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One of the big advantages of studying our native fish is that there is a tremendous amount of literature available on almost every species but unfortunately most of our members are unaware of most sources of this literature. This article hopes to give you some suggestions on locating some of these articles.

If you can pick up the average scientific article and find 90% of the listed references in the bibliography, this article will probably not help you. If not, you probably are not even aware of the tremendous volume of literature available. Do you realize there are 5,000 or 10,000 scientific journals (journals are scientific periodical magazines) and several hundred specifically on fish and aquatic subjects. In addition, there are hundreds of local club bulletins and hundreds of magazines related to keeping fish, fishing, and conservation. In securing facts, the scientific books and journals are the most reliable and least repetitious so these should be your most often used references and the bulk of this article will deal with finding them and the thousands of scientific books and government publications on fish related subjects.

Before you can look up a reference source, you must locate good libraries to find these references. Your local city library is not a good source even if it is a large city library but in some cases some information can be found there, particularly information in popular magazines such as T.F.H., Field and Stream, Outdoor Life, Audubon, National Wildlife, etc. and some of the more common state reference books and hobbyist books.

The most valuable library source would be a large university library especially if the university offers courses in fish study. If you have several universities in your area, begin by studying a college entrance guide book to locate the best potential libraries. In these guide books (available at book stores and local libraries), you can determine the type courses offered and the approximate size of the library. Most small colleges do not offer many fish related courses so their value would be much less than a major university.

Other good library sources are State or Federal Fish and Game Dept. libraries, State and Federal Research libraries, Natural History Museum libraries, Major Aquarium libraries, and Government Hatchery libraries.

One good way to locate good libraries in your area is to refer to the American Fisheries Society membership directory. In this directory there are over 500 U.S., 90 Canadian, and 150 foreign libraries which are receiving the Transactions of the American Fisheries Society Journal. This journal and Copeia, Progressive Fish Culturist, and the Journal of the Fisheries Research Board of Canada are all very often quoted in technical articles and together probably make up 25% of the articles referred to. Thus, a library worth its salt in fish articles should have back issues of all four of these journals especially the Transactions which is probably the best single reference on scientific articles on our North American fish.

If you can't find a copy of the A.F.S. Membership directory, you can get one by becoming a member of this society by writing to American Fisheries Society, Fourth Floor Suite, 1319-18th St., N.W., Washington, D.C. 20036 or write to me and I will get you the names of libraries in your area.

Other sources of technical literature are available by writing direct to the publisher of recently published articles or writing to a book store dealing in Natural History books. Some suggested dealers are Pierce Book Store, Winthrop, Iowa 50682 and Eric Lundburg, Augusta, West Virginia 26704. Write to them for a catalog.

In addition, back copies of Journal articles are available from Copeia by writing to the American Society of Ichthyologists and Herpetologists and some back issues of the Transactions of the American Fishereis Society can be obtained from this Society. A possible source of Aquarium Hobby journals is available by writing to Frank Fuqua our editor who collects these journals or by contacting another collector of hobby journals. Also not to be overlooked is our own NANFA library which is attempting to collect copies of the various Fish Club Bulletins across the country, something that none of the scientific libraries are doing.

Once you have located a good library, the next step is to learn how its books and articles are filed. In a large library such as the University of Minnesota, its books are divided into several smaller libraries such as a geology library, a medical library, an entomology and wildlife library, an agricultural library, etc. with most of its fish articles and books located in the entomology and wildlife library. In a library of this size, it uses a book of journals and publications just to tell you which library to look in for a specific reference journal.

The entomology library is classified three ways. The books and miscellaneous articles are classified according to the Dewey Decimal System and referenced according to a card catalog. The journals are filed alphabetically by journal and are found by referring to a journal index and the state and province publications are filed alphabetically by state.

Every library is different and the best way to become familiar with it is to ask the librarian for help when you have difficulty locating a source. Do not assume the reference is missing until you talk to the librarian. Even if it is missing she may be able to locate it for you through an interlibrary loan if it is an important reference to you or you may be able to purchase a photocopy of it from the other library if it is very rare such as a P.H.D. Thesis where only one school may have a copy.

At any rate, once you have located a good reference library don't be afraid to ask for help (many libraries receive their budget partly based on usage and requests for help looking up references) and don't be afraid of being unwanted at the library. If it is a government financed library, you paid as much for it as the next guy and in most cases have a right to visit it.

In some cases, you may even be allowed to check out books there. When you ask for a library card though, don't ask the person who checks out books at the counter, see the head librarian to find out if you can get a library card. Explain your difficulty at finding reference books any other way and that you are interested in doing scientific research on something and a library card is the only way you can do the research and if you present your case right you may get lucky and get a special privilege card like I did at the University of Minnesota.

After you become familiar with the library and how to find its books, you will need to become familiar with the various bibliographical references and abstract journals such as Zoological Records, Biological Abstracts, Sports Fishery Abstracts, World Fishery Abstracts, Deans Bibliography of Fishes and specialized bibliographies to the field of interest you are working on. Ask your librarian to show you these if you can't find them and by studying them for a few minutes you will quickly see their best uses.

In addition I would like to suggest you read the following references. 1. <u>Guide to the literature of the zoological sciences</u>. By Roger C. Smith, published by Burgess Publishing Co., 426 South Sixth St., Mpls., MN 55415. 2. <u>Handbook of Freshwater Fishery Biology</u>. By Kenneth Carlander, published by the Iowa University Press, Ames, Iowa.

3. <u>Freshwater Fishery Biology.</u> By Karl F. Lagler, published by Wm. C. Brown Co. Publishers, Dubuque, Iowa.

4. <u>Fish and Fisheries Literature Resources:</u> An Annotated Bibliography by Lora I. Kelts and Janet I. Bressler in Transactions of the American Fisheries Society, 1971, Vol. No. 2. pp. 403-422.