

Shrimp 1980: Consumption Is Up in a Difficult Year

The U.S. shrimp industry experienced a very difficult year in 1980. The recession in the United States dampened demand for shrimp and prices fell, while operating costs rose sharply as fuel prices and interest rates hit record levels.

Shrimp stocks were high in the first 7 months. Imports were reduced, but landings were up slightly above 1979 after a slow start. Despite the difficulties in 1980, consumption increased 10 percent over 1979, according to preliminary data.

Prices of shrimp at the ex-vessel and wholesale levels had moved strongly upward from December 1977 to June 1979, and then moved downward through November and December 1980, respectively. Ex-vessel prices rose from \$2.22 per pound in December 1977, then fell from a peak of \$5.00 in June 1979 to \$3.03 in November 1980, and increased to \$3.36 in January 1981 for western Gulf shrimp, 31-35 per pound heads off.

Shrimp landings in the Gulf and South Atlantic increased 4 percent to 152 million pounds (heads off). Total U.S. landings advanced 1 percent to 208 million pounds but were 15 percent below the 1974-78 average (Table 1). The larger catch of small size southern shrimp improved supplies for canning. The Gulf canned pack, normally over half the U.S. total, was 1.8 million standard cases, double the low 1979 pack, but only 3 percent above the 1974-78 average.

The slight increase in landings was offset by the 4 percent drop in imports to 256 million pounds (heads off), about the same as the 1974-78 average. Although total imports were down, imports of raw headless shrimp rose to 139 million pounds in 1980, up 12 percent from 1979. Imports of peeled raw shrimp fell 23 percent, mostly because of the sharp drop in shipments from India, the leading supplier in 1979. Total imports from Mexico increased to 76 million pounds, up 6 percent from 1979. Total imports from Ecuador, the second leading U.S. supplier in 1980, were 20 million pounds, 47 percent above 1979.

Cold storage holdings of shrimp at the start of 1980 were high, 14 percent above the 1974-78 average. Weak demand, associated with

slowness in the economy, and the high cost of carrying inventories prompted price reductions in an effort to reduce inventories. They were above 1979 levels until 1 August, but then fell and remained below 1979 levels for the rest of the year. At the end of 1980, holdings were down 21 percent from a year earlier to 62 million pounds (heads off).

Total supplies of shrimp were 3 percent higher in 1980 than in 1979, but 5 percent below the 1974-78 average. High beginning inventories, along with the slight increase in landings easily offset the drop in imports. Increased supplies went to consumption, not to an inventory build-up late in the year as in 1979, nor to exports, which dropped substantially below both year-earlier and 1974-78 average levels. Most of the increase in consumption occurred in the fourth quarter, consumption in the second and third quarters being below a year earlier. Lower prices helped spur the 10 percent increase in consumption to 440 million pounds (heads off), although consumption was still 2 percent below the 1974-78 average.

The outlook for the demand for shrimp appears to be improving. Though prices were fairly low at the wholesale level, they may have bottomed out in late 1980; prices have increased slightly in early 1981. The strength of the recovery will depend substantially on the growth in the U.S. economy and the size of expected increases in real disposable income. Inventories are below the 1974-78 average. Prices of meat and poultry are expected to increase from 15 to 17 percent (sales adjusted for inflation) compared with a 1.6 percent decline in 1980. (Source: *Fishery Market News*.)

Table 1.—Supplies and uses of all shrimp, 1974-78 average, 1979, and 1980, heads off weight. Data are preliminary.

Item	Million pounds		
	1974-78 avg.	1979	1980
Supplies			
Beginning stocks	68.8	56.2	78.3
Landings	245.0	205.6	208.3
Imports	255.7	267.1	256.0
Total	569.5	528.9	542.6
Uses			
Ending stocks	64.2	78.3	62.1
Exports			
Fresh and frozen	33.0	34.1	18.8
Canned	14.5	11.0	11.8
Foreign shrimp	8.9	5.8	9.6
Apparent consumption	448.9	399.7	440.3

NOAA COMPONENTS WIN UNIT AWARDS

At the annual NOAA awards ceremony held 5 December 1980, 24 of-

ices, including six NMFS groups, received unit citations for commendable performances and outstanding contributions during the past year. The NMFS units included the following:

The Financial Services Division, Washington D.C.; Financial Assistance Branch, Northeast Region; Financial Services Branch, Southeast Region; Financial Services Office, Northwest Region; and the Financial Services Office, Southwest Region, for administering five active programs of varied financial services for the fishing industry and performing residual administrative duties for two inactive programs.

The NMFS Plan Review Program was recognized for outstanding performance in meeting its responsibilities under the FCMA.

The NMFS Southeast Region's Law Enforcement Division was cited for a commendable job in meeting its responsibilities with limited resources through an innovative approach to solving enforcement problems.

The NMFS Southeast Regional Environmental Assessment Branch was acclaimed for exemplary implementation of contracting permit application reviews in the Southeast Region. Recognized were the Regional Office, Beaufort Field Office, Panama City Field Office, and the Galveston Field Office.

The NMFS' Harvesting Technology Sea Turtle Excluder Trawl Project was cited for its outstanding collective efforts toward furthering management capabilities of the Service.

And, the NMFS Enforcement Division was recognized for producing an Enforcement Operations Manual which is a vital step in efforts to manage and increase the productivity of enforcement activities.

National Weather Units cited include: Techniques Development Laboratory for an outstanding level of productivity and scientific research and development; WSO Pensacola, Fla., for exemplary per-

formance in the face of Hurricane Frederic, September 1979; WSO Mobile, Ala., for exemplary performance in the face of Hurricane Frederic, September 1979; WSO Evansville, Ind., for superb performance during the disastrous 26 July flash flooding in southern Indiana; WSO Klamath Falls, Oreg., for general weather services and specialized agricultural services to southcentral Oregon and northeastern California; WSO Bethel, Alaska, for its outstanding performance and accomplishments in observations which has given it an excellent rating in the Alaska region; NWS Pacific Region, Regional Substation Management Section, for outstanding contribution and achievement in three NOAA/NWS programs; NWS Facilities Engineering Branch, for outstanding performance in the preparation of sites for installation of equipment for the AFOS Program; and the NWS Jacksonville Center, Weather Service Unit, for outstanding support provided to the FAA's Jacksonville, Fla., Air Route Traffic Control Center during 1978 and 1979.

Environmental Research Laboratory units cited include: Research Facilities Center for outstanding performance in logging over 2,300 flight hours in support of a multitude of national and international programs; Users' Network of Applied Models for Air Pollution for its contributions to the creation and implementation of UNAMAP; Space Environment Services Center for unusual dedication and ingenuity in greatly advancing and improving the NOAA/ERL program of solar-terrestrial services; Boulder Atmospheric Observatory for outstanding performance in bringing the BAO tower into operation and planning and formulating the BAO scientific program; and the Real Time Data Group for unusual dedication and ingenuity in obtaining parts and software to collect, process, and display data from SELDADS.

Other NOAA units cited include:

CZM, Marine Sanctuaries Operations and Enforcement Staff, for its individual and collective efforts in management of NOAA's marine sanctuaries; NOS, NOAA Ship *Researcher*, for outstanding contribution to the scientific field during 1979; NOS, New Datum Section, for outstanding performance and accomplishments during the transition period from one computer for another in transferring 3,100 horizontal adjustment sets of data; and RD, Outer Continental Shelf Environmental Assessment Program, for the development of a program of multidisciplinary scientific research which meets the environmental information needs of decision-makers responsible for leasing the Alaska OCS for oil and gas development.

Satellite Data Aid Alaskan Fishermen

A polar-orbiting satellite is proving a financial windfall for some Alaskan fishermen and other ocean-related enterprises. The Commerce Department's National Oceanic and Atmospheric Administration (NOAA) reports satellite data on sea temperatures and ice conditions have saved one Alaskan herring processing plant \$8,000 daily in wages and fuel costs.

The data, turned into temperature charts, indicate exactly where the company should send its floating processing plant for herring runs. The runs occur in spring in areas where surface temperatures have warmed to 4°C.

NOAA began distributing charts on an experimental basis about a year ago. It now sends them to more than 100 users, ranging from the U.S. Coast Guard to oil exploration companies. The charts are prepared from imagery taken by the National Earth Satellite Services' NOAA-6 satellite which makes two passes

over Alaskan waters every 24 hours. As it does, sensing devices aboard the craft detect heat and, during daylight, reflected light from the sea surface. The satellite imagery is then converted into varying shades of grey representing specific temperatures.

Users of the charts receive them weekly by telecopier, facsimile, mail, or special messenger. Among users are king crab fishermen in the southern Bering Sea and Bristol Bay. A year ago, they lost more than \$3 million in pots because of ice formation. The fishermen now monitor the charts to determine when to retrieve their pots before ice forms.

Compensation Changes Set for Commercial Fishermen

The Commerce Department's National Oceanic and Atmospheric Administration (NOAA) will compensate fishermen for some income lost because of damage or destruction of their gear by another ship, but will no longer reimburse them for losses caused by nature.

Amendments to the American Fisheries Promotion Act, signed 22 December, permit the compensation of up to 25 percent of gross income lost by a fisherman because fishing was curtailed or impaired by an accident with another vessel. The amendments, however, no longer permit reimbursements for losses due to "acts of God."

All claims will be presumed to have been caused by another vessel unless the facts show otherwise. A loss that clearly can be attributed to a hurricane that occurred at the same time and place will be denied.

Before the change in the law, nearly 600 claims were honored for damage caused by hurricanes David and Allen and the Bering Sea ice floe during early 1980. All such claims submitted before 22 December will still be processed. Under the amendment, casualties occurring

between 17 September 1978 and 22 December 1980, not previously filed on time, could have been until 19 February 1981.

Fishermen also may be reimbursed for any reasonable deductible from their insurance coverage for losses or damage caused by a foreign vessel. Since October 1978, more than \$4 million has been paid fishermen under the Fishing Vessel and Gear Damage Compensation Fund. For additional information contact the Financial Services Division, National Marine Fisheries Service, NOAA, Washington, DC 20235.

Bering Sea Fish Resource Charts Now Are Available

In May through July 1980, an extensive, demersal crab-groundfish resource survey was conducted in the eastern Bering Sea by the NMFS Northwest and Alaska Fisheries Center. The results of this survey are now available as data sheets representing the catch in pounds per hour trawled. The sheets are scaled to overlay National Ocean Survey Chart 16006.

The data sheets provide a comprehensive picture of the distribution and relative abundance of each resource within the area lat. 54-61°N, long. 156-176°W. All persons in the fishing industry who have use for this information are invited to submit requests for the following charts: Total groundfish, walleye pollock, Pacific cod, yellowfin sole, Pacific halibut, total flounder, total rockfish, red king crab, blue king crab, Tanner crab (*C. bairdi*), Tanner crab (*C. opilio*), Korean horsehair crab, total snails, total cephalopods, and pollock average lengths.

Mail requests to: Bering Sea Project, Resource Assessment Division, Northwest and Alaska Fisheries Center, NMFS, NOAA, 2725 Montlake Blvd. East, Seattle, WA 98112.

Taggart Sworn in as NOAA Corps Director

Rear Admiral Kelly E. Taggart, is now director of the National Oceanic and Atmospheric Administration's (NOAA) Corps, one of the nation's seven uniformed services. Sworn in by former Commerce Secretary Philip M. Klutznick on 8 January, Taggart succeeded retiring Rear Admiral Harley D. Nygren.

The 400 corps officers provide scientific and engineering services for NOAA, the civil sea and air agency that predicts the weather and protects the oceans and coastline.

Taggart, 48, formerly was deputy associate director of the National Ocean Survey's (NOS) Office of Fleet Operations. A 25-year veteran of government service, he has served with various Commerce Department agencies since joining the Coast and Geodetic Survey in 1955. Taggart has served on five of NOAA's 25 vessels, including a tour as Commanding Officer of *Oceanographer*, Flagship of the NOAA fleet.

NOAA Awards Presented for Outstanding Service

Awards went to 11 employees of the National Oceanic and Atmospheric Administration at ceremonies in Washington, D.C., on 5 December, including two National Marine Fisheries Service employees, Edna H. Ross and Phyllis J. Fisher. The awards ranged from \$1,000 to \$5,000 for outstanding service to the Commerce Department agency over the past year.

The winners were: Thomas D. Potter, director of NOAA's Environmental Data and Information Service, and Edna H. Ross, National Marine Fisheries Service, \$1,000 each for outstanding contributions to the agency's Equal Employment Opportunity Program; J. Murray Mitchell, Jr., Environmental Data and Information Service, Washington, D.C., \$5,000 for

outstanding achievement in the science of climatic variability; Anthony J. L. Tafoya, Environmental Research Laboratories, Boulder, Colo., \$1,000 for outstanding service to the Hispanic community and to NOAA's Hispanic program; Robert H. Stockman, NOAA Office of Policy and Planning in Washington, D.C., \$1,000 for outstanding policy guidance in marine sciences; Kenneth G. Vadnais, NOAA Corps in Washington, D.C., \$1,000 for

outstanding contributions to the development of an airborne gamma radiation snow survey system; Kathryn L. Cousins, NOAA Office of Coastal Zone Management in Washington, D.C., \$2,000 for outstanding achievement in the development of Coastal Zone Management programs from Maine to New Jersey; Phyllis J. Fisher, National Marine Fisheries Service, Miami, Fla., \$2,000 for outstanding achievement in administration;

Charles R. Dinkel, National Ocean Survey in Washington, D.C., \$3,000 for outstanding achievement in systems innovation for bathymetric research; Syukuro Manabe, Environmental Research Laboratories in Princeton, N.J., \$3,000 for outstanding achievement in the science of climate dynamics; and John T. Murray, National Weather Service, Williamsport, Pa., \$1,000 for outstanding achievement in community preparedness programs.

Pomfret Eyed as a Potential Food Source

The Utilization Research Division laboratory of the NMFS Northwest and Alaska Fisheries Center, Seattle, Wash., received several hundred pounds of whole pomfret, *Brama japonica*, for use in utilization studies and trace metal composition analyses. The fish were caught in July 1980 with gill nets by the Japanese research vessel *Oshoro Maru* in the Gulf of Alaska. Personnel from the National Marine Mammal Laboratory, acting as observers aboard the vessel, obtained and shipped the samples to Seattle.

Pomfret is an epipelagic fish that occurs abundantly but erratically offshore from Mexico to the Gulf of Alaska and the Aleutian Islands, but is not common in the Bering Sea. Although considered a highly edible species, little information is available about their use because pomfret occur seasonally and erratically. They are principally fished by foreign vessels on the high seas. Because of their potential as an underutilized species for development, we have begun, on an "as available" basis, preliminary work to characterize the fish as a food product.

In the laboratory, the pomfret were subjected to chemical and sensory analyses. The fish were measured (39.3 ± 2.2 cm), weighed ($1,131 \pm 176$ g), and filleted to deter-

mine yield (42.7 ± 3.4 percent). For canned products, fillets were smoked or steamed and combined with salt, vegetable oil, onion broth, or chicken broth. Five panelists rated the canned products in order of preference and by flavor and texture (5-point scale).

All products were found acceptable but fish smoked with oil added was the most preferred and the steamed fish with onion broth and salt added was least accepted. The steamed samples were analyzed for overall preference (9-point scale) by 13 panelists. Scores ranged from 4 to 9 and averaged 7.2 ± 1.3 denoting moderate to high acceptability.

Fillets from 13 pomfret were then analyzed for chemical proximate composition. The following values are the means, standard deviations, and ranges of these analyses in g/100 g.

Item	Moisture	Protein	Fats & oils	Ash
Mean	74.2	22.2	2.3	1.3
S.D.	± 1.3	± 0.8	± 1.3	± 0.2
Range	76.2-81.6	20.6-24.2	0.6-5.0	1.0-2.1

In addition, muscle samples from the 24 fish were analyzed for 25 minerals and trace elements using plasma emission spectroscopy.

Based on these analyses, pomfret are high in protein and fairly low but variable in fat content. They have a mineral and trace element composition typical of other fish such as Pacific cod, *Gadus macrocephalus*. The analyses showed no significant levels of elements of public health concern, such as mercury and lead. Analyses of pomfret taken in other areas or seasons may vary in composition; therefore the studies will continue when additional samples become available.

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