

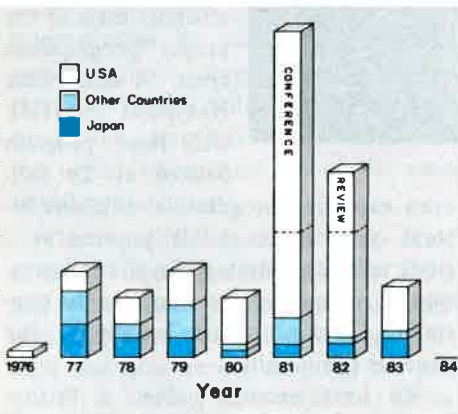
Who's Working on Artificial Reefs?

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ICLARM

Artificial reefs are rapidly becoming a popular research topic. They have all the expected romance that one associates with being a "marine biologist". They are also assuming increasing importance in enhancing fisheries. The Japanese government, for instance, has been providing subsidies of about \$100 million annually since 1976 to develop artificial fishing reefs. From the literature retrieval point of view, artificial reefs constitute a tidy, discrete subject. We searched the ASFA database in which the term "artificial reefs" is the appropriate descriptor. The database nominally begins in 1978.

The search printout contained 136 entries (a "cross-reference" search in the Oceanic Abstracts database yielded 137 entries; it began in 1964!). It was dated as being current to December 1985 on each page. Since the search was made in April 1985, it is probable that the correct cutoff date was December 1984. Databases are usually a few months "in arrears", but users need to be very careful to determine exactly what period they have covered in their search.

Shown graphically below is the result of the search.

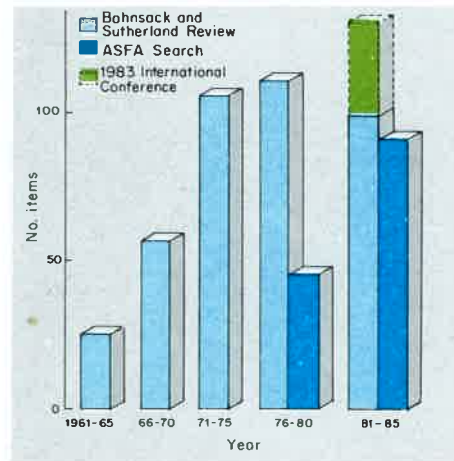


The big jump in publications in 1981 was due to the publishing of an earlier workshop: "Artificial Reefs: Proceedings of a conference held 13-15 September 1979 in Daytona Beach, Florida" D.Y. Aska (ed.) 1981. Rep. 41. Fla. Sea Grant Program. In 1982, a large part of the output was an issue on reefs in Marine Fisheries Review 44 (6/7).

The graph above shows that the USA heavily dominates the artificial reef

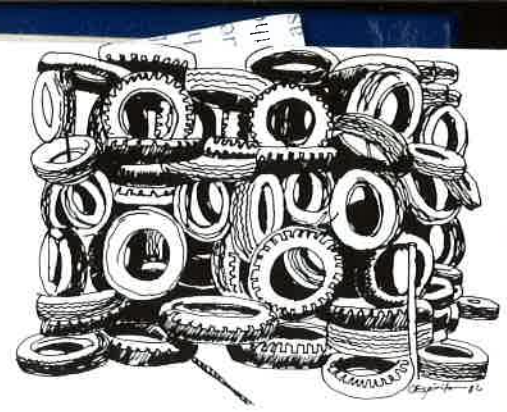
scene, with Japan steadily in distant second place. But what happened in 1984? The ASFA database was devoid of items for the whole year. Even 1983 looks suspiciously under-covered. What else has been happening?

In July 1985, the Bulletin of Marine Science (Vol. 37, Number 1) published 56 papers and abstracts from the third international artificial reef conference, 3-5 November 1983, Newport Beach, California. One paper¹ reviewed the field, commendably analyzing the growth of publications (in fact, it is one of the best reviews I've seen). Here is their picture of the literature since 1960 and how the computer database ASFA compares.



Note in the picture above, the review article actually covered only the three years (1981-1983) in the right hand bar to which I have added the thirty full papers in the Marine Science Bulletin; no doubt there were other publications in 1985 if not 1984. Part of the failure of ASFA to cover the 1976-1980 literature must have been missing the second international conference on artificial reefs in Australia, 1977. [Artificial Reefs Symposium, 5th World Underwater Congress "Downunder 77", Brisbane, Queensland, September 1977. Australian Underwater Federation, Brisbane, Australia].

The third international conference (1983) was again heavily dominated by USA research(ers). However, the three Japanese presentations showed that country's preeminence in design and use of big artificial reefs. They are not pub-



lishing much about it as even their own references show. Australia, Israel, Kuwait, the Philippines and Taiwan were represented also.

New Developments

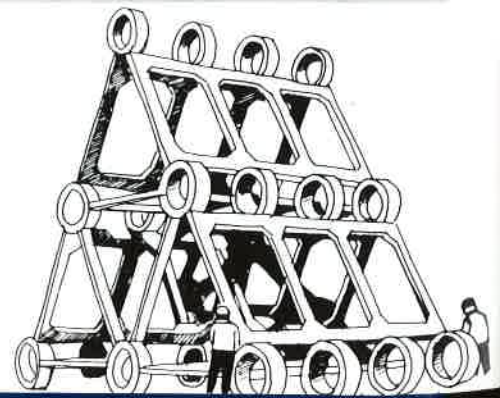
In 1984 the Artificial Reef Development Center (1010 Massachusetts Ave., N.W. Suite 100, Washington D.C., 2001, USA) began publishing a newsletter "Reef Briefs". ARDC is a national clearinghouse and computerized information center on this subject.

The latest "Reef Briefs" reports that "An annotated bibliography of artificial reef research and management" by G. Stanton, D. Wilber and A. Murray is available, listing 2,500 references.²

Contacts

Clearly the ARDC is the best source of further information in the USA. The most frequently cited research institutions were the National Marine Fisheries Service (Office of Recreational Fisheries, Washington, DC); the State University of New York, NY; Texas A&M University, College Station, TX; and the Florida Dept. of Natural Resources, Tallahassee, FL. In Japan, the authority seems to be Dr. M. Nakamura, National Research Institute for Fisheries Engineering, Ebikai Hasaki Machi, Ibaraki, 314-04, Japan. In Taiwan, it is clearly Dr. Kun-Hsiung Chang, Institute of Zoology,

Artificial reef materials range from cast off tires (above) to expensive concrete modules (below).



Who's Working on Artificial Reefs? (Cont.)

Academica Sinica, Nankang, Taipei, Taiwan. The only other country with major interests in artificial reefs is Australia. The long-standing authority is Dr. D. Pollard, Division of Fisheries, NSW Dept. Agriculture, P.O. Box K220, Haymarket, Sydney, NSW 2000, Australia.

Costa Rica is among the newcomers in this field (see article p. 21).

Contact the Selective Information Service, ICLARM, MC P.O. Box 1501, Makati, Metro Manila, Philippines, for further information relating to developing countries. ●

¹Bohnsack, J.A. and D.L. Sutherland. 1985. Artificial reef research: a review with recommendations for future priorities. *Bull. Mar. Sci.* 37(1): 11-39. Senior author's address: NMFS, Southeast Fisheries Center, 75 Virginia Beach Dr., Miami, Florida 33149, USA.

²To order send US\$5.00 (surface mail probably) to Sea Grant Advisory Program, G022 McCarty Hall, University of Florida, Gainesville, FL 32611, USA. Make check payable to University of Florida. Ask for their catalog of other publications on this topic.

FISHDAB

In the article on p. 13, the FAO statistics relating to aquaculture were shown to be less than perfect. In fact, it is a case of another faulty database, and from which the published FAO Yearbook of Fishery Statistics is drawn. The database is called FISHDAB which, while imperfect, is the only source of numeric information on fisheries on a global basis.

It is not well known that more details on fisheries statistics are available than are printed in the Yearbook. Also special tabulations and analyses can be provided on request. In addition, data are available from 1970. Yearbook users will know the time it takes to sort through the statistics year by year. The apparent inconsistencies caused by unannounced corrections to earlier years' statistics in later volumes are confusing as well.

Information can be requested for any of the 900 species/commodities and for any combination of the 225 countries/territories supplying data or 27 major fishing areas of the world (19 marine

Information Progress in the South Pacific

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Fisheries information systems centers, networks and services will be on the agenda of the 1986 South Pacific Commission Fisheries Technical Meeting in Noumea Cedex, New Caledonia. The SPC and the Pacific Information Centre will jointly prepare a draft proposal for an SPC area marine resource information system. This will aim at linking more closely main marine resources information producers and users, not only in the SPC area but also outside the region. Its primary aim, however, will be to help fisheries officers and other marine resources specialists to advise their governments and to help local clientele.

The system will have two parts—one a documentation service (collection, organization, preservation and dissemination) of published and semipublished materials and information about these

materials; the other part will consist of technical and advisory services.

The idea of having the proposal discussed at the Fisheries Technical Meeting is to ensure that the documentation system is designed to meet and as far as possible to anticipate the information needs of the marine resources specialists.

The project proposal, with any modifications arising from Fisheries Technical Meeting discussions, can then be used as a basis for preliminary agreements between cooperative bodies and eventual detailed discussions on the roles of the various institutions and organizations. These detailed discussions should take place at a marine resources information specialists meeting to be convened in 1987 by the Pacific Information Centre, with funding from the International Development Research Centre of Canada and other sources.

Readers may be interested to know that the South Pacific Commission's library accession's list from 1980-1985 is available on microfiche while stocks last. The list is actually the catalog of the SPC's bibliographic database begun in 1980. ●

FAO Non-Bibliographic Databases

and 8 inland), by continents or regions, by economic classes of countries, etc. In addition it is possible to rank information, that is to have the data sorted so that the largest numbers appear at the top of a table for ease in interpretation. The database is updated annually.

Up to five pages of standard computer tabulations can be supplied post free. Data can also be supplied on magnetic tape or on microfiche by arrangement. Write to: The Fishery Information Data and Statistics Service, FAO, Via delle Terme di Caracalla, 00100 Rome, Italy.

GLOBEFISH

Some time ago we were sent a colorful brochure that looked like a Christmas card. It referred to GLOBEFISH as FAO's "new computer compass to the world fish market". It seemed of little relevance to us. GLOBEFISH means

business, however. They have just begun publishing a quarterly newsletter called GLOBEFISH Highlights (No. 1/86, dated 15 March 1986, 36 p.) which provides interpretive news based on the GLOBEFISH computer database. The newsletter itself is stored in the database. This is useful because, according to the brochure "Every government institution or organization being already computerized can connect itself with the GLOBEFISH system."

Data are also available on request from the regional FAO marketing information services: INFOFISH (Asia/Pacific), INFO-PESCA (Latin America/Caribbean) and INFOPECHE (Africa).

Marketing data are available according to country, commodity, products, species and date, in terms of statistics, prices, effect on supply and demand, competing products, general economic data and FAO commodity survey.

The central contact point for information is GLOBEFISH, Fishery Industries Division, FAO, Via delle Terme di Caracalla, 00100 Rome, Italy. ●