This paper is an overview of fisheries librarianship at the federal fisheries laboratory in Woods Hole from its founding in 1871 to the present. Special attention is given to Rose MacDonald, Librarian 1903-1921, and her Analytical Subject Bibliography. Emphasis is placed on the current work performed by the library staff at the Northeast Fisheries Center Library at Woods Hole, special library services, collections and publications of the library staff, the role of the Fisheries Library and library staff in the recent U.S. - Canada Georges Bank boundary dispute, and cooperation within Woods Hole science library complex.

"The library has always proved to be an extremely important adjunct to this laboratory; and its use has not been restricted to investigators here, but has been extended to the whole scientific colony at Woods Hole... The permanent collection consists for the most part of government reports, and of separates donated by various authors. In addition to these, however, an extensive collection of standard biological works and periodicals has been loaned by the department of Anatomy of Brown University. While greatly appreciating the privilege of using these books, it is felt by the Bureau of Fisheries that the Woods Hole laboratory should possess a permanent and fairly adequate working library of its own. It is the Bureau's intention, therefore, to begin the purchase of more necessary works as soon as funds are available for the purpose."
This description of the Fisheries Library was written in Report of the Work of the Laboratory in 1906 by Director Francis B. Sumner and reprinted in Science magazine in 1907. The seeds of the modern day fisheries library were mentioned, including an early cooperative library agreement with a major university.

The object of this talk is to give a description of the Woods Hole laboratory library, its growth in relation to other institutional libraries in Woods Hole, and the work of its librarians. The idea for this talk came from my receipt from the National Personnel Records Center in St. Louis, Missouri, of the original personnel files of Rose MacDonald who was the librarian at this laboratory at the beginning of the century, from 1903 to 1905.

As Dr. Allard mentioned, the Woods Hole fisheries laboratory was the first field station of the newly formed federal agency, the U.S. Commission of Fish and Fisheries, with broadly based scientific programs. I will concentrate on the history of the library, rather than discuss the scientific programs in detail.

The earliest record of a librarian at the U.S. Fish Commission Woods Hole laboratory is in the Annual Report of the Director, 1904. Miss Rose MacDonald is mentioned in the 1904 report of the summer's work as follows: "A subject catalogue was commenced by the Librarian, Miss Rose MacDonald, in addition to the author catalogue already on hand." The library itself certainly precedes the 1904 date and was probably started sometime after 1885, the date of the completion of the U.S. Fish Commission building in Woods Hole. In 1905, Rose MacDonald was hired as a clerk in the Washington office of the
U.S. Fish Commission. Her title was changed to Librarian in 1907.

Rose MacDonald's greatest contribution to the Bureau of Fisheries was the "Analytical Subject Bibliography of the Publications of the Bureau of Fisheries, 1871-1920," Bureau of Fisheries Document No. 899, published as Appendix to the Report of the U.S. Commissioner of Fisheries for 1920. This index required an in-depth knowledge of the Bureau's publications in order to classify them properly in the 13 part index which was further sub-classified by finer divisions, such as family names of marine organisms, common names of fishes and geographical locations. Well over 2500 publications were analyzed, for the most part in the Reports and Bulletins of the U.S. Fish Commission. Her position description reads: "Making an analytical index of all publications of the Bureau; this necessitates a careful reading of all articles issued." The completion of the analytical subject index took 8 years, having been started in 1912 and completed in 1920. Miss MacDonald's letter of transmittal with the index reads:

"Covering the investigations of the Bureau since its incipiency, it shows in a measure the work of a number of men of no mean fame in the field of biology. Much of it was pioneer work, which modern investigators cannot afford to ignore... It has long been realized and often stated by those cognizant of the ideals of the Bureau that there was a veritable fund of valuable information in the publications of the Bureau, which was lost because the modern investigator knew not how to find them. It is hoped that this work will provide a valuable key."
In addition to her work on the Analytical Index, Miss MacDonald was required to read and catalog by subject each scientific article that was received in the Washington, D.C. library, purchase and catalog all the books, compile subject bibliographies, and handle library correspondence. She was also responsible for book selection and site visits "for the purpose of arranging and cataloging" in field locations of the Bureau in Woods Hole, Massachusetts; Beaufort, North Carolina; Fairport, Ohio; and Key West, Florida.

The first index to government fisheries publications was followed by 5 others, covering successive time periods up to 1979. The second index, covering government publications from 1920 to 1954 was also compiled by librarians. The most recent published index covers publications from 1975 to 1979. The index covering the years 1980 to 1984 is due to be published in late 1985. (NOTE: A list of the indexes is provided at the end of this paper.) Current publications, after 1979, from the National Marine Fisheries Service can be accessed through searching several on-line data bases, such as NTIS, ASFA (Aquatic Sciences and Fisheries Abstracts), and BIOSIS Previews. The printed indexes can be requested from NOAA's Library and Information Services Division in Rockville, Maryland. A private company, UPDATE Corporation, in Los Angeles, California, will supply the indexes on microfiche to anyone who purchases their microfiche NMFS publication set which contains Marine Fisheries Review, Fishery Bulletin, and Special Scientific Reports - Fisheries.

There is a long period of time, 1905 through 1955, where there is no record of a librarian at the Woods Hole laboratory. The laboratory continued to do important
scientific work, however. From 1912 to 1921, in cooperation with Henry B. Bigelow of the Museum of Comparative Zoology at Harvard University, the laboratory performed an oceanographic and biological survey of the Gulf of Maine.

The results were published in three major monographs:


The laboratory was also used by the offices of the North Atlantic Fisheries Investigations in Cambridge during the summer months. Tagging studies on the migration of mackerel were done by O.E. Sette in the 1930's. William Schroeder conducted tagging experiments on cod to discern their migration patterns in the late 1920's. The results of these migration studies were published in the Fishery Bulletin.

Although there was no librarian during this period of 50 years, there was a physical library collection which continued to grow. It was kept on the 3rd floor of the old Fish Commission building. The modern period of the library started in 1948 with the move of the North Atlantic Fisheries Investigations, part of the U.S. Fish and Wildlife Service Branch of Fishery Biology, to Woods Hole. The biologists with the North Atlantic Fisheries Investigations brought with them private collections of industry journals which were given to the library. Some of these were
put in storage and have not been retrieved until recently. Thus we have fairly complete sets of several fishing industry journals in hard copy, such as National Fisherman, Fishing Gazette and the Annual Reports of the Boston Fish Bureau. These are currently being bound and we are looking into microfilming some of the rarer titles.

In 1951, the Woods Hole laboratory became the U.S. representative in a new scientific research and regulatory body, the International Commission for the Northwest Atlantic Fisheries (ICNAF). In 1955 funds from the Saltonstall-Kennedy Act made expansion of the laboratory's research programs possible, and more staff were hired, including a Library Assistant, Ms. Elizabeth Leonard. Since 1955, the library has been staffed full-time. A biologist, Ms. Patricia Gerrior, ran the library from 1970 to 1973.

In the modern era, our staff does most of the traditional work done in a special library: reference, library research, online literature searching, cataloging, binding, handling library correspondence, etc. The library staff also handles the listing, storing and binding of the Woods Hole Laboratory Reference Document Series. This is a "grey" literature series which means that it does not receive peer review or editing for content. Most of these documents are stock assessments of one of the commercially important species from the Gulf of Maine, Georges Bank, Southern New England and Mid-Atlantic Bight areas. Woods Hole laboratory staff publications are listed and kept in the library. Since the Northeast Fisheries Center was formed in 1977, the library staff has compiled the "Collected Reprints" for the eight laboratories in the Center. The "Collected
Reprints contain formal publications arranged by laboratory. A main index by author is compiled for each year. In addition, we have been involved in many special projects some of which deserve mention.

MARITIME BOUNDARY DELIMITATION

Most of you are probably familiar with the Case in World Court between the U.S. and Canada which concerns a maritime boundary delimitation over the Georges Bank area. This case was presented at the International Court of Justice in 1982. Both countries claimed the upper third of Georges Bank, which is a productive offshore fishing area. The case was presented to World Court for resolution.

Our library was used heavily for backup references throughout the case and for use by visiting experts commissioned by the U.S. State Department. The library staff played a direct role in preparing information for this case in several ways, as I will describe.

A document compiled by a member of the library staff was used as an entry in the U.S. Counter Memorial presented in 1982. The title of the document was: ICNAF/NAFO Scientific Papers on Georges Bank and the Gulf of Maine by Country, 1951-1981. It was issued as Woods Hole Laboratory Reference Document no. 83-31. The document listed the scientific research papers submitted to ICNAF written on Georges Bank and Gulf of Maine broken down by the country of affiliation of the author. The tables at the end of the document showed that U.S. authors had contributed more papers on Georges Bank during the time period 1951 to 1976 than any other country belonging to ICNAF.
The library staff played an important part in obtaining references for the Marine Environmental Annex of the Counter-Memorial and reply of the U.S.-Canada Maritime Boundary Delimitation. One of the arguments in the Environmental Annex was that Georges Bank was an enclosed ecosystem which could be managed most effectively by one country. On June 3, 1983, 91 references were supplied in triplicate. They were identified from citations which were incomplete, containing only an author, date, and a brief title. In the days April 20 to April 22, 1984, 93 papers on herring, 32 papers on cod, 41 papers on yellowtail flounder and one on haddock were identified from author, year and brief subject citations. In all, 167 papers were located in a three-day period. Almost all of these papers were in the Woods Hole laboratory library. Several were found at the MBL Library and at other laboratories in the Center. The citations were supplied by biologists familiar with the literature of a particular species in the Gulf of Maine, Georges Bank and Southern New England. By the time the citations were given to the library, the source was missing, so the source had to be verified. Some of the citations were for unpublished papers and theses. The papers covered the time period 1920 to 1983 and were by U.S. and Canadian authors. The decision from the International Court of Justice is due this month. A compromise decision is expected. The memorials, counter-memorials, and replies of the Case were given to the library.

GEORGES BANK FISHING HISTORY

A member of the library staff, Susan Rock-
well, coauthored a history of Georges Bank fisheries for publication as a chapter in the forthcoming book, Georges Bank, from Woods Hole Oceanographic Institution. Most of the sources and references needed to write this history were available in our library. A history manuscript prepared by Ms. Rockwell was used as background material at the International Court of Justice in the Hague in favor of the U.S. position in the U.S.-Canada Maritime Boundary Delimitation Case, for which she received a letter of commendation.

INTERRELATEDNESS OF MODERN WOODS HOLE SCIENCE LIBRARIES

The Fisheries Library has always been a specialized collection acquiring materials of immediate interest to the scientists at the Woods Hole laboratory. The close proximity of the Marine Biological Laboratory (MBL) Library greatly influenced the development of our collection. The MBL Library was planned as a comprehensive biological collection from its inception. It also developed strengths in oceanography, meteorology, fisheries and other fields. In 1930, the Woods Hole Oceanographic Institution (WHOI) decided to use the MBL Library rather than build a library of its own. Later, WHOI developed two special libraries: the Document Library (for technical reports) and the Data Library. The cooperation among the institutions in regards to sharing library resources has always been strong. This resource sharing is documented in the annual reports of the institutions.

Presently, the National Marine Fisheries Service Library in Woods Hole remains a spe-
cialized collection with the emphasis on fisheries science, which is multidisciplinary, fishing industry publications and documents from two international commissions (the International Council for the Exploration of the Sea and the Northwest Atlantic Fisheries Organization, formerly the International Commission for the Northwest Atlantic Fisheries). The collection is also strong in U.S. government publications of the National Marine Fisheries Service and its predecessor agencies.

In summary, the National Marine Fisheries Service Library in Woods Hole is a combination of old and new fisheries literature. Its collection and library staff have been a valuable information support for decades. Librarians of the Woods Hole fisheries laboratory have given valuable contributions to the government starting with Rose MacDonald's Analytical Subject Index in 1921 through the specialized information support to the U.S. case in the Maritime Boundary delimitation over Georges Bank resolved in 1984.

KEY HISTORICAL DATA IN FISHERIES LABORATORY HISTORY

1871. U.S. Commission of Fish and Fisheries founded.

1885. U.S. Fish Commission building completed in Woods Hole.

1888. Marine Biological Laboratory founded.

1930. Woods Hole Oceanographic Institution founded.


1951. ICNAF founded.
1955. Research programs greatly expanded and the research vessel ALBATROSS III was reactivated through additional funds made available to the laboratory from the Saltonstall-Kennedy Act (Public Law No. 466).

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