




UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Northeast Fisheries Center
Woods Hole, Massachusetts 02543

June 21, 1991

MEMORANDUM FOR: Mary Laird

FROM: Jon Gibson 

SUBJECT: Draft Descriptions of Center Programs for the
NOAA Organizational Handbook

Attached is the subject, along with the background materials you gave me. One question: Have the two current Sections within the Research Planning & Coordination Staff (*i.e.*, Planning & Evaluation and Coordination) been eliminated as discrete units, or is the listing of proposed organizational units which you gave me wrong in omitting them as units?

Attachments

cc: T. Frady



54-30-20-0002
Northeast Fisheries Science Center

FM2000
F/NES

The Northeast Fisheries Science Center plans, develops, and manages a multidisciplinary program of basic and applied research to: better understand the living marine resources of the Northeast Continental Shelf Ecosystem and the marine environmental quality needed for the existence and productivity of those resources; and provide information and advice to government, industry, and the public on the conservation and utilization of living marine resources, and on the restoration and maintenance of marine environmental quality. The Center operates through three research programs -- Conservation & Utilization Division, Environmental Processes Division, and National Systematics Laboratory -- and three support programs -- Research Planning & Coordination Staff, Program Support Staff, and Data Management Support Staff.

The Research Planning & Coordination Staff assists in planning and evaluating the Center's research program by advising the Science & Research Director on how to balance the often short-term information needs of Center constituents with the necessarily long-term scientific continuity of Center research, and on how to apply most effectively and efficiently the Center's research resources (facilities, equipment, personnel, and funds) to research operations. It serves as liaison to the planning/evaluation staffs at NMFS's Washington and Northeast Regional Offices. The Staff also assures that the information needs of Center constituents are incorporated into the Center research program and addressed in Center research products and services, and that studies and data bases produced by other research institutions which can augment Center research are identified and integrated into Center programs.

The Program Support Staff manages the Center's budget and finances, including: advising the Science & Research Director of budget options; informing the Washington Office of how the Center has allocated funds among programs; conducting periodic reviews for the Science & Research Director of how each program has spent, or intends to spend, its funds; maintaining an in-house automated financial reporting system; and reconciling any discrepancies between the financial reports prepared in-house and those prepared by the Washington Office. Also, through its three Sections -- Facilities & Administrative Support, Information Services, and Aquarium -- the Staff: operates Center facilities in an effective, efficient, and safe manner; manages, or assists in the management of, the Center's scientific, technical, and public information systems; and operates a combination research-education-extension public aquarium.

54-30-20-0002-00-02-01

Facilities & Administrative Support Section

FM2021

F/NESx21

The Facilities & Administrative Support Section manages all Center property and provides some administrative services, including: maintaining, repairing, and improving facilities; maintaining and repairing vehicles; maintaining real and personal property inventories; assuring compliance with Occupational Safety and Health Administration regulations; handling purchases and entering purchase-related data into the Center's in-house automated financial reporting system; and handling shipping and receiving.

The Information Services Section operates scientific libraries, and contracts for library services where needed. It coordinates scientific review of Center manuscripts, technically edits manuscripts targeted for in-house scientific media, and publishes two series of such media. It provides statistical drafting, scientific illustrating, black & white photography, and desktop publishing services. It also responds to public requests for information, and prepares and disseminates informational materials on applications and implications of Center research findings.

The Aquarium Section facilitates research on live specimens of economically and ecologically important marine species. Some tanks are temperature controlled, permitting the holding of boreal, temperate, and tropical marine species on a year-round basis. The Section uses the live specimens as an attraction to the public, enabling the Section to conduct an extensive program of public education and research extension designed initially to increase public knowledge of marine fishery conservation, and ultimately to increase public support for agency activities in that field. The education and extension efforts principally make use of passive displays and instructional sessions for K-12 student groups.

54-30-20-0002-00-03
Data Management Support Staff

FM2030
F/NESx3

The Data Management Support Staff assists Northeast Fisheries Center and Northeast Regional Office personnel in the collection, transcription, analysis, and dissemination of data through: acquisition, maintenance, and use of computer hardware and software; and development, maintenance, and use of computerized data bases. The Staff operates through two Sections: Data Processing and Biostatistics.

54-30-20-0002-00-03-01
Data Processing Section

FM2031
F/NESx31

The Data Processing Section assists in the acquisition, maintenance, and use of computer hardware and software. This assistance includes: defining requirements for hardware/software; designing hardware/software systems to meet current and projected requirements; maintaining and/or advising on use of currently owned or leased hardware/software systems; and writing, assembling, and maintaining computer programs.

54-30-20-0002-00-03-02
Biostatistics Section

FM2032
F/NESx32

The Biostatistics Section develops and maintains computerized data bases containing U.S. commercial, U.S. recreational, and foreign fishery statistics. The data comprising these statistics are received from a variety of sources and in a variety of forms and formats, including captains' logs, scientists' raw data sheets, personal computer diskettes, and computer tapes. Regardless of source, form, or format, these data are converted, audited, corrected, archived, and managed as computerized data bases.

The Conservation & Utilization Division collects and analyzes data on: the populations of fishery resources; the ecological processes which control production of these resources; the fisheries and other uses of these resources; the catching, processing, and consumption of seafood; and the economics of fishery-resource-based activities. From this data collection and analysis, the Division develops information and provides advice needed by fishery resource and habitat managers at the regional, national, and international levels for enhancing, conserving, and allocating fishery resources. The Division operates through five Branches: Population Dynamics, Population Biology, Fisheries Statistics & Economics, Resource Utilization, and Ecosystem Dynamics.

The Population Dynamics Branch develops information and provides advice to fishery resource managers on the current status and future trends in distribution, abundance, and productivity of the Northeast's fishery resources. The research which produces this specific information and advice also advances the general science of fishery forecasting and ecosystem modeling. Additional information and advice deal with: the performance of fishery management plans in achieving the resource-based aspect of their objectives; the effects of multispecies fisheries upon individual species/stocks, upon the fishery ecosystem as a whole, and upon fishery management regimes; and the interactions of various fisheries. Special studies focus on the biology and/or fisheries of current concern, such as striped bass and Atlantic salmon.

The Population Biology Branch regularly conducts surveys of fishery resources on the continental shelf from Nova Scotia to North Carolina. On each survey, the Branch gathers data on distribution, abundance, and size/weight composition of populations of commercially, recreationally, ecologically, and aesthetically important resources. It also collects biological samples for later study to estimate the ages, growth rates, maturation stages, fecundity levels, and/or survival rates of more than 30 species of fish and invertebrates, as well as to identify and distinguish any separate spawning stocks of the same species. The Branch designs, builds, and/or tests much of its sampling gear, and evaluates hydroacoustic sensing systems for use in surveying midwater fishes.

The Fisheries Statistics & Economics Branch collects basic data and develops basic and applied information on the Northeast's commercial and recreational fisheries. Data collection for commercial fisheries involves both in-port and at-sea operations. For in-port operations, the Branch assigns port agents to commercial fishing ports from Rockland, Maine, to Hampton, Virginia, to collect: fishing effort and catch data from fishing vessel captains; landings data from fish processors and dealers; biological samples of landings at the docks; and economic data on fishing vessels & gear, landings, fish processing plants, seafood production, and related employment. For at-sea operations, the Branch employs observers who are on board all foreign fishing vessels off the Atlantic and Gulf Coasts in order to: monitor the compliance of foreign fishing vessels with U.S. fishing regulations; collect biological samples of the foreign catch, including discards; and provide communications and liaison between foreign and U.S. fishing interests to avoid gear conflicts, assist in technology sharing, etc. In other at-sea operations, the Branch contracts to have sea samplers on board U.S. fishing vessels to obtain fishing effort and catch data, biological samples, and economic data on vessel efficiency. Recreational fisheries data are gathered by Branch personnel engaged in dockside and at-sea sampling of the shark, tuna, and billfish fisheries, and by contract personnel in dockside and telephone interviewing of both big-game and small-game recreational fishermen. These basic data are used by Branch economists to develop information on: the status and trends in commercial and recreational fishing industries; the effects of imported seafood on commercial fisheries and the U.S. seafood market; and the economic effects of different fisheries management regulations.

The Resource Utilization Branch seeks to increase use of those species/sizes of fishery resources that have been traditionally discarded at sea -- often dead -- because of no market for them, or because of no technology to handle, process, preserve, or store them for the market. It also seeks to extract a greater amount of edible flesh from each landed fish and invertebrate. To achieve these goals, the Branch produces information and technology to: assure safety of seafood species and seafood products; promote seafood quality; develop standards for the descriptive labelling of seafood products, and methods for determining the species contained in seafood products; develop nutritional information on fresh and frozen seafoods; and promote productivity and efficiency of the harvesting and processing sectors of the fishing industry.

The Ecosystem Dynamics Branch studies ecosystem components and ecological processes in the Northeast Continental Shelf Ecosystem. Such study permits the Branch to predict changes in fish stocks and marine mammal populations in response to changes among other ecosystem components. Ecosystem component research focuses on zooplankton and larval fishes which are near the bottom of marine food chains, and on sharks and marine mammals which are at the top of those chains. Ecological processes research focuses on recruitment dynamics and food chain dynamics. Additionally, the Branch seeks to characterize the globe's large marine ecosystems and to develop an index of ecological health for the Northeast Continental Shelf Ecosystem.

The Environmental Processes Division seeks initially to understand the effects of natural and human-induced environmental factors on fishery resources, and ultimately to predict the effects of variation in such factors on the composition, distribution, abundance, and production of fishery resources. An emphasis is placed on the study of reproductive activity and early life stages since these are generally the most vulnerable to environmental variation. Research includes both monitoring and process-oriented studies, as well as both field and lab studies. The Division operates through three Branches: Experimental Biology, Oceanography, and Environmental Assessment.

The Experimental Biology Branch determines experimentally the effects of natural and human-induced factors on fishery resource species. Four topics dominate the Branch's studies: growth, normal life functions, disease, and genetics. Since growth, and thus maturation and reproduction, in marine organisms depend on nutrition, our studies of growth focus on nutrition and the factors affecting nutrition. Since the normal life functions which maintain health and support reproduction in marine organisms can be affected by pollutants, we measure and evaluate the effects of heavy metals, polychlorinated biphenyls, and other pollutants on physiological and biochemical functions in key marine organisms. Disease studies seek to identify the kinds of diseases and their causes, monitor their occurrence and prevalence, and determine their severity in limiting the distribution, abundance, and productivity of resource species. Genetic studies ultimately seek to understand how the genetic compositions of resource populations interact with natural and human-induced factors to affect each population's distribution, abundance, and productivity.

The Oceanography Branch measures, documents, and analyzes both short-term and long-term changes in the physical environment which can affect: the survival, distribution, and abundance of young/small fish until they reach the age/size of recruitment to the fishable population; and the fates and severities of pollutants in coastal and offshore habitats. Changes and trends in oceanographic and meteorological conditions are determined by routine sampling on board research and merchant vessels, use of bottom-moored oceanographic instruments, use of environmental satellite observations, and study of oceanographic data archives.

The Environmental Assessment Branch combines the information gained by the previous two Branches with the information it gains through its own research in the field and lab to assess the various natural and human-induced influences as limiting factors to the composition, distribution, abundance, and productivity of resource species. Assessment work emphasizes the role of both point and nonpoint sources of pollution as a biological limiting factor. Studies of nonpoint-source pollutants focus on monitoring and evaluating the distributions, concentrations, and biological effects of nutrients and contaminants in estuarine, coastal, and offshore waters. Studies of point-source pollutants focus on monitoring and evaluating the ability of oceanic dumpsites and their biological communities to recover after dumping is halted.

The National Systematics Laboratory is administered by the Northeast Fisheries Science Center, but serves as the taxonomic research arm of the National Marine Fisheries Service as a whole. It describes and names new species, and revises existing descriptions and names based on new information, of fishes, squids, crustaceans, and corals of economic or ecological importance to the United States. Because some important species are highly migratory and many exotic species are introduced into U.S. waters or markets, the Laboratory's research is worldwide. Major products of this research are worldwide and regional taxonomic publications and identification guides.