Seventy-five Years of Service: The U.S. Department of Commerce

The United States Department of Commerce this year celebrates 75 years of service to the Nation. It was founded in 1913, as on 5 March of that year President Woodrow Wilson named manufacturing executive and politician William C. Redfield as the Department's first Secretary. It was then composed of the Coast and Geodetic Survey, Steamboat Inspection Service, and the Bureaus of Fisheries, Lighthouses, Navigation, Corporations, Census, Standards, and Foreign and Domestic Commerce.

However, the Department had its roots many decades earlier in some of its component Bureaus. "Commerce," as such, was an early concern of U.S. leaders. In 1789, the new Nation created Departments of Foreign Affairs (soon renamed State), War, and Treasury, with the latter receiving responsibilities for business and commerce. A suggestion in 1787 to create a council of state, including a Secretary of Commerce and Finance, had not been acted upon. Also in 1789, the U.S. Congress authorized the maintenance of lighthouses (in 1918, lighthouse keepers were the first beneficiaries of Congress' initial civil service retirement plan).

In 1795 the U.S. House of Representatives created, as its third standing committee, the Committee of Commerce and Manufactures (the Senate set up its Commerce Committee in 1816). And George Washington, in his first Presidential speech, promised to advance "agriculture, commerce and manufactures by all proper means." Later in 1807 President Thomas Jefferson would sign legislation creating a "Survey of the

NMFS History	
1871 - 1903	First known as United States Fish Commission, the initial one-man (S. F. Baird) Commission was independent agency.
1903	Placed in the newly established Department of Commerce and Labor and renamed the Bureau of Fisheries.
1913	Department of Labor was separated from Commerce. Bureau of Fisheries remained in Commerce until 1939.
1939	Bureau of Fisheries and U.S. Department of Agriculture's Bureau of Biological Survey were transferred to U.S. Department of Interior.
June 30, 1940	The two Interior Bureaus were merged to form the Fish and Wildlife Service.
1956	The Fish and Wildlife Act of 1956 created the Bureau of Commercial Fisheries (BCF) and the Bureau of Sport Fish- eries and Wildlife.
Oct. 3, 1970	BCF was transferred to NOAA in the Commerce Depart- ment and renamed the National Marine Fisheries Service.

Coast." (Jefferson, as Secretary of State in 1791, had also prepared one of the earliest official "fisheries reports" to the House on cod and whale fisheries and their utilization by both domestic and foreign fishermen.)

President Theordore Roosevelt, in his first State of the Union message, recommended creation of a combined Department of Commerce and Labor (the Labor Department had been created in 1888). Not until 1903, however, was the Department of Commerce and Labor created. Among its many duties then, the new Department was charged with fostering, promoting, and developing foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, the labor interests, and the transportation facilities of the Nation.

The Fish Commission, which had been set up in 1871 as President U.S. Grant signed a bill creating an Office of Commissioner of Fish and Fisheries, was renamed the Bureau of Fisheries when it was placed under the new Department of Commerce and Labor on 1 July 1903. Among the new Bureau's tasks was supervising the Alaska fur seal and salmon fisheries. The Department was charged with making coast and geodetic surveys and administering the Lighthouse Service. (Commerce's National Ocean Service is an outgrowth of the Coast Survey, which is considered to be the Nation's first scientific agency, and which was named the Coast and Geodetic Survey in 1871.)

Eventually, a new Act on 14 February 1913 split the Department up to form the individual Department of Commerce, where "fisheries" was to reside for another 26 years. Eventually, though, Reorganization Plan No. 1 of 1939 transferred the Bureau of Fisheries from the Commerce to the Interior Department, where it was eventually renamed the Bureau of Commercial Fisheries. Finally, in 1970, under Reorganization Plan No. 4 of that year, the National Oceanic and Atmospheric Administration (succeeding Commerce's "Environmental Science Services Administration") was established, and the Bureau of Commercial Fisheries-renamed the National Marine Fisheries Service—was placed again back under the Department of Commerce, where it resides today. (Source: "From Lighthouses to Laser Beams," Helen Bowers, editor.)

Townsend Cromwell Has 25th Birthday

The 25th birthday of the NOAA Ship *Townsend Cromwell* was to be celebrated in December 1988, with an open house aboard the vessel. The 164-foot-long *Townsend Cromsell* acts as the primary research platform for the NMFS Honolulu Laboratory and also provides transportation for scientists to remote locations throughout the Pacific. Operated by the Pacific Marine Center, National Ocean Service, NOAA, the *Townsend Cromwell* is staffed by NOAA officers under the command of LCDR Robert J. Pawlowski.

Use of the *Townsend Cromwell* allows Honolulu Laboratory scientists to conduct such research as assessing insular fishes, shrimps, and lobsters; studying the recruitment and recovery of fishery resources on the Hancock Seamounts; assessing stocks and studying the life histories of various tunas; collecting larvae and juvenile pelagic fishes; and conducting research and recovery work on the threatened Hawaiian green turtle and endangered Hawaiian monk seal. Not surprising, the *Cromwell* spends as much as 250 days per year away from Honolulu.

The *Townsend Cromwell* was designed by George C. Nickum and Sons of Seattle, Washington, and built by the McDermott Company at Morgan City, Louisiana. It is 33 feet in beam, draws 11 feet, and displaces 565 tons. With a top speed of 12 knots and crusing speed of 10.5 knots, the *Cromwell* has a cruising range of 10,000 miles on 41,000 gallons of fuel. It can carry enough food and water for 17 officers and crew members and 9 scientists for 30 days at sea. It was launched July 27, 1963, arriving at Honolulu on Christmas Day. Total cost of the vessel was 1.7 million.

The vessel was named for Townsend Cromwell, a brilliant oceanographer who is perhaps best known for discovering the equatorial undercurrent to which his name has been given. From 1949 to 1953, Cromwell was an oceanographer at the Pacific Ocean Fishery Investigations (now the Honolulu Laboratory) and, at the time of his death in 1958, was a senior scientist with the Inter-American Tropical Tuna Commission and research associate at the Scripps Institution of Oceanography.

Albatross IV Celebrates 25 Years of Research

For the past 25 years, the NOAA Ship *Albatross IV* has plied the waters over the continental shelf from Cape Hatteras to Nova Scotia, collecting data for the NOAA Northeast Fisheries Center's Autumn Bottom Trawl Survey.

The Albatross IV is a 187-foot research vessel, built for scientific purposes as a stern trawler, and is from the home port of Woods Hole, Mass. These Commerce people spend months at sea studying the distribution and abundance of commercial fish stocks in order to assure adequate fishery resources. The ship is commanded by NOAA Corps Lt. Cmdr. Frank Arbusto and staffed with three other NOAA commissioned officers and 18 crew members. The *Albatross* sails with up to 14 NMFS-NOAA scientists and visiting fisheries researchers.

Since 1962, the *Albatross* has carried the fall survey and has been assisted by another in the NOAA fleet, the *Delaware II*. Both ships have earned the respect of the maritime community. A high ranking Coast Guard officer recently remarked, "When it's rough at sea, the NOAA fisheries ships are the last to come in for cover."

The scientists and technicians of the survey come from many of the National Marine Fisheries Service (NMFS) laboratories located in Woods Hole, Mass., Narragansett, R.I., Milford, Conn., Sandy Hook, N.J., and the National Systematics Laboratory at the Smithsonian Institution in Washington, D.C. All of these laboratories are organized under the NMFS Northeast Fisheries Center in Woods Hole, Mass. The *Albatross IV* was recently in the news when the ship successfully transported and released three pilot whales to the open ocean. This was the first time that beached whales had been rehabilitated and reintroduced to the wild.

Few things are dependable to the fishermen of the New England coast. But any fisherman will tell you, "the weather turns bad by November, and the NOAA Ship *Albatross IV* will be sailing for every spring and fall survey, just as it has for the past 25 years." (C. McLean, Commer. People, Feb. 1988.)

NOAA Corps Marks Anniversary

The nation's smallest uniformed service, the NOAA Corps, celebrated its 70th anniversary last year on May 22, 1987. The NOAA Corps traces its official lineage to the establishment by Congress of the Coast and Geodetic Survey Corps in 1917 and the creation of NOAA in 1970. But its heritage is also closely tied to the history of NOAA's earliest predecessor agency, the Survey of the Coast, founded in 1807, and to the U.S. military services.

By the turn of the century, roughly one-third of all Navy officers had been assigned to duty with the Survey for part of their career. These assignments were much sought after because there were more opportunities for lieutenants to command the generally smaller ships of the Survey. In today's NOAA Corps, there continues to be greater opportunities for command positions for junior officers.

At the outset of World I, officers of the newly created Coast and Geodetic Corps, as well as the hydrographic survey ships *Isis*, *Surveyor*, and *Bache*, were assigned to charting duties with the military. World War II placed unprecidented demands on the Corps and the Coast and Geodetic Survey for nautical and aeronautical charts to support the war effort. Again, Corps officers, half the civilian work force of the Survey, and six of its nine ships were transferred to the U.S. Navy.

In the post-war years and in particular since the mid-1960s, as the responsibil-

ities of NOAA and its predecessor agencies have expanded beyond charting and geodesy, the range of specialities of NOAA Corps officers has also grown to include meteorology, oceanography, biology, and other scientific and engineering disciplines. At any one time, almost half of NOAA Corps officers are assigned to sea duty. Opportunities for officers, who wear uniforms similar to Navy officers (there are no enlisted personnel), are open equally to men and women, including shipboard assignments. Candidates for appointment must be U.S. citizens with college degree or higher in engineering, mathematics or the physical sciences. (Dane Konop, Commerce People.)

Oldest U.S. Technical Agency Is Now 181

Last year, 1987, one of the Commerce Department's oldest bureaus, NOAA's National Ocean Service, celebrated the 180th anniversary of the founding of its earliest predecessor agency—the Survey of the Coast. The Survey of the Coast, was established on February 10, 1807, to survey and chart the coastal waters. The agency went through many reorganizations and name changes before being renamed the National Ocean Service in 1982.

Throughout the past two centuries, the National Ocean Service and its

predecessor agencies have been many things to many people. To generations of mariners and others living along the U.S. coast, the National Ocean Service has been widely known as the nation's nautical chart maker and as the agency that predicts the times and heights of high and low tides.

To surveyors, it is the NOAA component that establishes and maintains the national network of geodetic control, which provides the precise, unified framework for all mapping and charting. Since the 1920's, when commerial air flight was still in its infancy, the National Ocean Service has been the nation's aeronautical chart producer. Today, the National Ocean Service conducts a wide range of oceanographic surveys for engineering, navigational and scientific applications, as well as strategic assessments of the environmental impact of human activities in U.S. coastal waters and the Exclusive Economic Zone.

The National Ocean Service also works with state and local governments to manage natural resources with the U.S. coastal zone, including natural and cultural resources with the national system of marine sanctuaries and estuarine research reserves. Headquartered in the Herbert C. Hoover building in Washington, D.C., with major facilities in Rockville, Md., Norfolk, Va., and Seattle, Wash., the National Ocean Service also manages NOAA's biocoastal fleet of research and survey ships. Some historical highlights include:

1807—A "Survey of the Coast" was established by Congress to chart coastal waters of the then young republic and promote seaborne commerce. Professor Ferdinand Hassler was named first director.

1878—The Survey is renamed the "Coast and Geodetic Survey" in recognition of the importance in both land and sea surveys of geodesy (the science of determining precise positions on the earth's surface).

1914—A large, elaborate mechanical calculating machine designed by Survey engineers was first used to predict the tides, replacing tedious and time consuming manual calculations. In 1966, it was replaced by a new electronic computer. (Now on display in the Washington Science Center building 1 in Rockville, Md.)

1970—The National Oceanic and Atmospheric Administration (NOAA) is established. The Coast and Geodetic Survey is renamed the National Ocean Survey.

1985—The National Ocean Service completes a 12-year project to compute the North American Datum of 1983, a network of 250,000 precisely measured points on the earth's surface used by surveyors, engineers, regional planners and others in map making, boundary surveys, and navigation. (Dane Konop, Commerce People.)

Marine Fisheries Review: The Fiftieth Anniversary

The year 1988 marks the 50th Anniversary of the *Marine Fisheries Review* (the "*Review*" or "*MFR*") and its predecessor titles, *Fishery Market News* (1939-45) and *Commercial Fisheries Review* (1946-72). During its 50 years of service to the nation and to marine fisheries, its evolution, at least in part, has reflected that of its publisher, the National Marine

Fisheries Service (NMFS), an agency of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA).

The *Review* began in January 1939 as the monthly *Fishery Market News* ("*FMN*") under the Commerce Department's U.S. Bureau of Fisheries, although the idea for it had been around for some time. The editor was R. H. Fiedler, F. F. Johnson was associate editor, and a subtitle on page 1 read "a review of conditions and trends of the commercial fisheries." The new periodical was distributed free, upon application, "to members of the fishery industry and allied interests."

Only a year before, the first daily report of the Bureau's new Fishery Market News Service (FMNS) had begun production in New York City (14 February 1938). As Andrew W. Anderson, the Bureau's Fishery Marketing Specialist put it, "Five years ago the Fishery Market News Service was merely an idea. Three years ago support from the indus-



Fishery Market News, 1(1), Jan. 1939.

try appeared in the form of a resolution passed by the Middle Atlantic Fisheries Association and in statements from the trade. A year and half ago, through the work of Congressman S. O. Bland, Chairman of the Committee on Merchant Marine and Fisheries, House of Representatives, the Seventy-Fifth Congress appropriated funds for a fishery market news service and, within the past year, it became reality."

Thus, the FMNS was collecting considerable information, which was to be channeled through the Fishery Market News, including "summarized data on movement and prices of fishery commodities, data on the current status of production and stocks on hand of fishery commodities, articles relating to the fisheries prepared by members of the Bureau's staff, members of the industry, or other interested parties; excerpts or abstracts from Bureau or other publications relating to the fisheries; and related information." Also included were summaries of various numbered "Investigational Reports" published by the Bureau.

The first signed article was A. W. Anderson's FMNS description, "Fishery Market News Service Aids Industry in Many Ways." For the second issue, Fishery Technologist J. M. Lemon presented "Suggestions for Storing Frozen Fish." And in number 3, R. H. Fiedler, who also was Chief, Division of Fishery Industries, wrote "Consider the Fishes," outlining the nutritional values gained in eating fish—that during a time when many rural or poor people still suffered from vitamin or mineral deficiencies.

The front covers of the initial issues were simple: The boxed title, month and year, department and bureau at the bottom, and centered, the Commerce Department seal. The first issue ran 14 pages. Others that year ran about 16 pages, and the last issue, index included, was 26 pages long. Type for the fledgling journal was by typewriter; interior photos were scarce, though some charts and graphs illustrated fishery trends.

In July 1939, the Bureau was transferred to the U.S. Department of Interior, so the cover reflected Interior's familiar seal with buffalo, mountain, and prairie. No mention was made of the Departmental change.

In November 1939 the *FMN* ran its first cover photograph, iced striped bass, with a reversed title; the December cover featured an oyster tonger at work. Promotion of underutilized species was not neglected either. Edna N. Sater wrote "The Common Eel—A Neglected American Fishery" for the March 1940 issue, noting that tiny Denmark's eel harvest far surpassed that of the United States.

The July 1940 issue replaced the masthead's reference to "Bureau of Fisheries" with Interior's "Fish and Wildlife Service." And, the affiliation of the marketing specialist's articles was changed to "Division of Fishery Industries, Fish and Wildlife Service." From the start, the paper stock was inexpensive and noncoated; the December 1940 issue was the first to have a fancier coated coverstock.

"Special Issues" have been a fixture of the *Review* for many years. Earlier ones were published as "Supplements" to regular monthly issues and numbered with a lower case "a". The first, supplemental to the August 1941 issue, 3(8a), devoted all 40 pages to a "Fresh and Frozen Fishery Products Reference Manual" aimed at purchasing officers and mess sergeants of the U.S. Army "in an effort to aid them and the fishery industry in supplying our defense forces with fresh and frozen fishery products."



Fishery Market News, 1(7), July 1939.



Fishery Market News, 2(7), July 1940.

The next few years saw additional articles aimed at aiding the war (WWII) effort. (The August 1942 issue reported that the U.S. Army alone was buying 3 million pounds of fish monthly.) A May 1942 supplement, "The Alaska King Crab" (a 108-page review of the resource and its fishery, utilization, and potential) also noted that Alaska waters held "an enormous reserve of edible fish—notably 'sole' and pollock—which is at present wholly unutilized."

FMN contents continued to reflect advancements in fishery utilization; trade in fresh, frozen, and canned fish; sectional marketing reviews, statistical summaries, foreign fishery trade news, and reviews of fisheries-related books.

Added to the *FMN* masthead in April 1943 was A. W. Anderson as associate editor; Don Bloch was listed as assistant editor. With the July 1943 issue, A. W. Anderson, who was Chief, Division of Fishery Industries, FWS, replaced R. H. Fiedler as editor, and with the October issue, C. R. Lucas was added as associate editor.

The entire August 1943 issue was devoted to "Progress in Technology," and reviewed various technological investigation of the FWS, particularly in regard to solving some of the wartime problems facing the fishing industry. The slick, heavier cover stock was replaced in January 1944 with the original noncoated stock used for the articlesperhaps a war-related and money-saving measure. The July 1944 issue reported the change of title for the "Division of Fishery Industries" to the "Division of Commercial Fisheries" to better reflect the work of the Division; A. W. Anderson remained as Chief and FMN editor.

A January 1945 full page "notice" alerted readers to Conservation Bulletins 33, 34, and 37 on the fishes of New England, the Middle West, and the South Atlantic and Gulf Coasts, respectively, by a then relatively unknown (at least outside agency circles) Federal biologist named Rachel Carson. Later that year (September), the FMN published a warning to the fishing industry regarding a new pesticide: "In spite of its apparent usefulness in improving sanitary conditions in such [fishing industry] plants, DDT may have undesirable and even dangerous effects unless its use is properly controlled, Service experts declared." The notice pointed out that other effects were yet poorly understood and that a study was underway to obtain data "to guide safe and effective use of DDT in fishery establishments."

The October 1945 issue reported President Harry S. Truman's proclamation asserting U.S. jurisdiction "over the natural resources of the continental shelf under the high seas contiguous to the coasts of the United States and its terri-



Commercial Fisheries Review, 8(1), January 1946.

tories, and providing for the establishment of conservation zones for the protection of fisheries in certain areas of the high seas contiguous to the United States." And an October supplement, "FAO—with Special Reference to Fisheries," by A. W. Anderson, reported on the establishment of the FAO and its functions. Also announced was Fishery Leaflet 146, the preliminary report on the most effective use of DDT in the fishing industry, with data on its proper and safe use.

The title Fishery Market News was officially changed to Commercial Fisheries Review, or the CFR, with the January 1946 issue, and photographs once again graced the covers. As editor Anderson explained it, "We believed this name is more descriptive of the type of material included in the publication. The new name also eliminates the conflict which has existed between the name of this publication and the daily, monthly, and annual publications issued by the several field offices of the Fishery Market News Service." Other pending changes included more articles on commercial fishery subjects, fewer statistical tables (many of which were being directed into the monthly "Current Fishery Statistics" series), a revised format, and larger typewriter type for easier reading. More line drawings and scratchboard art began to appear.

The June 1946 issue reported a FWS reorganization, giving increased importance to commercial fishery industry activities by according the Division of Commercial Fisheries major subdivision status. Another cautionary article was published on DDT, warning of damage to animal life, especially fish and crabs, unless spraying was at the lowest concentrations useful in insect control.

The July 1946 issue reported on a test of plastic twine for lobster pots by a Marblehead, Mass., lobsterman which, not surprisingly, showed that the plastic netting outlasted any other twines and would result in a great saving of labor and money. Issues now were running about 50-60 pages per month.

A May 1947 article reported on the successful use of mobile laboratories for fishery technological research. The 24foot house-type trailers were designed and equipped by the Technological Section of the Division of Commercial Fisheries and used out of the College Park, Boston, and Seattle Technological Laboratories. An August article reported that, while progress in establishing conservation zones in the Pacific and other waters to protect salmon and other fisheries had been suspended for the time being, the State Department had advised Washington Senator Warren Magnuson of its "Firm intention to resume attention to this highly important matter at the earliest possible opportunity."

In April 1948, editors Anderson and Johnson were joined by assistant editors Wm. H. Dumont and J. Pileggi; a month later R. T. Whiteleather replaced Johnson as associate editor. Photographs were increasingly used in the late 1940's, one including shots of and aboard the RV *Albatross III* after commissioning ceremonies in Boston. And a staff illustrator, Gustaf T. Sundstrom, was added, and he provided many scratchboard illustrations of fish, fisheries, and fishing vessels for many years.

During the 1950's the *Commercial Fisheries Review* grew considerably. Issues often ran to 60-130 pages and circulation, primarily free, grew to perhaps 6,000-8,000. There was a heavy emphasis on newsworthy developments on fisheries and fishing trends and developments, both foreign and domestic, and research in the Federal fisheries laboratories.

The October 1953 issue announced National Tuna Week on 5-14 November, the 50th Anniversary of the tuna canning industry. In 1903 the entire U.S. industry consisted of one cannery in San Pedro, Calif., supplied by a few boats fishing in nearby waters. And the February 1954 cover photo and lead article highlighted the development of drum seining in Puget Sound, Wash., for salmon, which soon replaced the conventional turntable.

During the 1950's a number of cover drawings were made by staff illustrator Gustaf T. Sundstrom, many of vessels typical of various fisheries (i.e., gill netters, seiners, draggers, etc.). Most issues in the 1950's and 1960's besides hard news, also contained interesting tidbits of information (i.e., how the term "knot" got started, recipes for various fish dishes, summaries or abstracts of articles relating to marine fisheries from other publications, book reviews, etc.

The August 1955 issue reported on the commitment of the first year's funds for the Saltonstall-Kennedy Act Fisheries Projects, and a September article discussed the regime of the high seas, fishery resource conservation, and developments in the Law of the Sea. With reorganization of the U.S. Fish and Wildlife Service in early 1957, Donald L. McKernan was designated Director of the new Bureau of Commercial Fisheries, and Andrew W. Anderson, Chief of the Branch of Commercial Fisheries and CFR editor, was designated as Assistant Director. Anderson, long-time editor of the CFR, had organized the Fishery Market News Service in 1937 and stepped out of his long-time editorial role. Later he became Fishery Attache to the American Embassy in Copenhagen, Denmark. The January 1958 issue listed CFR publication by the Bureau of Commercial Fisheries, rather than "Branch." And with that issue, Joseph Pileggi became CFR editor; H. M. Bearse was listed as assistant editor. Typically, issues during this period had one or two signed articles and perhaps 60-80 pages of news and other marine developments related to

fish markets, sales, foreign developments, etc.

In July 1958, Charles Butler's article on "Nutritional value of fish in reference to atherosclerosis and current dietary research," noted the early interest in heart disease and the eating of fatty foods and discussed the implications of current knowledge of atherosclerosis as applied to the marketing of fish. The October issue reported initiation of an S-K study on the relationship of fish oils to circulatory diseases, and a November supplement was devoted primarily to work on fish oils.

The April 1960 issue reported on the "New (BCF) Technological Laboratory for Fisheries Research in Gloucester, Massachusetts" which opened in late 1959. Also reported was a new and extensive oceanographic expedition by the survey ship Explorer between Seattle, Wash., and Norfolk, Va.-the first fullscale expedition of its kind by the Coast and Geodetic Survey since historic surveys were made by the ship Blake in the 1880's. The expedition also collected many samples of marine life for the BCF. "Technical Notes" and "Equipment Notes" on various aspects of fisheries research were often published in the section "Research in Service Laboratories" during this era.

The April 1961 issue announced "Operation Trident," an Interior Department report on a 3-pronged "Long-Range Program of the BCF," stressing "Research, Development, and Service." It pointed out how little was known of the oceans and its resources, the importance of fisheries in world affairs, and urged that the United States "strengthen its position of leadership in international fisheries."

The May 1961 cover featured the *Charles M*, the first shrimp trawler to be financed under the new BCF fishing vessel mortgage and loan insurance program. The June issue reported on the new Auke Bay Biological Laboratory in Alaska near Juneau. And, the January 1963 issue marked the 25th anniversary of the Fishery Market News Service (as of December 1962), with its seven daily reports and a mailing list of about 10,500.

The February 1965 issue reported In-

terior's listing of the Atlantic salmon as "endangered" and the launching of a new BCF research vessel, the 171-foot *David Starr Jordan* which replaced the 35-year old *Black Douglas* at the La Jolla, Calif., research center. The July issue announced the dedication of the new BCF Fishery Research Laboratory in Seattle, Wash., and the September issue reported on a national conference to develop plans for a proposed "Sea-Grant" college program.

The September 1966 issue brought major changes in appearance: A new cover masthead and color border, changes to the contents page heading, and a title page with a new subtitle, "A comprehensive view of United States and foreign fishing industries—including catch, processing, marketing, research, and legislation—prepared by the Bureau of Commercial Fisheries."

Listed now as "Managing Editor" was Edward Edelsberg. J. Pileggi and G. A. Albano were listed as "Contributing Editors," and five others were involved with production, composition, and editorial assistance. In October, the cover was again altered, with a different typeface, no border, and with a fullbleed photograph with a second color, blue. An abbreviated table of contents printed only the department headings only feature articles were listed; former contents pages listed all articles and news items.

The February 1966 issue reported on the new Tropical Atlantic Biological Laboratory set up at Miami, Fla., operated by BCF at Virginia Key, and an expansion of the existing BCF Biological Laboratory which had been moved to Miami from Washington, D.C., in early 1965. Also described was a new "Institute for Oceanography" set up by the Commerce Department in its Environmental Science Services Administration (ESSA), which already included the Weather Bureau, Coast and Geodetic Survey, etc.

The May 1966 issue reported the launch of the new *Miller Freeman*, a \$3 million, 216-foot vessel, and the latest BCF research vessel on 2 April. It was assigned to the Seattle Biological Laboratory for high-seas oceanography and fisheries research. And the June issue

reported the Commerce Department's receipt of the new RV *Oceanographer*, to be followed later in the year by a sister ship, the *Discoverer*, along with new hydrographic RV's the *Davidson* and the *McArthur*.

The January 1967 issue reported a New York study showing that a fish diet reduced heart attack incidences, and the August-September issues, combined into one, 29(8-9), mentioned the Centennial of Shrimp Canning on 12 July at Grand Terre Island, La., near the site of the first canning of shrimp in 1867.

The February 1969 issue reported on the recommendations of the "Stratton Commission" which, after 2 years of study, recommended several major steps to understand, use, and protect the oceans, including creation of a new Federal entity—a "National Oceanic and Atmospheric Agency."

The June 1969 issue reported on the first rearing of larval tunas beyond the yolk sac from eggs collected in the ocean by BCF scientists at the Tropical Atlantic Biological Laboratory (TABL) at Virginia Key, Fla. And in December, the *CFR* reported that fish schools were counted and measured by sonar for the first time off California from the BCF's *David Starr Jordan*.

The July 1970 issue announced that President Richard M. Nixon had sent Congress a plan to roll the Federal ocean-atmosphere agencies into one, a National Oceanic and Atmospheric Administration (NOAA) under the Department of Commerce, and the October issue reported the result. Thus was the BCF moved from Interior's Fish and Wildlife Service to the new agency, NOAA, and was retitled the National Marine Fisheries Service (NMFS), having assumed responsibility for "all living marine resources." The CFR cover now had a Commerce-designed logo at the top left and agency affiliations at the bottom left corner. The new agency, NOAA, was to employ "unified approach to the problems of the oceans and atmospheres." In December, the CFR reported on the first successful spawning of anchovy in a laboratory at the NMFS Fishery-Oceanography Center in La Jolla, Calif.

The March 1971 issue of the CFR reported that both the Interior and Com-



Commercial Fisheries Review, 32(10), October 1970.

merce Departments would commemorate 100 years of fishery conservation with a conference on "Fish in Our Lives" in December 1971. Edward Edelsberg was listed as CFR editor with the April issue, which also announced an end to U.S. commercial whaling as of 31 December.

The July-Aug. and Nov.-Dec. 1971 issues were double issues; in 1972, all were double issues (bimonthly publication). The Nov.-Dec. 1971 issue again had a redesigned cover title and included an announcement of major new responsibilities, conservation of saltwater sport fishes and the collection of data on marine recreational fishing.

Finally, with the July-August 1972 issue the CFR became the Marine Fisheries Review. The Jan.-Feb. issue had reported on new directions for the NMFS-with primary functions now assigned to three areas: Resource Research, Resource Utilization, and Resource Management, each headed by an Associate NMFS Director; and, NMFS research centers had been created by combining administration and program functions of similar biological laboratories. The March-April issue noted another "first," spawning haddock in captivity at the NMFS Northeast Fisheries Center's Narragansett Laboratory.

The new role for the *Review*, was discussed by the NMFS Director Philip Roedel in the July-August issue. The NMFS, under NOAA, he noted, had a

much broader charter than its predessor agencies and was now resource-oriented rather than user-oriented. Research, Roedel stated, cannot rationally be divided into purely "sport" or "commercial" components, and the "new" *MFR* was to be a vehicle to help report various research, management, and utilization developments and trends for the many publics of the new NMFS.

The January-February 1973 issue, with Edelsberg as editor and Laura Burchard as associate editor, was their last one, and the last to use typewriter-like type. The journal was then being moved to Seattle, Wash., under the NMFS Scientific Publications Staff (SPS) whose Chief, Thomas Alonzo Manar, would also serve as *MFR* editor.

Under Manar, the next issue (March-April) instituted several major changes coated paper stock for higher quality scientific illustrations, commercial typesetting and printing, and a new layout with a 3-column format. Also, as a "Special Issue" devoted to "Shrimp '73—A Billion Dollar Business," it was the first of many regular "theme issues." Earlier special issues had been published as "Supplements," or additional numbers, to the regular monthly issue.

The issue also initiated an "Editors Comments" column on the back page where Manar reported that "With this number of Marine Fisheries Review, the publication has been moved to Seattle, where it joins the group of NMFS scientific publications, including the Fishery Bulletin and Marine Fisheries Abstracts, put out there by the NMFS Scientific Publications Staff... As in the past, it will continue to bring news notes and formal scientific articles dealing with the fisheries...From time to time, a number of Marine Fisheries Review will be devoted to a single topic." With the July 1973 issue, the MFR resumed monthly publication.

The January 1974 issue carried a new cover masthead, using the official Commerce Department seal and dropping the medallion-stype logo in the top-left corner. It also listed Willis L. Hobart as Managing Editor who had been hired by the SPS in June 1973 to work on the *MFR*. The issue also included its first publication of scanning electron micrographs in an article by Lanna Cheng on



Marine Fisheries Review, 34(7-8), July-August 1972.

Halobates. In March began a series of useful compilations of data on the nutritive values of fishes by Virginia Sidwell et al., while the April issue was devoted to a series of articles on "Gigi," a young gray whale held captive for a year, studied, and released.

Another popular—and widely reprinted—article was "Some ABC's of Fo's'le Living" by A. K. Larssen and Sig Jaeger published in the June 1974 issue. The July issue presented the journal's first color plates, a series of photographs illustrating the greenness, or "readiness" of shrimp ovaries for spawning. By then, however, Manar was retiring; his name as editor last appeared in the November issue, although he worked part-time on articles for a few more months from his California home.

The January 1975 issue carried a special section with the papers from a AAAS symposium "Aquaculture in the America," and reported on the U.S.-Poland advanced plankton sorting center being set up in Szczecin, Poland. The December issue listed the new SPS Chief J. D. Harrell, a former San Francisco public relations man, as editor.

The August 1976 issue reported on the U.S. extension of its exclusive fisheries jurisdiction to 200 miles under the new FCMA (later renamed the Magnuson Fishery Management and Conservation Act). The October issue was another special issue on "Molluscan Pathology," and the December issue reported a meeting on a national conference for the FCMA's new Regional Fishery Management Councils and their members.

In January 1977, the *MFR* reported an NMFS reorganization, and in May, that the new 200-mile law had taken effect on 1 March. With the June issue, SPS Chief Harrell had died and W. L. Hobart continued as managing and acting editor. In November, the *MFR* reported a new NOAA reorganization giving the NMFS Director a new title: Assistant NOAA Administrator for Fisheries.

Monthly issues in 1978 and 1979 ran about 40 pages each, with an 80-page double issue for May-June 1978 on American lobster trap design and ghost fishing. Large double issues in 1979 discussed "Haplosporidian and haplosporidian-like diseases of shellfish" and marine environmental conditions for 1977-78. The May-June 1979 issue also reported the establishment of the NMFS National Marine Mammal Laboratory in Seattle, Wash.

From July 1942 until March 1970, reprinted articles from the *FMN* and *CFR* articles were numbered and called "Separates." After that, they were called "Reprints," with no change or break in the numbering. Between January 1972 and April 1973, the reprints were called *Marine Fisheries Review* reprints, and thereafter, "MFR Papers." Numbering of the reprinted papers ceased in January 1979. To that point, 1,356 papers had been published and reprinted.

Special issues in 1980 were devoted to articles on "The hakes" (January), Pacific coast rockfish and whiting (March-April), squid harvest and utilization (July-August), and the bowhead whale and biological research (September-October). That issue also listed W. L. Hobart as editor.

In 1983, three individual issues were published for January, February, and March, with the April, May, and June issues (numbers 4-6) combined, with a notice reporting that "The Office of Management and Budget (OMB) ruled recently that the *Marine Fisheries Review* must be published quarterly. No reason for the ruling was given, and it has been implemented with this issue (April-May-June 1983), 45(4-5-6)..." The *Review* has been published quarterly since then. Other 1983 articles dis-



Marine Fisheries Review, 36(1), January 1974.

cussed the steps being taken to develop "an improved seafood nomenclature system," ichthyoplankton and fish recruitment studies in Large Marine Ecosystems (LME's), and using a microcomputer to calculate tapers for fishing nets.

Another very popular article was Austin Williams' 1986 review: "Lobsters identification, world distribution, and U.S. trade" with keys to commercially important species and numerous color identification plates. The issue was later augmented and republished by a private New York City publisher. Another special issue that year was devoted to papers from the "Second International Conference on Ciguatera."

In 1987, a special section of 49(1) was devoted to papers from the Cooperative MEXUS-Gulf Research Program, while number 2 was a large, 186-page issue on marine recreational fisheries and fishing. Number 3 presented an economic assessment of the MFCMA after 10 years.

Initial issues of volume 50, 1988, presented a variety of articles such as on shark fisheries, an inventory of U.S. coastal wetlands, shrimp fisheries, better use of underutilized species, the U.S. southeast SEAMAP program, and endangered sea turtle studies. Last, and far from least, is the largest single issue of the *MFR*, this 50th Anniversary Issue on the history of marine fisheries and related matters.