

Catalog of Type Specimens  
of Recent Fishes in the National  
Museum of Natural History,  
Smithsonian Institution, 2:  
Blenniidae

VICTOR G. SPRINGER,  
JEFFREY T. WILLIAMS,  
and  
THOMAS M. ORRELL

SMITHSONIAN CONTRIBUTIONS TO ZOOLOGY • NUMBER 519

## SERIES PUBLICATIONS OF THE SMITHSONIAN INSTITUTION

Emphasis upon publication as a means of "diffusing knowledge" was expressed by the first Secretary of the Smithsonian. In his formal plan for the Institution, Joseph Henry outlined a program that included the following statement: "It is proposed to publish a series of reports, giving an account of the new discoveries in science, and of the changes made from year to year in all branches of knowledge." This theme of basic research has been adhered to through the years by thousands of titles issued in series publications under the Smithsonian imprint, commencing with *Smithsonian Contributions to Knowledge* in 1848 and continuing with the following active series:

*Smithsonian Contributions to Anthropology*  
*Smithsonian Contributions to Astrophysics*  
*Smithsonian Contributions to Botany*  
*Smithsonian Contributions to the Earth Sciences*  
*Smithsonian Contributions to the Marine Sciences*  
*Smithsonian Contributions to Paleobiology*  
*Smithsonian Contributions to Zoology*  
*Smithsonian Folklife Studies*  
*Smithsonian Studies in Air and Space*  
*Smithsonian Studies in History and Technology*

In these series, the Institution publishes small papers and full-scale monographs that report the research and collections of its various museums and bureaux or of professional colleagues in the world of science and scholarship. The publications are distributed by mailing lists to libraries, universities, and similar institutions throughout the world.

Papers or monographs submitted for series publication are received by the Smithsonian Institution Press, subject to its own review for format and style, only through departments of the various Smithsonian museums or bureaux, where the manuscripts are given substantive review. Press requirements for manuscript and art preparation are outlined on the inside back cover.

Robert McC. Adams  
*Secretary*  
Smithsonian Institution

Catalog of Type Specimens  
of Recent Fishes in the National  
Museum of Natural History,  
Smithsonian Institution, 2:  
Blenniidae

*Victor G. Springer, Jeffrey T. Williams,  
and Thomas M. Orrell*



SMITHSONIAN INSTITUTION PRESS

Washington, D.C.

1991

## ABSTRACT

Springer, Victor G., Jeffrey T. Williams, and Thomas M. Orrell. Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 2: Blenniidae. *Smithsonian Contributions to Zoology*, number 519, 28 pages, 1991.—We report on the putative primary (name-bearing) and secondary types of 189 species and subspecies, represented by 557 type lots and approximately 3600 specimens. We attempted to verify the type status of each lot, and report errors and discrepancies between information derived from putative type specimens and information in original descriptions and USNM catalog ledgers. We located some types that had been reported as missing. The resolution of two problems necessitated our designating lectotypes for *Isesthes ionthas* and *Isesthes scrutator*, both Jordan and Gilbert, 1882.

Among the USNM primary type lots are some that were published as being deposited in the collections of the Natural History Museum (BMNH), Stanford University (now at California Academy of Sciences), New York Zoological Society, and the private collection of C.L.P. Bonaparte, which was once deposited at the Academy of Natural Sciences of Philadelphia. Many type problems we discuss emanated from the actions of D.S. Jordan and colleagues while at Stanford University (SU) during the early 1900s. Our findings regarding these problems may be useful in resolving similar problems involving other SU and USNM specimens.

OFFICIAL PUBLICATION DATE is handstamped in a limited number of initial copies and is recorded in the Institution's annual report, *Smithsonian Year*. SERIES COVER DESIGN: The coral *Montastrea cavernosa* (Linnaeus).

---

Library of Congress Cataloging-in-Publication Data  
National Museum of Natural History (U.S.)

Catalog of type specimens of recent fishes in the National Museum of Natural History, Smithsonian Institution / Victor G. Springer, Jeffrey T. Williams, and Thomas Orrell.

p. cm.—(Smithsonian contributions to zoology ; no. 519)

Includes bibliographical references.

Contents: v. 2. Blenniidae.

1. Fishes—Catalogs and collections—Washington (D.C.) 2. Type specimens (Natural history)—Catalogs and collections—Washington (D.C.) 3. National Museum of Natural History (U.S.)—Catalogs. I. Springer, Victor Gruschka, 1928—. II. Williams, Jeffrey T. III. Orrell, Thomas M. IV. Title. V. Series.

Q11.S54 no. 519

[QL618.L5]

591 s—dc20

[598'.074753]

90-28564

CIP

Ⓢ The paper used in this publication meets the minimum requirements of the American National Standard for Permanence of Paper for Printed Library Materials Z39.48—1984.

# Contents

	<i>Page</i>
Introduction . . . . .	1
Acknowledgments . . . . .	1
Organization . . . . .	1
Annotated List of Types . . . . .	3
Literature Cited. . . . .	26



# Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 2: Blenniidae

*Victor G. Springer, Jeffrey T. Williams,  
and Thomas M. Orrell*

## Introduction

We report on the putative primary (name-bearing) and secondary types of 189 species and subspecies, represented by 557 lots and approximately 3600 specimens, in the collections of the Division of Fishes, National Museum of Natural History (USNM) as of 31 December 1990. Among these are the primary types of 139 species and subspecies. We attempted to verify the type status of each lot and report errors and discrepancies between information derived from putative type specimens and information in original descriptions and USNM catalog ledgers. We located some types that had been reported as missing. Problems necessitated our designating lectotypes for two species.

Among the USNM primary type lots are some that were published as being deposited in the collections of the Natural History Museum (BMNH), Stanford University (now at CAS), New York Zoological Society, and the private collection of C.L.P. Bonaparte, some of which was transferred to the USNM from ANSP.

Many type problems we discuss emanated from the actions of D.S. Jordan and colleagues while at Stanford University (SU) during the early 1900s. Our findings regarding these

problems may be useful in resolving similar problems involving other SU and USNM specimens.

Our type catalog, which covers USNM Family Group 261 (Blenniidae), is the second in an anticipated series that will cover discrete taxonomic units of fishes and that will be prepared by various authors on an ad hoc basis. The format of each of these catalogs may vary according to the predilections of the different authors. The first catalog is that of Vari and Howe (1991), which treats the characiform fishes. In their introduction, Vari and Howe discuss general historical and other matters pertaining to the USNM holdings of non-fossil fish types and the development of an overall type catalog. Readers may wish to consult their study for this information.

ACKNOWLEDGMENTS.—Eugenia B. Böhlke, Academy of Natural Sciences of Philadelphia, and David Catania, California Academy of Sciences, graciously provided information on types at their respective institutions. Hans Bath, Pirmasens, West Germany, called our attention to the existence of a Bonaparte type in the non-type area of the USNM collections. Drafts of our manuscript were critically reviewed by R.P. Vari, B.B. Collette, W.F. Smith-Vaniz, and an anonymous person, who offered constructive suggestions for improvement.

ORGANIZATION.—In the list of types, taxa are alphabetized by lowest taxonomic level (two subspecies of the same species may, therefore, appear well separated in the list). The names are given exactly as they were first published. Emendations, if necessary are indicated in brackets. Authorship, date of

---

*Victor G. Springer, Jeffrey T. Williams, and Thomas M. Orrell, Division of Fishes, Department of Vertebrate Zoology, National Museum of Natural History, Washington, D.C. 20560.*

*Review Chairman: W. Ronald Heyer, Smithsonian Institution, Washington, D.C. Reviewers: Eugenia B. Böhlke and William F. Smith-Vaniz, The Academy of Natural Sciences, Philadelphia, PA 19103; Richard P. Vari, Smithsonian Institution, Washington, D.C. 20560.*

reference, and number of first page on which the description appeared follow each scientific name. Type status exactly as indicated in the original description is given next, followed, if necessary, by our current interpretation of the type status in brackets. When the type status was not specifically indicated in the original description, we indicate subsequent type designations or our type interpretations in brackets.

Beneath the type status is the catalog number (if known). For primary types (holotypes, syntypes, neotypes, lectotypes), the catalog number (if known) is followed, variously, by number of specimens (only if more than one, and in parentheses), sex, size, locality, and other collection data essentially as given in the original description or elsewhere in the publication containing the original description (e.g., locality and collector information is often found only in the introduction to a publication containing the description of a new species). Information, such as the USNM accession number (acc. no.), remeasurements of size, and corrections, that is not contained in the original publication and description is included in brackets.

For secondary types (paratypes, paralectotypes, allotypes), usually only the catalog number, number of specimens (in parentheses), and acc. no. (in brackets) are provided; however, secondary types that bear the same collection data as primary types are indicated, exactly as indicated by the author (in brackets, if not so indicated). In instances where some of the specimens of a paratypic lot are cleared and stained, it is to be understood that the cleared and stained paratypes are stored in glycerin in a jar separate from that containing the other paratypes in that lot.

Remeasured lengths (in brackets) are given for many primary types and some secondary types, but usually only for

the older types where method of measurement was not given or the information helped solve a type problem. We have occasionally abbreviated words that were spelled out in the original descriptions (e.g., names of months) and occasionally provided incomplete collection data when citing the original description (e.g., detailed ecological information).

The acc. no. (accession number) refers to a file in the USNM Registrar's office that contains information, often informative and important, bearing on the acquisition of a cataloged lot. One acc. no. often comprises numerous cataloged lots. We were unable to determine all acc. nos.

Symbolic codes for museum collections (= institutional abbreviations or acronyms of authors) are those provided by Leviton et al. (1985) and Leviton and Gibbs (1988), except for United States Fish Commission (USFC, later United States Bureau of Fisheries, USBF) collections, which were transferred to USNM in 1942 (Schultz, 1961:121), and for which codes were not provided by these authors. Abbreviations used for measurements are as follows: TL = total length; SL = standard length. The meanings of other abbreviations are apparent from the context.

Remarks sections are inserted where necessary and include additional discussion. We draw attention to tags that read "Drawn" accompanying specimens. When D.S. Jordan and colleagues illustrated one of their new species, the illustrated specimen was usually the holotype. The illustration, however, did not always accompany the original description.

In general, we have attempted to provide published information exactly as published. Except for the remarks sections, our expansions or interpretations of published information are included in brackets.



## Annotated List of Types

*Meiacanthus (Meiacanthus) abditus* Smith-Vaniz, 1987:15.*Holotype*

USNM 276511, female, 29.3 mm SL, Sulu Archipelago, Jolo Island, Tutu Bay, 05°50'45"N, 120°01'15"E [~121°15'E], 3–6 m; 19 Sep 1909, *Albatross* sta D.5561, [acc. no. 65731].

*Paratypes*

USNM 099370 (1), [acc. no. 65731].  
USNM 122384 (28), same collection data as holotype.

*Ecsenius aequalis* Springer, 1988:115.*Paratypes*

USNM 217567 (2), [acc. no. 323952].  
USNM 278048 (3), collected with the holotype, [acc. no. 350157].

*Istiblennius afileinuchalis* Schultz and Chapman, 1960:356.*Holotype*

USNM 115421, male, 88 mm SL, Hull Island, channel, [collected by L.P.] Schultz, 7–17 Jul 1939, [acc. no. 151472].

*Paratypes*

USNM 111886 (28), [same collection data as holotype].  
USNM 115419 (34) [33], [acc. no. 151472].  
USNM 115420 (53), [acc. no. 151472].  
USNM 115422 (90) [9], [acc. no. 151472].

Remarks: Ninety specimens were originally entered in the catalog ledger for this lot; the number 90 was crossed out and replaced by 84; 84 was crossed out and replaced by 9. A loan invoice dated 3 February 1945 lists 78 specimens of USNM 115422 as being sent on loan, and 9 specimens from USNM 115422 as being sent on exchange, to W.M. Chapman at CAS. A handwritten note on the loan invoice reads "specimens returned (catalog nos. except 115422) Dec. 1948 D.S. Erdman." A note (in different handwriting from the Erdman note) on the bottom of the invoice reads "All specimens returned 12/29/48." Two additional specimens (USNM 144718) have a note in the jar stating they are "out of USNM 115422." These two specimens are presumably two of the missing paratypes. They were recataloged in order to be designated as the types of a Chapman manuscript subspecies, as a penciled note in the jar states "male = holotype, female = paratype" of "*Salarias gibbifrons ibrinuchalis*." This same name is on a typed label in the USNM 115422 jar. The name *ibrinuchalis* was never published by Chapman, as Schultz and Chapman described the taxon as *Istiblennius afileinuchalis*. The

existence and location of the other missing specimens are unknown.

[USNM 144718 (2), see comments above under USNM 115422 discussing type status.]

*Ecsenius alleni* Springer, 1988:80.*Paratypes*

USNM 279474 (2), collected with the holotype, [acc. no. 350178].

*Praealticus amboinensis litteratus* (see below under *litteratus*)*Salarias andersoni* Jordan and Starks, 1906:703.*Type [Paratype]*

USNM 53273 (1), [acc. no. 045618].

Remarks: According to the original description, the "type" (holotype) was cataloged as USNM 53273, but Springer and Eschmeyer (1974) present detailed evidence that the holotype is CAS-SU 9362, which Jordan and Starks referred to as "cotypes," but comprises a single specimen. See also remarks under *Blennius ellipes*, *Petroscirtes loxozonus*, and *Salarias tanegasimae*.

*Blennius antholops* Springer and Smith-Vaniz, 1970:217.*Holotype*

USNM 204644, male, 53.6 mm SL, Gulf of Guinea from 40' otter trawl haul extending from 5°19'N and from 4°45' to 4°48'E, depth from 128 to 101 m, 12 May 1965, R/V *Pillsbury* station P-236, [acc. no. 283275].

*Blennius anticolus* Bonaparte, 1840: signature 145, unnumbered page 8.*[Syntypes]*

[USNM 2293 (3), 41.5–55.1 mm SL; 48.7–65.2 mm TL = ~2.6 in].

Remarks: The number and disposition of the specimens are not given in the original description, but mention is made that the largest examples hardly measure 3 inches [~76 mm], which indicates the description was based on more than one specimen. Although no locality is given in the original description, reference is made to the occurrence of "*Ichthyocoris anticolus*" [= *Blennius anticolus*] in Lago di Nemi [Italy] in the introduction (presumably published in 1841) to Bonaparte's publication.

An old, printed label in the jar with the presumed syntypes reads, "Europe. Bonaparte Collection. A.N.S., Philad." Bonaparte, in his handwriting, assigned the number 109 to *Blennius anticolus* on a list

of specimens that were purchased and given to ANSP (E.B. Böhlke, pers. comm.; the list, which is dated 4 December 1849, is in the ANSP files). The number 109 is written in the USNM catalog ledger as part of the entry for USNM 2293. Böhlke (1984:8) stated that a Bonaparte collection, which was said to include all the fishes described and mentioned in Bonaparte (1832–1841) and included types of 40 new species, was purchased by T.B. Wilson and given to ANSP in 1872. During preparation of a type catalog of fishes at ANSP, E. Böhlke (pers. comm.) noted that several Bonaparte types, including those of *Blennius anticolus*, were missing. In September 1986, H. Bath, while visiting USNM, noted that the specimens in USNM 2293, labeled *Blennius anticolus*, were probably syntypes. USNM 2293 is among a large sequence of catalog numbers assigned to Bonaparte collection specimens that appear to have been cataloged, at least partly, in 1861.

*Ecsenius (Ecsenius) aroni* Springer, 1971:24.

*Holotype*

USNM 204468, male, 36.8 mm SL, bay at El Himeira, Sinai Peninsula, Gulf of Aqaba, depth to 18 m, collected by V.G. Springer et al., 16 Jul 1969, [acc. no. 284009].

*Paratypes*

USNM 204550 (2), [acc. no. 284009].  
 USNM 204556 (1) [0], [acc. no. 284009; exchanged to HUI, 9 Apr 1971].  
 USNM 204557 (2) [0], [acc. no. 284009; exchanged to HUI, 16 Apr 1971].  
 USNM 204558 (1), [acc. no. 284009].  
 USNM 204560 (21), [acc. no. 284009].  
 USNM 204561 (1) [0], [acc. no. 284009; exchanged to BMNH, 9 Apr 1971].  
 USNM 204562 (7), [acc. no. 284009].  
 USNM 204690 (12), collected with the holotype.

*Blennius asterias* Goode and Bean, 1882:416.

*Types [Syntypes]*

Remarks: Range of size variation, "2½ inches to 4 inches" [~64–102 mm].  
 USNM 2620 (2), Garden Key, Florida, collected by G. Würdemann, [84.1–84.5 mm SL; both 100 mm TL = ~3.9 in].  
 USNM 2625 (1), Garden Key, Florida, collected by Dr. Whitehurst, [53.5 mm SL; 64.2 mm TL = ~2.5 in].  
 USNM 6596 (3), Tortugas, collected by J.B. Holder, [66.9–79.1 mm SL; 81.0–94.7 mm TL = ~3.2–3.7 in].

*Salarias atkinsoni* Jordan and Seale, 1906:428.

*Type [Holotype]*

USNM 51791, 0.98 in [~25 mm], Pago, Samoa, summer, 1902.

Remarks: Metal tag reading "Drawn" in jar with holotype.

*Cirripectes auritus* Carlson, 1981:408.

*Paratypes*

USNM 222489 (2), [Line Islands, Fanning Island, in English Harbor near village, on large coral rock above sand, 5 m, collected by B.A. Carlson, 5 Oct 1975, acc. no. 342178].

Remarks: Carlson (1981:409) incorrectly reported that these specimens were collected at the same locality as BPBM 24454, which was collected from Lamu, Kenya.

USNM 222490 (1) [acc. no. 342178].

*Ecsenius australianus* Springer, 1988:82.

*Paratypes*

USNM 278593 (9), same data as holotype, [acc. no. 309034].

*Ecsenius axelrodi* Springer, 1988:84.

*Holotype*

USNM 231432, male, 35.2 mm SL, banded color pattern, Amot Island, Hermit Islands, Bismarck Archipelago, ocean side of reef at dropoff, 3–6 m depth, [collected by] V.G. Springer and party, 30 Oct 1978, [acc. no. 334183].

*Paratypes*

USNM 220975 (54), collected with the holotype.  
 USNM 220976 (10), [acc. no. 334183].  
 USNM 220977 (4), [acc. no. 334183].

*Runula azalea* Jordan and Bollman, 1890:171.

*Type [Holotype]*

USNM [44299], 2 in [37.8 mm SL; 45.0 mm TL = 1.8 in], Indefatigable Island, Galapagos Archipelago, collected by *Albatross*, winter and spring, 1888.

Remarks: *Albatross* tin tag number 212 is in the jar with the holotype.

*Petroscirtes azureus* Jordan and Seale, 1906:432.

*Holotype*

USNM 51796, 3.75 in [93.7 mm TL = 3.69 in], Apia, Samoa, summer, 1902, [*Albatross* collections].

Remarks: Metal tags in jar with specimen state "Drawn" and "2342."

*Ecsenius (Ecsenius) bandanus* Springer, 1971:38.

*Holotype*

USNM 195717, male, 31.4 mm SL, Banda Sea, Indonesia, collected by W.H. Longley, [acc. no. 144662].

Remarks: The reasoning used in establishing a type locality for this specimen and also for a paratype of *Ecsenius trilineatus* (USNM 202477) is contained in Springer (1971:42–43).

*Ecsenius bathi* Springer, 1988:86.*Holotype*

USNM 277665, male, 29.6 mm SL, Indonesia, Bali, "Liberty Wrack," about 15 km NW of E tip of Bali, depth 7 m, [collected by] R. Patzner, Apr 1984, [acc. no. 369230].

*Ecsenius (Ecsenius) bimaculatus* Springer, 1971:38.*Holotype*

USNM 201817, male, 31.0 mm SL, Pulav Bohidulong, Darvel Bay, E end of Borneo; fringing coral reef on E side of island, depth ~1.5–3.6 m, 2 Feb 1965, *Te Vega* Cruise 6, sta 216, [acc. no. 261275].

*Paratypes*

USNM 203922 (2), collected with the holotype.

*Omxo biporos* Springer, 1972a:11.*Paratypes*

USNM 205698 (2), [acc. no. 289275].

*Salarias bleekeri* Chapman, 1951:338.*Paratypes*

USNM 88014 (1), [acc. no. 87355].  
[ZSI] 2047 (1), [now USNM 195815, acc. no. 180183].

*Chasmodes bosquianus longimaxilla* (see below under *longimaxilla*)*Aspidontus brunneolus* Jenkins, 1903:510.*Type [Holotype]*

USNM 50718, 1.25 in [34.1 mm TL = ~1.3 in; 29.0 mm SL = ~1.1 in], coral rocks at Honolulu, coll. O.P. Jenkins, summer, 1889, [acc. no. 40470].

Remarks: The original description was based on the holotype and 18 other specimens [paratypes] with the same collection data as the holotype, but with no catalog number assigned. We have been unable to ascertain where the paratypes were deposited. Although Jenkins (1903:419–420) stated that cotypes and series of all the species, so far as possible, were given to SU and USBF, Böhlke (1953) does not indicate the presence of paratypes at SU. It is possible that USNM 78056 (4 specimens from Waikiki Reef, Honolulu), received from USFC in 1916, acc. no. 59597 are paratypes, but there is no way to establish this.

*Salarias bryani* Jordan and Seale, 1906:430.*Holotype*

USNM 31794 [51794], 1<sup>3</sup>/<sub>8</sub> in [TL] [34.0 mm TL = 1.34 in], Apia, Samoa, summer, 1902.

Remarks: Published catalog number 31794 is a typographical error; the correct number is USNM 51794. Metal tag reading "Drawn" in jar with holotype.

*Cirrisalarias bunares* Springer, 1976:202.*Paratypes*

USNM 214974 (5), all cleared and stained [in glycerin], [acc. no. 310882].  
USNM 214975 (3), [acc. no. 310882].  
USNM 205453 (1), [acc. no. 289275].

*Meiacanthus (Meiacanthus) bundoon* Smith-Vaniz, 1976:107.*Holotype*

USNM 212257, male, 63.0 mm SL, Fiji Islands, Lau Group, Moala I., 18°34'S, 179°56'E, patch reef ~<sup>1</sup>/<sub>2</sub> mi [~0.8 km] off N side of island; depth to 15 m; 3 Jul 1974, [collected by] B. Carlson, B. Goldman, and B. Russell, [acc. no. 312586].

*Paratype*

USNM 212258 (1), taken with holotype.

*Lipophrys caboverdensis* Wirtz and Bath, 1988:15.*Paratypes*

USNM 282944 (2), [acc. no. 373210].

*Entomacrodus cadenati* Springer, 1966:59.*Paratypes*

USNM 199481 (10), [acc. no. 246498].  
USNM 199623 (15), [acc. no. 246498].

*Parablennius tasmanianus caledoniensis* Bath, 1989:293.*Holotypus [Holotype]*

USNM 195795, male, Pazifischer Ozean [= Pacific Ocean], Neukaledonien [= New Caledonia], Noumea, Ducos Peninsula, 8 Apr 1944, leg. W. Mc. Chapman, [collected by] W. M[c]. Chapman, H. Cheyne, and Smith, [acc. no. 180183].

*Paratypen [Paratypes]*

USNM 195794 (1), [acc. no. 180183].  
USNM 195796 (1), [acc. no. 180183].  
USNM 280244 (1), [acc. no. 180183].

*Ophioblennius capillus* Reid, 1943:381.*Holotype*

USNM 120032, 21.8 mm SL, *Albatross* station 3921, night anchorage off Honolulu, T[erritory of] H[awaii], Diamond Head Light, 62°S, 3.9'E, 6 May 1902.

Remarks: Reid (1943:381) apparently obtained the coordinates for the type locality from the published records for *Albatross* stations (Anonymous, 1903:411). Many of the published coordinates for these stations appear to be grossly in error.

*Mimoblennius cas* Springer and Spreitzer, 1978:18.*Paratypes*

USNM 216307 (4), [acc. no. 310882].  
USNM 216308 (10), including 5 cleared and stained, taken with holotype.

***Antennablennius ceylonensis*** Bath, 1983b:58.*Paratypes*

- USNM 205452 (1), [acc. no. 289275].  
 USNM 206401 (1), [acc. no. 289275].  
 USNM 224514 (4), [acc. no. 303938].  
 USNM 224515 (5), [acc. no. 289275].  
 USNM 224519 (6), [acc. no. 289275].  
 USNM 224521 (1), [acc. no. 289275].  
 USNM 224522 (1), [acc. no. 289275].  
 USNM 224523 (49), [acc. no. 273221].

***Entomacrodus chapmani*** Springer, 1967:95.*Paratypes*

- [USNM 202478] (9), [acc. no. 261578].

***Cirripectes chelomatus*** Williams and Maugé, 1983:1140.*Paratypes*

- USNM 195783 (1), [acc. no. 180183].  
 USNM 228274 (3), [acc. no. 318061].  
 USNM 228291 (4), [acc. no. 273221].  
 USNM 228298 (3), [acc. no. 273753].  
 USNM 228299 (4), [acc. no. 267599].  
 USNM 228300 (1), [acc. no. 285012].  
 USNM 228301 (5), [acc. no. 285012].  
 USNM 228302 (11), [acc. no. 273753].  
 USNM 228303 (4), [acc. no. 273753].  
 USNM 228304 (3), [acc. no. 318061].  
 USNM 228305 (2), [acc. no. 267599].  
 USNM 228306 (3), [acc. no. 273753].  
 USNM 228307 (1), [acc. no. 323952].  
 USNM 228308 (9), [acc. no. 273753].  
 USNM 228309 (2), [acc. no. 273753].  
 USNM 228310 (44), [acc. no. 267599].

***Salarias chilensis*** Clark, 1938:182.*Paratype*

- CAS 5536-41 [USNM 120025] (1) [0], [acc. no. 163641].

Remarks: This specimen was originally one of five cataloged as CAS 5536-41 and exchanged to USNM during 1942. It was noted as missing during 1980, but may have been missing as early as 1943. (See also remarks under *Ophioblennius fernandezensis*.)

***Salarias chiostictus*** Jordan and Gilbert, 1882:363.*[Syntype] [Lectotype]*

- USNM 28117, Mazatlan, Mexico, fall and winter of 1880-1881, collected by C.H. Gilbert.

Remarks: Jordan and Gilbert (1882) did not designate a holotype, but gave a catalog number (28117) at the beginning of the description. The description states that they had four specimens. All four must be considered syntypes. Springer (1967:110) reported there were two syntypes in USNM 28117 and designated one as the lectotype. The paralectotype was recataloged as USNM 200284. The disposition of the other two syntypes (paralectotypes) is unknown.

Gilbert collected another specimen of this species during his trip to Mazatlan. This specimen was segregated during the 1940s-1950s from USNM 29250 (syntypes of *Gobiesox zebra*), but it probably is not one of the missing syntypes of *Salarias chiostictus*.

*[Syntype] [Paralectotype]*

- USNM 200284 (1).

***Mimoblennius cirrosus*** Smith-Vaniz and Springer, 1971:31.*Holotype*

- USNM 204491, adult male, 35.2 mm SL, Ethiopia, Sheikh el Abu, off lighthouse just W of S end of Harat Island, 16°09'N, 39°26.5'E, [collected by] V.G. Springer, E. Clark, and Z. Zelleke, [14 Aug 1969; acc. no. 284009].

*Paratypes*

- USNM 204563 (1), [acc. no. 284009].  
 USNM 204564 (1), [acc. no. 284009].  
 USNM 204565 (2) [0], [acc. no. 284009; exchanged to HUI, 16 Apr 1971].  
 USNM 204566 (1), [now cleared and stained; acc. no. 284009].  
 USNM 204569 (6), [acc. no. 284009].  
 USNM 204645 (14), [acc. no. 284009].

***Ophioblennius steindachneri clippertonensis*** Springer, 1962:431.*Holotype*

- USNM 196030 [196130], male, 82.6 mm SL, about  $\frac{3}{4}$  mi [-1.2 km] NW of coconut grove, W end of Clipperton Island, collected by W.J. Baldwin and party, 20 Aug 1958, [acc. no. 237314].

Remarks: Published catalog number 196030 is a typographical error. The correct number is USNM 196130.

*Paratypes*

- USNM 177795 (17), [acc. no. 224121].

***Ecsenius (Ecsenius) collettei*** Springer, 1972b:6.*Holotype*

- USNM 206379, male, 29.7 mm SL, New Guinea, bay in Krankett Island, Madang Harbour, 1.6-8.2 m, collected by B.B. Collette et al., 30 May 1970, [acc. no. 289275].

*Paratypes*

- USNM 205701 (1), [acc. no. 289275].  
 USNM 205702 (2), [acc. no. 289275].  
 USNM 206380 (1), taken with the holotype.

***Giffordella corneliae*** Fowler, 1932a:14.*Type [Holotype]*

- USNM 91821, [15.9 mm SL], Nukuhiva, Marquesas Islands, 25 Sep 1929, [acc. no. 105848].

*Paratypes*

- USNM 91822 (11) [10], same collection data as holotype.  
 Remarks: Both the original description and the cata-

log ledger state 11 paratypes. The disposition of the missing specimen is unknown.

*Scartichthys crapulatus* Williams, 1990:23.

*Holotype*

USNM 276344, female, 110 mm SL, [Chile] Montemar Biological Station, collected by B.B. Collette and R.H. Gibbs, Jr., 14 Feb 1966, [acc. no. 266608].

*Meiacanthus (Meiacanthus) crinitus* Smith-Vaniz, 1987:20.

*Holotype*

USNM 276512, male, 47 mm SL, New Guinea, NW tip of Irian Jaya, Batana Is., Marchesa Bay, Hawaii I., 0°49'48"S, 130°56'48"E, 0–6 m; coll. B.B. Collette et al., 2 Jul 1979, [acc. no. 337100].

*Paratypes*

USNM 258768 (7), same data as holotype.

*Entomacrodus cymatobiotus* Schultz and Chapman, 1960:335.

*Holotype*

USNM 142183, adult male, 26.2 mm SL, Bikini Atoll, Eman Island, ocean reef in surf, [collected by L.P.] Schultz, [V.E.] Brock, [G.S.] Myers, and [R.W.] Hiatt, 19 Jul 1947, [acc. no. 176603].

*Paratypes*

USNM 142182 (4) [3], [acc. no. 172586].

Remarks: The original description reported 4 specimens in this lot, and "4" was originally entered in the USNM catalog register, but overwritten with "3." There were only 3 specimens in the lot in the early 1960s, when Springer was revising *Entomacrodus*.

*Salarias cypho* Jenkins, 1903:506.

*Type [Holotype]*

USNM 50697, ~4 in long [89.9 mm SL = 3.5 in; 111 mm TL = 4.4 in.], Honolulu, Hawaiian Islands, collected by O.P. Jenkins, summer, 1889, [acc. no. 40470].

*Aspidontus dason* Jordan and Snyder, 1902:456.

*Co-type [Paratype]*

USNM 50300 (1), Agu in Shima, Japan.

Remarks: Specimen disintegrating. Springer and Gomon (1975:58) discussed problems with the published locality given for this paratype.

*Salarias deani* Jordan and Seale, 1905:799.

*[Holotype]*

USNM 51950, 2.10 in [~53 mm TL = ~2.1 in], S shore of Negros, Philippine Islands, collected by B. Dean, winter, 1900–1901, [acc. no. 38683].

*Ecsenius dentex* Springer, 1988:69.

*Holotype*

USNM 276351, male, 34.3 mm SL, reef near road at Marsa Muqabila (= Muqabla), Sinai Peninsula, Gulf of Aqaba, NW coast, depth to 4.1 m, [collected by] V.G. Springer et al., 17 Jul 1969, [acc. no. 284009].

*Paratypes*

USNM 200602 (4, including 1 cleared and stained), [acc. no. 261275].

USNM 201754 (3), [acc. no. 261275]

USNM 204567 (61) [62], [acc. no. 284009].

USNM 204568 (20), [acc. no. 284009].

USNM 204570 (36), [acc. no. 284009].

USNM 204571 (39), [acc. no. 284009].

USNM 276352 (9), [acc. no. 284009].

*Ecsenius dilemma* Springer, 1988:88.

*Holotype*

USNM 231319, male, 31.3 mm SL, banded color pattern, Sombrero Island, Batangas Province, Philippine Islands, 0–10 m depth, coll. C.J. Ferraris, 23 Apr 1980.

*Paratypes*

USNM 220973 (6), [acc. no. 333189].

USNM 220974 (3), [acc. no. 333189].

USNM 225052 (2).

USNM 225053 (10), collected with holotype.

USNM 228919 (1), [acc. no. 341645].

*Meiacanthus (Allomeicanthus) ditrema* Smith-Vaniz, 1976:87.

*Holotype*

USNM 205293, male 39.5 mm SL, Palau Islands, Auluptagel I. in Ngarahelngael Pass, 7°19'13"N, 134°29'28"E, steep slopes of small bay, formed of sand, living and dead coral, 0–18 m, coll. H.A. Fehlmann et al., 9 Oct. 1957, [acc. no. 290033].

*Paratypes*

USNM 195706 (2, [including 1 cleared and stained]), [acc. no. 144662].

USNM 205294 (12), taken with the holotype.

*Blennius ellipes* Jordan and Starks, 1906:702.

*Type [Paratypes]*

USNM 53272 (11), Tanegashima, Japan, [acc. no. 45618].

Remarks: According to the original description the "type" (holotype) was cataloged as USNM 53272, but Springer and Eschmeyer (1974) present detailed evidence that favors SU 9361, which was designated as "a cotype" (paratype), as being the holotype. The number of specimens [holotype + paratypes] was stated to be "numerous" from Tanegashima, and "four" from Yakushima. See also remarks under *Petroscirtes loxozonus*, *Salarias andersoni*, and *Salarias tanegasimae*.

*[Paratypes]*

[USNM 61164] (4), Yakushima, Japan.

*Scartichthys enosimae* Jordan and Snyder, 1902.

*Cotype [Paratypes]*

USNM 50297 (1) [2], Enoshima, Japan, [acc. no. 39095].

Remarks: Jordan and Snyder (1902) designated only a holotype (SU 7068) and one paratype (USNM

50297); however, they provided fin-ray counts on six specimens: two from Enoshima and four from Misaki. Böhlke (1953:94) indicated the presence of the holotype and three paratypes, all from Misaki, at SU. The four SU specimens and the two USNM paratypes probably account for all the specimens in the type series.

*Petroscirtes eretes* Jordan and Seale, 1905:801.

*Type* [Holotype?]

USNM 51949, 3.10 in [77 mm TL = 3.03 in], S shore, Island of Negros, Philippines, collected by B. Dean, winter 1900–1901, [acc. no. 38683].

Remarks: The original description reported six specimens. An early entry in the USNM catalog ledger indicates the presence of two specimens in USNM 51949. While preparing his monograph of the Nemophini, W.F. Smith-Vaniz found three specimens in the jar with this catalog number. One of the specimens apparently had paper and cloth tags tied to it, as the specimen bears the impression from the string used to tie on the tags. The paper tag, now in poor condition, had "Type" written on it in pencil. The cloth tag is now completely faded, but is of the size of those found associated with other specimens received at USNM from Stanford University (as were these) that had "Drawn" printed on them. Smith-Vaniz (pers. comm.) considered the two other specimens in USNM 51949 to be paratypes, and they were separated and cataloged as USNM 210617. Böhlke (1953:93) reported that SU 9132 contained two paratypes of *P. eretes*. The disposition of the fifth paratype is unknown.

*Paratypes*

[USNM 210617] (2), same collection data as holotype.

*Alticus evermanni* Jordan and Seale, 1906:422.

*Type* [Holotype]

USNM 51789, 3.5 in [81.2 mm = 3<sup>3</sup>/<sub>8</sub> in TL; 72.1 mm SL], Apia Samoa, [acc. no. 43712].

Remarks: The catalog ledger entry originally indicated the presence of only "1" specimen. The entry was changed later to read "5" specimens. On 23 December 1987, we found only four specimens in the jar labeled USNM 51789. One specimen (only) had the catalog number tied to it and appeared to have been preserved differently from the other three, which have been recataloged as USNM 292586, questionable paratypes (see following remarks).

[*Paratypes*]

Remarks: The original description indicates there were 20 specimens in addition to the holotype. There are 14 specimens labeled as paratypes at USNM and nine more at CAS, for a total of 23 paratypes. Possibly, the three specimens in USNM 292586 were not among the 20 paratypes indicated in the original

description (see remarks under holotype).

[USNM 052308 (4).]

Remarks: Tin tag 07722 in jar.

[USNM 126334 (4), acc. no. 163614.]

Remarks: Catalog ledger lists "USBF 1262" in remarks section; tin tag 07587 in jar.

[USNM 126602 (3), acc. no. 163614.]

Remarks: Catalog ledger lists "USBF 1277" in remarks section; tin tag 07723 in jar.

[USNM 292586 (3), acc. no. 43712.]

Remarks: Questionable paratypes. Removed from USNM 51789 (see remarks under holotype and paratypes).

*Petroscirtes ewaensis* Brock, 1948:125.

*Holotype*

USNM 133821, 87.4 mm SL, from open end of pipe brought up from 30 ft [-9 m] of water, Ewa Beach, Oahu, T[erritory of] Hawaii, 3 Jan 1947, [acc. no. 176218].

*Petroscirtes (Dasson) fallax* Smith-Vaniz, 1976:42.

*Holotype*

USNM 201365, male, 68.1 mm SL, Australia, Queensland, Great Barrier Reef, Capricorn Group, One Tree Island, [collected by] V.G. Springer, 18 Nov 1966, [acc. no. 267599].

*Paratypes*

USNM 201797 (3), [acc. no. 267599].

USNM 201798 (3), [acc. no. 267599].

USNM 201799 (4), [acc. no. 267599].

USNM 201800 (6 [including 2 cleared and stained]), [acc. no. 267599].

USNM 201801 (1), [acc. no. 267599].

USNM 201802 (1), [acc. no. 267599].

USNM 201803 (1), [acc. no. 267599].

USNM 205290 (1), [same collection data as holotype].

USNM 205425 (1), [acc. no. 289275].

USNM 205643 (12), [acc. no. 289275].

*Blennechis fasciolatus* Valenciennes in Cuvier and Valenciennes, 1836:287.

[*Neotype*]

[USNM 204487, male, 44.5 mm SL, Ethiopian Naval Base, Massawa, Ethiopia, coll. V.G. Springer and P. Anastos, 10 Aug 1969, acc. no. 284009.]

Remarks: The complex circumstances resulting in the designation of this neotype are discussed by Springer and Gomon, 1975:9 and 37. In addition to their remarks, the authorship of *fasciolatus* is ascribable to either Valenciennes or Ehrenberg, depending on which edition of the *International Code of Zoological Nomenclature* is invoked; we have been guided by the 1985 edition.

***Blennius favosus*** Goode and Bean, 1882:416.

## [Syntypes]

USNM 2629 (2), 3 and 3 <sup>2</sup>/<sub>5</sub> in [59.3 mm SL, 71.6 mm TL = ~2.8 in; 69.7 mm SL, 82.6 mm TL = ~3.2 in], Garden Key, Florida, collected by G. Würdemann.

Remarks: The USNM catalog ledger erroneously lists Whitehurst as the collector as indicated by a ditto mark, one of a series, relating to the collector of a previously cataloged lot. Whitehurst was the collector of some of the specimens of other species reported by Goode and Bean (1882). The larger specimen has a tin tag reading "DRN" [drawn] tied to it. Jordan and Evermann (1900:3302) stated that their plate 338, figure 820, is a "drawing from the type, No. 2629."

***Ophioblennius fernandezensis*** Clark, 1938:185.

## Paratype

[USNM 120027 (1) [0], acc. no. 163641.]

Remarks: This specimen was originally cataloged as one of seven paratypes in CAS 5558-5564, none of which were assigned an individual catalog number. An entry in the USNM catalog ledger notes that this specimen was missing 1 June 1964, and it has not been found. There are several other specimens noted as missing under adjacent and nearly adjacent USNM catalog numbers for type specimens that were cited in Reid (1943). The earliest such entry appears to have been made during the 1940s by L.P. Schultz, who wrote that several lots of specimens were stolen by a laborer for the alcohol prior to publication of Reid's (1943) paper.

***Ophioblennius ferox*** Beebe and Tee Van, 1928:242.

## [Type] [Holotype]

[USNM 170901], 43 mm [40.7 mm SL, 49.6 mm TL], near Bizoton, Port-au-Prince Bay, Haiti, 6 Apr 1927, [acc. no. 215651].

Remarks: Originally cataloged as 7152 in the collections of the Department of Tropical Research, New York Zoological Society.

## Paratypes

[USNM 170902] (2), [acc. no. 215651], same collection data as holotype.

Remarks: Originally cataloged as 7152 and 7152a in the collections of the Department of Tropical Research, New York Zoological Society.

***Ecsenius fijiensis*** Springer, 1988:90.

## Holotype

USNM 211285, male, 35 mm SL, fore-reef N of Alacrity Passage, leeward Great Astrolabe Reef, Kadavu, Fiji, depth 3-6 m, [collected by] B.A. Carlson, 5 Aug 1973, [acc. no. 305357].

## Paratypes

USNM 210562 (1), [acc. no. 305357].

USNM 214521 (1), [acc. no. 315925].

USNM 231668 (1), collected with holotype.

USNM 236009 (3), [acc. no. 346849].

USNM 236010 (11), [acc. no. 346849].

USNM 236011 (13), [acc. no. 346849].

USNM 236015 (1), [acc. no. 346849].

USNM 279472 (1), [acc. no. 370247].

***Plagiotremus laudandus flavus*** Smith-Vaniz, 1976:130.

## Holotype

USNM 201676, female, 46.8 mm SL, Fiji Islands, Wailangilala Island, 16°45'S, 179°7'W, 26 May 1965, [collected by R. Bolin and party], *Te Vega* Cruise 7, [acc. no. 261275].

## Paratypes

USNM 201452 (1), [acc. no. 261275].

USNM 207577 (1), taken with holotype.

***Ecsenius (Ecsenius) fourmanoiri*** Springer, 1972b:5.

## Paratype

USNM 206456 (1), collected with holotype, [acc. no. 285529].

***Salarias fowleri*** Herre, 1936:364.

## Paratype

[USNM 203763 (1), out of SU 30971; now cleared and stained and in glycerin; 33.7 TL; 28.9 mm SL; acc. no. 279339.]

Remarks: Herre (1936), who provided no catalog numbers, stated that he had a holotype, 31 mm [SL?] and 9 paratypes, 16-28 mm [SL?], all with same collection data. Böhlke (1953:94) reported the existence of only the holotype and 7 paratypes, mixed in one bottle, SU 30971.

***Dodekablennos fraseri*** Springer and Spreitzer, 1978:11.

## Paratypes

USNM 216423 (1), collected with holotype, [acc. no. 299174].

***Meiacanthus (Meiacanthus) fraseri*** Smith-Vaniz, 1976:98.

## Holotype

USNM 215434, female, 54.3 mm SL, W Indian Ocean, St. Brandon Shoals (Cargados Carajos), ~16°27'S, 59°36'E, about 0.5 mi [-0.8 km] S of Raphael Island, 4.5-9 m, rocky cliff with incuts, bottom rocky and silty, coll. V.G. Springer, C.L. Smith, T.H. Fraser, P.L. Manhard, P. West, and C. Marshall; 12 Apr 1976, [acc. no. 321909].

## Paratypes

USNM 215435 (5); same data as holotype.

USNM 215436 (5), [acc. no. 321909].

USNM 215438 (5), [acc. no. 321909].

***Cirripectus fuscoguttatus*** Strasburg and Schultz, 1953:130.

## Holotype

USNM 113634, female, 68 mm SL, Rongerik Atoll,

Eniwetak Island, ocean reef in surf; [collected by L.P.] Schultz and [E.S.] Herald, 29 Jun 1946, [acc. no. 172586].

*Paratypes*

USNM 115497 (1), [acc. no. 151472].  
 USNM 115498 (5), [acc. no. 151472].  
 USNM 142102 (10), [acc. no. 176603].  
 USNM 142103 (16), [acc. no. 172586].  
 USNM 142104 (35), [acc. no. 172586].  
 USNM 142105 (1), [acc. no. 172586].  
 USNM 142106 (12), same data as holotype, [acc. no. 172586].  
 USNM 164960 (2), [acc. no. 195398].

*Salarias garmani* Jordan and Seale, 1906:429.

*Type [Holotype]*

USNM 51792, 1.2 in [~30 mm TL = ~1.2 in], Apia, Samoa, summer, 1902.

Remarks: Metal tag reading "Drawn" in jar with holotype.

*Meiacanthus (Meiacanthus) geminatus* Smith-Vaniz, 1976:95.

*Holotype*

USNM 205286, male, 44.0 mm SL, Borneo [Malaysia, Sabah], Darvel Bay, Pulau Gaya; [collected by] D.M. Cohen and W.P. Davis; 1 Feb 1965; *Tè Vega* Cruise 6, sta 213, [acc. no. 261275].

*Paratype*

USNM 208502 (1); same data as holotype.

*Blennius gentilis* Girard, 1854:149.

*[Holotype]*

[USNM 489] Monterey, Cal., [collected by] W.P. Trowbridge.

Remarks: The original description does not indicate the number of specimens, but the description appears to be based on a single specimen.

*Cirripectes gilberti* Williams, 1988:41.

*Holotype*

USNM 274749, male, 82 mm SL, Indonesia, Pulo Boenta, off Achen Head, Sumatra, 5°33'10"N, 95°9'30"E, surge channel in coral reef; 0-4 m; *Tè Vega* Cruise 2, sta 93; 20 Nov 1963, [acc. no. 252023].

*Paratypes*

USNM 227871 (3), [acc. no. 321909].  
 USNM 227872 (2), same collection data as holotype.

*Isesthes gilberti* Jordan, 1882:349.

*Types [Syntypes]*

Remarks: The constitution of the type material of this species is uncertain. Jordan (1882:350) states, "Numerous specimens of *Isesthes gilberti* have been distributed under the name of *Hyleurochilus gentilis* (number 26917, U.S. Nat. Mus.). Four specimens

from Santa Barbara (26916) are the types of the present description; all of them are males." No blenniids were ever cataloged as USNM 26916. A note in the USNM catalog ledger beside 31155 says that this lot was published as 26916, and the number of specimens is listed as four, but there are presently only three specimens, all males, in the jar.

Four specimens, all males, are contained in the lot cataloged as USNM 26917, although the ledger states 12 specimens are present. The ledger also contains a note of comparatively recent origin reading "some sent UZM Copenhagen 1881-7." Someone separated three of the four specimens in USNM 26917 in one jar and one in another, both with the same catalog number. The single specimen is now segregated in a vial in the same jar with the three. A note with the three specimens reads "cotypes," one with the single specimen, "type."

Jordan and Evermann (1898:2387) stated the following for *Isesthes gilberti*: "Type, Nos. 26916 and 26917." Because Jordan (1882) did not specifically exclude USNM 26917 as types, and because he (Jordan and Evermann, 1898:2387) apparently considered 26917 to be "type" material, we consider USNM 26917 to comprise syntypes. Although we are unable to ascertain if the specimens in USNM 31155 were those Jordan (1882:349) cited as USNM 26916, we believe that the evidence favors such an interpretation.

USNM 26916 (4) [31155 (3)], Santa Barbara, California, obtained by C.H. Gilbert and D.S. Jordan, rock pools at Santa Barbara, California, winter, 1880.

USNM 26917 (numerous) [4]. Santa Barbara, California.

*Runula goslinei* Strasburg, 1956:260.

*Holotype*

USNM 164202, female, 43 mm SL, taken in shallow water at Pupukeya, Waimea coast, Oahu, Hawaii, 23 Dec 1949, [collected] by W.A. Gosline, D.W. Strasburg, and party, [acc. no. 206053].

*Paratypes*

USNM 108503 (1), [acc. no. 149482].  
 USNM 164203 (1), taken with holotype.  
 USNM 164204 (1), [acc. no. 206053].

*Ecsenius hawaiiensis* Chapman and Schultz, 1953:526.

*Holotype*

USNM 112293, 66 mm SL, Oahu Island, Pearl Harbor, Hawaiian Islands, from a drydock, "hauled from Guam about a year ago and left standing," April 1950, collected by S. Tinker, [acc. no. 186994].

Remarks: Although Chapman and Schultz (1953:528) noted the peculiar circumstances of the collection of the holotype (and paratypes), they believed the specimens originated at their stated



locality. Strasburg (1956:255) believed that the species was possibly introduced to Hawaii and had become established. Springer (1971:28) doubted that the species had become established in Hawaii. Subsequent to 1950, *Ecsenius hawaiiensis* (= *E. bicolor* (Day)) has not been reported from Hawaii.

*Paratypes*

USNM 112294 (12), collected with holotype.

Remarks: The original description reported the existence of only the holotype and 12 USNM paratypes. Strasburg (1956:256) reported on these 13 specimens and noted that an additional specimen taken with the type series was retained at the University of Hawaii.

*Enchelyurus hepburni* Snyder, 1908:110.

*Type* [Holotype]

USNM 62247, 42 mm [41.7 mm TL], Naha, Okinawa, collected by Albatross, [acc. no. 54484].

Remarks: Printed labels reading "drawn" and "Albatross Expedition 1906, Naha Okinawa Luchu Is. Japan" in jar with holotype.

*Cotypes* [Paratypes]

[USNM 74554] (3), [acc. no. 54484].

Remarks: The original description provides but one "cotype" catalog number (SU 21112). In the ensuing discussion, five cotypes are discussed, but it is not explicitly stated that there are only five cotypes. Böhlke (1953:92) reported that SU 21112 contained two paratypes, and that the collectors were J.O. Snyder and M. Sindo.

*Omobranchus hikkaduensis* Bath, 1983a:26.

*Paratype*

USNM 211092 (1), [acc. no. 289275].

*Cirripectes hutchinsi* Williams, 1988:44.

*Paratypes*

USNM 273891 (2), [acc. no. 366255].

*Cirripectes imitator* Williams, 1985:533.

*Paratypes*

USNM 76288 (1).

USNM 227979 (2), [acc. no. 275964].

USNM 227980 (6), [including one cleared; acc. no. 275964].

USNM 258315 (8), [acc. no. 353892].

USNM 258316 (2), [acc. no. 353892].

*Entomacrodus incisolabiatu* Schultz and Chapman, 1960:332.

*Holotype*

USNM 142188, Bikini Atoll, Enyu Island, ocean reef and surf, SE end, [collected by E.S.] Herald, 13 Aug [1946] [acc. no. 172586].

*Paratypes*

USNM 111881 (1), [acc. no. 172943].

USNM 111882 (1), [acc. no. 171529].

USNM 111883 (7) [6], [acc. no. 151472].

Remarks: One specimen identified as *Entomacrodus caudofasciatus* (Regan, 1909) and recataloged as USNM 179899,

USNM 123934 (1), [acc. no. 171477].

USNM 142189 (1), [acc. no. 176603].

USNM 147654 (1), [acc. no. 151472].

*Blennius incognitus* Bath, 1968:376.

[Paratype]

[USNM 283760] (1), Mittelmeer [Italien], Sizilien, Golf von Castellamare, Isola delle Femine, [collected by H. Bath, 4 Oct 1966, acc. no. 373171].

Remarks: Same locality as holotype. Paratype originally in personal collection of H. Bath; deposited at USNM in 1986.

*Hypsoblennius invemar* Smith-Vaniz, 1980:289.

*Paratypes*

USNM 221538 (2), taken with holotype, [acc. no. 338621].

USNM 221539 (2), [acc. no. 338621].

*Isesthes ionthas* Jordan and Gilbert, 1883:299.

[Syntype] [Lectotype]

USNM 30856 (4) [1], Pensacola, Florida, collected by D.S. Jordan [? and S. Stearns], Mar 1882.

Remarks: Jordan and Gilbert reported that they had four specimens [syntypes], "largest about 2<sup>1</sup>/<sub>2</sub> in [TL]," and four specimens are indicated in the USNM catalog ledger. Only three specimens, however, were apparently present in 1937, when one specimen (34.5 mm TL) of the lot was recataloged as USNM 103377, *Chasmodes saburrae* (C.L. Hubbs, 1939:156, reported only 2 specimens in USNM 30856). Of the two remaining specimens, both females, in USNM 30856, the larger is 61.0 mm TL (= 2.4 in) and the smaller, 53.6 mm TL (= 2.1 in). The larger specimen has two metal tags tied to it, one is the catalog number, the other reads "dm," and is probably the specimen illustrated in Jordan and Evermann (1900, fig. 822). We here designate this (larger) specimen lectotype of *Isesthes ionthas*.

Prior to our lectotype designation, the nomenclatural seniorities of three names, all described in Jordan and Gilbert (1882), were in jeopardy: *Chasmodes saburrae*, *Isesthes ionthas*, and *Isesthes scrutator*. The first two species have always been recognized as senior synonyms; the last two species have almost always been assigned to *Hypsoblennius* Gill, and the last name, *I. scrutator*, is currently considered to be a junior synonym of *I. ionthas*.

[Syntypes] [Paralectotypes]

[USNM 103377 (1); out of USNM 30856; identifiable as

*Chasmodes saburrae*].

[USNM 307711 (1); out of USNM 30856].

*Plagiotremus (Plagiotremus) isodon* Smith-Vaniz, 1976:128.*Holotype*

USNM 99392, male, 38.0 mm SL, Sulu Sea, Jolo Island, Tutu Bay, 5°50'45"N, 121°1'15"E; depth 3–9 m; 19 Sep 1909, [collected by] M/V *Albatross*, [acc. no. 65731].

*Paratype*

USNM 205372 (1), taken with holotype [now cleared and stained].

*Ecsenius isos* McKinney and Springer, 1976:5.*Paratypes*

USNM 195787 (3), [acc. no. 180183].

*Cirripectes jenningsi* Schultz, 1943:274.*Holotype*

USNM 115486, male, 64 mm SL [63.2 mm SL], taken on the reef at Swains Island; collected by L.P. Schultz; 3–9 May 1939, [acc. no. 151472].

*Allotype [Paratype]*

USNM 307661 (1).

Remarks: Schultz (1943) designated this female as allotype, with the same collection data as the male holotype. Both specimens were originally cataloged as USNM 115486. The female allotype has been recataloged as USNM 307661.

*Paratypes*

USNM 115487 (26) [20].

Remarks: Schultz (1943:274) stated that "along with the types designated above, were taken 26 paratypes (U.S.N.M. No. 115487), also with the same data...." There are only 20 specimens in USNM 115487, but there are notes in the jar stating that 2 specimens were exchanged to MCZ and 2 to BMNH. Two specimens remain unaccounted for.

*Salarias kellersi* Fowler, 1932b:6.*Type [Holotype]*

USNM 91944, [female], 103 mm [TL], Niuafouu, Tonga Archipelago, 1 Sep 1930, collected by H.C. Kellers, [acc. no. 109644].

Remarks: The holotype and paratype were originally assigned the same catalog number.

*Paratype*

USNM [138299] (1), [female], 81 mm [TL], same collection data as holotype, [acc. no. 99399].

Remarks: Fowler (1932b:7) noted that he had 19 additional specimens [all females]. These specimens bear 10 other USNM catalog numbers and were previously, erroneously labeled as paratypes. Fowler misidentified the males of his species (at least 16 specimens) as *Salarias edentulus*.

*Ecsenius kurti* Springer, 1988:115.*Holotype*

USNM 227416, male, 35.0 mm SL, Philippine Islands, Palawan Province, Cuyo Islands, Bararin Island, W side, 0–13.7 m, 23 May 1987, Smithsonian Institution and Silliman University teams, [acc. no. 333189].

*Paratypes*

USNM 219305 (7), collected with holotype, [acc. no. 332315].

USNM 219303 (2), [acc. no. 332315]

USNM 219311 (3), [acc. no. 332315].

*Plagiotremus laudandus flavus* (see under *flavus*)*Hypsoblennius lignus* Meek and Hildebrand, 1928:946.*Type [Holotype]*

USNM 81937, 60 mm [50.6 mm SL, 60.0 mm TL], Chame Point, Panama, [sent by R. Tweedlie], [acc. no. 55821].

*[Paratypes]*

Remarks: Meek and Hildebrand (1928:947) stated that they had 20 specimens, 25–70 mm [TL?], all from Chame Point, of their new species (holotype + 19). There are only 18 specimens besides the holotype at USNM that might represent type specimens.

[USNM 81938 (1), acc. no. 57273].

Remarks: C.E. Dawson reidentified this specimen as *Hypsoblennius maculipinna* in 1984. It is 24.2 mm SL and 28.5 mm TL, and is the only possible paratype at USNM approximating the size of the smallest specimen (25 mm) listed by Meek and Hildebrand.

[USNM 81939 (16), acc. no. 55821].

Remarks: The catalog register lists 18 specimens in this lot. We found 17 in the jar, of which one had been segregated in a vial and identified by C.E. Dawson as *Hypsoblennius maculipinna* in 1984. This specimen is now recataloged as USNM 307644.

[USNM 307644 (1), acc. no. 55821].

Remarks: See remarks above under USNM 81939.

*Cirripectes lineopunctatus* Strasburg, 1956:248.*Holotype*

USNM 164198, male, 59 mm SL, taken in a shallow-water rotenone station at Kaena Point, Oahu, T.H.; coll. [W.A.] Gosline, [D.W.] Strasburg, [A.H.] Banner, and [K.?] Sherman; 19 Mar 1950, [acc. no. 206053].

*Paratypes*

USNM 164199 (8), [acc. no. 206053].

USNM 164200 (6), [acc. no. 206053].

USNM 164201 (5), [acc. no. 206053].

*Praealticus amboinensis litteratus* Schultz and Chapman, 1960:370.*Holotype*

USNM 124116, adult male, 41 mm SL, Guam, Ypao Point, 9 Aug 1945, [collected by] D.H. Johnson, [acc.

no. 171477].

*Paratypes*

USNM 111875 (5), same collection data as holotype.  
USNM 124120 (3), [acc. no. 171477].  
USNM 124343 (1), [acc. no. 171529].

*Ecsenius lividanalis* Chapman and Schultz, 1952:517.

*Holotype*

USNM 144723, male, 34 mm SL, collected by W.M. Chapman and [H.] Cheyne, Munda, New Georgia, Solomon Islands, 15 Jun 1944, [acc. no. 180183].

*Paratypes*

USNM 144291 (3), collected with holotype.  
USNM 144292 (6), [including one specimen subsequently cleared and stained; acc. no. 180183].

*Entomacrodus thalassinus longicirrus* Springer, 1967:145.

*Paratypes*

USNM 197978 (3), [acc. no. 254328].  
USNM 199480 (10), same collection data as holotype, [acc. no. 250369].

*Chasmodes bosquianus longimaxilla* Williams, 1983:85.

*Holotype*

USNM 219830, male, 86 mm SL, 30°15'30"N, 88°05'W, rock jetties on NE side of Dauphin Island, Mobile County, Alabama, 20 Oct 1977, collected by D. Clarke, [acc. no. 353881].

*Paratypes*

USNM 5721 (1).  
USNM 69338 (3).  
USNM 72333 (1).  
USNM 156556 (5).  
USNM 156557 [156577] (1).  
Remarks: Erroneously published as 156557 in Williams (1983:90).  
USNM 156611 (1).  
USNM 162591 (1), [acc. no. 195725].  
USNM 188252 (1), [acc. no. 247715].  
USNM 219831 (1), collected with the holotype.

*Hypleurocheilus loxias* Jordan and Seale, 1905:802.

*[Holotype]*

USNM 51952, 1.20 in [33.0 mm TL = 1.30 in; 28.5 mm SL], Negros, Philippine Islands, collected by B. Dean, winter of 1900 and 1901, [acc. no. 38683].

Remarks: Printed tag reading "Type" was tied to holotype; tag now removed, loose in jar; holotype bears impression of string used to tie on tag.

*Petroscirtes loxozonus* Jordan and Starks, 1906:705.

*Type [Paratypes]*

USNM 53275 (1) [16], [acc. no. 45618].  
Remarks: According to the original description the "type" (holotype) was cataloged as USNM 53275, but Springer and Eschmeyer (1974) present detailed

evidence that the holotype is SU 9364, which was referred to as "cotypes," but comprises a single specimen. Additional evidence that USNM 53275 does not contain the holotype is a Stanford University label in the jar in J.O. Snyders' distinctive handwriting that states, in part, "Petroscirtes loxozonus [sic] Cotype 53275." See also remarks under *Blennius ellipes*, *Salarias andersoni*, and *Salarias tanegashimae*.

*Ecsenius lubbocki* Springer, 1988:103.

*Holotype*

USNM 217533, male, 31.0 mm SL, off Kata Beach, Laem Sai, Phuket Island, Thailand, large Porites boulder and scattered small corals, 3 m, [collected by] R. Lubbock and N. Polunin, 20 Mar 1977, [acc. no. 327596].

*Omxo lupus* Springer, 1981:704.

*Holotype*

USNM 223710, male, 28.0 mm SL, Cape Ward Hunt, Papua-New Guinea, 08°04.2'S, 148°08.4'E, 0-1 m, mangrove swamp, [collected by] B.B. Collette, 4 Jul 1979, [acc. no. 337100].

*Paratypes*

USNM 223711 (1), cleared and stained [in glycerin], collected with holotype.  
USNM 223712 (1), [acc. no. 337100].

*Meiacanthus (Meiacanthus) luteus* Smith-Vaniz, 1987:25.

*Paratype*

USNM 268915 (3), same collection data as holotype [acc. no. 363855].

*Crossosalarias macrospilos* Smith-Vaniz and Springer, 1971:21.

*Holotype*

USNM 203096, male, 51.0 mm SL, *Te Vega* Cruise 6, sta 247, Solomon Islands, Bougainville, Tautsina Island, E of Kieta Peninsula, N end of island, 6°12'S, 155°40'E, depth ~1-8 m, 11 Mar 1965, D.M. Cohen, [acc. no. 261275].

*Paratypes*

USNM 203764 (2), [acc. no. 273221].

*Entomacrodus macrospilus* Springer, 1967:147.

*Holotype*

USNM 200279, immature male, 18.7 mm SL, E side of Anaho Bay, near cliffs at shore, coll. J.E. Randall, 17 Jul 1957, [acc. no. 264951].

*Paratypes*

USNM 200280 (50), collected with holotype.

*Alticus margaritarius* Snyder, 1908:106.

*Type [Holotype]*

USNM 62243, 72 mm [59.8 mm SL; 71.3 mm TL], pools at Tanegashima, Japan. Collected during explorations of USBF Steamer *Albatross*, [acc. no. 54484].

Remarks: Specimen has printed tag reading "Drawn" tied to it.

*Cotype* [Paratypes]

Remarks: Only one cotype [lot] was designated in the original description (SU 21109); however, "ten examples" are mentioned as the basis for the range of dorsal-fin counts. Böhlke (1953:91) lists SU 21109 as having 14 specimens. He also lists SU 21094, 9 specimens (same data as SU 21109) as paratypes. In addition the following two lots of uncertain type status are cataloged as paratypes at USNM:

[USNM 74545 (25), Naha, Okinawa, collected by *Albatross*, 1906, acc. no. 54484.]

[USNM 74586 (32), Tanegashima Island, Japan, collected by *Albatross*, 1906, acc. no. 54484.]

*Alticus margaritatus* Kendall and Radcliffe, 1912:157.

*Type* [Holotype]

USNM 65409, male, 2<sup>5</sup>/<sub>8</sub> in [55.2 mm SL; 65.2 mm TL = 2<sup>5</sup>/<sub>8</sub> in], Pago Pago, Samoa, [acc. no. 51565].

Remarks: The description reports that there are 27 specimens, but only the disposition (catalog number) of the "type" is given. One female "cotype" was singled out for discussion. Two specimens (male, female) were in the jar bearing USNM 65409 on 31 January 1990. A paper tag with the printed number 259 is tied to the male. A loose paper tag with the printed number 260 was also in the jar, as well as a note stating "both drawn." The original description includes drawings of a male and female. The originals of these drawings are in the USNM illustration files and the drawing of the male has "259" and "type" inscribed on it. The drawing of the female has "260" and "cotype" inscribed on it. The female (and paper tag 260) is now in a separate jar recataloged as USNM 307221, paratype.

*Cotype* [Paratype]

[USNM 307221, female, head partially dissected; see remarks under holotype, acc. no. 51565.]

*Entomacrodus plurifilis marshallensis* Schultz and Chapman, 1960:341.

*Holotype*

USNM 142155, 65.5 mm SL, Bikini Atoll, Enyu Island, reef at entrance of channel, 16 Mar [1946, acc. no. 172586].

*Paratypes*

USNM 142156 (29 [28]), [acc. no. 172586].

USNM 142157 (4), [acc. no. 172586].

USNM 142158 (1), [acc. no. 172586].

USNM 142159 (1), [acc. no. 172586].

USNM 142160 (1), [acc. no. 172586].

Remarks: Re-identified as *Entomacrodus cymatobiotus* Schultz and Chapman, 1960.

USNM 142161 (3), [acc. no. 172586].

USNM 142162 (45), [acc. no. 172586].

USNM 142163 (3), [acc. no. 172586].

USNM 142164 (3), [acc. no. 172586].

USNM 142165 (5), [acc. no. 172586].

USNM 142166 (113 [105]), [acc. no. 172586].

Remarks: Schultz (1960:341) reported 113 specimens in this lot. The catalog ledger originally listed 106 specimens.

USNM 142167 (21), [acc. no. 172586].

USNM 142168 (2), [acc. no. 176603].

USNM 142169 (1), [acc. no. 176603].

USNM 142170 (1), [acc. no. 176603].

USNM 142171 (3), [acc. no. 176603].

USNM 142172 (2), [acc. no. 172586].

USNM 142173 (5), [acc. no. 172586].

USNM 172174 (39), [acc. no. 172586].

USNM 142175 (178), [acc. no. 172586].

USNM 142176 (6), [acc. no. 172586].

USNM 142177 (12), [acc. no. 172586].

USNM 142178 (8) [0], [acc. 172586; exchanged to HJ on 18 Mar 1964].

USNM 142179 (13), [acc. no. 172586].

USNM 142180 (5), [acc. no. 172586].

USNM 142181 (1), [acc. no. 172586].

Remarks: Reidentified as *Entomacrodus cymatobiotus* Schultz and Chapman, 1960.

*Entomacrodus plurifilis plurifilis* (see below under *plurifilis*)

*Salarias martini* Herre, 1942:2.

[Paratypes]

[USNM 123655 (6), acc. no. 171582].

Remarks: Herre (1942:3), who provided no catalog numbers, reported that he had a "type" and "226 other specimens," which we treat as paratypes, all from the same locality, and all of which were deposited at SU. Böhlke (1953:94) reported the existence of the holotype (SU 38253) and only 10 paratypes (SU 38254) in the Stanford University collections, which were transferred later to CAS. We examined 53 of a large series of paratypes cataloged as CAS-SU 38249; another six paratypes are at the Australian Museum (AMS IB.3444).

*Ophioblennius mazorkae* Hildebrand, 1946:384.

*Type* [Holotype]

USNM 128188, 40 mm TL, 32 mm SL, Mazorka Island, Huaura Group, Peru, [collected by M.J. Lobell], [25 Feb] 1941, [acc. no. 158454].

[Paratypes]

[USNM 128189] ("several dozen specimens," [catalog ledger lists 67 specimens, we found 66]), [collected with holotype].

*Salarias mccullochi* Fowler and Bean, 1923:25.*Type [Holotype]*

USNM 83293, 90 mm [93.1 mm TL, 77.7 mm SL], Billinghausen Island [= Bellinghausen or Bellinghausen = Motu One, Society Islands], collected by the Wilkes Exploring Expedition.

Remarks: The USNM catalog entry for 83293, made in 1919, in contrast to Fowler and Bean (1923:25), gives the locality as "?". There are two faded paper labels in the jar with the holotype. One is mechanically printed and has a handwritten ? entered for the locality. The other, plain paper, has the barely discernible handwritten letters (ink or pencil?): "Bi[or a]llingh[or t]a" [followed by at least two more letters]. The general impression is that it definitely could have read Billinghausen.

*Salarias melanosoma* Regan, 1909:406.*[Syntype]*

[USNM 157373, 40.7 mm SL] Christmas Island, [Indian Ocean], collected by C.W. Andrews, [acc. no. 194292].

Remarks: Two labels with the specimen give the BMNH reg. no. 1909.3.4.57. No type designation is contained in the original description, which notes there are 6 specimens measuring up to 60 mm TL. We found 5 specimens at BMNH registered as 1909.3.4.52-57, thus accounting for all the syntypes.

*Ecsenius melarchus* McKinney and Springer, 1976:9.*Holotype*

USNM 212229, male, 39.0 mm SL, Indonesia, off SW coast of Karimundjawa, somewhat N of Greater Mendjangan Island, coral reef, ~05°52'30"S, ~110°25'40"E, depth 1.0-12.2 m, collected by V.G. Springer et al, VGS 74-28, 29 Mar 1974, [acc. no. 308017].

*Paratypes*

USNM 201815 (1), [acc. no. 261275].  
USNM 211893 (32), [acc. no. 308017].  
USNM 211894 (8), [acc. no. 308017].  
USNM 211896 (12), collected with holotype.  
USNM 211897 (6), [acc. no. 308017].

*Omobranchus meniscus* Springer and Gomon, 1975:52.*Holotype*

USNM 119685, male, 60.1 mm SL, mouth of river at Chantabun, Thailand, collected by Mai Mah [Nai Mah], 10 Apr 1933, [acc. no. 132376].

*Paratype*

USNM 211153 (1), same collection data as holotype.

*Ecsenius (Anthioblennius) midas* Starck, 1969:2.*Paratype*

USNM 202422 (1), collected with holotype, [acc. no. 275456].

*Fallacirripectes minutus* Schultz and Chapman, 1960:363.*Holotype*

USNM 142153, female, 21.4 mm SL, Bikini Atoll, Eman Island, ocean reef in surf, [collected by L.P.] Schultz, [V.E.] Brock, [G.S.] Myers, and [R.W.] Hiatt, 19 Jul 1947 [acc. no. 176603].

*Paratypes*

USNM 142149 (6), [acc. no. 172586].  
USNM 142150 (2), [acc. no. 172586].  
USNM 142151 (1), [acc. no. 176603].  
USNM 142152 (2) [3], taken with the holotype.

Remarks: Original description indicates only two specimens in lot; all three now cleared and stained.

*Hypsoblennius minutus* Meek and Hildebrand, 1928:943.*Type [Holotype]*

USNM 81936, 32 mm, Chame Point, Panama, collected by R. Tweedlie, [acc. no. 55821].

*[Paratypes]*

[USNM 81935] (3), [acc. no. 55821].

*Ecsenius monoculus* Springer, 1988:57.*Holotype*

USNM 261243, male, 36 mm SL, NW side Putic Island, Cuyo Islands, Philippine Islands (10°55'05"N, 121°02'03"E), 0-4.6 m, [collected by] V.G. Springer et al., 22 May 1978, [acc. no. 333189].

*Paratypes*

USNM 209577 (7), [acc. no. 301981].  
USNM 211925 (7), [acc. no. 308017].  
USNM 219308 (1), [acc. no. 332315].  
USNM 219309 (18), collected with holotype.  
USNM 225049 (5).  
USNM 225050 (7).  
USNM 226575 (6), collected with holotype.  
USNM 226577 (5), [acc. no. 333189].  
USNM 226578 (15), [acc. no. 333189].  
USNM 226579 (31), [acc. no. 333189].  
USNM 226580 (1), [acc. no. 399957].  
USNM 226581 (7), [acc. no. 333189].  
USNM 227537 (1), [acc. no. 333189].  
USNM 228926 (2), [acc. no. 341645].  
USNM 228928 (1), [acc. no. 341645].

*Blennius multifilis* Girard, 1858:169.*[Syntypes]*

USNM [8168 (17)], "specimens collected at St. Joseph's Island, Texas, by G. Wurdemann."

Remarks: Girard (1858) neither indicated the number of specimens nor a catalog number for his syntypes. Girard (1859:27-28), in reporting on the same specimens, provided a table of specimens for *Blennius multifilis* in which he twice listed the catalog number 649. Beside the first 649 he indicated "1 adult" and beside the second 649, "17 young." The USNM

catalog ledger, appropriately, indicates the presence of 18 specimens in USNM 649, together with the correct collection data, but there is no indication that these specimens are types (other lots, pertaining to different species, with adjacent catalog numbers are indicated as types). We were unable to locate a lot bearing USNM 649. A search of the collection, however, showed that USNM 8168, *Hypleurocheilus geminatus* (Wood) (a senior synonym of *Blennius multifilis*), comprising 17 specimens (23.4–65.9 mm SL), had the same collection data as USNM 649. This suggests strongly that the 17 specimens reported by Girard (1859:28) were assigned a new catalog number, and that the single specimen has been lost. Accordingly, we consider the specimens in USNM 8168 to be syntypes. Bath (1976:183), understandably unaware of the circumstances, reported that there was no type material for *Blennius multifilis*.

*Salarias muscarus* Snyder, 1908:109.

Type [Holotype]

USNM 62245, 50 mm [51.2 mm TL], Naha, Okinawa, collected by Albatross, [acc. no. 54484].

Remarks: A printed paper label in jar with holotype reads "Albatross Expedition 1906 Naha Okinawa Luchu Is. Japan." A printed cloth label reads "Drawn."

*Alticus musilae* Jordan and Seale, 1906:425.

Type [Holotype]

USNM 51790, 1<sup>3</sup>/<sub>16</sub> in [25.5 mm SL, 30.4 mm TL = 1.2 in], Apia, Samoa.

Remarks: Two specimens were in the jar bearing USNM 51790 on 31 January 1990, together with a note stating that the "larger" is the type (the smaller is 21.3 mm SL). USFC tin tag no. 02423 is also in the jar. This number is inscribed on the original drawing (in USNM files) of the published illustration of the holotype. The smaller specimen is now recataloged USNM 307222, paratype. The original description mentions the presence of [a total of] four specimens. Böhlke (1953:91) lists two paratypes as SU 8693, thus accounting for all type specimens.

[Paratype]

[USNM 307222 (1); see remarks under holotype].

*Salarias natalis* Regan, 1909:405.

[Syntype]

[USNM 157374, 49.6 mm TL, 40.9 mm SL], Christmas Island, [Indian Ocean], collected by C.W. Andrews, [acc. no. 194292].

Remarks: Two labels with the USNM specimen give the BMNH reg. no. 1909.3.4.67. No type designation is contained in the original description, which notes there are 11 specimens measuring up to 60 mm TL. We found 10 specimens at BMNH registered as 1909.3.4.58–67, thus accounting for all the syntypes.

*Blennius nativitatus* Regan, 1909:404.

[Syntypes] [Paralectotypes]

[USNM 157372 (2), acc. no. 194292.]

Remarks: The USNM specimens were originally part of the syntypic series, BMNH 1909.3.4.50–51. A lectotype was designated from among the BMNH specimens by Smith-Vaniz and Springer (1971:33).

*Blennius nicholsi* Tavalga, 1954:135.

Paratype

[USNM 164016 (1), 21.4 mm SL], female, Florida, Matanzas River half mile W of Marineland, Aug 1952, coll. W.N. Tavalga, [acc. no. 202826].

Remarks: According to a penciled label in the jar with this specimen, the specimen is "paratype # 6" and was originally cataloged as AMNH 19865. In the original description, AMNH 19865 is stated to be a male, 30 mm SL, collected at Matanzas River Inlet, June, 1952, by F.G. Wood, Jr; and AMNH 19866 is stated to contain three female paratypes, 19, 23, and 25 mm SL. The 23 mm female was the sixth listed among the 6 paratypes designated as such by Tavalga (1954:137); however, Tavalga actually had 7 paratypes, but he designated the first an "allotype," followed by designations of 6 paratypes. The USNM specimen appears to be closest to the 23 mm paratype of AMNH 19866.

*Entomacrodus nigricans* Gill, 1859:168.

[Holotype]

[USNM 34625, 49.6 mm SL] shallow water near Bridgetown, Barbados.

Remarks: The catalog ledger entry for collector reads "Gill."

*Meiacanthus nigrolineatus* Smith-Vaniz, 1969:351.

Holotype

USNM 200301, female, 31.7 mm SL, Red Sea, Straits of Jubal, 27°14'34"N, 33°53'55"E, 0–8 ft [0–2.4 m]; H.A. Fehlmann; 3 Jan 1965; sta HA-31, [acc. no. 261275].

Remarks: The holotype was originally cataloged as USNM 205381, but it was reported as USNM 200301 in the species description. On 13 February 1969, USNM 200301 was reassigned to the holotype of *M. nigrolineatus* to make the catalog record agree with the published description. The catalog records do not indicate which species was originally assigned the number USNM 200301, as the reassignment did not include a cross reference to the action taken.

Paratype

USNM 200601 (4; including 1 cleared and stained); same data as holotype.

USNM 201480 (3), [acc. no. 261275].

USNM 201485 (1), [acc. no. 261275].

*Salarias niuafoouensis* Fowler, 1932b:7.*Type [Holotype]*

USNM 91932, 87 mm [TL], Niuafoou, Tonga Archipelago, 17 Sep 1930, collected by H.C. Kellers, [acc. no. 109644].

*Paratype*

USNM [138298] (1), same [collection] data as holotype, with which it was originally cataloged, but with acc. no. 99399.

*Alticus novemmaculosus* Snyder, 1908:107.*Type [Holotype]*

USNM 62244, male, 99 mm [79.2 mm SL; 96.0 mm TL], Naha, Okinawa. Collected during explorations of USBF steamer *Albatross*, [acc. no. 54484].

Remarks: Two printed paper tags tied to specimen read "Type" and "Drawn."

*Cotypes [Paratypes]*

Remarks: The original description mentions the presence of males and females, in addition to the holotype, but only one cotype [lot] is designated: SU 21110. Böhlke (1953:91) stated that there were 63 specimens in SU 21110. Additionally, the following two lots were received as cotypes from SU (USNM acc. no. 54484, letter J.O. Snyder, 11 August 1912), and are cataloged as paratypes at USNM:

[USNM 74546 (99), Naha, Okinawa; *Albatross* Expedition, 1906; acc. no. 54484.]

Remarks: Our partial examination of this lot indicates the presence of at least two genera and species.

[USNM 74587 (72), Naha, Okinawa; *Albatross* Expedition, 1906; acc. no. 54484.]

*Ecsenius oculatus* Springer, 1988:60.*Paratypes*

USNM 261219 (4), [acc. no. 355028].

*Ecsenius (Ecsenius) oculus* Springer, 1971:35.*Holotype*

USNM 203140, male, 53.8 mm SL, immediately S of cut between large outstanding rock and Ch'uan-fan-shih, S end of Taiwan, coll. V.G. Springer et al., 24 Apr 1968, depth ~6 m, orig. field no. VGS 68-3, [acc. no. 275964].

*Paratypes*

USNM 195716 (3), [acc. no. 144662].

Remarks: These specimens were re-identified as *Ecsenius portenoyi* by Springer, 1988:66, but were excluded from the type series of that species. The specimens probably originated in Samoa (Springer, 1971:42-43; 1988:66).

USNM 201522 (3).

Remarks: Also paratypes of *Ecsenius paroculus* Springer, 1988 (q.v.).

USNM 201560 (2).

Remarks: Also paratypes of *Ecsenius paroculus* Springer, 1988 (q.v.).

USNM 201811 (4).

Remarks: Also paratypes of *Ecsenius paroculus* Springer, 1988 (q.v.).

USNM 203139 (3), [acc. no. 275964].

USNM 203141 (1), [acc. no. 275964].

USNM 203142 (4), [acc. no. 275964].

USNM 203923 (7), collected with holotype.

*Ecsenius opsifrontalis* Chapman and Schultz, 1952:521.*Holotype*

USNM 142065, 31 mm SL, Rongelap Atoll, Rongelap Island, Marshall Group, collected by [V.E.] Brock, [E.S.] Herald, and [T.F.] Kohler, 25 Jul 1946, in lagoon at depth 18 ft [-5.5 m], [acc. no. 182576].

*Paratype*

USNM 142066 (1), [acc. no. 172586].

*Ecsenius pardus* Springer, 1988:63.*Holotype*

USNM 263113 [263116], male, 33 mm SL, Fiji, Kandavu, just S of NE point at entrance to Ndaku Bay, 0 to 2.4 m, [collected by] V.G. Springer et al., 11 May 1982, [acc. no. 346849].

Remarks: Published catalog number includes a typographical error, the correct number is USNM 263116.

*Paratypes*

USNM 214520 (3), [acc. no. 315925].

USNM 214787 (1), [acc. no. 315925].

USNM 214788 (4), [acc. no. 315925].

USNM 236017 (11), [acc. no. 346849].

USNM 236018 (12), collected with holotype.

USNM 279471 (7), [acc. no. 370247].

*Ecsenius paroculus* Springer, 1988:64.*Holotype*

USNM 260389, male, 31 mm SL, live reef off NW side Pulau Tikus, Pulau Pari Group, Pulau Seribu, Indonesia (05°51'25"S, 106°34'15"E), depth to 4.6 m, [collected by] V.G. Springer et al., 5 Apr 1974, [acc. no. 308017].

Remarks: Springer (1988:64) erroneously stated that the holotype was previously a paratype of *Ecsenius oculus* Springer.

*Paratypes*

USNM 201522 (3), also paratypes of *Ecsenius oculus* Springer, [acc. no. 261275].

USNM 201560 (2), also paratypes of *Ecsenius oculus* Springer, [acc. no. 261275].

USNM 201811 (4), also paratypes of *Ecsenius oculus* Springer, [acc. no. 261275].

USNM 211975 (86), [acc. no. 308017].

USNM 211995 (19), collected with holotype.

Remarks: Springer (1988:64) erroneously stated that

these specimens were previously paratypes of *Ecsenius oculus* Springer.

USNM 259240 (4), [acc. no. 350185].

*Alloblennius parvus* Springer and Spreitzer, 1978:4.

*Paratypes*

USNM 216309 (6, including 3 cleared and stained), [acc. no. 310882].

USNM 216310 (1), [acc. no. 310882; formerly CAS 33606].

*Plagiotremus (Musgravius) phenax* Smith-Vaniz, 1976:131.

*Holotype*

USNM 204699, male, 34.1 mm SL, Sri Lanka (Ceylon), Trincomalee, cove N of harbor, 8°34'N, 81°13'E; depth 1-3 m; large rock outcrop devoid of coral, 26 Jun 1969, [collected by] W.F. Smith-Vaniz, [acc. no. 273221].

*Paratypes*

USNM 204700 (4), taken with holotype.

*Ecsenius pictus* McKinney and Springer, 1976:19.

*Holotype*

USNM 213853, female, 33.3 mm SL, Indonesia, Moluccas, just W of northernmost tip of Great Banda Island, reef and rock slope area, 04°30'30"S, 129°56'10"E, depth 10.7-18.3 m, collected by V.G. Springer and M.F. Gomon, VGS 74-11, 9 Mar 1974, [acc. no. 308017].

*Paratypes*

USNM 210056 (1), [acc. no. 301981].

USNM 211895 (1), collected with holotype.

*Ophioblennius pinchoti* Fowler, 1932a:13.

*Type [Holotype]*

USNM 91819, Black Beach Anchorage, Charles Island, Galapagos, 27 Jun 1929, collected by A.K. Fisher, [acc. no. 105848].

*Paratypes*

Remarks: No published catalog numbers. Although the published total number of paratypes is specified as 49, there appear to have been more. There are 16 specimens in USNM 91820, which follows in sequence the catalog number of the holotype, that are conspecific with the holotype. Also in USNM 91820 is a vial containing 12 more specimens with a note by E.D. Reid that states they are not *Ophioblennius*. Thirty-one more specimens were segregated from USNM 91820 on or before 8 August 1947 and recataloged as USNM 119822, *Labrisomus dendriticus* (see following).

[USNM 91820] (16 + ~10) [16 + 12], same collection data as holotype.

[USNM 119822] (31), same collection data as holotype, segregated from USNM 91820, identified as *Labrisomus dendriticus*.

*Entomacrodus plurifilis marshallensis* (see under *marshallensis*)

*Entomacrodus plurifilis plurifilis* Schultz and Chapman, 1960:338.

*Holotype*

USNM 144720, 60.5 mm SL, Samoan group, Tau Island, reef at Siulagi Point, 27 Jun 1939, [collected by L.P.] Schultz, [acc. no. 180183].

*Paratypes*

USNM 52264 (1).

USNM 115448 (1), [acc. no. 151472].

USNM 115449 (20), [acc. no. 151472].

USNM 115450 (13), [acc. no. 151472].

USNM 115451 (3), [acc. no. 151472].

USNM 115452 (104), [acc. 151472].

USNM 115453 (27), [acc. no. 151472].

USNM 115454 (5), [acc. no. 151472].

USNM 115455 (3), [acc. no. 151472].

USNM 115456 (5), [acc. no. 151472].

USNM 115457 (3), [acc. no. 151472].

USNM 115458 (5), [acc. no. 151472].

USNM 115459 (4), [acc. no. 151472].

USNM 124347 (1), [acc. no. 151472].

*Ecsenius portenoyi* Springer, 1988:65.

*Holotype*

USNM 226576, male, 37.6 mm SL, Rotuma, N coast (slightly E of [a] vertical [on chart] from Sumi, which is on S coast), ocean side of reef crest about 100 m from shore; rock and dead coral with some live coral; depth 9 m, [collected by] V.G. Springer et al., 9 May 1986, [acc. no. 367323].

*Paratypes*

USNM 276370 (9) [10], [acc. no. 333928].

USNM 278914 (113) [112], collected with holotype.

USNM 283103 (32), [acc. no. 367323].

*Meiacanthus (Meiacanthus) procne* Smith-Vaniz, 1976:105.

*Holotype*

USNM 203275, male, 44.0 mm SL, Tonga Islands, Vava'u Group, Neiafu I., 18°39'0"S, 174°00'30"W [15°36'S, 175°37'W], depth 0-16 m, [collected by] R.L. Bolin et al., 28 Jun 1965; *Te Vega* Cruise 8, sta 308, [acc. no. 273221].

*Paratypes*

USNM 195810 (1), [acc. no. 180183].

USNM 205291 (13), taken with holotype, [one specimen cleared and stained in separate jar].

*Ecsenius [prooculis]* Chapman and Schultz, 1952:519.

Remarks: Original orthography is *pro-oculis*.

*Holotype*

USNM 144722, male, 40 mm SL, collected by W.M. Chapman and [H.] Cheyne, 20 May 1944, a little island in Munda Lagoon near Sassavalle, New



Georgia, Solomon Islands, among coral heads in about 10 ft [~3.0 m] of water, [acc. no. 180183].

*Blenniulus proteus* Krejsa, 1960:326.

*Holotype*

USNM 179306, male, 26.4 mm SL, N edge of Caleta Binner, Isla Socorro, Revillagigedo Archipelago, México; depth of water to 5 ft [~1.5 m]; coll. R.H. Rosenblatt and B.H. Brattstrom, 1 May 1955; formerly UCLA 55-152, [acc. no. 226131].

*Paratypes*

USNM 179305 (9), collected with the holotype.

*Petroscirtes quadrimaculatus* Kendall and Goldsborough, 1911:329.

*Type [Holotype]*

USNM 65980, 1<sup>7</sup>/<sub>8</sub> in [48.3 mm TL = 1.90 in], Arhno Atoll [= Arno], Marshall Islands, [acc. no. 51552].

Remarks: A paper tag reading "Drawn" is tied to the holotype. *Albatross* tin tag 09069 is in the jar.

*[Paratype]*

[USNM 65981] (1), same collection data as holotype.

*Haptogenys quadripora* Springer, 1972a:8.

*Holotype*

USNM 119658, male, 61.6 mm SL from midtip of upper lip, 62.5 mm SL from midtip of snout, Koh Tao Island, Gulf of Thailand, 10°03'N, 99°51'E, collected by H.M. Smith, 3 Jan 1927, now cleared and stained [in glycerin], [acc. no. 132376].

*Rupiscartes quagga* Fowler and Ball, 1924:273.

*[Paratypes]*

USNM 109368 (2), [acc. no. 153481].

Remarks: Fowler and Ball (1924) described four new species. They clearly had only one specimen available for each of three of the species. The description of the fourth species, *Rupiscartes quagga*, was based on a single specimen followed by the comment (p. 274), "Abundant at Wake Island, July, 1923." No catalog numbers were provided for any of the specimens of any of the species, and the only indication of type status is an introductory remark at the beginning of their publication (p. 269) that states that "the types are all retained at the ... Bishop Museum ..." Another statement (p. 269) indicates that "Further details and figures will be given in the final reports to be published in Honolulu." Fowler and Ball (1925:29) listed the "type" (BPBM 3420) and stated that there were 30 paratypes (no catalog number). It is, therefore, questionable whether Fowler and Ball (1924) validly designated paratypes. The putative USNM paratypes were received from ANSP, where 19 other putative paratypes are currently deposited (Böhlke, 1984:30).

*Cirripectes randalli* Williams, 1988:60.

*Holotype*

USNM 227873, male, 92 mm SL, Cargados Carajos Shoal, 16°26'S, 59°36'E, coral patch in surge channel about 100 yds [~90 m] off Raphael on W side, 0-7.6 m; coll. V.G. Springer; 2 Apr 1976, [acc. no. 321909].

*Entomacrodus randalli* Springer, 1967:71.

*Holotype*

USNM 199985, female, 51.2 mm SL, E side of Anaho Bay near cliffs at shore, Nuku Hiva, Marquesas, 17 Jul 1957, collected by J.E. Randall, [acc. no. 264951].

*Paratypes*

USNM 199986 (2), same collection data as holotype.

*Blenniella rhessodon* Reid, 1943:383.

*Holotype*

USNM 118029, 22.6 mm SL, *Albatross* sta 3921, night anchorage off Honolulu, T[erritory of] H[awaii], Diamond Head Light, 62°S, 3.9'E [~21°15'N, 157°48'W], 6 May 1902.

Remarks: Strasburg (1956:254) and Smith-Vaniz and Springer (1971:59) stated that they examined the holotype, but on 22 February 1977, when VGS examined the jar that was supposed to contain the holotype, there were no specimens in the jar, nor have any appeared since. The holotype and paratypes are presumed lost.

The coordinates for the type locality are in error; see remarks under *Ophioblennius capillus*.

*Paratypes*

USNM 120031 (at least 6) [0].

Remarks: Reid (1943) did not indicate the number of paratypes. The presence of at least 6 paratypes can be inferred from information in the original description. The USNM catalog ledger entry for 120031 indicates that there were 26 paratypes. On 22 February 1977, VGS noticed that the paratypes and the jar that should have contained them were missing (see remarks under *Ophioblennius fernandezensis*).

*Hypsoblenniops rickettsi* Schultz, 1942:154.

*Holotype*

USNM 119731, 19.8 mm SL, Concepcion Bay, Mexico, taken by E.F. Ricketts, 28 Mar 1940, [acc. no. 160366].

*Paratypes*

USNM 119732 (8), same collection data as holotype.  
USNM 119733 (1), [acc. no. 160366].

*Omobranchus robertsi* Springer, 1981:701.

*Holotype*

USNM 216985, male, 48.1 mm SL, mangrove-lined tributary of Guiavi Creek on mainland opposite W end of Parama Island, Papua-New Guinea, 09°01.2'S, 143°21.6'E, collected by T.R. Roberts, 15 Dec 1975.

*Hypoblennius robustus* Hildebrand, 1946:391.*Type [Holotype]*

USNM 128196, 39 mm, [La Lagunilla] Independencia Bay, Peru, [collected by M.J. Lobell, 20 Mar 1941, acc. no. 158454].

*[Paratypes]*

[USNM 77572] (1), Chimbote, Peru, [acc. no. 59892].

[USNM 128197] (1), [Chuquito,] Callao, Peru, [acc. no. 158454].

[USNM 128198] (1), Talara, Peru, [acc. no. 158454].

*Istiblennius rodenbaughi* Schultz and Chapman, 1960:358.*Holotype*

USNM 142067, 79 mm SL, Bikini Atoll, Namu Island, Marshall Islands, 7 Aug 1947, [collected by V.E.] Brock, [R.W.] Hiatt, and [L.P.] Schultz, [acc. no. 176603].

*Paratypes*

USNM 142068 (13), same collection data as holotype.

USNM 142069 (42), [acc. no. 176603].

USNM 142070 (1), [acc. no. 176603].

USNM 142071 (2), [acc. no. 172586].

USNM 142072 (1), [acc. no. 172586].

USNM 142073 (2), [acc. no. 172586].

USNM 142074 (3), [acc. no. 172586].

USNM 142075 (3), [acc. no. 172586].

USNM 142076 (10), [acc. no. 172586].

USNM 142077 (15), [acc. no. 172586].

USNM 142078 (23), [acc. no. 172586].

USNM 142079 (16), [acc. no. 172586].

USNM 142080 (21), [acc. no. 172586].

USNM 142081 (2), [acc. no. 172586].

USNM 142082 (3), [acc. no. 172586].

USNM 142083 (2), [acc. no. 172586].

USNM 142084 (7), [acc. no. 172586].

*Entomacrodus rofeni* Springer, 1967:86.*Paratypes*

USNM 199402 (4 [including 1 cleared and stained; acc. no. 250369]), collected with holotype.

*Mimoblennius rusi* Springer and Spreitzer, 1978:14.*Paratype*

USNM 216554 (1), taken with holotype, [acc. no. 322280].

*Salarias rutilus* Jenkins, 1903:509.*Type [Holotype]*

USNM 50695, 2.5 in [71.4 mm TL = 2.8 in], Honolulu, Hawaiian Islands, summer, 1889, collected by O.P. Jenkins, [acc. no. 40470].

*Cotypes [Paratypes]*

Remarks: Jenkins (1903:509) stated that he had three cotypes with the same data as the type. We were unable to determine the disposition of the cotypes, which, unlike other Jenkins' cotypes, were never

cataloged at USNM (see remarks under paratypes of *Salarias saltans*).

*Chasmodes saburrae* Jordan and Gilbert 1883:298.*[Syntype] [Lectotype]*

USNM 30824, [male, 60.4 mm SL, Pensacola, Fla., coll. by Jordan and Stearns.]

Remarks: The original description states that 14 specimens were obtained from Pensacola Bay. Although no specimens were specifically designated as types, the catalog number 30824 was listed in the original description adjacent to the name of the new species. Springer (1959:329) noted that Jordan and Evermann (1898:2393 and fig. 824) indicated USNM 30824 as the "Type." Springer interpreted the action of Jordan and Evermann as designating the drawn specimen, which supposedly has a metal tag reading "drawn" attached, as the lectotype of the species. The specimen in USNM 30824 has a string running through its mouth and out the gill opening, but there is no tag attached, nor is there a "drawn" tag associated with any other type specimen of this species. In any event, Springer reaffirmed the specimen as lectotype, designated by Jordan and Evermann (1898:2393). Williams (1983:94) attributed the lectotype designation to Springer (1959). The remaining eight syntypes in USNM 30824 were recataloged as USNM 177944. There are 12 specimens (= paralectotypes) listed as types at CAS (Böhlke, 1953). Williams (1983:93-94) summarized the above information and noted that there is one additional specimen (questionably a paralectotype) at the BMNH. We have no explanation for the fact that 21 possible type specimens exist in museum collections, yet only 14 were mentioned in the original description.

*[Syntypes] [Paralectotypes]*

[USNM 177944 (8).]

*Salarias saltans* Jenkins, 1903:508.*Type [Holotype]*

USNM 50696, 3.2 in long [91 mm TL = 3.6 in], Honolulu; Hawaiian Islands, summer, 1889, collected by O.P. Jenkins, [acc. no. 40470].

Remarks: Paper label reading "Drawn" in jar with holotype. The legend published with the figure in the original description indicates that the figure is based on the type (= holotype) and, using the scale bar in the figure, we calculate the total length of the specimen as 3.6 in. The discrepancy between the length (3.2 in) [-81 mm] of the holotype as given in the original description and as we have ascertained it from the figure, and information based on the paratypes (see following remarks section), suggests that Jenkins referred to two specimens as the "type" on the same page. The figured specimen has 22 segmented anal-fin

rays, the same number as the specimen in USNM 50696, whereas the two specimens in USNM 126080 each have 21 (the value given in the text of the description). We are unable to solve the problem, but, as all three specimens are conspecific and, presumably, were collected at Honolulu, the problem is probably inconsequential; however, the situation merits discussion as it may have bearing on other problems involving Jenkins' types.

*Cotypes* [Paratypes]

[USNM 126080] (2), same collection data as holotype, [acc. no. 163614].

Remarks: The paratypes were apparently part of the old USBF collections that were transferred to USNM well after the holotype had been cataloged. Tied to one paratype (91.6 mm TL = ~3.6 in) is a metal tag numbered 152, which Jenkins gave as a field number in the original description. Two USBF labels in the jar each bear the number 1168, but one of them and a third label state "Honolulu 1901." Another label, in poor condition, also in the jar with the paratypes, reads "Salaria saltans Jenkins Type 152 Honolulu Coll. by O.P. Jenkins." The smaller of the two putative paratypes is 82 mm TL (~3.2 in), hence the only one of the three specimens in the putative type series that agrees in size with that given for the holotype in Jenkins' text. Jenkins (1903:417) noted that shorefish collections had been made by Jordan in the Hawaiian Islands in 1901 and 1902, but that Jordan's material did not form a part of Jenkins report. It is possible, therefore, that the smaller of the two putative paratypes, is one of Jordan's specimens or even the holotype. Jenkins (1903:419-420) stated that the types [holotypes] of all his new species were deposited at USNM, and that, as far as possible, "cotypes and series of all the species" were presented to Stanford University and the U.S. Fish Commission, and that "a representative collection was presented to the British Museum and one retained by the museum of De Pauw University."

*Ecsenius schroederi* McKinney and Springer, 1976:21.

*Holotype*

USNM 209743, male, 24.0 mm SL, Indonesia, Moluccas, Ambon Island, off Tandjung Suli, shallow coral reef, depth to 2.4 m, collected by V.G. Springer and M.F. Gomon, 11 Jan 1973, [acc. no. 301981].

*Leoblennius schultzi* Reid, 1943:382.

*Holotype*

USNM 118037, 25.4 mm SL, *Albatross* sta 3921, night anchorage off Honolulu T[erritory of] H[awaii], Diamond Head Light, 62°S, 3.9'S [-21°15'N, 157°48'W], 6 May 1902.

Remarks: The coordinates given for the type locality

are in error; see remarks under *Ophioblennius capillus*.

*Paratype*

USNM 120096 (1) [0], same collection data as holotype. Remarks: Apparently lost; not found during inventory, 1980. See also remarks under *Ophioblennius fernandezensis*.

*Isesthes scrutator* Jordan and Gilbert, 1882:300.

[Syntype] [Lectotype]

USNM 30850 (1), 3 in [74.9 mm TL = ~2.9 in], Pensacola, Florida, collected by D.S. Jordan [? and S. Stearns], Mar 1882.

Remarks: Jordan and Gilbert (1882:300) indicated that they had two specimens, a "fine specimen, 3 in. in length ... from Pensacola," and "another, which had been a long time in alcohol, and is discolored and somewhat shrivelled," from Galveston Bay. The second specimen is not represented unequivocally in the USNM collection. Should that specimen be found, should it represent a different species from that of the specimen in USNM 30850, and if it were selected as lectotype, the taxonomic status of a younger name might be jeopardized. We, therefore, designate USNM 30850 lectotype of *Isesthes scrutator*.

*Ecsenius sellifer* Springer, 1988:66.

*Holotype*

USNM 261462, male, 37 mm SL, Papua New Guinea, Trobriand Islands, Kiriwina Island, surge channels and shallow flats, 0-3.7 m, [collected by] B.B. Collette and B. Goldman, 17 Jun 1970, [acc. no. 289275].

*Paratypes*

USNM 206431 (8), collected with holotype. USNM 221237 (1), [acc. no. 337100].

*Blennophis semifasciatus* Kner and Steindachner, 1866:369.

[Neotype]

[USNM 194480, 45 mm SL, *Atlantis* Cruise 221, 24°54'S, 71°26'W, dip netted under a night light by S. Bray, 10 Dec 1955, acc. no. 251937.]

Remarks: The neotype was designated by Williams (1990:27).

*Alticus simplicirrus* Smith-Vaniz and Springer, 1971:15.

*Paratype*

USNM 203829 (1), [acc. no. 280751].

*Salaria sindonis* Jordan and Seale, 1906:427.

*Type* [Syntypes]

USNM 51792 (1) [USNM 51793 (17)], 0.99 in [-25.1 mm], Pago Pago, Samoa, collected by M. Sindo, summer, 1902.

Remarks: The published catalog number was incorrect. Jordan and Seale (1906:428) stated that they had

"numerous specimens (50)," [= 49 + type?]. The USNM catalog ledger originally listed 20 specimens in 51793. About 1975, when the specimens were radiographed, there were 18 specimens in 51793, and in December 1987, we found 17. Jordan and Seale did not designate any of the specimens as paratypes and, given the missing specimens, it is not possible to be certain which, if any, of the 17 is the holotype. For these reasons, all the specimens must be considered as syntypes. Designation of a lectotype is planned by V.G. Springer and J.T. Williams (study in progress).

USNM 291686 (14), formerly part of USNM 51793.

USNM 307577 (2), formerly part of USNM 51793, identified as *Praealticus* sp.

*Salarias sinuosus* Snyder, 1908:109.

*Type [Holotype]*

USNM 62246, 43 mm [42.6 mm TL], Naha, Okinawa, [acc. no. 54484].

Remarks: Printed paper tag in jar with holotype reads "Albatross Expedition 1906 Naha Okinawa Luchu Is. Japan." Printed cloth tag reads "Drawn."

*Cotype [Paratypes]*

[USNM 74556] (3) same collection data as holotype, [acc. no. 54484].

Remarks: Printed paper tag in jar with paratypes identical to that with holotype. Snyder (1908:110) referred specifically to paratypes only as "Cotype, Cat. No. 21111, Stanford University collection." Böhlke (1953:94) reported two paratypes in SU 21111. Snyder (1908:110) mentions fin-ray counts for 6 specimens [holotype + 5 paratypes?] in the original description, but does not clearly exclude the possibility that he may have had more specimens. The holotype and 3 paratypes were received at USNM on 17 August 1912. It appears, therefore, that there were only 5 paratypes.

*Plagiotremus spilistius* Gill, 1865:140.

*[Holotype]*

[USNM 21722], 5.5 in long [167 mm TL; 141 mm SL = 5.6 in], found in Chinese seas by W. Stimpson during voyage of North Pacific Exploring Expedition.

Remarks: Originally cataloged as USNM 6553; no indication in the catalog ledger as to why this specimen was recataloged.

*Spinoblennius spiniger* Herre, 1935:435.

*Paratypes*

Remarks: Herre (1935:436) mentioned that there were 7 paratypes, but did not indicate where they were deposited. Two paratypes are at USNM and Böhlke (1953:95) indicated that 4 were in the SU collection.

[USNM 117314] (1), same collection data as holotype, [acc. no. 155340].

Remarks: Originally cataloged as FMNH 17396. [USNM 119815] (1), same collection data as holotype, [acc. no. 161875].

Remarks: Originally cataloged as FMNH 17398.

*Cirripectes springeri* Williams, 1988:62.

*Paratypes*

USNM 210166 (1), [acc. no. 301981].

USNM 227617 (1), [acc. no. 144662].

USNM 228283 (1), [acc. no. 261275].

USNM 228284 (2), [acc. no. 333189].

USNM 228285 (7), [acc. no. 308017].

USNM 228286 (1), [acc. no. 337100].

USNM 228287 (8), [acc. no. 333189].

USNM 228288 (1), [acc. no. 333189].

USNM 228289 (1), [acc. no. 289275].

USNM 228290 (2), [acc. no. 289275].

USNM 228292 (6), [acc. no. 289275].

USNM 228293 (1), [acc. no. 334183].

USNM 228294 (10), [acc. no. 334183].

USNM 228297 (1), [acc. no. 334183].

*Hyleurochilus springeri* Randall, 1966:65.

*Holotype*

USNM 257884-F1 [USNM 231716], female, 48.2 mm SL, Cabo Rojo, Puerto Rico, SW of lighthouse, rocky shore with sand and seagrass in 0 to 5 ft [0 to ~1.5 m], [collected by] J.E. Randall, 16 Aug 1964, [acc. no. 257884].

Remarks: During the 1970s, the USNM discontinued the sequential catalog numbering procedure for new accessions. For new accessions, the acc. no. plus an F number suffix was used as the catalog number for each lot of specimens. This procedure was discontinued and the original catalog numbering system was re-established. All F numbers, when located, are now assigned a new sequential number.

*Paratype*

USNM 198262 (1), [acc. no. 249592].

*Petroscirtes (Dasson) springeri* Smith-Vaniz, 1976:37.

*Holotype*

USNM 203279, male, 49.7 mm SL, Taiwan, cove on point just SW of Yeh-Lin [Yeh-Liu], 25°12'N, 121°41'E, rocky bottom, depth 7.5–9 m; 19 May 1968; collected by V.G. Springer, [acc. no. 275964].

*Blennius stearnsi* Jordan and Gilbert, 1882:300.

*[Syntypes]*

USNM 29669 (3), stomach of a red snapper at Pensacola, the largest 3 in long [68.0 mm SL, ~82 mm TL = ~3.2 in].

Remarks: The USNM catalog ledger entry contained the word "Type" in the same ink and handwriting as the remainder of the entry, and there was no other indication as to the number of specimens. An entry in

a different ink in the ledger column referring to number of specimens reads "1," and undoubtedly was entered by a later observer. The disposition of the two missing specimens is unknown.

*Ophioblennius steindachneri clippertonensis* (see under *clippertonensis*)

*Omobranchus steinitzi* Springer and Gomon, 1975:70.

*Holotype*

USNM 209433, male, 32.0 mm SL, Cundabulu, Dahlak Archipelago, Red Sea, collected 20 Mar 1962 [by] H. Steinitz, E. Clark, A. Ben-Tuvia, [acc. no. 279403].

*Paratypes*

USNM 209434 (2), same collection data as holotype.

*Scartichthys stellifer* Jordan and Snyder, 1902:461.

*Cotype* [Paratype]

USNM 50298 (1).

*Ecsenius stictus* Springer, 1988:74.

*Holotype*

USNM 201818, male, 38.1 mm SL, S reef face about one mi [-1.6 km] from One Tree Island, Capricorn Group, Great Barrier Reef, Queensland, Australia, collected by V.G. Springer et al., 22 Nov 1966, depth ~15 ft [-7 m], [acc. no. 267599].

*Paratypes*

USNM 201822 (15), [acc. no. 267599].  
USNM 201836 (4), [acc. no. 267599].  
USNM 274539 (1), [acc. no. 285012].  
USNM 274601 (1), [acc. no. 273753].  
USNM 276343 (27), collected with holotype.

Remarks: Springer (1988:75) erroneously reported 28 specimens in this lot.

*Cirripectus stigmaticus* Strasburg and Schultz, 1953:132.

*Holotype*

USNM 164962, male, 63 mm SL, Rongerik Atoll, Latoback Island, lagoon reef; [collected by L.P.] Schultz and [E.S.] Herald; 28 Jun 1946, [acc. no. 172586].

*Paratypes*

USNM 142129 (1), [acc. no. 176603].  
USNM 154673 (2), [acc. no. 195447].  
USNM 154674 (3), [acc. no. 195447].  
USNM 164961 (16), [acc. no. 195398].  
USNM 164963 (2), same collection data as holotype.  
USNM 164964 (2), [acc. no. 176603].  
USNM 164965 (1), [acc. no. 43870].

*Ecsenius stigmatura* [H.W.] Fowler in Chapman and Schultz, 1952:514.

*Holotype*

USNM 99379, female, 46.5 mm SL, Philippine Islands, Dammi Island between Jolo and Tawi Tawi Straits, 5°52'12"N, 120°31'00"E, depth 244 fathoms, 21 Sep

1909, [collected by] *Albatross*, [acc. no. 65731].

Remarks: Springer (1971:31) discussed the undoubtedly erroneous published locality data for the holotype and one paratype (USNM 111878). Evidence indicates that the correct locality is probably Tomahu Island, just off the west coast of Bouro Island, Indonesia. According to a typed note written by Springer and placed in the jar with the holotype, L.P. Schultz told Springer that Schultz actually prepared the description and could not remember how he decided on the locality. Fowler was accorded authorship because he had recognized that the specimens represented an undescribed species. Many jars of *Albatross* specimens at USNM contain Fowler's handwritten labels with manuscript names; e.g., such a label is present with the holotype of *E. pulcher*.

*Paratypes*

USNM 111878 (1), collected with holotype.  
USNM 122444 (1), [acc. no. 65731].

*Entomacrodus strasburgi* Springer, 1967:88.

*Holotype*

USNM 179202, immature male, 35.0 mm SL, Makapuu Point, Oahu, Hawaii, [collected by] W.A. Gosline and class, 21 Feb 1963, [acc. no. 248608].

*Paratypes*

USNM 199272 (3), collected with holotype.  
USNM 200283 (36), [acc. no. 264822].

*Ecsenius taeniatus* Springer, 1988:112, fig. 60.

*Holotype*

USNM 277494, female, 32 mm SL, Papua-New Guinea, Milne Bay District, Basilaki Island, coral reef, 0-20 ft [0--6 m], [collected by] T. Roberts, 22-25 Aug 1975, [acc. no. 323952].

*Paratype*

USNM 217566 (1), collected with holotype.

*Stanulus talboti* Springer, 1968:119.

*Holotype*

USNM 202421, adult male, 29.4 mm SL, [off reef on W side of One Tree Island, Capricorn Group, Great Barrier Reef, Australia, 7 Dec 1966, collected by V.G. Springer and party; acc. no. 267599].

Remarks: Springer (1968:120) erroneously switched the field data for the holotype and one lot of paratypes (USNM 201371, collected with the holotype) with that of the second lot of paratypes (USNM 201372). The following field data, published for the holotype, should have been given for USNM 201372: "south reef face (ocean side), about 1 mi [-1.6 km] from One Tree Island, Great Barrier Reef, Queensland, Australia, depth approx. 5 m, coll. 22 Nov 1966."

*Paratypes*

USNM 201371 (19, including 2 cleared and stained),

collected with holotype.

USNM 201372 (25) [20], [acc. no. 267599].

Remarks: Five of the original 25 specimens were exchanged to AMS in 1968.

*Salarias tanegasimae* Jordan and Starks, 1906:704.

Type [Paratypes]

USNM 53274 (1), [acc. no. 45618].

[USNM 111747 (5), acc. no. 45618.]

Remarks: All six USNM paratypes were originally cataloged as USNM 53274 and indicated as cotypes. According to two labels in L.P. Schultz' handwriting, 5 specimens were segregated as paratypes and recataloged as 111747, and the remaining specimen is the holotype. According to the original description the "type" (holotype) was cataloged as USNM 53274, but Springer and Eschmeyer (1974) present evidence that the holotype is CAS-SU 9363, which was referred to as "cotypes" (= paratypes) in the original description, but comprises a single specimen. See also remarks under *Blennioides ellipes*, *Petroscirtes loxozonus*, and *Salarias andersoni*.

*Parablennioides tasmanianus caledoniensis* (see under *caledoniensis*)

*Blennioides tetranemus* Cope, 1877:42.

Remarks: Not Blenniidae (Labrisomidae); see Stephens and Springer, 1974:10, who designated USNM 128213, holotype of *Labrisomus afuerae* Meek and Hildebrand, the neotype of *Blennioides tetranemus*.

*Alticus thalassinus* Jordan and Seale, 1906:425.

Type [Holotype]

USNM 51795, 1.5 in [32.1 mm SL; 37.3 mm TL = ~1.5 in], Apia, Samoa, [tin tag 02380 in jar].

*Alticus thalassinus longicirrus* (see under *longicirrus*)

*Blennioides thysanius* Jordan and Seale, 1907:47.

Type [Syntype]

USNM 53072 [should be 53071; 52.6 mm SL, 62.4 mm TL = ~2.4 in], Cavite, Luzon, Philippine Islands, coll. G.A. Lung, summer, 1900.

Remarks: The published catalog number is erroneous. According to the original description, two specimens were available, a "type" (USNM 53072, which should have been 53071), and "cotype" (SU 5292). The measurements given for these specimens are 2.50 in [63.5 mm] and 2.90 in [73.7 mm] [undoubtedly TL], without indication as to which measurement pertained to the type specimen. The illustration accompanying the description is noted as being drawn from the "type." The illustration shows an aberrant notch in the dorsal-fin margin between the 4th and 5th spines. Based on a half-inch scale accompanying the illustration, the drawing was based on a specimen 2.73 in [69.3 mm] TL. The specimen in CAS-SU 5292 has a

notch between the 4th and 5th spines, measures 71 mm TL (2.8 in), has a tag reading "drawn" tied to it, and the entry in the catalog ledger beside 5292 has "type" written in by the same handwriting as all the other entries on that page, some of which are noted as "cotypes" of other species (D. Catania, pers. comm.). The situation is similar to that reported for *Petroscirtes loxozonus* (q.v.) and other species by Springer and Eschmeyer (1974). Given the conflicting published type designations of CAS-SU 5292, it is best to consider both specimens as syntypes.

*Ecsenius tigris* Springer, 1988:98.

Paratypes

USNM 285461 (2), [acc. no. 373241], collected with holotype.

*Meiacanthus (Meiacanthus) tongaensis* Smith-Vaniz, 1987:43.

Paratypes

USNM 203765 (7), [acc. no. 273221].

*Alticus triangulus* Chapman, 1951:269.

Paratypes

Remarks: The original description, which gives no catalog numbers, mentions among the paratypes, 40 from the Andaman Islands. There are presently 20 paratypes, in five lots, from the Andamans at USNM. According to the USNM catalog ledgers, these five lots initially contained 71 specimens (the others are indicated only as "to Indian Museum"). Additionally, five more USNM lots containing a total of 25 specimens from the Andamans were cataloged as paratypes. All five of these lots are indicated in the ledgers as "to Indian Museum." Thus, a grand total of 96 specimens from the Andaman Islands were originally cataloged as USNM paratypes. Adding to the discrepancy in number of paratypes from the Andaman Islands, is Böhlke's (1953:92) listing of 39 paratypes in 4 lots at Stanford University.

[USNM 112034 (4), acc. no. 180183.]

[USNM 144426 (4; originally 14; "10 to Indian Museum"), acc. no. 186096.]

[USNM 144517 (0; originally 1; "to Indian Museum").]

[USNM 144518 (0; originally 7; "to Indian Museum").]

[USNM 144519 (3; originally 11; "8 to Indian Museum"), acc. no. 186096.]

[USNM 144520 (0; originally 1; "to Indian Museum").]

[USNM 144521 (0; originally 10; "to Indian Museum").]

[USNM 144522 (0; originally 6; "to Indian Museum").]

[USNM 144531 (2; originally 6; "4 to Indian Museum"), acc. no. 186096.]

[USNM 144550 (7; originally 36; 6 previously listed in ledger; "30 to Indian Museum"), acc. no. 186096.]

*Ecsenius (Ecsenius) trilineatus* Springer, 1972b:2.**Holotype**

USNM 205705, male, 25.6 mm SL, New Guinea, Trobriand Islands, off Towai Pt., NW pt. Kiriwina Island, 0–7.6 m, collected by B.B. Collette et al., 8 Jun 1970, [acc. no. 289275].

**Paratypes**

USNM 202477 (1), [see remarks under *Ecsenius bandanus*; acc. no. 144662].  
 USNM 205703 (1), [acc. no. 289275].  
 USNM 205704 (1), [acc. no. 289275].  
 USNM 206378 (3), collected with holotype.

*Salarias undecimalis* Jordan and Seale, 1905:801.**Type [Holotype]**

USNM 51942, 2 in [41.6 mm SL; 52.2 mm TL = 2.0+ in], S shore of Negros Island, Philippine Archipelago, winter of 1900 and 1901, collected by B. Dean, [acc. no. 38683].

**[Paratype]**

[USNM 138302 (1)]

Remarks: Originally part of USNM 51942. The original description mentions a total of four specimens. Böhlke (1951:94) indicates the presence of two paratypes in the Stanford collection, thus accounting for all type specimens.

*Hypleurochilus vaillanti* Jordan and Seale, 1906:420.**Type [Holotype]**

USNM 51788, 0.56 in [14.2 mm], Pago Pago, Samoa, summer, 1902.

*Omobranchus verticalis* Springer and Gomon, 1975:71.**Paratype**

USNM 210616 (1), [acc. no. 301129], collected with holotype.

*Cirripectes viriosus* Williams, 1988:73.**Holotype**

USNM 289070, male, 115 mm SL, Philippines, Balugn [Balugan] Bay, Batanes Prov., near Desquid Point, Batan Island, 20°26'N, 121°57'55"E; 0–3 m; [collected by] G.D. Johnson and W.F. Smith-Vaniz; 23 Apr 1987, [acc. no. 374820].

**Paratypes**

USNM 283820 (1), [acc. no. 372190].

*Meiacanthus (Meiacanthus) vittatus* Smith-Vaniz, 1976:93.**Holotype**

USNM 201453, male, 45.5 mm SL, New Guinea, Madang Harbor, [collected by] W.A. Starck, 5 Apr 1972, [acc. no. 300302].

**Paratypes**

USNM 205677 (4), [acc. no. 289275].

*Ophioblennius watsoni* Reid, 1943:376.**Holotype**

USNM 89614, 46 mm SL, Anse à Galets, La Gonave

Island, Haiti, W[est] I[ndies], 22 Mar 1930, collected by W. M. Perrygo, [acc. no. 109546].

**Paratype**

USNM 120097 (1) [0], same collection data as holotype.  
 Remarks: Not found during 1980 inventory. (See also remarks under *Ophioblennius fernandezensis*.)

*Fallacirripectes wellsi* Schultz and Chapman, 1960:365.**Holotype**

USNM 142154, male, 13.5 mm SL, Rongelap Atoll, Bowditch anchorage, half mi [–0.8 km] off Rongelap Island, [collected by E.S.] Herald, 17–27 Jul [1946], [acc. no. 172586].

*Petroscirtes xestus* Jordan and Seale, 1906:433.**Type [Holotype]**

USNM 51797, 0.56 in [13.6+ mm TL = 0.54+ in—caudal fin slightly damaged], Pago, Samoa, summer, 1902.

*Ophioblennius xiphodon* Clark, 1938:183.**Paratypes**

CAS 5544-5550 [USNM 120026 (2) (0)], [acc. no. 163641].

Remarks: These specimens were originally two of seven cataloged as CAS 5544–5550 and exchanged to USNM in 1942. Both specimens were missing before 1 June 64, and perhaps as early as 1943. (See also remarks under *Ophioblennius fernandezensis*.)

*Blennius yatabei* Jordan and Snyder, 1900:374.**Type [Holotype]**

USNM 49404, near Misaki, Japan, collected by *Albatross*.  
 Remarks: A penciled label in the jar with the holotype states, in part: Yokohama, Japan, [acc. no. 36692].

*Salarias zamboangae* Evermann and Seale, 1906:512.**Type [Holotype]**

USNM 55623, 2.85 in [72.2 mm TL = 2.84 in], Caldera Bay, Zamboanga, Mindanao, Philippine Islands, 1904, collected by E.A. Mearns, [acc. no. 45935].

Remarks: A paper tag tied to the holotype reads "Type. To be drawn." Another paper tag reads, among other entries, "Type OK drawn."

**Cotypes [Paratypes]**

SU 10007 (1) and USBF 1496 (1) [USNM 291687 (2), acc. no. 45935].

Remarks: Although Evermann and Seale (1906:512) reported that the two paratypes were cataloged at different institutions, both paratypes and the holotype, at some point, were all cataloged as USNM 55623. We segregated the holotype as USNM 55623 and had the two paratypes recataloged as USNM 291687. Böhlke (1953:94) was in error in reporting that one paratype was cataloged as SU 10007. Although SU 10007 is indicated as a cotype in the original description, the SU ledger indicates this number is assigned to a scorpaenid, *Sebastes pinniger*.

## Literature Cited

- Anonymous  
 1903. Records of the Dredging and Other Collecting Stations of the U.S. Fish Commission Steamer Albatross in 1901 and 1902. *U.S. Commission of Fish and Fisheries, Report of the Commissioner for the Year Ending June 30, 1902*, 28:397-432. [Separate published 1903, volume published 1904.]
- Bath, H.  
 1968. Untersuchung von *Blennius zvonimiri* Kolombatovic und Beschreibung von *Blennius incognitus* n. sp. aus dem Mittelmeer (Pisces, Blennioidea, Blenniidae). *Senckenbergiana Biologica*, 49(5):367-386.  
 1976. Revision der Blenniini (Pisces: Blenniidae). *Senckenbergiana Biologica*, 57(4/6):167-234.  
 1983a. *Omobranchus hikkaduwensis* n. sp. von Ceylon (Pisces: Blenniidae). *Senckenbergiana Biologica*, 64(1/3):25-30.  
 1983b. Revision der Gattung *Antennablennius* Fowler 1931 mit Beschreibung einer neuen Art und Untersuchung der taxonomischen Stellung von *Antennablennius anuchalis* Springer & Spreitzer 1978 (Pisces: Blenniidae). *Senckenbergiana Biologica*, 64(1/3):47-80.  
 1989. Eine weitere Unterart von *Parablennius tasmanianus* (Richardson, 1849) (Pisces: Blenniidae). *Senckenbergiana Biologica*, 69(4/6):293-300.
- Beebe, W., and J. Tee-Van  
 1928. The Fishes of Port-au-Prince Bay, Haiti. *Zoologica*, 10(1):1-279.
- Böhlke, E.B.  
 1984. Catalog of Type Specimens in the Ichthyological Collection of the Academy of Natural Sciences of Philadelphia. *Academy of Natural Sciences of Philadelphia, Special Publication*, 14:i-viii, 1-246.
- Böhlke, J.E.  
 1953. A Catalogue of the Type Specimens of Recent Fishes in the Natural History Museum of Stanford University. *Stanford Ichthyological Bulletin*, 5:1-168.
- Bonaparte, C.L.P.  
 1832-1841. Iconografia della fauna italia per le quattro classi degli animali vertebrat. *Pesci*, 3(1-2), 30 fascicolo, 75 puntata, 75 plates, not paginated.
- Brock, V.E.  
 1948. A New Blennoid Fish from Hawaii. *Pacific Science*, 2(2):125-127.
- Carlson, B.A.  
 1981. A New Indo-Pacific Fish of the Genus *Cirripectes* (Blenniidae, Salariae). *Pacific Science*, 34(4):407-414.
- Chapman, W.M.  
 1951. Family Blenniidae. In L.F. De Beaufort, *Fishes of the Indo-Australian Archipelago*, 9:243-355.
- Chapman, W.M., and L.P. Schultz  
 1952. Review of the Fishes of the Blennoid Genus *Ecsenius*, with Descriptions of Five New Species. *Proceedings of the United States National Museum*, 102(3310):507-528.
- Clark, H.W.  
 1938. The Templeton Crocker Expedition of 1934-35, No. 36: Additional New Fishes. *Proceedings of the California Academy of Sciences*, series 4, 22(7):179-185.
- Cope, E.D.  
 1877. Synopsis of the Cold Blooded Vertebrata Procured by Prof. J. Orton during His Exploration of Peru in 1876-1877: Pisces. *Proceedings of the American Philosophical Society*, 17:33-49.
- Cuvier, G.F.L.C.D., and A. Valenciennes  
 1836. *Histoire naturelle des poissons*, 11:1-506, 26 plates.
- Evermann, B.W., and A. Seale  
 1906. Fishes Collected in the Philippine Islands by Maj. Edgar A. Mearns, Surgeon, U.S. Army. *Proceedings of the United States National Museum*, 31(1491):505-512.
- Fowler, H.W.  
 1932a. The Fishes Obtained by the Pinchot South Seas Expedition of 1929, with Description of One New Genus and Three New Species. *Proceedings of the United States National Museum*, 80(2906):1-16.  
 1932b. The Fishes Obtained by Lieut. H.C. Kellers of the United States Naval Eclipse Expedition of 1930, at Niuafoou Island Tonga Group, in Oceania. *Proceedings of the United States National Museum*, 81(2931):1-9.
- Fowler, H.W., and S.C. Ball  
 1924. Description of New Fishes Obtained by the Tanager Expedition of 1923 in the Pacific Islands West of Hawaii. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 76:269-274.  
 1925. Fishes of Hawaii, Johnston Island, and Wake Island. *Bernice P. Bishop Museum Bulletin*, 26:1-31.
- Fowler, H.W., and B.A. Bean  
 1923. Descriptions of Eighteen New Species of Fishes from the Wilkes Exploring Expedition, Preserved in the United States National Museum. *Proceedings of the United States National Museum*, 63(2488):1-27.
- Gill, T.  
 1859. Description of a New Genus of Salariae, from the West Indies. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 11:168.  
 1865. On a Remarkable New Type of Fishes Allied to *Nemophis*. *Annals of the Lyceum of Natural History in New York*, 8:138-141, plate 3: figure 1.
- Girard, C.  
 1854. Observations upon a Collection of Fishes Made on the Pacific Coast of the United States, by Lieut. W.P. Trowbridge, U.S.A., for the Museum of the Smithsonian Institution. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 7:142-156.  
 1858. Notes upon Various New Genera and New Species of Fishes, in the Museum of the Smithsonian Institution, and Collected in Connection with the United States and Mexican Boundary Survey: Major William Emory, Commissioner. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 10:167-171.  
 1859. Ichthyology of the Boundary. *United States and Mexican Boundary Survey*, 2(2):1-85, 41 plates.
- Goode, G.B., and T.H. Bean  
 1882. Descriptions of Twenty-five New Species of Fish from the Southern United States, and Three New Genera, *Letharcus*, *Ioglossus*, and *Chriodorus*. *Proceedings of the United States National Museum*, 5(297):412-437.
- Herre, A.W.C.T.  
 1935. New Fishes Obtained by the Crane Pacific Expedition. *Field Museum of Natural History, Zoological Series*, 18(12):383-455.  
 1936. Notes on Fishes in the Zoological Museum of Stanford University, V: New or Rare Philippine Fishes from the Herre 1933 Philippine Expedition. *Philippine Journal of Science*, 59(3):357-373, plates 1-2.  
 1942. Notes on Fishes in the Zoological Museum of Stanford University,



- IX: A New Species of *Salarias*, with a Key to the Philippine Species. *Proceedings of the Biological Society of Washington*, 55:1-8.
- Hildebrand, S.F.  
1946. A Descriptive Catalog of the Shore Fishes of Peru. *Bulletin of the United States National Museum*, 189:i-xi, 1-530.
- Jenkins, O.P.  
1903. Report on Collections of Fishes Made in the Hawaiian Islands, with Descriptions of New Species. *Bulletin of the United States Fish Commission*, 1902, 22:417-538, plates 1-13.
- Jordan, D.S.  
1882. Description of a New Species of Blenny (*Isesthes gilberti*) from Santa Barbara, California. *Proceedings of the United States National Museum*, 5(288):349-351.
- Jordan, D.S., and C.H. Bollman  
1889 ("1890"). Scientific Results of Explorations by the U.S. Fish Commission Steamer *Albatross*, IV: Descriptions of New Species of Fishes Collected at the Galapagos Islands and Along the Coast of the United States of Colombia, 1887-'88. *Proceedings of the United States National Museum*, 12(770):149-183.
- Jordan, D.S., and B.W. Evermann  
1898. The Fishes of North and Middle America: A Descriptive Catalogue of the Species of Fish-like Vertebrates Found in the Waters of North America, North of the Isthmus of Panama. *Bulletin of the United States National Museum*, 47(3):i-xxiv, 2183-3136.  
1900. The Fishes of North and Middle America: A Descriptive Catalogue of the Species of Fish-like Vertebrates Found in the Waters of North America, North of the Isthmus of Panama. *Bulletin of the United States National Museum*, 47(4):i-ci, 3137-3313, plates 1-392.
- Jordan, D.S., and C.H. Gilbert  
1882. Description of Thirty-three New Species of Fishes from Mazatlan, Mexico. *Proceedings of the United States National Museum*, 4(237):338-365.  
1883. Notes on Fishes Observed about Pensacola, Florida, and Galveston, Texas, with Description of New Species. *Proceedings of the United States National Museum*, 5(282):241-307.
- Jordan, D.S., and A. Seale  
1905. List of Fishes Collected by Dr. Bashford Dean on the Island of Negros, Philippines. *Proceedings of the United States National Museum*, 28(1407):769-803.  
1906. The Fishes of Samoa. *Bulletin of the Bureau of Fisheries*, 1905, 25:173-455, plates 38-53.  
1907. Fishes of the Islands of Luzon and Panay. *Bulletin of the Bureau of Fisheries*, 1906, 26:3-48.
- Jordan, D.S., and J.O. Snyder  
1900. A List of Fishes Collected in Japan by Keinosuke Otaki, and by the United States Steamer *Albatross*, with Descriptions of Fourteen New Species. *Proceedings of the United States National Museum*, 23(1213):335-380, plates 9-20.  
1902. A Review of the Blennioid Fishes of Japan. *Proceedings of the United States National Museum*, 25(1293):441-504.
- Jordan, D.S., and E.C. Starks  
1906. List of Fishes Collected on Tanega and Yaku, Offshore Islands of Southern Japan, by Robert Van Vleck Anderson, with Descriptions of Seven New Species. *Proceedings of the United States National Museum*, 30(1462):695-706.
- Kendall, W.C., and E.L. Goldsborough  
1911. Reports on the Scientific Results of the Expedition to the Tropical Pacific, in Charge of Alexander Agassiz by the U.S. Fish Commission Steamer "Albatross," from August, 1899, to March, 1900, Commander Jefferson F. Moser, U.S.N., Commanding, XIII: The Shore Fishes. *Memoirs of the Museum of Comparative Zoology*, 26(7):243-344, plates 1-7.
- Kendall, W.C., and L. Radcliffe  
1912. Reports on the Scientific Results of the Expedition to the Eastern Tropical Pacific, in Charge of Alexander Agassiz by the U.S. Fish Commission Steamer "Albatross," from October 1904, to March, 1905, Lieut. Commander L.M. Garrett, U.S.N., Commanding, XXV: The Shore Fishes. *Memoirs of the Museum of Comparative Zoology*, 35(3):77-171, plates 1-8.
- Kner, R., and F. Steindachner  
1866. Neue Fische aus der Herren Joh. C. Godeffroy & Sohn in Hamburg. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften in Wien*, 54:356-395.
- Krejsa, R.J.  
1960. The Eastern, Tropical Pacific Fishes of the Genus *Blenniulus*, Including a New Island Endemic. *Copeia*, 1960(4):322-336.
- Leviton, A.E., and R.H. Gibbs, Jr.  
1988. Standards in Herpetology and Ichthyology: Standard Symbolic Codes for Institution Resource Collections in Herpetology and Ichthyology, Supplement No. 1: Additions and Corrections. *Copeia*, 1988(1):280-282.
- Leviton, A.E., R.H. Gibbs, Jr., E. Heal, and C.E. Dawson  
1985. Standards in Herpetology and Ichthyology, Part I: Standard Symbolic Codes for Institutional Resource Collections in Herpetology and Ichthyology. *Copeia*, 1985(3):802-832.
- McKinney, J.F., and V. G. Springer  
1976. Four New Species of the Fish Genus *Ecsenius* with Notes on Other Species of the Genus (Blenniidae: Salariae). *Smithsonian Contributions to Zoology*, 236: 27 pages.
- Meek, S.E., and S.F. Hildebrand  
1928. The Marine Fishes of Panama, Part III. *Field Museum of Natural History*, Publication 249, Zoological Series, 15:xxvi-xxxii, 709-1045, plates 72-102.
- Randall, J.E.  
1966. The West Indian Blennioid Fishes of the Genus *Hypoleurochilus*, with the Description of a New Species. *Proceedings of the Biological Society of Washington*, 79(9):57-71.
- Regan, C.T.  
1909. A Collection of Fishes Made by Dr. C.W. Andrews, F.R.S., at Christmas Island. *Proceedings of the Zoological Society of London*, 1909:403-406.
- Reid, E.D.  
1943. Review of the Genera of Blennioid Fishes Related to *Ophioblennius*. *Journal of the Washington Academy of Sciences*, 33(12):373-384.
- Schultz, L.P.  
1942. Notes on Some Fishes from the Gulf of California, with the Description of a New Genus and Species of Blennioid Fish. *Journal of the Washington Academy of Sciences*, 32(5):153-156.  
1943. Fishes of the Phoenix and Samoan Islands Collected in 1939 during the Expedition of the U.S.S. "Bushnell." *United States National Museum Bulletin*, 180:1-316.  
1961. A Short History of the Division of Fishes, United States National Museum, December 15, 1856 to December 15, 1956. *Copeia*, 1961(1):120-123.
- Schultz, L.P., and W.M. Chapman  
1960. Subfamily Salariae. In Fishes of the Marshall and Marianas Islands. *United States National Museum Bulletin*, 202(2):302-372, plates 113-119 and 120: figure c.
- Smith-Vaniz, W.F.  
1969. A New Species of *Meiacanthus* (Pisces: Blenniidae: Nemophini) from the Red Sea, with a Review of the Indian Ocean. *Proceedings of the Biological Society of Washington*, 82:349-354.  
1976. The Saber-Toothed Blennies, Tribe Nemophini (Pisces: Blenniidae). *Academy of Natural Sciences of Philadelphia, Monograph*, 19:1-196, frontispiece.  
1980. Revision of Western Atlantic Species of the Blennioid Fish Genus *Hypsoblennius*. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 132:285-305.

1987. The Saber-Toothed Blennies, Tribe Nemophini (Pisces: Blenniidae): An Update. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 139:1-52.
- Smith-Vaniz, W.F., and V.G. Springer  
1971. Synopsis of the Tribe Salariaiini, with Description of Five New Genera and Three New Species (Pisces: Blenniidae). *Smithsonian Contributions to Zoology*, 73: 72 pages.
- Snyder, J.O.  
1908. Descriptions of Eighteen New Species and Two New Genera of Fishes from Japan and the Riu Kiu Islands. *Proceedings of the United States National Museum*, 35(1635):93-111.
- Springer, V.G.  
1959. Blennioid Fishes of the Genus *Chasmodes*. *Texas Journal of Science*, 9(3):321-334.  
1962. A Review of the Blennioid Fishes of the Genus *Ophioblennius* Gill. *Copeia*, 1962(2):426-433.  
1966. A New Species of the Blennioid Fish Genus *Entomacrodus* from the Eastern Atlantic Ocean. *Atlantide Report*, 9:59-61, plate 6.  
1967. Revision of the Circumtropical Shorefish Genus *Entomacrodus* (Blenniidae: Salariaiinae). *Proceedings of the United States National Museum*, 122(3582):1-150, plates 1-30.  
1968. The Indo-Pacific Blennioid Fish Genus *Stanulus*, with Description of a New Species from the Great Barrier Reef (Blenniidae; Blenniinae; Salariaiini). *Proceedings of the Biological Society of Washington*, 81(15):111-121.  
1971. Revision of the Fish Genus *Ecsenius* (Blenniidae, Blenniinae, Salariaiini). *Smithsonian Contributions to Zoology*, 72: 74 pages.  
1972a. Synopsis of the Tribe Omobranchini with Descriptions of Three New Genera and Two New Species (Pisces: Blenniidae). *Smithsonian Contributions to Zoology*, 130: 31 pages.  
1972b. Additions to Revisions of the Blennioid Fish Genera *Ecsenius* and *Entomacrodus*, with Descriptions of Three New Species of *Ecsenius*. *Smithsonian Contributions to Zoology*, 134: 13 pages.  
1976. *Cirrisalarias bunares*, New Genus and Species of Blennioid Fish From the Indian Ocean. *Proceedings of the Biological Society of Washington*, 89(13):199-203.  
1981. Notes on Blennioid Fishes of the Tribe Omobranchini, with Descriptions of Two New Species. *Proceedings of the Biological Society of Washington*, 94(3):699-707.  
1988. The Indo-Pacific Blennioid Fish Genus *Ecsenius*. *Smithsonian Contributions to Zoology*, 465: 134 pages, 14 plates.
- Springer, V.G., and W.N. Eschmeyer  
1974. Location of Holotypes of Japanese Fishes (Jordan and Starks, 1906) and Types of Hawaiian Fishes (Jordan and Evermann, 1903). *Copeia*, 1974(2):566-569.
- Springer, V.G., and M.F. Gomon  
1975. Revision of the Blennioid Fish Genus *Omobranchus* with Descriptions of Three New Species and Notes on Other Species of the Tribe Omobranchini. *Smithsonian Contributions to Zoology*, 177: 135 pages.
- Springer, V.G., and W.F. Smith-Vaniz  
1970. *Blennius antholops*, New Deep-water Fish, from the Gulf of Guinea, with Comments on the Bathymetric Distribution of the Family Blenniidae. *Proceedings of the Biological Society of Washington*, 83(20):215-220.
- Springer, V.G., and A.E. Spreitzer  
1978. Five New Species and a New Genus of Indian Ocean Blennioid Fishes, Tribe Salariaiini, with a Key to Genera of the Tribe. *Smithsonian Contributions to Zoology*, 268: 20 pages.
- Starck, W.A., II  
1969. *Ecsenius (Anthioblennius) midas*, a New Subgenus and Species of Mimic Blenny from the Western Indian Ocean. *Notulae Naturae*, 419:1-9.
- Steindachner, F.  
1876. Ichthyologische Beiträge (V). *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften in Wien*, 74:49-240.
- Stephens, J.S., Jr., and V.G. Springer  
1974 ("1973"). Clinid Fishes of Chile and Peru, with Description of a New Species, *Myxodes ornatus*, from Chile. *Smithsonian Contributions to Zoology*, 159:24 pages.
- Strasburg, D.W.  
1956. Notes on the Blennioid Fishes of Hawaii with Descriptions of Two New Species. *Pacific Science*, 10(3):241-267.
- Strasburg, D.W., and L.P. Schultz  
1953. The Blennioid Fish Genera *Cirripectes* and *Exallias* with Descriptions of Two New Species from the Tropical Pacific. *Journal of the Washington Academy of Sciences*, 43(4):128-135.
- Tavolga, W.N.  
1954. A New Species of Fish of the Genus *Blennius* from Florida. *Copeia*, 1954(2):135-139.
- Vari, R.P., and J.C. Howe  
In press. Catalogue of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 1: Characiformes (Teleostei, Ostariophysi). *Smithsonian Contributions to Zoology*, 517.
- Williams, J.T.  
1983. Taxonomy and Ecology of the Genus *Chasmodes* (Pisces: Blenniidae) with a Discussion of Its Zoogeography. *Bulletin of the Florida State Museum, Biological Sciences*, 29(2):65-100.  
1985. *Cirripectes imitator*, a New Species of Western Pacific Blennioid Fish. *Proceedings of the Biological Society of Washington*, 98:533-538.  
1988. Phylogenetic Relationships and Taxonomic Revision of the Blennioid Fish Genus *Cirripectes*. *Indo-Pacific Fishes*, 17:1-78.  
1990. Phylogenetic Relationships and Revision of the Blennioid Fish Genus *Scartichthys*. *Smithsonian Contributions to Zoology*, 492: 30 pages.
- Williams, J.T., and L.A. Maugé  
1983. *Cirripectes chelomatus*, a New Species of Salarine Fish (Pisces, Blenniidae). *Bulletin Muséum National d'Histoire Naturelle*, series 4, 5(section A, no.4):1139-1149.
- Wirtz, P., and H. Bath  
1988. *Lipophrys caboverdensis* n. sp. from the Cape Verde Islands (Pisces: Blenniidae). *Senckenbergiana Biologica*, 69(1/3):15-27.

## REQUIREMENTS FOR SMITHSONIAN SERIES PUBLICATION

**Manuscripts** intended for series publication receive substantive review (conducted by their originating Smithsonian museums or offices) and are submitted to the Smithsonian Institution Press with Form SI-36, which must show the approval of the appropriate authority designated by the sponsoring organizational unit. Requests for special treatment—use of color, foldouts, case-bound covers, etc.—require, on the same form, the added approval of the sponsoring authority.

**Review** of manuscripts and art by the Press for requirements of series format and style, completeness and clarity of copy, and arrangement of all material, as outlined below, will govern, within the judgment of the Press, acceptance or rejection of manuscripts and art.

**Copy** must be prepared on typewriter or word processor, double-spaced, on one side of standard white bond paper (not erasable), with 1¼" margins, submitted as ribbon copy (not carbon or xerox), in loose sheets (not stapled or bound), and accompanied by original art. Minimum acceptable length is 30 pages.

**Front matter** (preceding the text) should include: **title page** with only title and author and no other information, **abstract page** with author, title, series, etc., following the established format; table of **contents** with indents reflecting the hierarchy of heads in the paper; also, **foreword** and/or **preface**, if appropriate.

**First page of text** should carry the title and author at the top of the page; **second page** should have only the author's name and professional mailing address, to be used as an unnumbered footnote on the first page of printed text.

**Center heads** of whatever level should be typed with initial caps of major words, with extra space above and below the head, but no other preparation (such as all caps or underline, except for the underline necessary for generic and specific epithets). Run-in paragraph heads should use period/dashes or colons as necessary.

**Tabulations** within text (lists of data, often in parallel columns) can be typed on the text page where they occur, but they should not contain rules or numbered table captions.

**Formal tables** (numbered, with captions, boxheads, stubs, rules) should be submitted as carefully typed, double-spaced copy separate from the text; they will be typeset unless otherwise requested. If camera-copy use is anticipated, do not draw rules on manuscript copy.

**Taxonomic keys** in natural history papers should use the aligned-couplet form for zoology and may use the multi-level indent form for botany. If cross referencing is required between key and text, do not include page references within the key, but number the keyed-out taxa, using the same numbers with their corresponding heads in the text.

**Synonymy** in zoology must use the short form (taxon, author, year:page), with full reference at the end of the paper under "Literature Cited." For botany, the long form (taxon, author, abbreviated journal or book title, volume, page, year, with no reference in "Literature Cited") is optional.

**Text-reference system** (author, year:page used within the text, with full citation in "Literature Cited" at the end of the text) must be used in place of bibliographic footnotes in all Contributions Series and is strongly recommended in the Studies Series: "(Jones. 1910:122)" or "... Jones (1910:122)." If bibliographic

footnotes are required, use the short form (author, brief title, page) with the full citation in the bibliography.

**Footnotes**, when few in number, whether annotative or bibliographic, should be typed on separate sheets and inserted immediately after the text pages on which the references occur. Extensive notes must be gathered together and placed at the end of the text in a notes section.

**Bibliography**, depending upon use, is termed "Literature Cited," "References," or "Bibliography." Spell out titles of books, articles, journals, and monographic series. For book and article titles use sentence-style capitalization according to the rules of the language employed (exception: capitalize all major words in English). For journal and series titles, capitalize the initial word and all subsequent words except articles, conjunctions, and prepositions. Transliterate languages that use a non-Roman alphabet according to the Library of Congress system. Underline (for italics) titles of journals and series and titles of books that are not part of a series. Use the parentheses/colon system for volume (number): pagination: "10(2):5-9." For alignment and arrangement of elements, follow the format of recent publications in the series for which the manuscript is intended. Guidelines for preparing bibliography may be secured from Series Section, SI Press.

**Legends** for illustrations must be submitted at the end of the manuscript, with as many legends typed, double-spaced, to a page as convenient.

**Illustrations** must be submitted as original art (not copies) accompanying, but separate from, the manuscript. Guidelines for preparing art may be secured from Series Section, SI Press. All types of illustrations (photographs, line drawings, maps, etc.) may be intermixed throughout the printed text. They should be termed **Figures** and should be numbered consecutively as they will appear in the monograph. If several illustrations are treated as components of a single composite figure, they should be designated by lowercase italic letters on the illustration; also, in the legend and in text references the italic letters (underlined in copy) should be used: "Figure 9b." Illustrations that are intended to follow the printed text may be termed **Plates**, and any components should be similarly lettered and referenced: "Plate 9b." Keys to any symbols within an illustration should appear on the art rather than in the legend.

**Some points of style:** Do not use periods after such abbreviations as "mm, ft, USNM, NNE." Spell out numbers "one" through "nine" in expository text, but use digits in all other cases if possible. Use of the metric system of measurement is preferable; where use of the English system is unavoidable, supply metric equivalents in parentheses. Use the decimal system for precise measurements and relationships, common fractions for approximations. Use day/month/year sequence for dates: "9 April 1976." For months in tabular listings or data sections, use three-letter abbreviations with no periods: "Jan, Mar, Jun." etc. Omit space between initials of a personal name: "J.B. Jones."

**Arrange and paginate sequentially every sheet of manuscript** in the following order: (1) title page, (2) abstract, (3) contents, (4) foreword and/or preface, (5) text, (6) appendixes, (7) notes section, (8) glossary, (9) bibliography, (10) legends, (11) tables. Index copy may be submitted at page proof stage, but plans for an index should be indicated when manuscript is submitted.

