UNITED STATES NATIONAL MUSEUM BULLETIN 293. CATALOG OF RECENT OPHIUROID TYPE SPECIMENS IN MAJOR COLLECTIONS IN THE UNITED STATES

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United States National Museum Bulletin 293. Catalog of Recent ophiuroid type specimens in major Collections in the united States by Maureen E. Downey

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MAUREEN E. DOWNEY

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Catalog of Recent Ophiuroid Type Specimens in Major Collections in the United States

MAUREEN E. DOWNEY Smithsonian Institution



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Publications of the United States National Museum

The scientific publications of the United States National Museum include two series, *Proceedings of the United States National Museum* and United States National Museum Bulletin.

In these series are published original articles and monographs dealing with the collections and work of the Museum and setting forth newly acquired facts in the field of anthropology, biology, geology, history, and scientific organizations and to specialists and others interested in the various subjects.

The *Proceedings*, begun in 1878, are intended for the publication, in separate form, of shorter papers. These are gathered in volumes, octavo in size, with the publication date of each paper recorded in the table of contents of the volume.

In the Bulletin series, the first of which was issued in 1875, appear longer, separate publications consisting of monographs (occasionally in several parts) and volumes in which are collected works on related subjects. Bulletins are either octavo or quarto in size, depending on the needs of the presentation. Since 1902, papers relating to the botanical collections of the Museum have been published in the Bulletin series under the heading Contributions from the United States National Herbarium.

This work forms number 293 of the Bulletin series.

Frank A. Taylor Director, United States National Museum

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By MAUREEN E. DOWNEY Smithsonian Institution

This is the second of a projected series of five type catalogs, one for each class of recent echinoderms. Thanks mainly to the efforts of Austin H. Clark, A. E. Verrill, Rene Koehler, and others, the most important America.: collection of ophiurans is in the U.S. National Museum, which has 6,999 type specimens of a total of 12,062 type specimens in the major collections in the country. The Museum of Comparative Zoology, through the diligence of Hubert Lyman Clark, Theodore Lyman, and Theodore Mortensen, also has an important collection of ophiuroids, of which 4,500 specimens are types. The Peabody Museum at Yale has 50 of A. E. Verrill's ophiuroid types in its collection, and the Allan Hancock Foundation in California has 513 types, most of them described by Fred Ziesenhenne. About half of the specimens in this catalog are preserved dry and half in alcohol. The types include 902 nominal species and subspecies, of 201 nominal genera. In all, about 2,500 lots of types (12,062 specimens) were examined in preparing this catalog.

The geographical distribution of the species here represented is world wide. Many of the types are from collections made by the *Blake*, *Albatross*, *Discovery* and *Challenger* expeditions, the John Murray Expedition, the University of Iowa Bahamas Expedition, Dr. Mortensen's Expedition to the Pacific, and several expeditions of the Allan Hancock Foundation.

With the exception of a few specimens at the Allan Hancock Foundation, which were not available to me at the time of my visit there (later examined by Capt. Ziesenhenne), I have personally examined and verified every type specimen herein listed.

In many cases the original description of a species did not contain designation of a holotype, and unless the species was based on a single specimen, the material on which the description was based is treated as syntypic, even though the describer may have labeled one specimen "holotype." Types subsequently designated, either by the same author or another, are lectotypes. Paratypes are specimens, other than the designated holotype, mentioned in the original publication or obviously material other than the holotype on which the original description was based. Only primary type material is included here. The task of trying to determine secondary types in those extensively studied collections would be formidable--even, perhaps, impossible; thus only types having nomenclatural significance have been listed.

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The arrangement of the catalog is alphabetical, according to the original name of the genus or species. Types are listed as follows:

Name and author

Reference with date

Current name, if original name is now a synonym. Catalog number, locality, depth, date collected.

Remarks

The abbreviations used before the catalog numbers are as follows:

USNM U.S. National Museum MCZ Museum of Comparative Zoology at Harvard YPM Yale Peabody Museum AHF Allan Hancock Foundation

An index to all the names, generic and specific, original and current, is appended. It is hoped that this catalog will prove useful to ophiuroid workers, as well as students in the field of echinology.

I wish to acknowledge my indebtedness for help and advice during the preparation of this catalog to Dr. David L. Pawson, U.S. National Museum; Professor H. B. Fell and Dr. Richard Chesher, Museum of Comparative Zoology; Dr. Willard Hartman, Yale Peabody Museum; and Dr. John Garth, Allan Hancock Foundation. Special thanks are due to Capt. Fred Ziesenhenne, who located and examined type material at the Allan Hancock Foundation which I could not find during my visit there.

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Type Specimens of Ophiuroids

Amphiactis astarte A. H. Clark Ophiuroidea of the Hawaiian Islands. Bernice P. Bishop Museum Bulletin 195, p. 38, fig. 14c,d, 1949. Holotype: USNM E7021 (dry), Albatross Sta. 4100, Pailolo Channel, between Maui and Molokai, 238-276 meters, July 23, 1902. Amphiactis lycidas A. H. Clark Ophiuroidea of the Hawaiian Islands, Bernice P. Bishop Museum Bulletin 195, p. 36, fig. 14a, b, 1949. Holotype: USNM E7019 (dry), Albatross Sta, 3981, vicinity of Kauai, 1163-757 meters, June 10, 1902. Paratype: USNM E7020 (1 dry), Albatross Sta. 4018, vicinity of Kauai, 1469-1342 meters, June 21, 1902. Amphichondrius laevis Ziesenhenne Allan Hancock Pacific Expeditions, vol. 8, no. 2, p. 22, pl. 4, figs. 7-9, 1940. Holotype: AHF 18 (dry), Velero Sta. 964-39, Tenacatita Bay, Mexico, 2-8 fms., May 8, 1939. Paratypes: AHF 606.5 (1 dry), Velero Sta. 541-36, Gulf of California, Puerto Refugio, Angel de la Guardia Id., 60 fms., Mar. 4, 1936. AHF 608.4 (1 alcohol), Velero Sta. 499-36, Lower California, San Lorenzo Channel, Espiritus Santo Id., 35 fms., Feb. 19, 1936. AHF (1 uncataloged), Velero Sta. 209-34, La Libertad, Ecuador, 8-10 fms., Feb. 9, 1934. AHF (3 uncataloged), Velero Sta. 767-38, off Mexico, 15055'N, 97041'W, 40-50 fms., Jan. 9, 1938. USNM E8002 (1 dry), Velero Sta. 964-49, Tenacatita Bay, Mexico, 2-8 fms., May 8, 1939. Amphicontus minutus Hill Reports of the Allan Hancock Pacific Expedition, 1932-38, vol. 8, p. 1,

figs. 1-3, 1940.