

The Growth of Fisheries Literature

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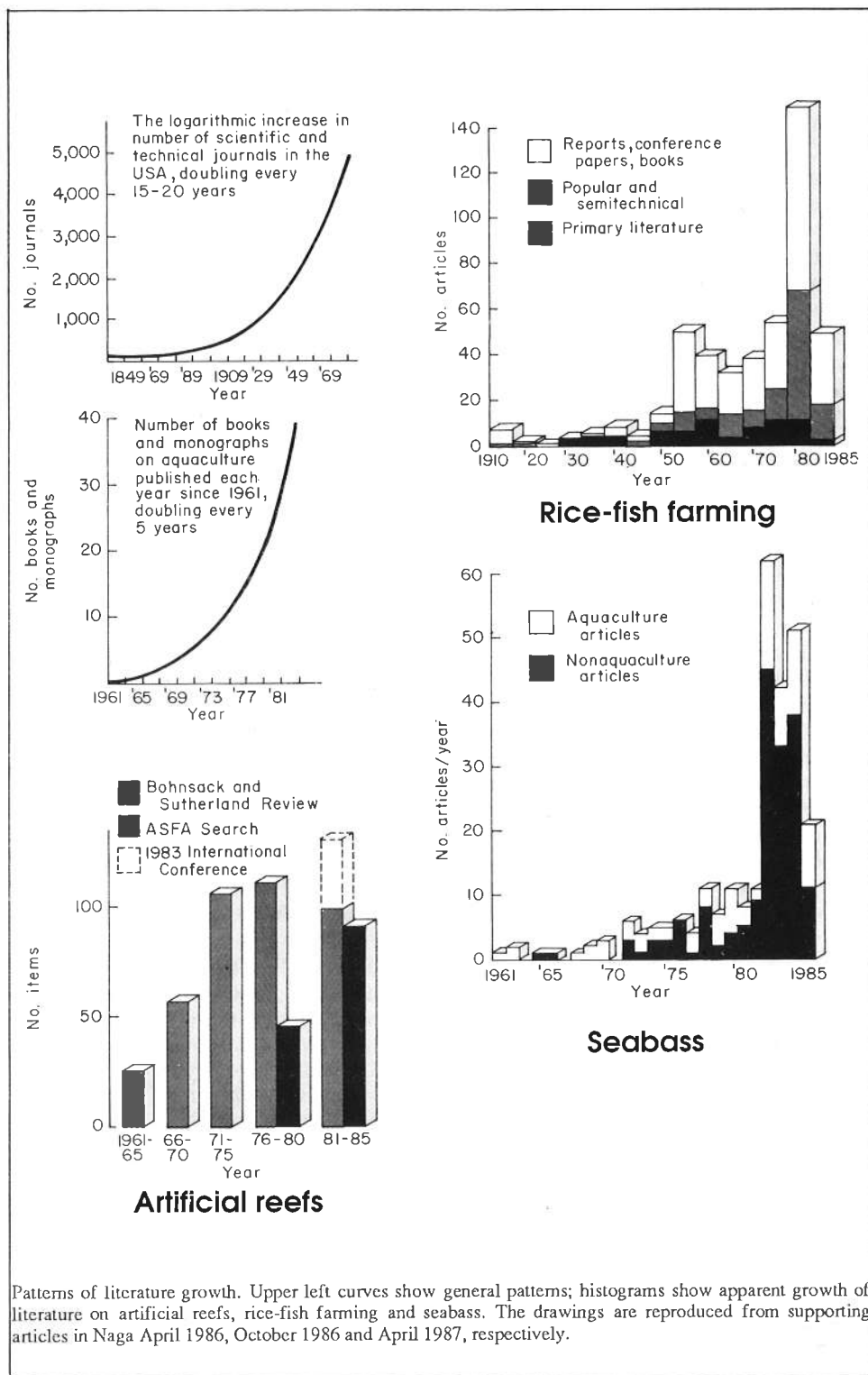
The literature of fisheries is associated with a broad diversity of journals, most of which do not use the word "fisheries" in their titles or introduced it only after a long gestation. For instance, the *Canadian Journal of Fisheries and Aquatic Sciences*, the largest and most widely respected publication on aquatic science in the world, began in 1901 as an irregular supplement to the Annual Reports of the Canadian Department of Marine and Fisheries as *Contributions to Canadian Biology*. Only in 1926 was the title expanded to *Contributions to Canadian Biology and Fisheries* (New Series). However, it lost "fisheries" again when it was decided that it had become strictly a scientific journal! That was in 1934. The new name, *Journal of the Biological Board of Canada*, lasted only until 1938 when the name of the journal was changed to *Journal of the Fisheries Research Board of Canada* consequent upon a change in the name of the Board. The present name was adopted only in 1980.

An "Old" Science

Nevertheless, the Americans had placed fisheries on the map as a distinct branch of science as early as 1872 when the *Transactions of the American Fisheries Society* was established.

Probably the low volume of fisheries research in other countries led journal founders (often fisheries societies) to embrace rather broad discipline titles in which they hoped fisheries workers (as well as those in every other related discipline) would feel at home. In the UK, the *Journal of the Marine Biological Association of the United Kingdom* (founded 1887) was one of the earliest of these. The International Council for the Exploration of the Sea was established in 1902, primarily to regulate fisheries in the North Sea. However, its famous serial, the *Journal du Conseil* (1926) also avoided using the term "fisheries".

Likewise Australia and New Zealand started having journals of "marine and



freshwater research" only and fairly recently at that -- 1950 and 1967, respectively. The Soviets began putting out *Biologiya Morya* (Marine Biology) only in 1975.

More focused journals appeared early in Japan (*Bulletin of the Japanese Society of Scientific Fisheries*, 1932), Germany (*Archiv fuer Fischereiwissenschaft* [Archives for Fisheries Science], 1948), the Philippines (*Philippine Journal of Fisheries*, 1951) and India (*Indian Journal of Fisheries*, 1954).

International publishing houses have begun to produce "fisheries" journals also -- *Fisheries Management* (1970), *Fisheries Research* (1981) -- which means that the subject has finally reached marketable proportions.

Aquaculture deserves special mention because it seems to have been spun off as a more "respectable" branch of fisheries science in the 1960s. The word "aquaculture" has been rapidly absorbed into journal titles. The international journal *Aquaculture* (1972) is the benchmark but not the first in this discipline. Specialty journals, such as the *Progressive Fish-Culturist* (1938) have been around for some time.

However, fisheries researchers continue to publish in literally hundreds of non-fisheries journals, many of which are not even aquatic, such as those in the agricultural, economics and medical fields. It would be virtually impossible to track them all down to make a complete assessment of the growth of "fisheries-related" literature. Fashions in research and publishing habits change too, so that many of today's popular journals will probably be peripheral to the next generation of publishing scientists.

Charting the Growth of Serials

How then, can the growth of this serial literature be charted, when the boundaries of the subject matter are so broad?

The tool I used here was a recent listing of aquaculture-related materials dating from the last century by Dr. A.G. Coche* of FAO. His lists appear to include nearly all the overtly "fisheries" journals and magazines (because aquaculture-oriented journals are mainly post-1960s) as well as specifically aquaculture titles. I think they are fairly indicative of fisheries "core" literature as a whole. Those interested in this field could also

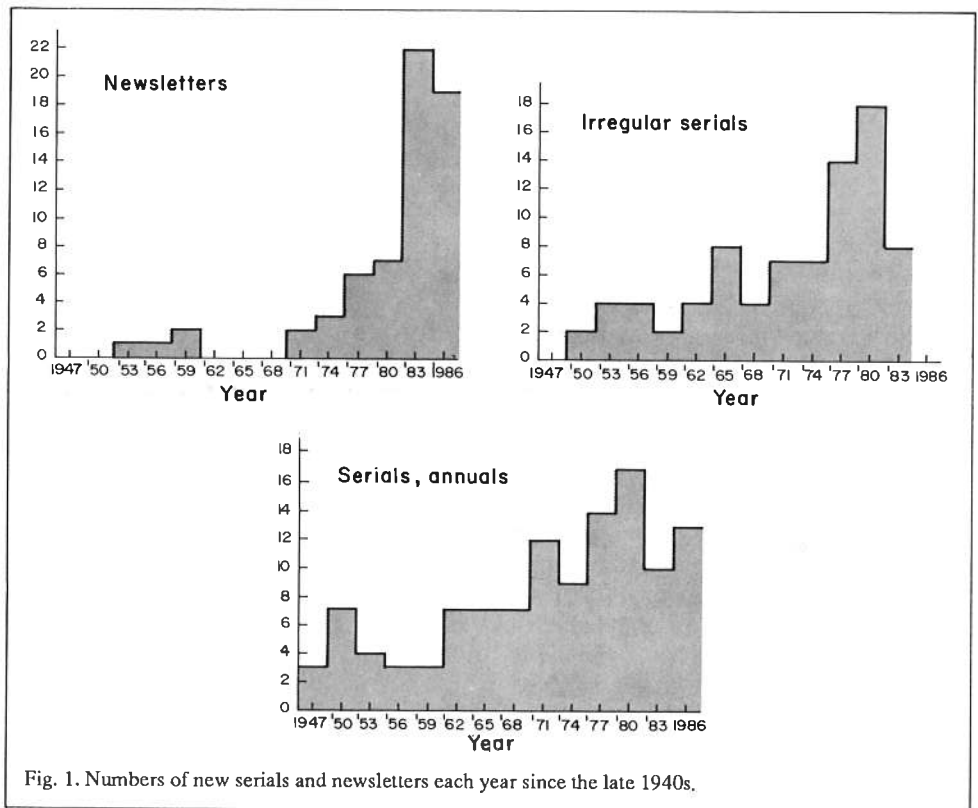


Fig. 1. Numbers of new serials and newsletters each year since the late 1940s.

consult the *World list of aquatic sciences and Fisheries serials* (FAO Fish. Tech. Pap. 147 and 6 supplements [1975-1981]) and *Periodicals monitored for the ASFIS Database* (FAO ASFIS-1, 1981).

The distribution of the commencement dates of the various journals, magazines and newsletters is shown in Fig. 1. The 1920s was a period of establishment of several regular serials but there followed a period when almost no new journals or other serials were published. The Depression and World War II probably account for much of this lack of activity. Since the late 1940s the numbers of new journals have been increasing rapidly. At least 116 regular serials, 83 annuals and irregular serials and 63 newsletters related to fisheries have begun in the last 40 years. Half of the serials appeared in the last 10 years, while over 60% of the newsletters started this decade.

ASFAS

One might expect that the secondary journal *Aquatic Science and Fisheries Abstracts* (ASFA) would reflect this growth by an increase in the number of abstracts published each year. ASFA's growth has been positive but not constant. The reasons for this make interesting reading (see article p. 5) and highlight the difficulties in attaining full literature coverage. ASFA's living resources sec-

tion (ASFA-1) monitors about 3,500 serials. The total number of titles in Dr. Coche's aquaculture listing (regular and irregular serials plus newsletters) is only 306, a small portion of ASFA-1, but they are undoubtedly amongst the more heavily cited serials in the database.

Exponential Growth

In the specific fields of study that we have examined, there are clear signs that the literature is growing exponentially. We looked at aquaculture monographs, artificial reefs (Naga April 1986), rice-fish culture (Naga October 1986) and seabass (Naga April 1987), and in this issue, at freshwater fishpond management, European freshwater ponds and mass culture of microalgae (see p. 14). The figures in the box (p. 3) show a doubling of the literature in these fields every 10 years or less. Note that the number of USA scientific journals has been doubling every 15-20 years. Dr. Coche's list of regular serials shows a doubling of such serials every 17 years.

Most of our Naga samples, however, were related to aquaculture. The literature of capture fisheries and perhaps many more distant fields of aquatic science may not be growing at such a pace. ICLARM is continuing research in this area which will help quantify the growth of fisheries literature and of the science itself. ●

*1987. FAO Fish. Circ. 808. 108 p.