

Schoning: Prices; Foreign Fishing; Underutilized Species; Aquaculture

Shortly after having been sworn in as Director of the National Marine Fisheries Service, Robert W. Schoning met informally with John A. Guinan, NOAA Public Affairs Officer assigned to the National Marine Fisheries Service, for a wide-ranging discussion of U.S. fish and fisheries. The following article presents highlights of the interview.

Guinan: Probably the most talked about fisheries topic these days is prices.

Schoning: Prices are a real problem. I hear this often from my wife. And people throughout the industry are concerned.

Guinan: Why have prices shot up?

Schoning: Because of increased demand, both foreign and domestic, and the reduction in availability of some of the more popular stocks of fish.

Guinan: What is the outlook on prices?

Schoning: I think they will generally stay high, possibly even go up, for some time.

Guinan: The United States imports about 65 or 75 percent of its fishery products. Why?

Schoning: The demand for fishery products exceeds the domestic catch. The demand is increasing. Our fishermen are unable at this time to capture enough marketable fish to satisfy it. Because of various foreign government subsidies and for other reasons, many imports are available on our markets at a cheaper price than domestic species.

Guinan: We can expect increasing reliance on imports, then?

Schoning: I hope the trend will change. We in NMFS are determined to cooperate closely with our fishing industry in helping it capture a greater share of the U.S. market. We are convinced that this can be done and should be done. Our fishermen have the technical competence to capture more fish. But the amount and type of foreign fishing activity off our coasts prevent our fishermen from being as productive and effective as they might be. We must develop more of our presently

underutilized species. In addition, we must take a greater percentage of the total fish caught off our coasts. This means, very clearly, that we must reduce the foreign catch in the waters off the United States.

Guinan: Foreign fishing, you seem to agree, is a major threat to the U.S. fishing industry.

Schoning: There is no question about that. They are not now taking great quantities of *all* the species available. But I am convinced that unless some more positive action is taken to deter them, eventually they will fish on those other stocks as well. Something must be done to stop it.

Guinan: What is NMFS doing about this?

Schoning: We are working through bilateral and multilateral agreements with these nations.

Guinan: Has this been successful?

Schoning: Yes, in some areas, and we are continually working to improve them. In the recent ICNAF (International Commission for North Atlantic Fisheries) discussions, the United States took a much firmer position than in the past. I think this is a very definite trend that will continue. The United States must stand up to be counted. We are tightening up our demands for more consideration for our fishermen in bilateral and multilateral agreements and conventions, such as ICNAF.

Also, with considerable help from leaders of the U.S. fishing industry, we are pushing hard for a position in the Law of the Sea discussions that will give appropriate consideration to our U.S. fisheries.

Robert W. Schoning, Director of the National Marine Fisheries Service, NOAA, right, is interviewed by John A. Guinan, NMFS Public Affairs Officer, for *Marine Fisheries Review*.



Guinan: We import about \$1.3 billion more fish and fishery products than we export. Foreign nations are becoming more affluent; they are eating more fish, and the dollar has been sinking in value. How will these developments affect the U.S. fisheries?

Schoning: I think it inevitable that there will be increased competition of serious concern to the U.S. fishing industry. But that can be turned to our advantage. Many of our processors are expanding their capabilities with the addition of foreign capital. If the dollar continues to sink in value and the demand for fish increases in the nations which catch the fish—and I am sure the latter will occur—it will tax the ingenuity of the U.S. commercial fishing industry. There will be some problems, some very difficult ones. But I am convinced the industry will respond in a meaningful way and by such action will retain a viable U.S. commercial fishing industry to supply our consumers with the fish they deserve and want.

Guinan: We often hear that certain segments of the fishing industry are "sick". Which are these?

Schoning: Most, if not all, fisheries have problems. But those I consider "sick" are the ones where there has been very heavy foreign fishing encroachment on the stocks. For example, in New England, for a hundred years or more our fishermen have fished the stocks and caught large numbers of fish. But they have been able, by their fishing practices, to keep the stocks on a good producing basis. But the very large foreign effort has reduced many stocks to a point where we can no longer make a reasonable profit from fishing them.

Guinan: Will this situation continue?

Schoning: They are going to stay in this condition until—in my judgment, at least—the foreign effort is either

eliminated entirely for certain species or very sharply restricted. And a considerable period of time must be given to bringing these stocks back. Certainly the New England ground fishery is in this category. Some off the west coast are, too, such as Pacific Ocean perch off Washington and Oregon and some of the groundfish in Alaska.

Guinan: What are some "healthy" fisheries?

Schoning: The tuna fishery is very "healthy"—at least the Pacific tuna—although the increased foreign effort with accompanying disregard of regulations and the expanding program in vessel construction are causing us great concern on a worldwide basis. Shrimp, as a whole, is also "healthy."

Guinan: You have mentioned underutilized species. Is NMFS doing anything about them?

Schoning: A considerable amount, and we hope to do more. Our scientists have accumulated information regarding certain species that they think are in sufficient abundance to justify long-term commercial fisheries. We are making plans to embark on exploratory, harvesting, and marketing programs on certain of these species.

Guinan: Which ones?

Schoning: We have one project underway right now with Jonah crab and red crab and squid in New England. We are also considering working with ocean quahog—a large clam—and with croakers in the Gulf. Another species is pollock in the Bering Sea. There is considerable industry cooperation in such efforts and that is the way we like to go.

Guinan: How do you sell such little-known products?

Schoning: Our marketing people are working on that. Marketing plays a key role in the work in New England.

One of the things that has stimulated this program has been keen industry interest in the foreign markets for squid.

We generally believe that there is a place for NMFS to be involved in marketing and developing markets for underutilized species, developing export markets for species not yet popular in the United States, and developing methods to present the product in a palatable way and make people aware of it.

Guinan: How about aquaculture?

Schoning: I am convinced that aquaculture can contribute substantially to our supply of protein. Although I'm not sure that large, tangible benefits will come as quickly as some of the more hopeful people believe.

Guinan: What is NMFS's part in the aquaculture picture?

Schoning: I feel that NMFS should do much of the research to demonstrate that certain approaches are possible and realistic. Once we do develop techniques and procedures, then our knowledge should be turned over to private industry for further use.

Guinan: What are some of the species NMFS is working on?

Schoning: Pan-size salmon, shrimp, and other shellfish.

Guinan: Is the public being kept informed about results?

Schoning: We are trying to publish results as quickly as possible in appropriate scientific journals. We are also communicating the results to industry and others who might find them of use.

Guinan: Are there major roadblocks in the way of developing aquaculture?

Schoning: A number. For example—and this is one that people don't normally think of—if a particular type of aquaculture requires a substantial number of ponds for rearing,

there are some real problems. Water-front acreage and the taking away of large water areas for this purpose is becoming prohibitive both from the standpoint of cost and availability. Some companies are going to foreign countries where the land associated with water is more readily available. Developing or finding an acceptable food for the young is another problem.

Guinan: How do NMFS's efforts in aquaculture interact with those of other agencies?

Schoning: I think that there will be a very significant part in the aquaculture future for NMFS, NOAA, private industry, the States, and the universities. The more coordinated cooperation we can get in this challenging program, the more productive we can be and the quicker we can utilize the results. We are working with many now.

Guinan: Do you believe NMFS has a responsibility to conduct research

and development on different—even revolutionary—fishery gear and methods?

Schoning: I am convinced we should do more of it.

Guinan: NMFS is probably the largest single employer of fishery biologists in the world. What would be your advice to a student entering this field?

Schoning: I think the individual should be keenly interested in the work itself. The monetary benefits should be secondary. The person should be dedicated to working hard.

Guinan: Is the Ph.D. a requisite?

Schoning: No. As a prospective employer, I would be more interested in hiring someone with a well-rounded background—with a college degree, but who has attributes such as a determination to work hard, a willingness to cooperate, ingenuity, a desire to

accept responsibility and to make decisions. To me, these are more important than the additional academic training as such. Certainly, I don't mean that additional educational training is not valuable. It is very valuable.

Guinan: Are there particular courses you think prospective employees should take?

Schoning: Yes. I would strongly urge the people to take additional training in writing and public speaking.

Guinan: What about employment opportunities for women?

Schoning: They are good.

Guinan: At the professional level?

Schoning: At the professional level. For example, a well-known fisheries technologist, Mary Thompson, is Deputy Director of our Southeast Fisheries Center in Miami. This is a key position. She is doing a fine job. There are others, too.

Guinan: There are about 9.5 million sport fishermen who seek marine fish. What is their estimated catch?

Schoning: When you consider only edible saltwater fish, their catch is close to two-thirds the commercial catch. And the recreational catch figures do not include shellfish. We do not have a fix on the amount of shellfish caught by recreational fishermen.

Guinan: How is NMFS seeking to improve recreational fishing?

Schoning: In the past, most of our effort has been directed toward some of the more exotic species known to be

Sport fishermen catch nearly two-thirds the edible commercial marine fish catch according to Director Schoning.



fished by ocean big game fishermen. These would be the billfishes and some of the sharks. We are going to concentrate our effort more along the lines of research, trying to get basic needed information about the life history and habits and abundance and numbers caught of these and other species—species of importance to the people who don't go so far to sea to fish but fish closer to or from the shore.

We plan to work with the introduction of Pacific salmon in New England. We are very hopeful that this will develop into a real fine sport fishery.

Guinan: You have mentioned several interesting developments. How do people get more information about them?

Schoning: The simplest way is to contact our people in the regions. We have people spread out all over the nation. Or you can contact the Washington office.

Guinan: What is the NMFS role in the Great Lakes?

Schoning: We are out of the biological research work there, but commercial fishing and certain associated activities are still our responsibility.

Guinan: The Marine Mammal Protection Act became law in December 1972. What is NMFS doing under it?

Schoning: In Commerce we have the responsibility for whales, porpoises, seals, and sea lions. The purpose of the Act, essentially, is to prohibit the capture and importation of marine mammals and marine mammal products. We have a very active part in administering the act.

Some of the most significant research work, both in biological and gear research, recently has been done on the incidental capture of porpoises in the yellowfin tuna fishery. We are trying

to develop procedures and gear and techniques to reduce or eliminate this incidental killing of porpoises. The work looks promising.

Guinan: What about the fur seal program in the Pribilof Islands?

Schoning: The Act very clearly exempts the long-standing program of harvesting fur seals in the Pribilof Islands. This is one of the classics of marine mammal management. It has been going on since before the turn of the century. It is sound, well planned, and coordinated.

Guinan: A few personal questions at this point, please. Do you like to fish?

Schoning: Yes, although I haven't done as much of it lately as I would like to. In coming from the Pacific Northwest, where I spent essentially my entire life, I confined my fishing primarily to salmon and some miscellaneous salt-water species.

Guinan: What is your favorite eating fish?

Schoning: Pacific salmon. There is no question in my mind about that. I have eaten it for a great many years. I have tried fish all over the country. Although I like a great number of them, I'm still very partial to Pacific salmon, particularly when it's fresh and broiled.

Guinan: Any specific recipes?

Schoning: No, that's handled by other members of the family. I just eat it, enjoy it, and leave the cooking to the experts.

Guinan: Have you tried any of the underutilized species?

Schoning: For a recent meeting where we made a presentation to the

President's Cost of Living Council Subcommittee on Food our staff prepared a number of dishes from underutilized species. I practically devoured the entire supply of squid myself. It was marinated and it was very delicious. As I recall, this was my first exposure to it, and I hope it will not be my last. There are some other underutilized species—Jonah crab, red crab, and dogfish—I have tried in the past and liked.

Guinan: Do you plan close cooperation with other agencies and organizations interested in marine fisheries?

Schoning: Yes. I am determined that we will make an even greater effort in NMFS to solicit and carefully evaluate and incorporate, where appropriate, the views of our constituency at an early stage in the development of our programs. I include among our constituency the sport fishery interests, the commercial fishing industry, State agencies, other Federal agencies, the universities, and conservation groups. I expect to hold their feet to the fire in providing us their views as we go along in developing and implementing our programs. We want to get ideas from all these people. We recognize they have expertise, knowledge, good ideas, and we want to make the best use of these. Undoubtedly we will not use all of them but I am confident many will be helpful.

Being appointed as Director of NMFS is a great honor for me and a tremendous challenge. I am very excited about it. I look forward to working closely with all those who have this same goal of more viable and productive commercial and sports fisheries in the United States. With the competent NMFS staff and the help of all other interested parties, I am convinced we can make meaningful progress. We can, we must, we shall.

Undersized Halibut Fillets Discovered

Notice has been given to importers of halibut from Japan that inspections of several samples of recent imports contained fillets which were determined to be from undersized halibut. The National Marine Fisheries Service has reason to believe that the halibut, from which some fillets were obtained, were caught in contravention of Japanese domestic law including regulations. United States law prohibits the importation of such fillets from undersized halibut which were taken in violation of the laws or regulations of Japan.

The Japanese Government has a 26-inch (66 cm) minimum size limit on halibut caught in the North Pacific Ocean, Bering Sea, and Okhotsk Sea, inclusive, throughout the year. This minimum size limit is identical with the size limits established in the eastern Bering Sea pursuant to the International Convention for the High Seas Fisheries of the North Pacific Ocean.

Under the provisions of 16 U.S.C. 851-856, inter alia, it is unlawful for any person to deliver or receive for transportation, or to transport, by any means whatsoever, in interstate or foreign commerce, any fish, if such person knows or in the exercise of due care should know that (1) such delivery or transportation is contrary to the law of any foreign country from which such fish is found or transported, or (2) such fish has been either caught,

killed, taken, sold, purchased, possessed, or transported, at any time, contrary to the law of the foreign country, in which it was caught, killed, taken, sold, purchased, or possessed, or from which it was transported. In addition, it is unlawful to purchase or receive any fish, if such person knows, or in in the exercise of due care should know, that such fish had been transported in violation of the above.

The National Marine Fisheries Service is now in the process of establishing procedures under which imports will be examined and tests conducted to determine if fillets from illegal fish are contained in the shipment.

In order to avoid a violation of this law, importers of halibut or halibut fillets are accordingly advised to notify their vendors and consignors of this notice and to take such other measures as may be necessary to prevent the importation of undersized halibut or fillets from under-sized halibut from Japan.

Blum to Manage Sea Mammal Program

The appointment of Joseph R. Blum, 33, as Marine Mammal Coordinator in the National Marine Fisheries Service has been announced by the Commerce Department's National Oceanic and Atmospheric Administration.

The Fisheries Service's responsibilities were greatly expanded by passage of the Marine Mammal Protection Act of 1972 when the Service was assigned the management, enforcement, and administrative functions of that portion of the legislation that deals with seals, sea lions, whales, and porpoises.

NMFS Director Robert W. Schoning said: "We are fortunate to have a man of Mr. Blum's experience and capabilities in this extremely important position. We feel he has special com-

petence because of his training and expertise, especially in situations demanding full cooperation between the various States and the Federal Government."

Mr. Blum's most recent assignment was as Deputy Commissioner of the Alaska Department of Fish and Game in Juneau. He has represented Alaska on a number of State and State-Federal groups working on fish and game problems, particularly on reducing State-Federal conflicts and overlap. Another of his assignments in Alaska dealt with marine mammal habitat with a goal of minimizing or eliminating hazards to marine mammals.

New Federal Loan Law Aids Fishermen

Certain provisions of the new Federal Ship Financing Act of 1972 are of particular interest to the fishing industry and those who finance fishing vessels, according to the Commerce Department's National Oceanic and Atmospheric Administration.

The Act simplifies paper work, liberalizes refinancing, and makes the program more attractive to lenders who finance commercial fishing vessels. Lenders participating in the new program will no longer have to secure their loans by vessel mortgages or other collateral. The lender will be protected by a U.S. Government guarantee of the obligation. The Government and the borrower will then make security arrangements without the lender's involvement.

Among other things, the Act provides for a Fishing Vessel Obligation Guarantee Program to be administered by NOAA's National Marine Fisheries Service. The new program is designed to increase private financial responsiveness to the investment capital needs of the U.S. commercial fishing fleet.

By guaranteeing obligations such as notes, bonds, debentures, or other forms of indebtedness, the new program assures lenders that they will be repaid as agreed when they make loans

LORAN-A System To Be Continued

On June 6, 1973, the U.S. Coast Guard issued a notice to mariners stating that it intends to continue the LORAN-A system in the U.S. until a system that is a reasonably adequate replacement is operating. Any changes will be given widespread publicity well in advance and a reasonable period of concurrent system operation will be provided to allow mariners to convert.

to commercial fishermen to help finance or refinance up to 75 percent of the cost of constructing, reconstructing, or reconditioning commercial fishing vessels.

NMFS Director Robert W. Schoning said that if a borrower subsequently defaults in paying a guaranteed obligation, the Commerce Department would pay the lender the obligation's entire unpaid principal and interest balance. He said the full faith and credit of the Commerce Department and the U.S. Government will be pledged to payment of the guarantee. Loans for construction may be for a period of up to 15 years or even longer if circumstances warrant, but terms for reconstruction or reconditioning loans would usually be of shorter duration than those for new vessels.

Mr. Schoning said the new program,

which supersedes the old Fishing Vessel Mortgage and Loan Insurance program, can be used in conjunction with the NMFS administered Capital Construction Fund program. The latter program allows deferment of taxation on certain income from commercial fishing operations when such income is deposited in a Capital Construction Fund for subsequent use in constructing, acquiring, or reconstructing a commercial fishing vessel. Such funds may, for example, be deposited and withdrawn by a borrower to pay installments due on an obligation guaranteed under the Fishing Vessel Obligation Guarantee program.

Mr. Schoning said that all comments and questions concerning the new programs may be addressed to the National Marine Fisheries Service.

Marine Mammal Progress Is Told

The Commerce Department granted no letters of exemption permitting the commercial killing of marine mammals during the first six months following passage of the Marine Mammal Protection Act of 1972, Secretary of Commerce Frederick B. Dent said on August 1, following release of a progress report on administration of the Act.

Of 50 applications concerning marine mammals submitted during the period covered by the report, the Secretary said, three applications were denied. These applied to two companies engaged in the sale of captured marine mammals in the United States and abroad, and one company whose business was based on the tanning of seal and sea lion pelts.

Applications were withdrawn by one company interested in importing 10,000 sealskins, by another wanting to capture killer whales, and by two scientific researchers. Altogether, the rejected or withdrawn applications concerned about 13,000 animals.

Thirteen exemptions were approved, principally covering the use of living

animals for scientific study or display. The great majority of these animals were tagged for scientific purposes and released back to the wild.

As of mid-June, 30 applications were pending.

The Marine Mammal Protection Act was signed into law by President Nixon on October 21, 1972, and took effect December 21. It establishes a national moratorium on the taking or importation of marine mammal products. It stipulates that a series of legal, scientific, and technological steps be taken in a sustained effort to maintain—and if necessary rebuild—populations of marine mammals. The Secretary of Commerce is responsible for the management and conservation of porpoises, sea lions, seals and whales; the Secretary of the Interior for all other ocean mammals.

Among the actions of major importance taken during the December-June implementation period of the Act, the report notes the following:

Establishing interim regulations governing the granting of exemptions to individuals and organizations.

Establishing a policy governing exemptions to research scientists which recognizes that continuing investigation of marine mammal life-cycles—highly necessary to the broad aims of the Act—depends on the ability of researchers to acquire certain animals.

Establishing a policy regarding exemptions to display organizations (seaquariums and the like) which recognizes the educational and aesthetic values of marine mammal exhibits to the public.

Adopting a policy that exemptions will be granted only to applicants who will maintain control of the animals, rather than collecting them for resale.

Establishing regulations governing handling and maintenance of captive marine mammals to assure their well-being.

Concluding cooperative enforcement arrangements between the Federal Government and ten States whose geographic locations involve them in marine mammal activities.

Creating a collection of abstracts of scientific information on marine mammals, encompassing 66 species.

Setting aside one of the Pribilof Islands off Alaska as a research area for the northern fur seal on which commercial harvesting has been halted for a period of years.

Undertaking a diversified scientific and technological study designed to reduce to the lowest achievable point, porpoise mortality stemming from tuna fishing methods used in the eastern tropical Pacific.

Requiring Environmental Impact Statements when large numbers of individual species are involved.

Proposing cooperative international actions to conserve and protect marine mammals.

Knecht Heads Coast Environment Office

Robert W. Knecht has been named Director of the Office of Coastal Environment, a unit of the Commerce Department's National Oceanic and

Atmospheric Administration. Mr. Knecht has served as Acting Director of the office since its establishment in May.

The Office of Coastal Environment was formed to manage NOAA's responsibilities under the Coastal Zone Management Act of 1972, the Marine Protection, Research and Sanctuaries Act of 1972 (the Ocean Dumping Act), and related activities. Operating under NOAA's Associate Administrator for Marine Resources, OCE presently consists of the Coastal Zone Management Program, Marine Eco-Systems Analysis (MESA) Program, and Manned Undersea Science and Technology (MUS&T) Program.

"America's coastal areas are immensely productive, often ecologically fragile and much sought after for recreational activities," Mr. Knecht said. "Our aim is to help ensure their continued health, beauty, and productivity for our benefit. Our mission is to encourage and assist the States and other interested groups in the rational planning and coordinated management of these vital but often-neglected areas."

Mr. Knecht was formerly Deputy Director of NOAA's Environmental Research Laboratories, Boulder, Colo., and came to the Washington area in 1972 to head the Coastal Zone Management Task Force. He has been in government service in the Department of Commerce since 1949 as a research physicist in the National Bureau of Standards and later in the Environmental Science Services Administration and in NOAA.

Tokyo Fisheries Attache is Named

The Commerce Department's National Oceanic and Atmospheric Administration has announced the appointment of Lorry M. Nakatsu, 47, a career employee of the National Marine Fisheries Service, as U.S. Regional Fisheries Attache to Tokyo. He replaces Clinton E. Atkinson who has held the position since 1966 and

who plans to retire in November 1973.

Mr. Nakatsu will be responsible for reporting on fisheries developments, representing the United States at fisheries meetings and activities, assisting the U.S. fishing industry in locating both markets and sources of supply overseas, and reporting on economic, political, scientific, and legal developments on fisheries matters which may affect the U.S. in East and Southeast Asia.

Until recently Mr. Nakatsu headed the Foreign Fisheries Program in the International Activities Staff of NOAA's Fisheries Service, and was responsible for collecting, analyzing, and evaluating information on significant fisheries developments in foreign countries. Earlier in his career, after being graduated from the University of Washington's College of Fisheries

Foreign Fishery Developments

OECD Fish Catch Drops, Imports Gain

The 1972 catch by the fishing fleets of member countries¹ of the Organization for Economic Cooperation and Development (OECD) totaled almost 23 million metric tons, a drop of 400,000 tons from 1971, according to OECD's *Review of Fisheries, 1972*. The total value of this catch will increase by 5 percent to about US \$9.2 billion.

Reflecting rising demand and the increase in landed value, imports of fish products by OECD countries was nearly US\$3.8 billion, up 24 percent from 1971 and their exports gained 20 percent in value to reach US\$2.6 billion. This expansion reflected the movement of greater quantities of many products as well as generally rising prices.

In the first quarter of 1973, markets continued buoyant and prices rose

¹ Australia, United States, Canada, Japan, United Kingdom, Norway, Iceland, Denmark, Portugal, Spain, France, W. Germany, Belgium, Ireland, Italy, Greece, Netherlands, Sweden, Turkey, and Finland.

in Seattle, he served as a salmon biologist at the NMFS laboratory in that city. In 1960 he was named head of a newly established program in the NMFS Regional Office at Terminal Island, California, to monitor and analyze the world's tuna fisheries with emphasis on the Japanese fisheries. He was transferred to Washington in 1966 and on a number of occasions participated in fisheries negotiations with Japan, the Soviet Union, and Canada. He also served as an adviser to the U.S. delegation to the International North Pacific Fisheries Commission.

Mr. Nakatsu, who is of Japanese ancestry, has a fluent knowledge of the Japanese language, having served as a linguist with the U.S. forces in World War II and as a translator for nearly four years in post-war Japan.

steadily. With little immediate prospect of larger supplies either of fish or other animal foods, a further build-up of demand pressure is believed likely.

In a period of widespread economic uncertainty such as prevailed in 1972, the continuing expansion of international trade in fish and fish products was notable. The relatively high escalating prices generally paid for fish which were in short supply tended to stimulate fleets to more intensive fishing of many resources which were already heavily exploited. The outcome of a downward trend in vessel catch rates was intensification of management measures which tended to narrow the fishing areas for many countries. The multiplying claims to wider national fishery preserves raised considerable dismay among many major fishing nations.

Intensified demand for high valued shellfish exerted growing pressure on supply which could only be enlarged within limitations and consequently