includes development of plant sanitation guidelines for surimi producers and a partial quality control program for secondary processors

using surimi in their products. Together, the three phases will result in a HACCP (Hazard Analysis and Critical Control Point) program, similar to one now being established in the poultry industry, which will provide USDA-accepted guidelines for surimi used in processed meat products. The HACCP project is being administered by Manning, Batson & Associates, Inc. (MBA) of Seattle.

MBA and an advisory committee that includes representatives of National Marine Fisheries Service, Food and Drug Administration, the USDA and APS have written a draft plant sanitation document which now is being reviewed at the APS plant. A final draft will be completed in January 1988.

The third phase, development of a partial quality control program for the secondary processor, is being worked out with Don Lee Farms of California, a USDA-inspected meat processor. When this program is complete, it will help processors using surimi in meat formulations to ensure microbiological safety in their end product by following certain recommendations for control of the raw surimi, storage, handling, processing and shipment.

"By now a lot of meat processors in the U.S. are familiar with surimi, and quite a few have experimented with it," Monsen said. "But not many are accustomed to using it in their plants. The partial quality control system will serve as a guide to those processors, as well as satisfying the USDA's concerns about the safety of the surimi/meat products."

In the meantime, several U.S. meat processors are experimenting with custom surimi/meat mixtures, and many more are waiting with interest for the nod from USDA. "Approval could still be a couple of years away," Monsen said. "Indications from USDA would show that they feel generally receptive toward surimi, given that microbiological concerns can be answered. That means providing them with data that shows specifically which organisms are likely to surface in the surimi process, and how they interact with meat systems, and even which organisms are not likely to cause problems, and why not."

"By the time we get through with this project, we'll know a whole lot more about surimi than we do now," he said.

Alaska Fisheries Development Foundation
conducts research and development that encourages growth of the Alaskan seafood industry. Contact our staff anytime with your questions, contributions or ideas.
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Krys Holmes - Editor



director's log

By Mel Monsen
AFDF Executive Director

"No individual domestic processor or processing vessel is guaranteed a supply of fish."

Recently, I have been hearing complaints from both domestic shore-based and floating processors, each grumbling about the various regulatory benefits the other receives. These grumbings usually are followed by a comment about the imminent demise of their own sector. Some of these complaints are valid; some are not. I would like to add a few comments of my own that may be constructive.

First of all, no individual domestic processor or processing vessel is guaranteed a supply of fish. The commercial fishing business is and always has been a competitive industry. Under the best circumstances, any particular fishery will enjoy a nearly unlimited supply of fish and an unlimited, high-paying demand. But just as often, the fish supply will run short, through increased competition or stock declines, or its markets become less lucrative. The domestic groundfish industry in Alaska is going through a phase that approaches the best of times. We have begun to handle a large supply of fish, while at the same time a lucrative market has surfaced. This will not continue, and perhaps this realization is fueling the present debate between shoreside and floating processors.

Certainly there are inherent advantages to both shore-based and floating processing operations. Some examples are:

Shore-based:

- Few space limitations
- Few fresh water restrictions
- Little down time
- Ease of part acquisition and repair

Floating:

- Access to fish
- Immediate processing capability
- Flexibility of location

One would think that these variables would balance out, since both processing sectors continue to thrive around the world. But even if they do not, the variables usually exist independent of political or regulatory conditions.

This explains the fact that most of the rumbings I have heard in the industry are not focused on these inherent differences and how to overcome them, but on how the government selectively handicaps one sector of the industry. Favored topics include raw fish tax, fuel tax, infrastructure construction, tax credits and, of course, the reflagging issue. These enforced variables all come under the realm of public policy, which is supposed to be the planned method of obtaining a result in the public's best interest.

Many disagree on whether the current application of public policy actually benefits the industry. But more importantly, I believe we suffer from a lack of specific policy goals and a deficiency of understanding of how various political decisions affect our progress toward any goals. One way to resolve the constant battles and the confusion is for the state and federal governments to determine what their goals are for fisheries off Alaska. This is not to say the state and federal governments could agree on any goals for Alaska's fisheries—they probably could not. But at least, with established goals in place, each specific decision affecting the fisheries can be held up to the framework of these policies and determined to be supportive or destructive.

Perhaps this solution could be labelled as naive, but no one can deny it would be refreshing to know where the industry stands and where our government wants it to go.

The editor's turn



Off the Cuff

By Kryz Holmes

In 1600, about the time William Gilbert was drafting the first scientific study of magnetism, popular theory held that "if a lodestone were pickled in the salt of a sucking fish, there is power to pick up gold which has fallen into the deepest wells."* Lodestone, of course, was a magnet (from the Middle English "lode," meaning "way") used in compasses as early as the 12th Century.

Some continue to believe that where there's fish there's gold of some sort. But today, in this age of personal satellites and unmanned stock trading, we use more advanced equipment to chart our trajectory than a simple chunk of pickled magnet. For the creators of new foods, there is no more sophisticated instrument to judge the future of a product than the human physiognomy.

A day behind a trade show booth serving fish-based meats to hog and chicken processors provides a study in the subtleties of the human visage. No matter what a person says after tasting a surimi-based meat morsel; no matter even that they walk away, or spit the tidbit out; the face speaks volumes. A curl of the lip downward: texture problems. A puckered mouth: too salty. Eyebrows furrowed: a food technologist is trying to discern the ingre-

dients. Head up, eyes on the horizon while the hand reaches for seconds: a marketing director is pondering the opportunity of unveiling a new product. Most promising of all are the arched eyebrows. That one will be calling Monday morning.

Our response gauges, applied at both Fish Expo and the American Meat Institute (AMI) exposition, recorded not just the problems and successes of the new surimi products shown. They also helped gauge the level of creativity in the minds of the people who tried them. Some saw these new products only as another consumer item. They registered their like or dislike of the product and moved on. Others were shopping for ideas, cruising for inspiration, and they were the ones who saw not only a product with ingredients and a measurable market potential; they saw an opportunity, a new idea, a possibility.

"You have to keep inspiring the packer with how to use the material," said Rae McFarland, who produced chicken-flavored surimi. "The consumer is ready for a variety of foods. They don't feel negatively toward new products. Our job at AFDF is to contact the people who are creative, and to make them understand the great potential of the resource."

On a world scale, McFarland said, the seafood industry is just as imaginative as the meat and poultry industries. But on a local scale, the seafood industry is about where the poultry industry was 25 years ago. "The poultry industry matured well by holding prices steady, increasing yields, improving quality and eliminating consumer complaints. Seafood is following. It's going to take very high quality, steady prices, and a little innovation."

Innovation was what we were watching for at Fish Expo, and at the AMI show. Surprisingly, enthusiasm ran higher among the meat processors, several of whom dragged their supervisors over to our booth ("Taste this. Taste this one.") than among the fishing crowd ("Eew. Tastes kind of like fish." Really.)

McFarland attributed the difference, probably correctly, to the kind of people attending both shows. Technologists, researchers and developers came to AMI looking for new business opportunities. Fish Expo attracted a broader base from the fishing industry, many of whom were not there to seek a new vision of the marine protein industry.

Seeking a new vision, however, may be exactly what's needed for seafood proteins to compete on a world scale with other proteins. McFarland sug-

"Seeing is not such an easy thing as it is supposed to be."

— Robert Henri

Letter to the Editor:

DANGER IN THE DONUT HOLE

Dear Editor:

The Americanization of the Bering Sea bottomfish industry is proceeding at a remarkable pace. American industry is fast closing the gap on foreign domination of the processing sector, much as U.S. harteaters have already done in their sector.

Before we congratulate ourselves, however, we need to take a hard look at where the foreign fishing effort we've displaced has gone. Out of our waters and away from our stocks, some would say. But recent data from the Japanese and other foreign fleets might prove this to be a hasty conclusion.

Much of the foreign fishing effort seems to have moved out into the international waters of the Bering Sea, to an area known as the donut. According to figures given the North Pacific Fisheries Management Council (NPFMC), foreign fishermen harvested almost one million metric tons of pollock in the donut this past year, with the Japanese alone taking over 700,000 tons. This means foreigners are taking almost as much pollock in the donut as the NPFMC allows U.S., joint venture and foreign harvesters to take in the entire Bering Sea management zone.

These catch figures were given to us by the governments involved. Given the past record of inaccuracies in foreign fishing data, who is to say exactly how much fishing really goes on out there? Besides the Japanese, there are Chinese, Polish and South Korean vessels that operate in the donut as well. And while we know little about the fishing effort, we know next to nothing about the composition of fish stocks in the 70,000 square-mile donut.

The composition of fish stocks in the donut will be the key to determining the impact this massive, unregulated fishery will have on American fisheries in the Exclusive Economic Zone (EEZ). It is quite possible that the pollock stocks of the donut and the U.S. EEZ are interrelated, which would mean that unregulated fishing in the donut could prove disastrous for the long-term health and management of the Bering Sea fisheries resource.

In December the NPFMC will consider recommendations to increase the allowable catch levels for pollock

beyond last year's 1.2 million metric tons. If the NPFMC does not take the massive donut zone harvest into account when setting allowable catch levels for pollock in American waters, overharvesting may result. If stocks in the two zones turn out to be closely mixed, the resource could collapse. Such a collapse would come at a particularly bad time for the continued Americanization of the fisheries.

By raising the cap set in the management plan for the Bering Sea/Aleutian Islands, the NPFMC could increase the allowable catch level for a number of species, which could benefit some segments of the fishing industry. But the bulk of the increase would go to pollock. This would mean increased JVP (joint venture) and TALFF (directed foreign fishing) allocations, which in turn would reduce the percentage of U.S. processed fish on the market, reducing the influence American processors need to break into closed foreign markets. And if a collapse did come, it would hit in a few years, right when the multi-million dollar factory trawlers many American companies are building finally come on line.

The point is, we just don't know what the impact of fishing in the donut zone will be. Historically, we have found that unregulated fishing is destructive and leads to overharvesting of the common resource as individuals seek to maximize their returns. It was unregulated fishing by large foreign fleets that helped precipitate the Magnuson Act in the first place.

We should not ignore the warnings of the past. At the very least, we should consider ways to obtain observer coverage and comprehensive data for vessels operating in the donut, as well as conducting research to determine the composition of the stocks. The U.S. should also take steps to bring about the regulation or elimination of high seas fisheries in the donut. But until that time, it would seem prudent for the NPFMC to consider the possible impact of intensive fishing in the donut when setting catch levels for bottomfish in the U.S. EEZ.

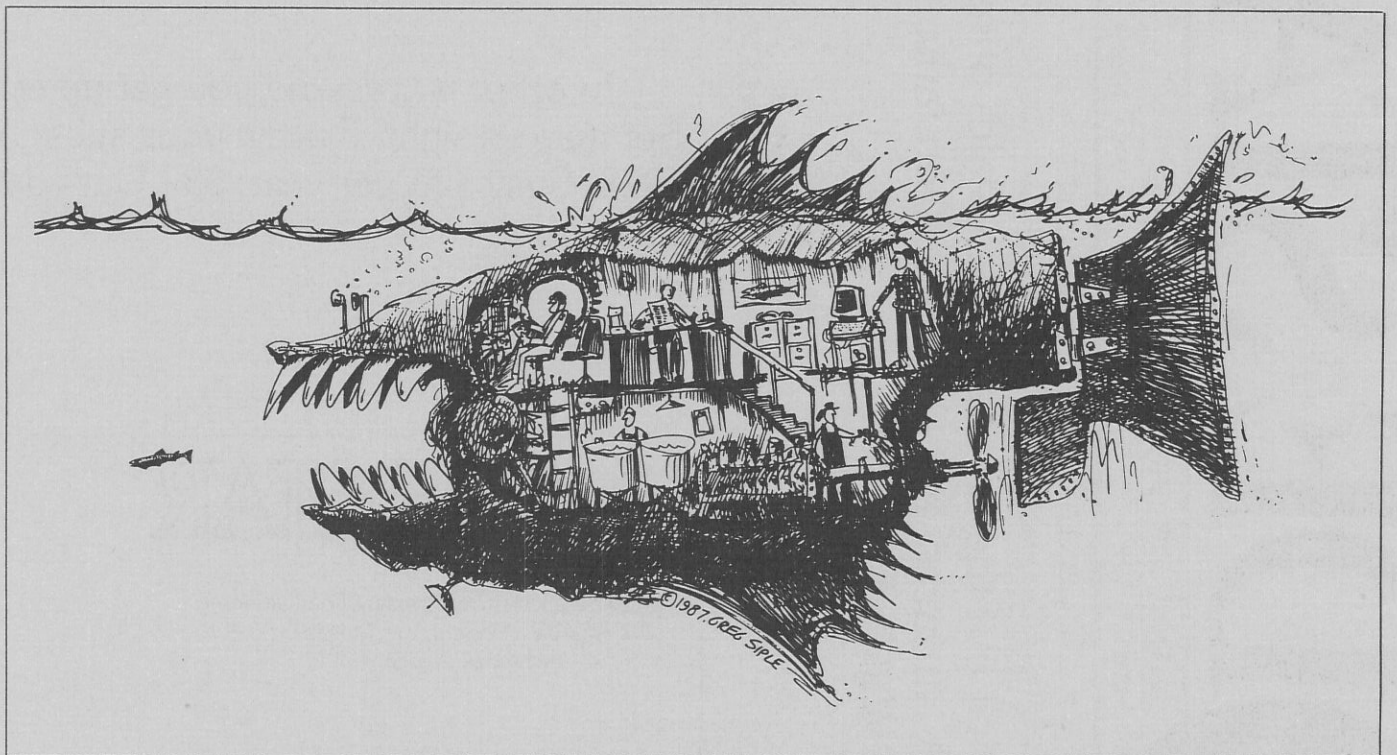
Earl Comstock
Bering Sea Fishermen's Association

"Given the past record of inaccuracies in foreign fishing data, who is to say exactly how much fishing really goes on out there?"

gests we begin thinking about fish in a whole new way. "Look at the seafood industry as a whole animal," he said. "Think of it as a system. Each different product is like different cuts of an animal. The loin is crab meat. The T-bone is shrimp. Then pricing becomes similar to the poultry industry, and the economics of the seafood business begin to make sense."

Also, the companies who understand balance of payments are the companies who will profit, he said. "Where are the markets in the world, and what do the people with money want to buy? The Moslems like lamb; the Japanese like beef. Someone should be making beef-flavored surimi." But most seafood companies, except the biggest firms, aren't accustomed to building a business plan that covers five to ten years, 300 days per year, and are more concerned with making profits than with righting the balance of payments.

Just as the notion of soaking a lodestone in fish brine must have made some eyebrows go up and down, gauging the future of the seafood industry—or the trade deficit—by the angle of a fisherman's supercilium is risky at best. One thing is fairly sure: The compass will rotate toward those with the most energetic imaginations, those who desire success so bad they can taste it.



* from *Thereby Hangs a Tale: Stories of Curious Word Origins* by Charles Earle Funk, Harper & Row, 1950.

INDUSTRY news

Frozen surimi's future

A seminar on the future of frozen surimi was sponsored this summer by the Japan Frozen Foods Inspection Association. According to BANR, although overall Japanese frozen surimi production for 1987 is expected to be down 15 percent, the supply gap will be covered by higher land-based surimi production, along with the use of hoki and a Soviet joint venture catch. Japanese demand for secondary surimi products, skidding since late 1985 when prices went up, should rebound in late 1987 and may exceed 1986 levels. Japanese inventories of frozen surimi were declining through the last half of 1987, but prices for top grade at-sea surimi should hold firm due to limited supply. Lower-grade surimi prices are down due to an over-supply.

USDA buys pollock nuggets

USDA's Agricultural Marketing Service in September purchased 912,000 pounds of frozen, fried and breaded Alaskan pollock nuggets for the National School Lunch Program. The purchase amounted to \$1.213 million, with prices ranging from \$1.32 to \$1.34 per pound.

Sardine surimi

France has signed an agreement with the firm Codimar to study the use of sardines in surimi production. The project begins in late 1987 at Lorient.

Fisheries funds eyed

Commercial and recreational fishermen alike may be tapped to provide millions of dollars for fisheries research if a bill by U.S. Rep. Don Young, R-Alaska, becomes law. Under his bill, commercial boats would be taxed \$45 per year, while recreational fishermen would pay \$15. Processing vessels would pay \$2 per ton. Funds would be distributed to the management councils, fisheries commissions, and National Marine Fisheries Service. Hearings are planned early in 1988.

Reflagging bill passed

The U.S. House of Representatives voted 351-40 to prohibit foreign-owned fish processing vessels from being reflagged in the U.S. The Nov. 10 vote sends the measure, which set July 28, 1987, as the last day reflagging applications could be accepted by the Coast Guard, to the U.S. Senate Commerce and Transportation Committee. A Senate bill seeks a Jan. 1, 1987, cutoff. Reflagging could give foreign-owned fish processors greater access to fish within the U.S. zone.

"Safe Food Act" introduced

The Safe Food Standards Act of 1987 was introduced in the U.S.

Senate on Oct. 23. A section of the bill would create a seafood inspection program, under the Secretary of Commerce, aimed at setting standards covering microorganisms not regulated by FDA or EPA.

Korean surimi

South Korea's 1987 production capacity (55,000 metric tons) for at-sea surimi is more than double its 1986 capacity. Due to limitations on its catch in U.S. waters, upon which South Korea depends, operations are expected to decrease. South Korea produces mostly for the Japanese market, but increased domestic consumption is expected to diminish exports. Meanwhile, the U.S. is pressuring South Korea to open its markets to U.S. seafoods.

Fourth IIFET conference set

"Seafood Trade, Fishing Industry Structure, and Fish Stocks: The Economic Interaction" is the topic of the fourth biennial conference of the International Institute of Fisheries Economics and Trade, scheduled Aug. 7-12, 1988, in Esbjerg, Denmark. Authors have until Jan. 31, 1988, to submit abstracts of their papers for review of the planning committee.

Japan's Thai surimi

Samchai International Foods began producing SA grade surimi in its new plant at Ranong, Thailand, in July. Surimi is made from thread-fin bream and other local species (croaker and barracuda). SIFCO is the first plant on Thailand's west coast; six others operate on the Gulf of Siam.

Prison point of view

Prison officials who fear adverse public reaction to inmates dining on crab legs, even if they are surimi-based crab analogues, claim analogues would be better received if they were used in a chowder or salad, disguised as anything except crab legs. Seems the reasonable price wasn't enough to dismiss the analogue's perception as a gourmet item. (Source: Seafood Trend)

Seaweed Pasta

A 100-percent seaweed pasta has been introduced by Gastron Dupre of Tampa, Fla., joining the firm's line of chocolate, saffron and chili pastas.

El Nino strikes again?

Pacific fishermen may have to deal with El Nino once again. The warm-ocean phenomenon last disrupted West Coast fishing in 1982-83, and it may be responsible for the Pacific Northwest's abnormally warm and dry weather of the last four months. According to the National Weather Service, the condition could last through the 1987-88 rainy season. This year's migrating salmon found western Washington streams too low, hampering their progress to spawning grounds.

the LODESTAR

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Development Foundation

Alaska Fisheries

"Nothing is rich but the inexhaustible wealth of nature. She shows us only surfaces, but she is a million fathoms deep."

—Ralph Waldo Emerson

Matutolypic?

(In other words, did you get up on the wrong side of the bed?) Set it all straight. Renew your subscription to The Lodestar for 1988. Only \$20 per year; \$30 Canada and overseas (US dollars only).



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