

THE AUSTRALIAN MUSEUM, SYDNEY.

MEMOIR V.

A CHECK-LIST OF THE FISHES
RECORDED FROM AUSTRALIA

BY

(the late) ALLAN R. McCULLOCH.

PART IV,

Containing Pages i-x and 437-534.

PUBLISHED BY ORDER OF THE TRUSTEES.

CHARLES ANDERSON, M.A., D.Sc., DIRECTOR.

Sydney, May 26, 1930.

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The following new names have been proposed in this MEMOIR:

Naucratopsis excusabilis, new species. Western Australia.
Page 183.

FORMIO, new genus of the new family Formiidæ. Ortho-
type, *Apolectus stromateus* Cuvier and Valenciennes.
Page 193.

INTRODUCTION.

THE LATE ALLAN RIVERSTONE McCULLOCH, who died at Honolulu on September 1, 1925, at the age of forty, had partly planned, as his final contribution to Ichthyology, a work which was to include, as far as possible, a description and figure of every species of fish known from Australian waters. To this end he had prepared a card-index to every accessible work on Australian ichthyology and to the ichthyological portion of the *Zoological Record*. For several years McCulloch toiled on this index, frequently until the early hours of morning, and it contains many thousands of entries; it is now the property of the Trustees of this Museum. McCulloch had also prepared a manuscript list of the genera and species of Australian fishes, with authorities and synonyms, which he kept consistently up to date. It is referred to in his bibliography,¹ and the hope was expressed that it would subsequently be published. It was his earnest desire that, in the event of his death, this list should be published in his name, and it is in fulfilment of this wish that the present MEMOIR has been issued.

A certain amount of modification was necessary, however, before the list could be printed, and it was decided that, instead of issuing the mere list of names, references to literature should be added from the index and also an indication of the distribution of each species. This work has been ably carried out by Mr. Gilbert P. Whitley, who for some years was McCulloch's assistant, and who succeeded him as Ichthyologist to the Museum. Mr. Whitley, who has an intimate knowledge of Australian fishes, has performed this onerous task in a thoroughly conscientious manner, and the value of the *Check-List* has been greatly enhanced thereby.

All references to genera and species have, whenever possible, been checked by comparison with the original publication. When this has not been done, a reference is given to the authority from which the quotation is made. Prominent in this regard are Charles Davies Sherborn's *Index Animalium* and David Starr Jordan's *Genera of Fishes*, which have been of inestimable value in the compilation of this work.

After each reference to a genus the genotype is given, and after each reference to a species the type-locality appears. The designations of genotypes are as follows:

Orthotype.—Species selected as type of genus by its author.

Haplotype (monotype).—The only species in a new genus.

Tautotype.—A species with the same name as its genus, or a name with identical meaning and described at the same time as the genus.

Logotype.—One of the original species included in a genus and selected as genotype by a subsequent author.

¹ Anderson, REC. AUSTR. MUS. XV, 2, 1926, p. 147.

The primary type-specimens of species are distinguished by the following terms:

Holotype.—A single specimen, or one selected by the author from a series.

Allotype.—A single specimen of the sex not represented by the holotype.

Co-type (syntype).—Any specimen of the original series when there is no holotype.

Paratype.—Any specimen of the original series when there is a holotype.

Lectotype.—A specimen chosen as holotype from the co-types of a species.

Chirotype.—Specimen upon which a manuscript name or a *nomen nudum* is based.

For the sake of completeness all species recorded from Australia to the end of the year 1929 are included. By Australia is meant all the fresh and salt waters of Queensland, New South Wales (including the Federal Capital Territory), Victoria, South Australia, North Australia and Central Australia (formerly the Northern Territory), and Tasmania. Fishes of the Arafura Sea, New Guinea, Lord Howe Island, and New Zealand are included only when their range is known to extend into the prescribed limits. No fossils are listed, and so far as is known none of the species is extinct.

The classification adopted is mainly that of David Starr Jordan's *A Classification of Fishes*, issued by the Leland Stanford Junior University in 1923.

Mr. Tom Iredale, Conchologist, of the Australian Museum, has generously placed his wide experience and knowledge of early systematic literature and taxonomy at the disposal of Mr. Whitley, and his help and encouragement have been of great assistance, resulting in the avoidance of many errors. Mr. C. D. Sherborn, of the British Museum (Natural History), has kindly supplied helpful notes from time to time, and his extremely accurate *Index Animalium* has always been useful. Mr. F. D. McCarthy, of the Australian Museum Library, has been of great assistance in the preparation of the index, the bulk of this task having been performed by him. The final acknowledgment is due to the printers, The Australasian Medical Publishing Company, Limited, for the excellent typography; thanks are especially due to the late Dr. H. W. Armit and to Mr. W. E. Oldroyd.

If any errors of commission or omission be detected, notice of such is requested and acknowledgment will be made in any commentary on this *Check-List* which may be written later.

C. ANDERSON,
Director.

Sydney, May, 1930.

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