

**WAYS AND WAVES :
BIBLIOGRAPHIC CONTROL OF CANADIAN FISHERIES LITERATURE**

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ABSTRACT

This paper describes the current major bibliographic tools available to researchers of Canadian fisheries literature and compares them with tools available more than a decade ago.

A researcher examining a Canadian fisheries topic cannot help but consider the literature of the federal Department of Fisheries and Oceans (DFO). As the primary fisheries research organization within Canada, the Department carries out a wide range of scientific investigations and supports an extensive publication programme. In addition, other Canadian fisheries agencies depend upon the DFO publications programme to publish and distribute the results of their investigations.

Early in their histories, DFO's predecessors took on the responsibility not only to conduct scientific research, but to publish the results of these scientific investigations. In 1898 a Board of Management was appointed by the Department of Marine and Fisheries "as an instrument of research in aid of the Canadian fisheries" (Johnstone, 1977, p. 30). By an Act of Parliament in 1912, this body became the Biological Board of Canada, an independent agency under the Minister of Fisheries in charge of all biological stations. Renamed the Fisheries Research Board of Canada (FRBC) in 1937, the organization was responsible for coordinating federal fisheries research activities until it was absorbed into the Fisheries and Marine Service (FMS) of Environment Canada (now DFO) in 1970.

Within DFO, and its predecessors, the importance of public access to scientific research has been long understood. As early as 1871, the Dept. of Marine and Fisheries, established in 1867, included special reports on topics relating to fisheries investigations in its *Annual reports*.

The predecessor of the *Canadian Journal of Fisheries and Aquatic Sciences (CJFAS)* - DFO's primary journal publication - began at the turn of the century as *Contributions to Canadian Biology*. After several title changes reflecting changes in the name and the structure of the sponsoring organization, CJFAS still serves as a major

medium of research publication by DFO's scientists and is recognized as one of the foremost primary journals in fisheries and aquatic sciences (Nielsen and Summers, 1979). Early in its history, the FRBC decided that the various investigations of its research stations that were not being described in its primary journal also deserved publication and established secondary publication series to report these activities. It initiated its *Bulletin* in 1918 and its first secondary publication series, the *Manuscript report series*, in the mid 1920's. Since then, several more series have been established to reflect the diversity of research activities. Currently thirteen different scientific series are published by DFO.

Bibliographic access to Canadian fisheries literature was slower to evolve. It was not until the mid 1950's that an annual index was issued with the JFRBC. By the early 1970's, bibliographic access was provided by three cumulative indexes. Two of these volumes provided author, title and subject access to FRBC publications covering the years 1900 to 1972 (Carter, 1968; Carter, 1973). The third volume indexed the main secondary report series (Carter 1969). Bibliographic coverage from 1973 is continued by the annual index of the JFRBC, and its successor, the CJFAS.

Ten to fifteen years ago researchers of Canadian fisheries subjects, like researchers in many other fields, followed the route into the literature through the use of a series of printed indexes and abstracts. By the 1970's, the three printed indexes mentioned previously were the principal bibliographic sources, although several commercial indexes and abstracts provided some coverage of the DFO literature. DFO publications were partially indexed by *Aquatic Sciences and Fisheries Abstracts (ASFA)* and *Biological Abstracts (BIOSIS)*, though neither index covered all the Department's materials. However, these databases, offered by commercial bibliographic utilities, were difficult to search and expensive to use unless trained intermediaries, usually librarians, did the actual searches.

About a decade ago, two major developments gave rise to easier access to Canadian fisheries literature. In the mid 1970's, DFO's predecessor, the Fisheries and Marine Service (FMS) of Environment Canada became the Canadian partner in the Aquatic Sciences and Fisheries Information System (ASFIS). ASFA, of course, is one of the main products of ASFIS. During 1975 and 1976 informal discussions led to a formal agreement between the Food and Agriculture Organization (FAO) and FMS. Under this agreement, the Canadian partner became responsible for the input into ASFA of Canadian scientific and technical material, with the exception of those materials input directly by the publishers. Beginning in 1976, Canadian input was prepared and sent to the ASFA database and between 1976 and 1980 the Canadian coverage increased steadily. By the early 1980's, the procedure and the list of Canadian publications was well established, with the Huntsman Marine Science Centre in St. Andrews, N.B. preparing and submitting the Canadian ASFA input under contract. Currently, about 1100 documents are processed annually by Canada and sent to ASFA. Unfortunately, prior to the start of direct Canadian input, ASFA does not have good coverage of Canadian literature.

The second major development was the creation of the WAVES database. WAVES has been described in previous papers presented at IAMSLIC conferences. (Sutherland, 1988; Boyle, 1989; Conroy, 1991; Marshall, 1992; Olson, 1992) Starting as an index of government documents and grey literature at the Scotia-Fundy Regional Library, it has expanded to become a union catalogue of DFO libraries' holdings. However, WAVES' role is more than that of a union catalogue. From the beginning, WAVES was intended to be the main bibliographic index of DFO monographic literature. The DFO libraries, who maintain the database, make an effort to collect and index materials which previously had not been included in any other bibliographic source. All current DFO monographic publications including secondary reports are indexed on a priority basis. As well, reports by DFO scientific staff that are issued by fisheries organizations such as the Northwest Atlantic Fisheries Organization (NAFO) and the Pacific Salmon Commission (PSC), are included. In addition, retrospective coverage of the *Translation* series, the secondary report series and various local report series continues. Many reports prepared by Canadian provincial fisheries agencies also are being added.

In many ways, WAVES has assumed the role of the earlier printed indexes. With the growth of WAVES access to the older monographic materials, formerly covered only by the printed indexes, is easier. However, these printed sources have not yet been completely superseded by WAVES. Some of the older reports listed in these indexes have yet to be added to WAVES. In addition, these indexes provide access to the JFRBC and CJFAS, as well as listing papers published by the Department's staff in other journals. WAVES does not index any primary literature.

In the past few years, a third development has improved access to Canadian fisheries literature. Databases are now available on CD-ROM. ASFA has been distributed commercially in CD-ROM format since 1987 and WAVES since 1990.

Scientific research techniques have changed over the years and so have the methods of controlling and accessing scientific literature. Currently, the CD-ROM databases, WAVES, ASFA, and to some extent, BIOSIS, together provide good access to current Canadian fisheries literature. Now, researchers can begin their searches with the CD-ROM databases. These databases are designed to be easy to use, and with a little training in effective search techniques, individual researchers no longer have to rely on intermediaries to access on-line databases. However, until all older DFO materials have been added to WAVES, researchers who need an historical perspective will still have to use the older printed indexes. Generally, researchers of current Canadian fisheries topics, searching the CD-ROM databases, have the satisfaction of knowing that their topics are well covered and may conclude that the relevant literature has been retrieved.

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