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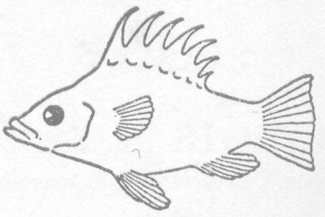
SEARS FOUNDATION FOR MARINE RESEARCH
Number I

Fishes of the Western North Atlantic



PART FOUR

Soft-rayed Bony Fishes

Order Isospondyli
(part)

Suborder Argentinoidea

Suborder Stomiatoidea

Suborder Esocoidea

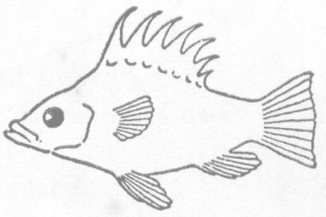
Suborder Bathylaconoidea

Order Giganturoidei

NEW HAVEN, 1964

SEARS FOUNDATION FOR MARINE RESEARCH, YALE UNIVERSITY

Fishes of the Western North Atlantic



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Fishes of the Western North Atlantic

Editorial Board

Introduction

PART Four, FISHES OF THE WESTERN NORTH ATLANTIC, includes accounts of some of the soft-rayed bony fishes of that arbitrarily defined area that stretches from Hudson Bay to the mouth of the Amazon, from the mid-Atlantic, including Bermuda, to the estuaries of the coastal plain, and from the ocean's surface to the bottom.

The volume begins with the Suborders Argentinoidea and Stomiatoidea, groups composed of forms living in the open ocean and largely in deep water. These groups represent a continuation from Part Three of the Order Isospondyli, the herring-like fishes. Following them is a brief account of the American pikes and their occurrence in brackish water, and of two small groups of rare deep-sea fishes, the Bathylaconoidea and the Giganturoidei.

The material included in Parts Three, Four, and Five was originally intended for publication in a single volume. Consequently, much of the introductory material in Part Three, such as general discussions of the bony fishes and keys to orders and families, is applicable to this volume. Similarly, the reader is referred to "Order Isospondyli, Characters and Keys to Suborders and Families," in Part Three for material pertinent to the discussion of the isospondyls with which Part Four begins.

It is a pleasure to report that the accounts published in this Part include keys to the orders, families, and genera of the world, geographical comprehension that reflects the extent of the authors' work as well as the breadth of distribution of oceanic, as opposed to coastal, fishes.

In order to reduce the repetition of the names of museums containing the specimens on which these studies were based while retaining the museum catalog numbers (the only connection between works such as these and the tangible research materials), the editors have used throughout this volume the abbreviations that follow:

AM	—	Amsterdam Museum, Holland
AMNH	—	American Museum of Natural History
ANSP	—	Academy of Natural Sciences of Philadelphia
BLBG	—	Biological Laboratory, U.S. Fish and Wildlife Service, Bureau of Commercial Fisheries, Brunswick, Georgia
BMNH	—	British Museum (Natural History), London
BNM	—	Bergens Museum, Norway

BOC	—	Bingham Oceanographic Collection, Yale University
BU	—	Boston University
CAS	—	California Academy of Sciences
CF	—	Carlsberg Foundation, Copenhagen
CFG	—	California Division of Fish and Game
CM	—	Carnegie Museum
CNHM	—	Chicago Natural History Museum
CU	—	Cornell University
FSM	—	Florida State Museum
IJ	—	Institute of Jamaica, B. W. I.
IRSNB	—	Institut Royal des Sciences Naturelles de Belge, Belgium
LMNH	—	Leiden Museum of Natural History, Holland
MCZ	—	Museum of Comparative Zoology, Harvard University
MMF	—	Museu Municipal do Funchal, Madeira Islands
MHNBA	—	Museo de Historia Natural de Buenos Aires, Argentina
MNHN	—	Muséum National d'Histoire Naturelle, Paris
MOM	—	Musée Océanographique, Monaco
MRAC	—	Musée Royal d'Afrique Central, Tervuren
MRCB	—	Musée Royal du Congo Belge
MSNF	—	Museo di Storia Naturale, Firenze
NHR	—	Naturhistoriska Riksmuseum, Stockholm
NYZS	—	New York Zoological Society
POFI	—	Pacific Oceanic Fishery Investigation, U.S. Fish and Wildlife Service, Bureau of Commercial Fisheries, Honolulu, Hawaii
ROMZ	—	Royal Ontario Museum of Zoology, Canada
SIO	—	Scripps Institution of Oceanography
SU	—	Natural History Museum, Stanford University
TU	—	Tulane University
UCLA	—	University of California at Los Angeles
UF	—	University of Florida
UI	—	University of Indiana
UL	—	University of Louisville
UMIM	—	University of Miami Ichthyological Museum
UMML	—	University of Miami Marine Laboratory
UMMZ	—	University of Michigan Museum of Zoology
USNM	—	United States National Museum
UT	—	University of Texas
UW	—	University of Washington
VOM	—	Vanderbilt Oceanographic (Marine) Museum
WHOI	—	Woods Hole Oceanographic Institution
ZMA	—	Zoological Museum, Amsterdam
ZMC	—	Zoological Museum, Copenhagen

Of the other abbreviations used in this volume, the following require explanation here:

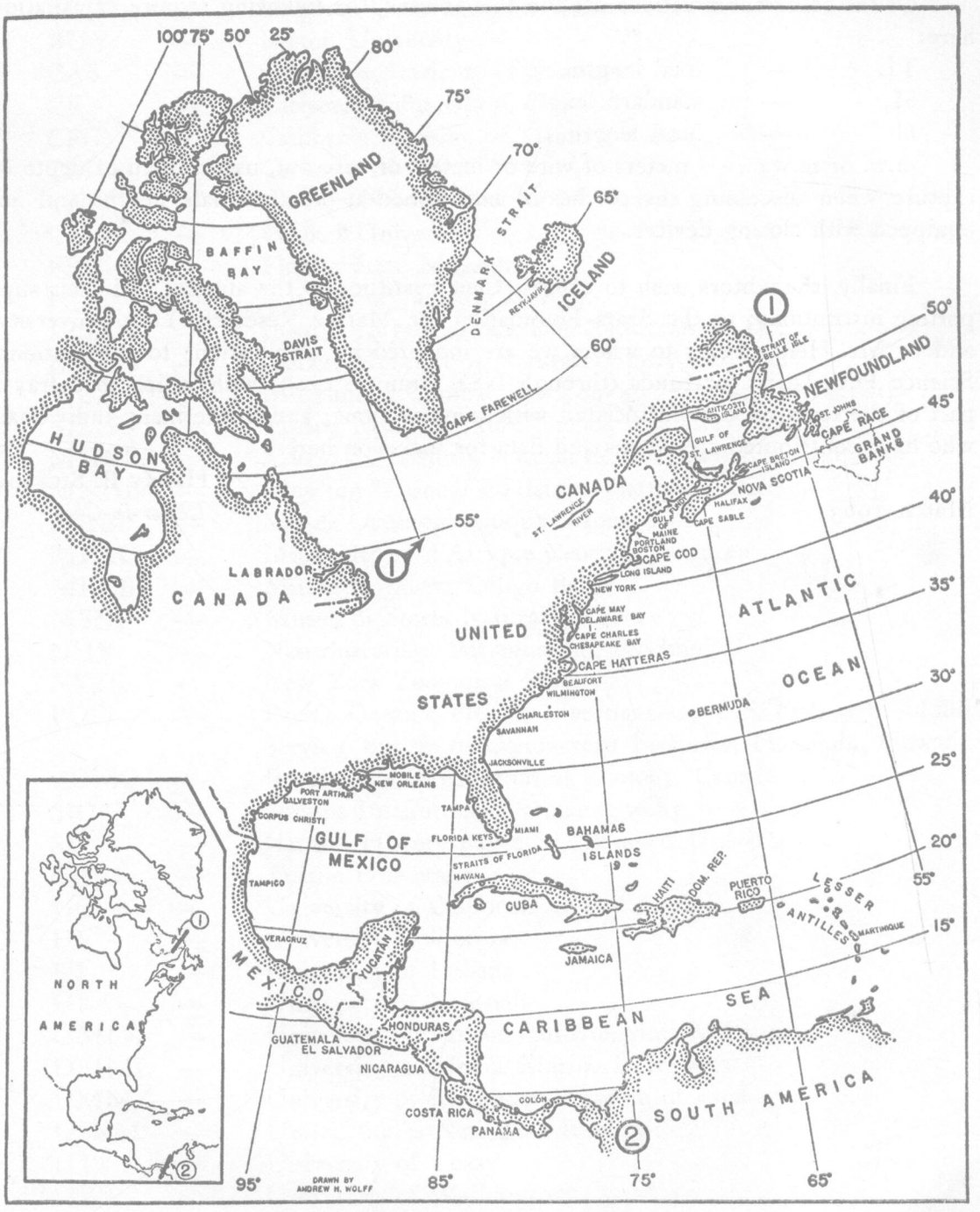
TL — total length
SL — standard length
hl — head length

m.w. or m.w.o. — meters of wire or meters of wire out, used in lieu of depth of capture when discussing the catches of nets fished at indeterminate depths and not equipped with closing devices.

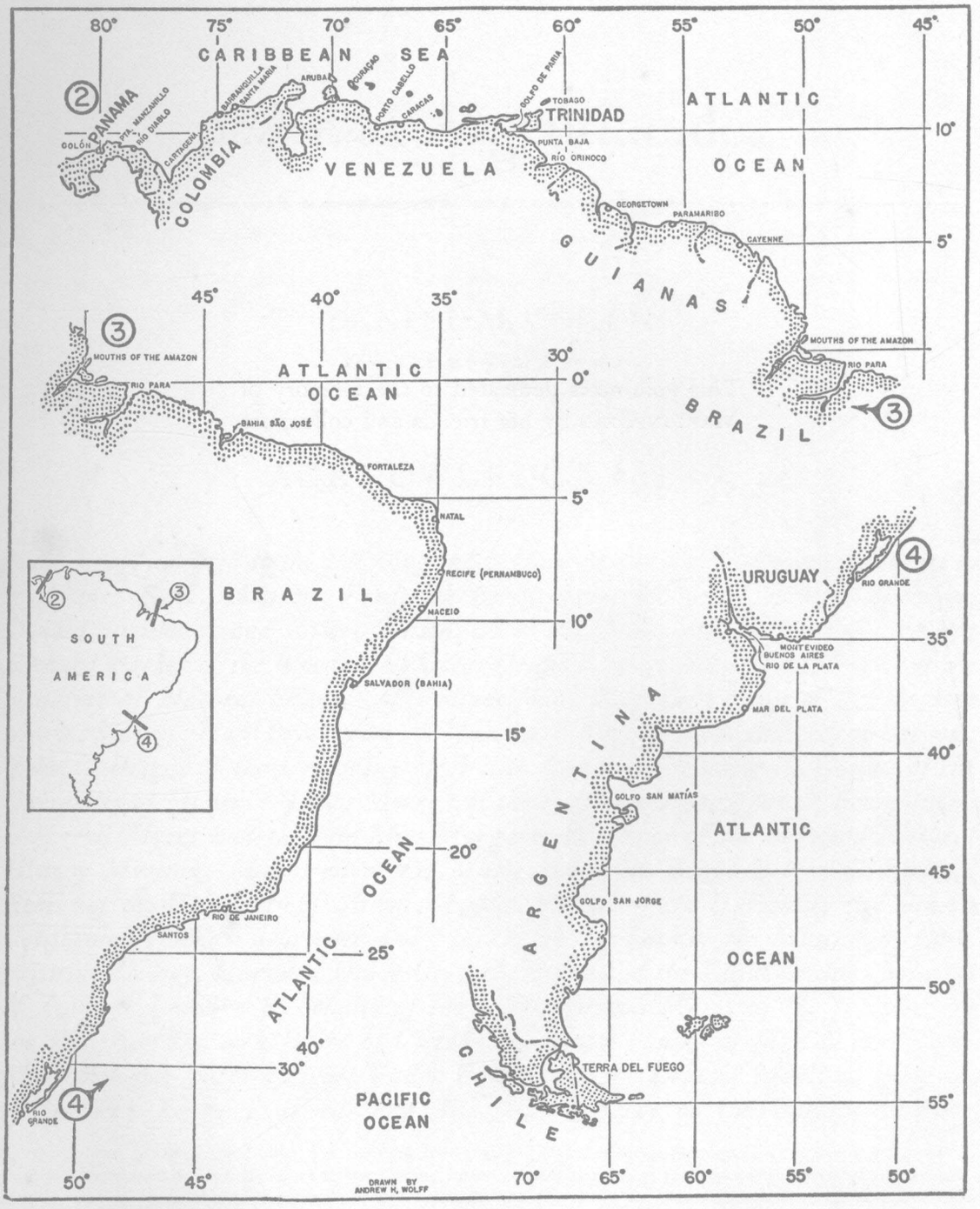
Finally, the editors wish to express their gratitude to the authors and their supporting institutions; to the Sears Foundation for Marine Research, Yale University, and to Mr. Henry Sears to whom we are indebted for publication; to the National Science Foundation for funds (through NSF Grant G1723) with which to defray a part of the research costs associated with some sections; and to the many individuals who have contributed specimens and data for inclusion here.

March 1963

Henry B. Bigelow
Editor-in-Chief



North America



South America

This volume is dedicated to the memory of
Marion Grey by her friends and colleagues

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Yngve H. Olsen, *Editor*

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