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BIBLIOGRAPHY OF THE NOISES MADE BY MARINE ORGANISMS[1]

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One of the most exciting developments in comparative psychology and marine biology within the past few years has been the recording and analysis of the under-water noises produced by many of the so-called "silent" organisms of the ocean. Occasional references to biological sounds made in water can be found in the older literature, but the active investigation of the phenomenon has taken place only since the end of World War II. Current interest in the study of under-water animal sounds grew out of listening for enemy vessels developed by the United States Navy in harbors and on ships during the war. Many strange noises of unknown origin (at first thought to be caused by secret enemy weapons) turned out actually to be produced by fishes and crustaceans.

At the present time new organisms are continually being brought to light which make noises of one sort or another, so that the old axiom " silent as the sea" must now be considered a thing of the past. Nevertheless very little is definitely known about the purpose or significance of the noises that are made, and the method of producing them, in the case of many species, is still a matter of speculation.

The literature on the subject is sketchy and widely scattered. To my knowledge no published article has yet appeared in any scientific journal which attempts to bring together the more important references on the under-water sounds made by marine organisms. There are reports by the Office of Naval Research containing such references, at least one of which is an extensive

[1] Contribution No. 6 from the Florida State University Oceanographic Institute.

survey of the field. This is a restricted, or classified, document, however, and is unavailable to the civilian scholar or research worker. The writer has been continually hampered by this lack of any beginning source of information on the subject, and in fact has been asked on several occasions by investigators from other institutions whether such a reference list existed. Finding none available, he decided to do something about it. The resulting bibliography represents a start in this direction, and while it can hardly claim to be exhaustive, it gives the principal sources ordinarily available to a research worker in this country.

Its purpose is to bring together in one place those reports on sound production in marine organisms not classified or restricted for reasons of military or naval security. The reference list, although surprisingly short, represents the greater portion of all that has been published in available journals.

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[1] The government reports listed in this bibliography have been declassified. Photostatic or microfilm copies can be obtained from the Publication Board, Scientific and Industrial Reports, Office of Technical Services, United States Department of Commerce, Washington, D. C., with the use of the proper PB numbers.

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