

東京大学総合研究博物館
標本資料報告 第 139 号

The University Museum, The University of Tokyo
Material Reports No. 139

東京大学総合研究博物館動物部門所蔵
魚類標本リスト(4)

**Catalogue of fish collection deposited
in the Department of Zoology,
The University Museum, The University of Tokyo
Vol. 4**

藤原恭司・和田英敏・上島 励
Kyoji FUJIWARA, Hidetoshi WADA and Rei UESHIMA

令和 7 年 東京
2025 TOKYO

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はしがき

本書は『東京大学総合研究博物館動物部門所蔵 魚類標本リスト(3)』(2024)に次ぐ第4号の標本資料報告である。2021年5月から本学総合研究博物館特任助教(当時)の小枝圭太を中心とし研究事業協力者や外部研究者、ボランティアの協力を得た本学総合研究博物館動物部門所蔵の魚類標本(ZUMT: The Department of Zoology, The University Museum, The University of Tokyo)コレクションの整理作業が始まり、2023年1月から2024年3月までは第二編者主導のもとで実施され、2024年4月から現在までは本学総合研究博物館研究事業協力員の藍澤正宏の主導のもとで継続されている。2023年以降は本学総合研究博物館ウェブサイトでの標本データの公開作業も進められており、現在までに第1~3号の標本資料報告のPDFファイルと未整理のものを含めたZUMT全標本リストが公開されている。

この標本資料報告においては、17報の個別のタクソンの標本目録、および1報のタイプ標本目録を掲載することが出来た。これらの報告はいずれも単なる目録にとどまらず、各タクソンの分類学、生物地理学、および博物学的知見を盛り込んだディスカッションを含む意欲的な内容となっており、各タクソンの研究における基礎資料となることも期待される。

これまでの活動により、ZUMTコレクションの活発な利用へと繋がり、新たな学術的発見へと繋がっていくことを切に願う。なお、標本整理作業は現在も引き続きすすめられており、今号に掲載できなかった分類群の標本目録については次号以降にて掲載する予定である。

本プロジェクトの推進および本目録の出版に際しては多くの方々のご協力を得た。東京大学総合研究博物館の研究部教員、事務職員の方々には様々な御支援をいただいた。本プロジェクトは、平成11-令和6年度の本学総合研究博物館プロジェクト研究経費、公開利用経費、および第二編者に対するJSPS 科研費(24K16204)による援助を受けて実施された。本学総合研究博物館研究事業協力員の藍澤正宏氏、坂本一男氏、および望月健太郎氏、鹿児島大学総合研究博物館の本村浩之氏、松本達也氏、幸大二郎氏、出羽優風氏、および畑瑛之郎氏、琉球大学の小枝圭太氏、沖縄科学技術大学院大学の畑 晴陵氏、新江ノ島水族館の園山貴之氏、京都大学総合博物館の松沼瑞樹氏、水産研究・教育機構の岡本 誠氏、北海道大学の樋口淳也氏と河合俊郎氏、東京大学の尾山大知氏、滋賀県立琵琶湖博物館の川瀬成吾氏、および早稲田大学の青沼龍太郎氏には標本の観察や同定、管理・維持作業に加え原稿の執筆をいただいた。ボランティアの小林健二氏および高橋あゆみ氏、東京海洋大学の江藤 暁氏、金子友哉氏および藤原好生氏、東京大学の深谷真央氏、田園調布雙葉中学校・高等学校の刑部南月子氏、および麻布学園生物部の馬淵俊輔氏、大井慈陽氏、関 航志氏、および坂井應介氏にはZUMT 標本の管理・維持作業を手伝っていただいた。これらの方々に、この場を借りて、厚くお礼申し上げたい。最後に、ZUMT 標本が今日に至るまでに多大な貢献をいただいた故富永義昭氏に深い感謝の意を示したい。

2025年2月8日

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東京大学総合研究博物館動物部門収蔵の魚類タイプ標本－第6部：ハゼ亜目，サバ亜目，カジキ亜目，タイワンドジョウ亜目，カレイ目，フグ目

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Specimens of Platyrrhinidae and Myliobatiformes deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

An investigation of specimens representing the family Platyrrhinidae (Torpediniformes) and order Myliobatiformes deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT), the oldest fish specimen collection institution in Japan, recognized one platyrrhinid species, and five families, including nine genera and 12 species belonging to Myliobatiformes, collected in waters around Japan. However, the latter total represented only 34.3% of the total number of Myliobatiformes (35 species in 20 genera, representing nine families), that have been recorded from Japan. Including collections made elsewhere, ZUMT myliobatiforme specimens totaled 20 species in 12 genera, also representing five families.

Introduction

Globally, the fanray family Platyrrhinidae comprises two genera, with *Platyrrhina* (including four species) occurring in Asia. Two of the four species are known from Japan (Iwatsuki et al., 2011; Last et al., 2016). Nine families, including 20 genera and 35 species of the order Myliobatiformes, one species of them having as yet unresolved taxonomy (Furumitsu and Yamaguchi, 2010, 2015; Nakabo, 2013; Ishihara et al., 2018, 2019; Hata and Motomura, 2024; Motomura, 2024), occurring in Japanese water.

The present investigation and re-identification of specimens representing the family Platyrrhinidae and order Myliobatiformes, deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT), resulted in a newly revised catalogue of the specimens, which is provided herein.

Material and Methods

Identifications of ZUMT specimens and scientific nomenclature generally followed Furumitsu and Yamaguchi (2010, 2015), Iwatsuki et al. (2011), Nakabo (2013), White et al. (2015a, b), Last et al. (2016), Ishihara et al. (2018) and Hata and Motomura (2024).

Disc widths, expressed as DW (Myliobatiformes), were measured at the greatest distance. Total lengths, expressed as TL (Platyrrhinidae) were measured from head tip to tail tip. Sex was determined by the presence or absence of claspers. Disc widths of specimens were generally measured for each specimen, although only of the largest and smallest specimens when a large number were included in a single lot.

The following list includes ZUMT number, number of specimens in parentheses when two or more, DW, sex, collection locality, collection date, collector or donator and affiliation, collection method, and remarks when applicable. Collection data of specimens are omitted if the same as that for the previous specimen. In this list, ZUMT specimens are enumerated as “ZUMT XXXX”, those of the “ABE collection”, accumulated by Dr. Tokiharu ABE (阿部宗明) but not formally registered as part of the ZUMT collection, being enumerated as “ZUMT ABE XXXX.”

Results and Discussion

Re-identifications of specimen deposited in ZUMT revealed only one Japanese species of the family Platyrrhinidae and 12 Japanese species (nine genera in five families) of the order Myliobatiformes. The latter represented only 34.3% of the total number of Myliobatiformes (35 species in 20 genera, representing nine families), that have been recorded from Japan. Such limited result may have been related to the difficulty of keeping larger myliobatiforme specimens, as well as the generally low commercial value of such fishes, resulting in discarded bycatch.

Torpediniformes シビレエイ目

Platyrrhinidae ウチワザメ科

Platyrrhina Müller and Henle, 1838 ウチワザメ属

Platyrrhina tangi Iwatsuki, Zhang and Nakaya, 2011 ウチワザメ

ZUMT 2551: 117.8 mm TL, female, Nagasaki Prefecture, Japan, 3 Oct. 1909.

Remarks: Cloth tag “156 dialect locality Nagasaki, 3. 10. 42 [= 42 year of Meiji era (1909)]” (156 方言 産地 長崎 採時 3. 10. 42) .

ZUMT 13903: 171.6 mm TL, male, Ariake Sea, Japan, 14 Dec. 1924, Morie Kinoshita (木下盛枝).

ZUMT 19436: 242.5 mm TL, female, Mitsune (三根), Hachijo-jima island, Izu Islands, Japan, July 1929, Yoshio Osizu (押津義雄).

ZUMT 35682: 132.8 mm TL, male, Okibata (沖端), Yanagawa (柳川), Fukuoka Prefecture, Ariake Sea, Japan, Oct. 1931.

Remarks: Local name “Chongame (チョンガメ)”.

ZUMT 40672: 161.3 mm TL, female, locality unknown (probably Japan), before 1952.

ZUMT 45934: 192.0 mm TL, male, locality unknown (probably Ariake Sea, Japan), before 1952, Ichiro Tomiyama (冨山一郎).

Remarks: Cloth tag “106”.

ZUMT 46658: 163.8 mm TL, female, Namerikawa (滑川), Toyama Bay, Toyama Prefecture, Japan, before 1952.

Remarks: Cloth tag “154”.

ZUMT 46659: 162.0 mm TL, female, Namerikawa (滑川), Toyama Bay, Toyama Prefecture, Japan, before 1952.

Remarks: Cloth tag “153”.

ZUMT 68404: 214.8 mm TL, male, locality unknown (probably Japan).

Remarks: New registration number (previously unregistered).

Myliobatiformes トビエイ目

Urolophidae ヒラタエイ科

Urolophus Müller and Henle, 1837 ヒラタエイ属

Urolophus aurantiacus Müller and Henle, 1841 ヒラタエイ

ZUMT 19572: 164.6 mm DW, female, Kochi (高知), Tosa Bay, Kochi Prefecture, Japan, 29 Oct. 1929, Toshiji Kamohara (蒲原稔治).

Remarks: Cloth tag “64”.

ZUMT 20635: 102.9 mm DW, female, **ZUMT 20716:** 115.5 mm DW, male, **ZUMT 20782:** 96.0 mm DW, female, Misaki (三崎), Miura (三浦), Sagami Bay, Kanagawa Prefecture, Japan, about 1930.

ZUMT 30750: 92.9 mm DW, female, Nagasaki Prefecture, Japan, trawl, about 1935, Tomisaburo Awajiya Glover (倉場富三郎).

ZUMT 31170: 177.1 mm DW, female, Matsue (松江), Shimane Prefecture, Japan, about 1935, Ryuichi Yanai (柳井隆一).

Remarks: Cloth tag “80”.

ZUMT 31603: 169.8 mm DW, male, Kagoshima Prefecture, Japan, about 1936, Yasunori Miyoshi (三好保徳).

ZUMT 31610: 145.8 mm DW, female, Kagoshima Prefecture, Japan, about 1936, Yasunori Miyoshi (三好保徳).

Remarks: Cloth tag “58”.

ZUMT 47863: 192.2 mm DW, female, Tamanoura (玉之浦), Fukue-jima island, Goto Islands, Nagasaki Prefecture, Japan, 23 May 1953, Ichiro Tomiyama (冨山一郎).

ZUMT 49656: 100.1 mm DW, male, Maruyama-dashi (丸山出し: local fishing spot), Hayama (葉山), Sagami Bay, Kanagawa Prefecture, Japan, 11 Feb. 1958, donation from Imperial Household Agency Institute of Biology (宮内庁生物學研究所).

ZUMT 49662: 138.8 mm DW, female, Kannon-zuka (観音塚: local fishing spot), Hayama (葉山), Sagami Bay, Kanagawa Prefecture, Japan, 60–80 m depth, 15 July 1957, donation from Imperial Household Agency Institute of Biology (宮内庁生物學研究所).

ZUMT 49810: 151.4 mm DW, male, sea near Fukuoka Prefecture, Japan, July 1959, purchased at Fukuoka Fish Market (福岡魚市場).

ZUMT 49896: 127.2 mm DW, male, Fukue-jima island, Goto Islands, Nagasaki Prefecture, Japan, 10 June 1953.

ZUMT 50444: 156.4 mm DW, female, Miura (三浦), Sasebo (佐世保), Nagasaki Prefecture, Japan, 30 Oct. 1953.

ZUMT 50956: 131.0 mm DW, male, Maruyama-dashi (丸山出し: local fishing spot), Hayama (葉山), Sagami Bay, Kanagawa Prefecture, Japan, 60–65 m depth, 17 July 1959.

ZUMT 68403: tail only (99.7 mm), Japan (details unknown).

Remarks: Paper tag “red pot lid, No 1 (赤ナベフタ No 1)”. New registration number (previously unregistered).

Dasyatidae アカエイ科
Bathytoshia Whitley, 1933 ホシエイ属
Bathytoshia brevicaudata (Hutton, 1875) ホシエイ

ZUMT 68400: 407.0 mm DW, female, sea near Tokyo, Japan, 13 July 1917, purchased at Tokyo Market (東京市場).

Remarks: Cloth tag “a species of *Urolophus*, Taisho 6 (=1917), 13, 7, Tokyo (ヒラタエイ一種 大正六年. 七一三 東京)”. New registration number (previously unregistered).

Hemirhynchus Müller and Henle, 1838 アカエイ属
Hemirhynchus akajei (Bürger, 1841) アカエイ

ZUMT 13040: 151 mm DW, male, Miyako Bay, Iwate Prefecture, Japan, before 1911, Sadao Tanabe (田辺貞夫).
Remarks: Cloth tag “18”, local name “Gara-gara (ガラガラ)” or “Eo (エオ)”.

ZUMT 13227: 167.8 mm DW, male, Nara-gyojo (奈良漁場; details unknown), Tohoku Region, Japan, set net, 28 Oct. 1937, Sadao Tanabe (田辺貞夫).

Remarks: Cloth tag “34. Shark”.

ZUMT 13228: 173.1 mm DW, male, Nara-gyojo (奈良漁場; details unknown), Tohoku Region, Japan, set net, 28 Oct. 1937, Sadao Tanabe (田辺貞夫).

ZUMT 18237: 196 mm DW, female, Asamushi (浅虫), Aomori Prefecture, Japan, before 1928, Sadao Tanabe (田辺貞夫).

ZUMT 18311: 123.8 mm DW, male, Fukushima Prefecture, Japan, about 1928 (at least before 31 Aug. 1928, Fukushima Prefectural Research Institute of Fisheries (福島県水産試験場)). Lacking part of head. (Fig. 1).

ZUMT 23966: 138.1 mm DW, female, Shibushi (志布志), Osumi Peninsula, Kagoshima Prefecture, Japan, about 1931.

Remarks: Local name “Akai (アカイ)”.

ZUMT 31497: 323 mm DW, female, Shimane Prefecture, Japan, about 1935.

Remarks: Cloth tag “・T60”.

ZUMT 33526: tail only (364.4 mm), locality unknown (probably Japan), about 1936.

ZUMT 37588: 164.3 mm DW, female, **ZUMT 37589:** 183.5 mm DW, male, Japan (Sagami Bay or Okayama Prefecture), about 1937, Shin Miyoshi (三好晋).

ZUMT 38072: 153.3 mm DW, male, Takasu (鷹巣), Sakai (坂井), Fukui Prefecture, Japan, 24 Sept. 1937.
 Remarks: Lacking part of pectoral fin (malformed specimen).
ZUMT 46553: (15 specimens): 70.5–80.3 mm DW, 8 male specimens, 7 female specimens, locality unknown (probably Japan), before 1952.
ZUMT 47029: 173.2 mm DW, male, Tosa Bay, Kochi Prefecture, Japan, before 1952.
ZUMT 47934: 174.8 mm DW, female, Mitsuiraku (三井楽), Fukue-jima island, Goto Islands, Nagasaki Prefecture Japan, 22 May 1953.
ZUMT 48001: 173.6 mm DW, female, Hirado (平戸), Nagasaki Prefecture, Japan, 29 May 1953.
ZUMT 49813: 219 mm DW, female, sea near Fukuoka Prefecture, Japan, July 1959, purchased at Fukuoka Fish Market (福岡魚市場).
ZUMT 51652: 190.8 mm DW, female, East China Sea (30°30'N, 124°15'E), 4 Aug. 1959.
ZUMT 68396: 229.0 mm DW, male, Japan (details unknown), about 1970, Torao Sato (佐藤寅夫).
ZUMT 68398: 94.5 mm DW, male, **ZUMT 68399:** 108.3 mm DW, female, Japan (details unknown), about 1970, Torao Sato (佐藤寅夫).
 Remarks: Specimens reregistered, due to double numbering (50175 to 68398; 50176 to 68399)
ZUMT 68401: 158.5 mm DW, female, Banda (坂田), Tateyama (館山), Chiba Prefecture, Japan, 13 July 1933, Tokiharu Abe (阿部宗明).
ZUMT 68690: 144.4 mm DW, female, Hota River, Hota (保田), Kyonan (鋸南), Awa (安房), Chiba Prefecture, Japan (35°08'12.3"N 139°50'25.1"E), 26 Oct. 2024, hand net, Tomoaki Maruyama, Mai Maruyama, Naoto Inui and Daichi Oyama (丸山智朗・丸山 舞・乾 直人・尾山大知).

Hemitrygon izuensis (Nishida and Nakaya, 1988) イズヒメエイ

ZUMT 26267: 274.2 mm DW, female, Atsuda (熱田), Nagoya (名古屋), Ise Bay, Aichi Prefecture, Japan, 26 Oct. 1936, Soichi Yoshikane (吉兼宗一).

Himantura Müller and Henle, 1837 アミメオトメエイ属

Himantura uarnak (Gmelin, 1789) アミメオトメエイ

ZUMT 67493: 261.2 mm DW, male, Hainan Island, China, Sept. 1939.

Neotrygon Castelnau, 1873 ヤッコエイ属

Neotrygon orientalis Last, White and Serét, 2016

ZUMT 12653: 176.4 mm DW, female, **ZUMT 12676:** 160.8 mm DW, female, **ZUMT 12683:** 192.0 mm DW, female, Sulu Islands, the Philippines, Umejiro Yamamura and Yaeko Yamamura (山村樗次郎・山本八重子).

Neotrygon yakkoiei Hata and Motomura, 2024 ヤッコエイ

ZUMT 16935: 127.7 mm DW, male, **ZUMT 16936:** 121.0 mm DW, male, Itoman (糸満), Okinawa-jima island, Ryukyu Islands, Japan, before 1926, Sadao Tanabe (田辺貞夫).
ZUMT 19141: 321.0 mm DW, male, **ZUMT 19142:** 329.0 mm DW, male, **ZUMT 19143:** 310.8 mm DW, male, Mitsune (三根), Hachijo-jima island, Izu Islands, Japan, 4 July 1929, Shiro Otsuki (大槻洋四郎).
ZUMT 19251: 311.6 mm DW, male **ZUMT 19275:** 240.7 mm DW, female, **ZUMT 19276:** 271.0 mm DW, male, **ZUMT 19277:** 265.5 mm DW, male, **ZUMT 19278:** 266.0 mm DW, male, **ZUMT 19323:** 305.0 mm DW, male, **ZUMT 19324:** 357.0 mm DW, female, **ZUMT 19325:** 278.0 mm DW, female, **ZUMT 19401:** 245.0 mm DW, female, **ZUMT 19434:** 249.2 mm DW, male, **ZUMT 19499:** 260.0 mm DW, male, Mitsune (三根), Hachijo-jima

island, Izu Islands, Japan, July 1929, Yoshio Osizu (押津義雄).

ZUMT 68395 tail only (215.0 mm), Japan (details unknown, but probably Hachijo-jima island), 7 m depth

Remarks: Paper tag “white pot lid, white and black spots, 7 m depth, No 2 (白ナベフタ 白、黒のハンテン 深海 7 m No 2)”. New registration number (previously unregistered).

ZUMT 68397: 196.0 mm DW, male, locality unknown (probably Japan).

Remarks: New registration number (previously unregistered).

Potamotrygon Garman, 1877

Potamotrygon falkneri Castex and Maciel, 1963

ZUMT 66567: 274.6 mm DW, female, locality unknown.

Remarks: Obtained from ornamental fish store.

Potamotrygon leopoldi Castex and Castello, 1970

ZUMT 66564: 111.8 mm DW, male, locality unknown.

Remarks: Obtained from ornamental fish store.

Potamotrygon sp.

ZUMT 66565: 146.1 mm DW, female, locality unknown.

ZUMT 66566: 200.8 mm DW, male, locality unknown.

Remarks: Obtained from ornamental fish store. It is a popular ornamental fish commercially called as “Crocodile stingray”, and its scientific name has not been determined.

Pteroplatytrygon Fowler, 1910 カラスエイ属

Pteroplatytrygon violacea (Bonaparte, 1832) カラスエイ

ZUMT 48384: 405 mm DW, female, south of Hawaii, USA, 18 Aug. 1955, Sho Shinohara (篠原 勝).

ZUMT 48763: 62.7 mm DW, male, **ZUMT 48764**: 61.2 mm DW, female, south of Tapiwa, Kiribati (01°26'42"S 169°24'00"E), 3 Apr. 1956, Zenshiro Maekawa and Teijiro Suzuki (前川善四郎・鈴木貞次郎).

Telatrygon Last, Naylor and Manjaji-Matsumoto, 2016 ズグエイ属

Telatrygon zugei (Bürger, 1841) ズグエイ

ZUMT 46015: 170.9 mm DW, male, Yanagawa (柳川), Fukuoka Prefecture, Ariake Sea, Japan, before 1952.

Gymnuridae ツバクロエイ科

Gymnura van Hasselt, 1823 ツバクロエイ属

Gymnura japonica (Temminck and Schlegel, 1850) ツバクロエイ

ZUMT 18710: 286.0 mm DW, female, Susaki (須崎), Tosa Bay, Kochi Prefecture, Japan, 20 Aug. 1925, Toshiji Kamohara (蒲原稔治).

ZUMT 25805: 479.0 mm DW, male, **ZUMT 25806**: 463.0 mm DW, female, Toyama Prefecture, Japan, about 1933 (at least before 22 July 1933) Kanzaemon Kikuchi (菊池勘左衛門).

ZUMT 37590: 338.0 mm DW, male, Japan (Sagami Bay or Okayama Prefecture), about 1937, Shin Miyoshi (三好 晋).

ZUMT 49811: 280.0 mm DW, female, **ZUMT 49812:** 293.7 mm DW, female, sea near Fukuoka Prefecture, Japan, July 1959, purchased at Fukuoka Fish Market (福岡魚市場).

Gymnura poecilura (Shaw, 1804) オナガツバクロエイ

ZUMT 51394: 160.6 mm DW, female, East China Sea (36°15'N, 121°45'E), 31 Oct. 1959.

ZUMT 67494: 380.0 mm DW, male, Hainan Island, China, Sept. 1939.

Myliobatidae トビエイ科

Aetomylaeus Garman, 1908 アオスジトビエイ属

Aetomylaeus nichofii (Bloch and Schneider, 1801) アオスジトビエイ

ZUMT 62640: 210.4 mm DW, male, sea near Sarawak, Borneo, collection date unknown (before 1960), donated by Tom Harrisson (Sarawak Museum).

Myliobatis Cuvier, 1816 トビエイ属

Myliobatis hamlyni Ogilby, 1911 スミレトビエイ

ZUMT 25242: 210.5 mm DW, male, Yamaguchi Prefecture, Japan, about 1933, Miharū Nagatomi (永富三治).

Myliobatis tobijei Bleeker, 1854 トビエイ

ZUMT 48882: 254.7 mm DW, female, off Hayama (葉山), Sagami Bay, Kanagawa Prefecture, Japan, trawl, 20 Jan. 1957, donation from Imperial Household Agency Institute of Biology (宮内庁生物学研究所).

ZUMT 50590: 313.0 mm DW, male, sea near Fukuoka Prefecture, Japan, Aug. 1959, purchased at Fukuoka Fish Market (福岡魚市場).

ZUMT 63893: 297.0 mm DW, male, locality unknown.

Myliobatis sp. トビエイ属の一種

ZUMT 25251: 259.0 mm DW, male, Toyama Prefecture, Japan, about 1933.

Remarks: Head and pectoral fins separated (malformed specimen) (Fig. 2). Since it is a malformed specimen and its tail cut off, it could not be identified in this study.

Aetobatidae マダラトビエイ科

Aetobatus Blainville, 1816 マダラトビエイ属

Aetobatus narutobiei White, Furumitsu and Yamaguchi, 2013 ナルトビエイ

ZUMT 25240: 307.0 mm DW, female, Yamaguchi Prefecture, Japan, about 1933, Miharū Nagatomi (永富三治).

ZUMT 42364: 494.0 mm DW, female, Basilan Islands, the Philippines, 1926, Umejiro Yamamura and Yaeko Yamamura (山村樸次郎・山本八重子).

ZUMT 68402: 610.0 mm DW, female, locality unknown (probably Japan).

Remarks: New registration number (previously unregistered).

ZUMT ABE 3851: 544.0 mm DW, male, Palau, 1936, Tokiharu Abe (阿部宗明).

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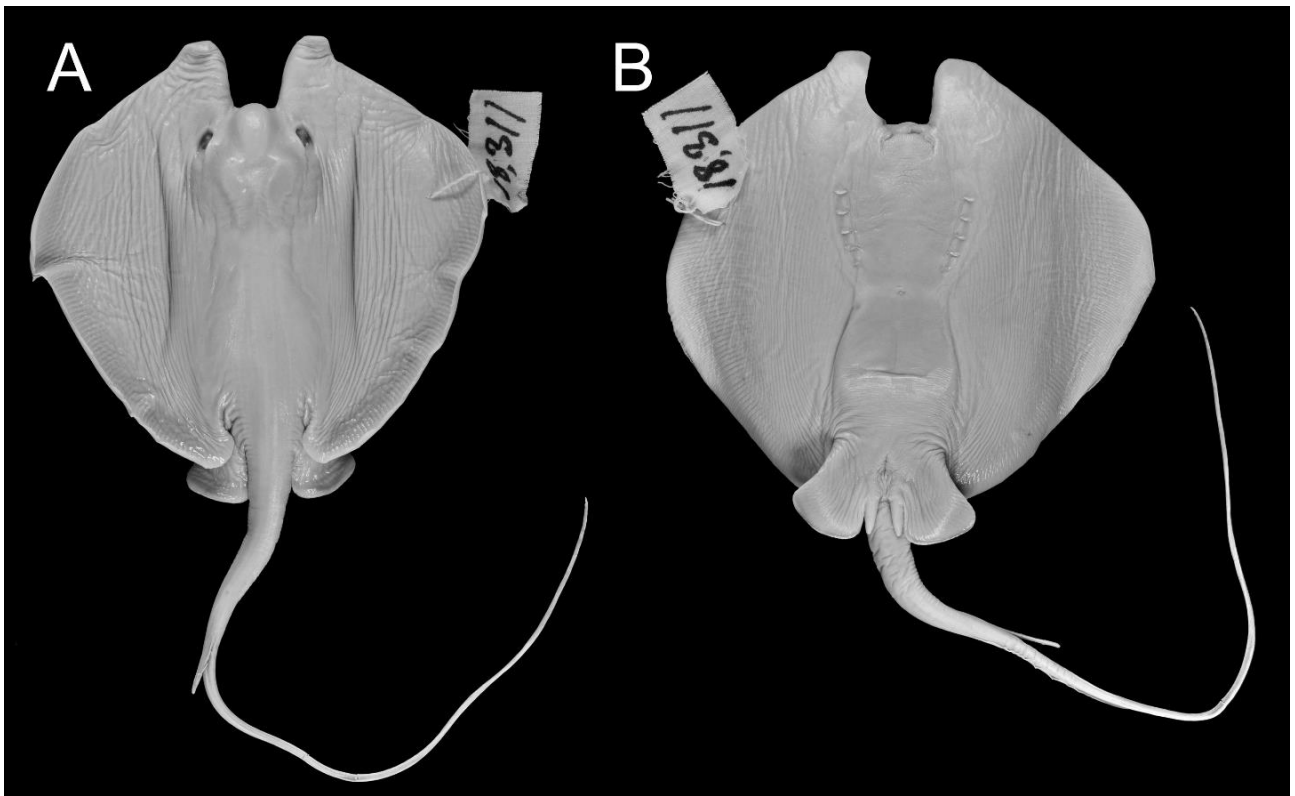


Figure 1. Preserved malformed specimen of *Hemitrygon akajei*, ZUMT 18311, 123.8 mm DW, male, lacking part of head. A: dorsal view; B: ventral view.

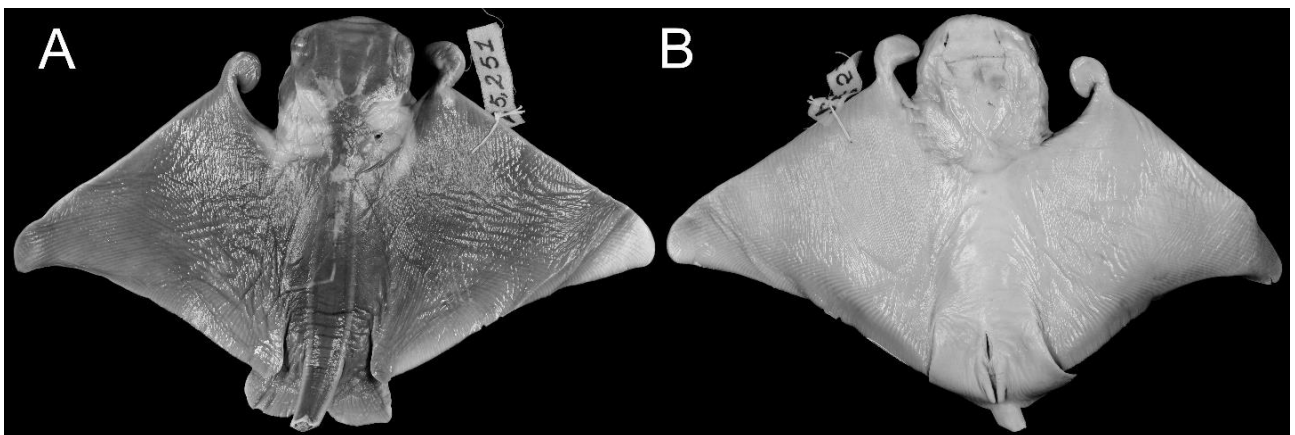


Figure 2. Preserved malformed specimen of *Myliobatis* sp., ZUMT 25251, 259.0 mm DW, male, Head and pectoral fins separated. A: dorsal view; B: ventral view.

Specimens of the genus *Gnathopogon* (Cypriniformes: Cyprinidae) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

Specimens of the genus *Gnathopogon* (Cypriniformes: Cyprinidae) in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were examined and found to represent four species and subspecies as follows: *Gnathopogon caerulescens* (Sauvage, 1883); *Gnathopogon elongatus elongatus* (Temminck & Schlegel, 1846); *Gnathopogon elongatus suwae* Jordan & Hubbs, 1925; *Gnathopogon strigatus* (Regan, 1908).

Introduction

The genus *Gnathopogon* Bleeker 1860 (Cypriniformes: Cyprinidae) is primarily characterized by the following characters: body size small; body elongate or rather oblong; body and head moderately compressed, head deeper than wide; mouth terminal horizontal or slightly directed upwards; lip thin and smooth; usually a pair of small or minute barbels at the corner of mouth; pharyngeal teeth in two rows, their tips pointed and hooked, usually 5 teeth in the main row, 2 or 3 in the second (Bănărescu and Nalbant, 1973; Kawase 2018). The genus is distributed mainly in East Asia, contains 14 valid species and subspecies (Bănărescu and Nalbant, 1967, 1973; Bogutskaya et al., 2008).

During arrangement of the cyprinid fish collection in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT), 418 specimens were identified as *Gnathopogon*. They are listed below with some notes.

Material and Methods

Specimens of *Gnathopogon* in the Department of Zoology, The University Museum, The University of Tokyo (abbreviated as ZUMT) were identified during the present study following generally Bănărescu and Nalbant (1967, 1973) and Hosoya (2013). Standard lengths (SL) were measured for all specimens, some specimens were counted and measured in detail based on Hubbs and Lagler (2004) and Bogutskaya et al. (2019). Relative measurements except for SL, are given as percentage of SL. The last two rays of the dorsal and anal fins were counted as one ray. Radiographs were used for observing vertebrae. Vertebral counts followed Hosoya (1983), included the first four vertebrae with the Weberian apparatus and one fused vertebra of the hypural complex. Statistical analyses were conducted using R v. 4.3.2 (R Core Team, 2023). Analysis of covariance (ANCOVA) procedures, all morphometric characters were standardized by log-transformation.

All specimens are arranged herein in alphabetical order by species. Collectors' name and affiliations are given where known (from ZUMT specimen catalog or tags), with Japanese language equivalents in parentheses. The following list includes ZUMT number, SL, collection locality, collection date, collecting method, collector or donator and affiliation, local name, literature containing specimens, and remarks when applicable. For some specimens without collecting dates in the ledgers or specimen tags, according to Koeda et al. (2022), the numbers of years before which the specimen was collected were estimated by their specimen numbers. Catalog numbers after ZUMT 61000 were newly given during this study. Institutional codes follow Sabaj (2020).

Results

A total of 418 specimens of four species and subspecies of *Gnathopogon* were confirmed in the ZUMT fish collection. No type specimens of the genus were found in the collection.

Species Accounts

Cyprinidae コイ科

Gnathopogon Bleeker, 1860 タモロコ属

Gnathopogon caerulescens (Sauvage, 1883) ホンモロコ

JAPAN

Shiga Pref.

ZUMT 1884, 2, 75.7–84.6 mm SL, vicinity of Katata, Otsu [近江堅田（大津市堅田付近）], Feb. 1898, local name “Yanagimoroko (ヤナギモロコ)”.

ZUMT 1896, 3, 81.6–85.3 mm SL, vicinity of Funaki, Omihachiman [近江舟木（近江八幡市船木町付近）], Jan. 1898.

ZUMT 5691, 56.9 mm SL, Biwa Lake (琵琶湖), before 1915.

ZUMT 5980, 3, 76.7–97.0 mm SL, Biwa Lake (琵琶湖), before 1915, donated by Kyoto Shimazu Corporation (京都島津製作所寄贈).

ZUMT 17910, 90.4 mm SL, **ZUMT 17911**, 87.6 mm SL, **ZUMT 17912**, 72.4 mm SL, **ZUMT 17913**, 89.5 mm SL, **ZUMT 17914**, 72.7 mm SL, **ZUMT 17915**, 67.0 mm SL, **ZUMT 17916**, 89.4 mm SL, **ZUMT 17917**, 95.5 mm SL, **ZUMT 17918**, 96.6 mm SL, **ZUMT 17919**, 67.1 mm SL, **ZUMT 17920**, 74.0 mm SL, **ZUMT 17921**, 77.4 mm SL, **ZUMT 17922**, 100.2 mm SL, **ZUMT 17923**, 100.2 mm SL, **ZUMT 17924**, 84.4 mm SL, **ZUMT 17925**, 83.3 mm SL, **ZUMT 17926**, 73.1 mm SL, **ZUMT 17927**, 90.7 mm SL, **ZUMT 17928**, 77.0 mm SL, **ZUMT 17929**, 97.3 mm SL, **ZUMT 17930**, 78.5 mm SL, **ZUMT 17931**, 73.2 mm SL, **ZUMT 17932**, 71.1 mm SL, **ZUMT 17933**, 94.0 mm SL, Otsu [大津（大津市）], before 1927, collected by D. Miyaji (宮地伝三郎採集).

ZUMT 18014, 99.7 mm SL, Biwa Lake (琵琶湖), before 1927, collected by N. Yosezato (与世里成春採集).

ZUMT 30155, 15, 88.8–109.1 mm SL, Biwa Lake (琵琶湖), before 1934, donated by Shiga Prefectural Fisheries Experimental Station (滋賀県水産試験場寄贈).

ZUMT 33189, 88.4 mm SL, vicinity of Otsu [大津（大津市付近）], July 1906, collected by K. Fujitsuna (藤網藏太郎採集), as used in Tanaka (1907).

ZUMT 38785, 93.1 mm SL, **ZUMT 38786**, 89.1 mm SL, Biwa Lake (琵琶湖), 1909, collected by T. Yanagimoto (柳本斗夫採集).

ZUMT 49398, 103.3 mm SL, **ZUMT 49429**, 77.5 mm SL, **ZUMT 49430**, 72.4 mm SL, **ZUMT 49431**, 77.9 mm SL, **ZUMT 49432**, 70.3 mm SL, Biwa Lake (琵琶湖), 1958, collected by Y. Makino (牧野四子吉採集).

ZUMT 56140, 56.8 mm SL, Matsubara-naiko Lagoon (currently disappeared), Matsubara, Hikone [松原内湖（彦根市松原，現在松原内湖は消失）], July 1911.

ZUMT 56173, 82.8 mm SL, vicinity of Kannonji, Otsu [琵琶湖実験所下（大津市観音寺町付近）], 27 Mar. 1924, collected by Ozaki.

ZUMT 56174, 93.2 mm SL, vicinity of Kannonji, Otsu [琵琶湖実験所下（大津市観音寺町付近）], Apr. 1924, collected by Ozaki.

ZUMT 57269, 73.2 mm SL, Biwa Lake, Hikone (彦根市琵琶湖), 15 Jan. 1988.

ZUMT 57322, 61.8 mm SL, Biwa Lake, Hikone (彦根市琵琶湖), 3 Oct. 1987.

ZUMT 65638, 71.0 mm SL, **ZUMT 65704**, 100.3 mm SL, Matsubara-naiko Lagoon (currently disappeared), Matsubara, Hikone [松原内湖（彦根市松原，現在松原内湖は消失）], 22 Mar. 1933.

Tokyo market

ZUMT 35270, 94.5 mm SL, before 1936.

Locality Unknown

ZUMT 66354, 74.0 mm SL, 1940.

Remarks. A single specimen (ZUMT 35270) collected before 1936 from Tokyo Market, was confirmed. It suggests that the species was already in general circulation at the time.

Gnathopogon elongatus elongatus (Temminck & Schlegel, 1846) タモロコ

JAPAN

Tokyo

ZUMT 19053, 56.5 mm SL, **ZUMT 19054**, 63.3 mm SL, vicinity of Asa-kawa River, Hachioji (八王子市浅川付近), before 1929, collected by R. Azuma (阿妻利八採集).

ZUMT 55916, 55.3 mm SL, Hobokubo River, Tama-gawa River system, Hyakuso, Hino (日野市百草程久保川), 9 Nov. 1986, collected by M. Aizawa (藍澤正宏採集).

ZUMT 55951, 4, 45.9–71.9 mm SL, vicinity of the junction of Aasa-kawa and Tama-gawa rivers, Tama-gawa River system, Hyakuso, Hino (日野市百草浅川出合), 35°39'43"N, 139°25'43"E, hand net, 16 Nov. 1986, collected by M. Aizawa (藍澤正宏採集).

ZUMT 57281, 66.1 mm SL, **ZUMT 57282**, 70.1 mm SL, Hobokubo River, Tama-gawa River system, Hyakuso, Hino (日野市百草程久保川), 35°39'28"N, 139°26'09"E, hand net, 5 Oct. 1987, collected by M. Aizawa (藍澤正宏採集).

ZUMT 57320, 5, 59.2–71.2 mm SL, vicinity of the junction of Aasa-kawa and Tama-gawa rivers, Tama-gawa River system, Hyakuso, Hino (日野市百草浅川出合), 35°39'43"N, 139°25'43"E, hand net, 1 Nov. 1987, collected by M. Aizawa (藍澤正宏採集).

Kanagawa Pref.

ZUMT 21308, 62.4 mm SL, vicinity of Fujisawa [藤沢 (藤沢市付近)], 20 Sept. 1925, donated by Kanagawa Normal School (神奈川師範学校寄贈).

ZUMT 21470, 61.6 mm SL, vicinity of Atsugi [厚木 (厚木市付近)], donated by K. Senba belonging to Kanagawa Prefectural Atsugi Junior High School on 28 Apr. 1929(神奈川県立厚木中学校所属の仙波高尚より 1929 年 4 月 28 日に寄贈).

Ishikawa Pref.

ZUMT 43037, 56.1 mm SL, **ZUMT 43038**, 56.8 mm SL, Imae Lagoon (currently disappeared), vicinity of Takuei, Komatsu [今江潟(小松市拓栄町付近, 今江潟は現在は消失)], before 1952.

Fukui Pref.

ZUMT 4434, 79.3 mm SL, **ZUMT 4446**, 43.2 mm SL, vicinity of Kohama [若州小濱 (小浜市付近)], before 1915, donated by N. Taniguchi (谷口直太郎寄贈).

Yamanashi Pref.

ZUMT 18020, 60.1 mm SL, Kamatani, Fuefuki, Nigori, or Ara-kawa rivers, Fuji River system (富士川水系の釜無川, 笛吹川, 濁川, および荒川のいずれか), collected by T. Yashima belonging to Kofu Junior High School (甲府中学校所属の矢島種次採集), local names “Kamappaya (カマツパヤ)”, “Moroppaya (モロツパヤ)”, “Ishippaya (イシツパヤ)”, “Magurippaya (マグリツパヤ)”, and “Honmoroko (ホンモロコ)”.

ZUMT 43941, 43, 33.0–80.0 mm SL, **ZUMT 43969**, 14, 17.7–26.1 mm SL, vicinity of Kofu [甲府付近 (甲府市付近)], before 1952.

ZUMT 44720, 55.5 mm SL, **ZUMT 44721**, 54.3 mm SL, **ZUMT 44722**, 46.8 mm SL, **ZUMT 44723**, 71.6 mm SL, vicinity of Kofu [甲府付近 (甲府市付近)], 21 July 1921.

ZUMT 56152, 56, 20.1–75.5 mm SL, vicinity of Kofu [甲府 (甲府市付近)], 30 Sept. 1910.

Nagano Pref.

- ZUMT 2122**, 13, 39.5–68.8 mm SL, Shinshu (信州), Aug. 1905, donated by T. Yagi (八木貞介寄贈), as used in Tanaka (1909a, 1912).
- ZUMT 38590**, 69.4 mm SL, Kosui? (湖水?), 1915, donated by A. Tanaka (田中阿歌磨寄贈).
- ZUMT 65639**, 42.4 mm SL, Omachi, Omachi (大町市大町), before 1911, donated by T. Yagi (八木貞介寄贈), local name “Moroko (モロコ)”, as used in Tanaka (1909a, 1912).
- ZUMT 65640**, 2, 33.7–35.3 mm SL, Aisome, Ikeda, Kitaazumi (北安曇郡池田町会染), before 1911, donated by T. Yagi (八木貞介寄贈), local name “Tarekan (タレカン)”, as used in Tanaka (1909a, 1912).
- ZUMT 65641**, 2, 40.2–40.5 mm SL, Ta-kawa River (田川), before 1911, donated by T. Yagi (八木貞介寄贈), local name “Haya (ハヤ)”, as used in Tanaka (1909a, 1912).
- ZUMT 65642**, 2, 48.7–54.2 mm SL, vicinity of Shimohisakata, Tenryu River, Iida [下伊那郡飯田市下久堅村天竜川 (飯田市下久堅付近天竜川)], before 1911, donated by T. Yagi (八木貞介寄贈), local name “Moro (モロ)”, as used in Tanaka (1909a, 1912).
- ZUMT 65643**, 2, 38.9–42.2 mm SL, Tenryu River, Takagi, Shimoina (下伊那郡喬木村天竜川), before 1911, donated by T. Yagi (八木貞介寄贈), local name “Moro (モロ)”, as used in Tanaka (1909a, 1912).
- ZUMT 65644**, 3, 38.7–47.8 mm SL, western of Chino [諏訪郡永明村 (茅野市西部)], before 1911, donated by T. Yagi (八木貞介寄贈), local name “Ishimuro (イシムロ)”.

Gifu Pref.

- ZUMT 2408**, 80.1 mm SL, 12 Feb. 1909, donated by T. Nekoyama (猫山常蔵寄贈), as used in Tanaka (1910b).
- ZUMT 5652**, 48.1 mm SL, vicinity of Mitake, [御嵩 (御嵩町付近)], before 1915, collected by I. Ando (安藤伊三次郎採集), local name “Moroko (モロコ)”.
- ZUMT 5694**, 97.2 mm SL, donated by Sakai Aquarium in June 1903 (堺水族館より 1903 年 6 月に寄贈).
- ZUMT 13428**, 51.1 mm SL, **ZUMT 13429**, 55.8 mm SL, Aki, Fuchi, or Kiso rivers, Kiso River system [恵那郡木曾川, 付知川, 阿木川 (木曾川水系木曾川, 付知川, および阿木川のいずれか)], 9 July 1924, collected by H. Niwa belonging to Nakatsu Elementary School (中津小学校の丹羽 彌採集), local name “Moroko (モロコ)”.
- ZUMT 23334**, 54.9 mm SL, male, Omote River?, Ogaki (大垣市表川?), 24 Mar. 1931, collected by S. Hama belonging to Gifu Prefectural Daini Technical High School (岐阜県立第二工業学校の波磨実太郎採集).
- ZUMT 24502**, 72.7 mm SL, Nagara River Gifu (岐阜市長良川), Aug. 1931, collected by S. Hama belonging to Gifu Prefectural Daini Technical High School (岐阜県立第二工業学校の波磨実太郎採集).
- ZUMT 24506**, 70.5 mm SL, Kuise River, southern part of Ogaki [安八郡南杭瀬村杭瀬川 (大垣市南部杭瀬川)], Aug. 1927, collected by S. Hama belonging to Gifu Prefectural Daini Technical High School (岐阜県立第二工業学校の波磨実太郎採集).
- ZUMT 27876**, 45.4 mm SL, vicinity of Ueda, Minami, Gunjo [美濃高砂 (郡上市美並町上田付近)], before 1934, collected by S. Yamada belonging to Minami Village Takayama Elementary School (美並村立高山小学校の山田修一郎採集).
- ZUMT 34373**, 62.9 mm SL, a stream of southern part of Gifu [加納町の川 (岐阜市南部の川)], donated by T. Nekoyama (猫山常蔵寄贈), local name “Moroko (モロコ)”.
- ZUMT 34374**, 76.8 mm SL, a stream vicinity Takehana, Hishima [竹ヶ鼻町の小川 (羽島市竹鼻町付近の川)], donated by T. Nekoyama (猫山常蔵寄贈), local name “Shirahae (シラハエ)”.

Shizuoka Pref.

- ZUMT 17815**, 5, 36.2–44.5 mm SL, Ukishima Pond [駿東郡原町字植田付近浮島沼 (沼津市浮島沼)], 26 Aug. 1927, collected by N. Kuroda (黒田長礼採集).
- ZUMT 38685**, 64.4 mm SL, Tenryu River, southeastern part of Chuo-ku, Hamamatsu [浜名郡和田村龍光天竜川 (浜松市中央区南東部天竜川)], 1 June 1931, collected by S. Ito (伊東信太郎採集), local name “Moro (モロ)”.
- ZUMT 44288**, 38.2 mm SL, **ZUMT 44289**, 37.8 mm SL, **ZUMT 44290**, 37.2 mm SL, **ZUMT 44291**, 36.4 mm SL, **ZUMT 44292**, 46.0 mm SL, **ZUMT 44293**, 32.1 mm SL, **ZUMT 44294**, 36.7 mm SL, Ukishima Pond, Numazu [駿東郡原町字植田付近浮島沼 (沼津市浮島沼)], 26 Aug. 1927.

Aichi Pref.

- ZUMT 16399**, 39.5 mm SL, **ZUMT 16400**, 42.7 mm SL, western part of Shinshiro [南設楽郡千郷村 (新城市西部)], Aug. 1925, collected by S. Yoshikane (吉兼宗一採集), local name “Moroko (モロコ)”.
- ZUMT 16402**, 50.7 mm SL, vicinity of Toyokawa [三河豊川 (豊川市付近)], Aug. 1925, collected by S. Yoshikane (吉兼宗一採集), local name “Moroko (モロコ)”.
- ZUMT 26124**, 81.3 mm SL, vicinity of Shinshiro [三河新城 (新城市付近)], Aug. 1925, donated by S. Yoshida (吉田関子寄贈), local name “Morokobaya (モロコバヤ)”.
- ZUMT 26125**, 88.7 mm SL, eastern part of Toyokawa [三河八名郡大和村 (豊川市東部)], 10 May 1933, donated by S. Yoshida (吉田関子寄贈), local name “Morokobaya (モロコバヤ)”.

Mie Pref.

- ZUMT 9987**, 57.6 mm SL, **ZUMT 9988**, 71.6 mm SL, vicinity of Aho, Iga [伊賀国名賀郡阿保村 (伊賀市阿保付近)], before 1923, collected by H. Nakamoto (中本久俊採集).

Shiga Pref.

- ZUMT 1837**, 2, 48.3–62.5 mm SL, vicinity of Makino, Takashima [近江国高島郡百瀬村 (滋賀県高島市マキノ町付近)], Nov. 1906, donated by Kyoto Shimazu Factory (京都島津製作所寄贈), local name “Moroko (モロコ)”.
- ZUMT 1882**, 7, 53.2–84.3 mm SL, **ZUMT 1883**, 2, 46.2–52.1 mm SL, vicinity of Katata, Otsu [近江堅田 (大津市堅田付近)], Feb. 1898, local name “Yanagimoroko (ヤナギモロコ)”.
- ZUMT 2581**, 20.1 mm SL, vicinity of Zeze, Otsu [近江膳所 (滋賀県大津市膳所付近)], 1909, donated by F. Fujitsuna (藤綱藤太郎寄贈) as used in Tanaka (1910a).
- ZUMT 5982**, 70.7 mm SL, Biwa Lake (琵琶湖), donated by Shimazu Factory (島津製作所寄贈).
- ZUMT 38774**, 102.0 mm SL, **ZUMT 38775**, 106.0 mm SL, **ZUMT 38776**, 75.8 mm SL, **ZUMT 38777**, 63.1 mm SL, Biwa Lake (琵琶湖), 1909, donated by T. Yanagimoto (柳本斗夫寄贈) local name “Sugojimoroko (スゴジモロコ)”.
- ZUMT 49425**, 62.8 mm SL, **ZUMT 49426**, 61.3 mm SL, **ZUMT 49427**, 61.6 mm SL, **ZUMT 49428**, 58.4 mm SL, Biwa Lake (琵琶湖), 1958, collected by Y. Makino (牧野四子吉寄贈).
- ZUMT 55818**, 45.3 mm SL, a stream of Yamagawara, Echi River system, Echigawa, Echi (愛知郡愛知川町山川原愛知川水系細流), 35°11'17"N, 136°11'36"E, hand net, 1 Nov. 1986, collected by M. Aizawa et al. (藍澤正宏他採集).
- ZUMT 55819**, 48.4 mm SL, Echi River, Inae, Hikone (彦根市稲枝町愛知川), 1 Nov. 1986, collected by M. Aizawa, H. Senou and T. Urano (藍澤正宏・瀬能 宏・浦野貴史採集).
- ZUMT 56106**, 54.9 mm SL, Biwa Lake (琵琶湖), 30 Sept. 1911, donated by T. Yanagimoto (柳本斗夫寄贈).
- ZUMT 56139**, 16, 30.1–62.4 mm SL, Matsubara-naiko Lagoon (currently disappeared), Matsubara, Hikone [彦根市松原町松原内湖 (彦根市松原, 現在松原内湖は消失)], July 1911.
- ZUMT 56167**, 2, 22.4–26.1 mm SL, Biwa Lake, Matsubara, Hikone (彦根市松原琵琶湖), May 1898.
- ZUMT 61343**, 4, 61.2–67.7 mm SL, Biwa Lake (琵琶湖), Aug. 1924, collected by J. Kawabata (川端重五郎採集).
- ZUMT 61352**, 6, 26.7–46.5 mm SL, Matsubara-naiko Lagoon (currently disappeared), Matsubara, Hikone [彦根市松原松原内湖 (彦根市松原, 現在松原内湖は消失)], Aug. 1921, collected by S. Tanaka (田中茂穂採集).

Kyoto Pref.

- ZUMT 6603**, 75.8 mm SL, Oi River, Kameoka [丹波南葉田郡亀岡町付近大堰川 (亀岡市大堰川)], before 1915, collected by H. Ibaraki (荻木 一採集), local name “Moroko (モロコ)”.
- ZUMT 6605**, 72.9 mm SL, Yura River, Fukuchiyama [丹波天田郡福知山由良川 (福知山市由良川)], before 1915, collected by H. Ibaraki (荻木 一採集).
- ZUMT 6670**, 46.2 mm SL, vicinity of Fukuchiyama [丹波天田郡福知山町付近 (福知山市付近)], before 1915, collected by H. Ibaraki (荻木 一採集).
- ZUMT 39103**, 72.6 mm SL, Yura River, Komori, Oe, Fukuchiyama [加佐郡河守町河守由良川上流 (福知山市

大江町河守由良川)], May 1934, collected by S. Tsuji belonging to Komori Sericultural School (河守蚕業学校の辻 季吉採集), local name “Moroko (モロコ)”.

ZUMT 39141, 71.6 mm SL, **ZUMT 39142**, 71.9 mm SL, Yura River, Komori, Oe, Fukuchiyama [加佐郡河守町河守由良川上流 (福知山市大江町河守由良川)], Apr. 1934, collected by S. Tsuji belonging to Komori Sericultural School (河守蚕業学校の辻 季吉採集), local name “Yanagibae (ヤナギバエ)”.

ZUMT 66352, 37.4 mm SL, Takeno, Kyotanba, Funai (船井郡京丹波町竹野), 1940, collected by Yamashima (山島採集).

Hyogo Pref.

ZUMT 7162, 81.8 mm SL, southwestern part of Sanda [摂津有馬郡貴志村 (三田市南西部)], before 1918, collected by K. Yamatori belonging to Mikage Normal School (御影師範学校の山鳥吉五郎採集).

ZUMT 7170, 2, 53.4–53.5 mm SL, northern part of Tanbasasayama [丹波多紀郡北河内村 (丹波篠山市北部)], before 1918, collected by K. Yamatori belonging to Mikage Normal School (御影師範学校の山鳥吉五郎採集).

ZUMT 8640, 63.7 mm SL, **ZUMT 8641**, 55.3 mm SL, vicinity of Fukusumi, Izushi, Tomioka [出石郡室埴村福住 (豊岡市出石町福住付近)], before 1918, collected by M. Nagasawa, principal of the Fukusumi Ordinary Elementary School (福住尋常小学校長の永沢松太郎採集).

ZUMT 9066, 67.8 mm SL, **ZUMT 9067**, 62.9 mm SL, **ZUMT 9068**, 60.8 mm SL, vicinity of Himeji [姫路 (姫路市付近)], before 1920, collected by R. Abe and C. Sakamoto (阿部良平と坂本長蔵採集).

ZUMT 9855, 7, 45.5–66.6 mm SL, before 1920, collected by K. Yamadori (山鳥吉五郎採集).

ZUMT 18938, 70.8 mm SL, **ZUMT 18939**, 59.1 mm SL, vicinity of Yamada, Himeji [神崎郡山田村 (姫路市山田町付近)], 28 Oct. 1928, collected by T. Saito belonging to Funamachi Fisheries Experimental Station (舟町水産試験場の斎藤敏夫採集), local names “Moroko (モロコ)”, “Gamappaya (ガマッパヤ)”, “Moroppaya (モロッパヤ)”, “Ishippaya (イシッパヤ)”, “Magurippaya (マグリッパヤ)”, and “Honmoroko (ホンモロコ)”.

ZUMT 25211, 78.2 mm SL, vicinity of Hidaka, Maruyama River, Toyooka [円山川江原付近 (豊岡市日高町付近円山川)], before 1932, collected by T. Dobashi (土橋忠重採集), local name “Yamajako (ヤマジャコ)”.

ZUMT 42960, 51.4 mm SL, **ZUMT 42961**, 51.9 mm SL, **ZUMT 42963**, 51.4 mm SL, **ZUMT 44539**, 83.5 mm SL, **ZUMT 44554**, 41.5 mm SL, **ZUMT 44555**, 65.7 mm SL, **ZUMT 44556**, 56.7 mm SL, **ZUMT 44557**, 46.2 mm SL, **ZUMT 44559**, 61.6 mm SL, **ZUMT 44694**, 16, 34.9–71.1 mm SL, vicinity of Sumoto, Awaji Island [淡路洲本 (淡路島洲本市付近)], before 1952.

ZUMT 66601, 6, 47.4–79.0 mm SL, collected by H. Yamada (山田兵士労働採集).

Wakayama Pref.

ZUMT 20325, 58.6 mm SL, vicinity of Tanabe [紀州田辺 (田辺市付近)], Sept. 1921, collected by N. Ui (宇井縫蔵採集).

ZUMT 22013, 47.2 mm SL, Jan. 1920.

Okayama Pref.

ZUMT 2191, 4, 48.9–62.6 mm SL, **ZUMT 2192**, 48.2 mm SL, **ZUMT 2193**, 46.9 mm SL, vicinity of Tsuyama [作州津山 (津山市付近)], 26 May 1909, donated by T. Kageyama (影山藤作寄贈), local name “Kasuke (カスケ)”.

ZUMT 2784, 90.4 mm SL, vicinity of Higashi-ku, Okayama [上道郡九璫 (岡山市東区付近)], 15 May 1910, donated by Okayama Fisheries Experimental Station (岡山水産試験場寄贈), reared specimen, as used in Tanaka (1910c).

ZUMT 2813, 2, 56.6–63.3 mm SL, vicinity of Yoshii, Ihara [後月郡芳井村小田井 (井原市芳井町付近)], 27 Aug. 1910, donated by Okayama Fisheries Experimental Station (岡山水産試験場寄贈), local name “Yanagibae (ヤナギバエ)”, as used in Tanaka (1910b).

ZUMT 3194, 68.9 mm SL, before 1911, collected by F. Katsurada (桂田富士郎採集).

ZUMT 25380, 59.7 mm SL, vicinity of Hiruzenshimowa, Shitawa River, Asahi River system, Maniwa [真庭郡中和村下和旭川最上流下和川 (真庭市蒜山下和付近旭川水系下和川)], Aug. 1931, donated by Kataoka-gun (片岡郡寄贈), local name “Tanokobae (タノコバエ)”.

Hiroshima Pref.

ZUMT 10523, 60.4 mm SL, Numata River southern part of Hiroshima Prefecture (広島県南部沼田川), before 1923, collected by K. Sawahara belonging to Hiroshima Prefectural Chukai Junior High School (広島県立忠海中学校の沢原一二採集), local name “Mugibae (ムギバエ)”.

Ehime Pref.

ZUMT 20116, 50.8 mm SL, **ZUMT 20117**, 50.5 mm SL, **ZUMT 20118**, 49.6 mm SL, **ZUMT 20119**, 66.3 mm SL, vicinity of Ozu [大洲 (大洲市付近)], before 1930, collected by K. Yamashita belonging to Ozu Junior High School (大洲中学校の山下幸平採集).

ZUMT 24948, 54.4 mm SL, vicinity of Horie Coast, Horie, Matsuyama [温泉郡堀江村海岸 (松山市堀江町堀江海岸付近)], Oct. 1931, collected by Z. Ishikawa belonging to Matsuyama Girls' High School (松山高等女学校の石川重次郎採集).

Locality Unknown

ZUMT 19935, 52.0 mm SL, before 1930, donated by Okayama Dairoku High School (岡山第六高等学校寄贈).

ZUMT 27948, 53.8 mm SL, southern Japan? (南日本?).

ZUMT 29220, 42.4 mm SL, before 1934, collected by Y. Ito belonging to Shizuoka Junior High School (静岡中学校の伊藤芳夫採集).

ZUMT 32589, 44.7 mm SL, before 1936, collected by T. Nekoyama (猫山常蔵採集).

ZUMT 40666, 33.7 mm SL, **ZUMT 40667**, 30.8 mm SL, before 1952, Morioka? (盛岡?).

ZUMT 44901, 6, 28.3–39.9 mm SL, collected by N. Onodera belonging to Shizuoka Prefectural Mitsuke Junior High School (静岡県立見付中学校の小野寺直一採集).

ZUMT 46502, 68.3 mm SL, **ZUMT 46503**, 57.4 mm SL, **ZUMT 46504**, 58.8 mm SL, **ZUMT 46505**, 61.2 mm SL, **ZUMT 46506**, 81.7 mm SL, **ZUMT 46507**, 74.0 mm SL, **ZUMT 46508**, 56.4 mm SL, **ZUMT 46509**, 59.5 mm SL, **ZUMT 46510**, 58.1 mm SL, **ZUMT 46511**, 72.4 mm SL, **ZUMT 46512**, 50.5 mm SL, **ZUMT 46513**, 60.5 mm SL, **ZUMT 46514**, 62.4 mm SL, before 1952.

ZUMT 56123, 2, 33.8–37.3 mm SL, Japan, 30 Sept. 1910.

ZUMT 56292, 67.6 mm SL, **ZUMT 65711**, 63.6 mm SL, **ZUMT 66519**, 47.4 + mm SL, **ZUMT 66720**, 50.4 mm SL.

ZUMT 65648, 81.8 mm SL, 1952.

Remarks. In this study, four specimens (**ZUMT 19053**; **ZUMT 19054**; **ZUMT 21308**; **ZUMT 21470**) collected before 1929 from Kanto region, were confirmed. Although the species is generally considered to be a domestic alien species in Kanto region (Matsuzawa and Senou, 2008; Kawase, 2019), has been recorded in the region before 1950s (Aoyagi, 1957). The status of native or non-native of the species in the region will probably need to be verified in detail.

Gnathopogon elongatus suwae Jordan & Hubbs, 1925 スワモロコ

JAPAN

Nagano Pref.

ZUMT 65645, 72.0 mm SL, Suwa Lake [信州諏訪湖 (諏訪湖)], before 1911, donated by T. Yagi (八木貞介寄贈), local name “Ishimuro (イシムロ)”, as used in Tanaka (1909a, 1912).

ZUMT 65646, 3, 52.5–60.8 mm SL, **ZUMT 65647**, 3, 44.3–60.6 mm SL, Suwa Lake (諏訪湖), before 1911, donated by T. Yagi (八木貞介寄贈), local name “Muro (ムロ)”, as used in Tanaka (1909a, 1912).

Remarks. The present specimens were identified as *G. elongatus suwae* because these were collected from Suwa Lake (Hosoya, 2013). Jordan and Hubbs (1925), Miyaji (1935), Matsubara (1955), Kuroda (1960), and Hosoya (2013) also suggested that *G. elongatus suwae* was distinguishable from *G. elongatus elongatus* as follows: body depth of the former about 4–4.7 times greater than SL (3.4–4.3 times greater than SL in the latter); caudal-peduncle

length about 2 times greater than caudal-peduncle depth (less than 2 times); caudal-peduncle depth less than 45 % of head length (more than 47 %); having many black blotches (few black blotches). Although, detail comparisons between *G. elongatus elongatus* (131 specimens) and *G. elongatus suwae* (fifteen specimens, including type specimens) were conducted in this study, it was not possible to clearly distinguish both subspecies using these recognized characters, as follows: body depth about 3.8–5.2 times greater than SL in *G. elongatus suwae* (3.1–4.9 times greater than SL in *G. elongatus elongatus*); caudal-peduncle length about 1.5–1.9 times greater than caudal-peduncle depth (1.1–1.9 times); caudal-peduncle depth 37–48 % of head length (34–57 %); both species having many black blotches (Figs. 1, 2). In the future, it will be necessary to examine new recognized character of *G. elongatus elongatus* and *G. elongatus suwae*.

Hosoya (1987) reported *G. elongatus* inhabiting lake, (including *G. elongatus suwae*) are shaped limnetic form, as follows: limnetic populations of body and caudal-peduncle depth tend to be shallower; barbels tend to be longer; tend to have more lateral-line scales, gill rakers, and vertebrae. Although, compared *G. elongatus elongatus* from Tenryu River system (twenty-nine specimens) and *G. elongatus suwae* (fifteen specimens, including type specimens) in this study, above characters, except for caudal-peduncle depth, were not differed between both groups (Fig. 3; Table 2, 3), and ANCOVA was showed barbel length was significantly ($P < 0.01$) shorter in *G. elongatus suwae* (Table 3; Fig. 3).

Significant ($P < 0.01$) differences for 6 morphometric characters by Welch's t-test, and 3 morphometric characters by ANCOVA were showed between *G. elongatus elongatus* from Tenryu River system and *G. elongatus suwae* (Fig. 3; Table 3). Among these characters, although head length and pre-pectoral length showed significant ($P < 0.01$) differences between both groups by only Welch's t-test, it was assumed to difference of body sized between both groups, and body proportions (% of SL) of above characters decreased with growth in both groups, were cause (Table 3; Fig. 3). Also, 3 characters (eye diameter, postorbital length, and interorbital width) related to eye showed significant differences between both groups (Table 3; Fig. 3). Among these, although body proportions of eye diameter between both groups decreased with growth, ANCOVA was showed eye diameter tended to be significantly ($P < 0.01$) larger in *G. elongatus suwae* (Table 3; Fig. 3).

Gnathopogon strigatus (Regan, 1908) シマモロコ

CHINA

ZUMT 41680, 83.8 mm SL, **ZUMT 41681**, 61.0 mm, probably before 1952, Manchuria, Boley (満州国勃利).

ZUMT 42466, 71.7 mm SL, **ZUMT 42500**, 67.1 mm SL, **ZUMT 42531**, 65.7 mm SL, **ZUMT 42548**, 65.8 mm, Manchuria (満州国), 28 June 1942, collected by H. Kuwano (桑野久任採集).

Comparative material examined: *Gnathopogon elongatus elongatus*: KUN-P 48405, 47.4 mm SL, KUN-P 48406, 52.7 mm SL, Tenryu River system, Nagano Prefecture, Japan, 6 August 2018, K. Mochizuki; KUN-P 51145, 60.8 mm SL, KUN-P 51151, 60.8 mm SL, KUN-P 51152, 48.0 mm SL, Tenryu River system, Nagano Prefecture, Japan, 4 May 2019, K. Mochizuki; KUN-P 55289, 56.8 mm SL, KUN-P 55290, 51.9 mm SL, KUN-P 55291, 52.0 mm SL, KUN-P 55313, 48.9 mm SL, KUN-P 55314, 48.5 mm SL, KUN-P 55315, 47.5 mm SL, KUN-P 55316, 55.3 mm SL, KUN-P 55317, 50.0 mm SL, KUN-P 55318, 55.9 mm SL, KUN-P 55319, 52.2 mm SL, KUN-P 55320, 45.8 mm SL, KUN-P 55321, 48.5 mm SL, Tenryu River system, Nagano Prefecture, Japan, 2 November 2019, K. Mochizuki and M. Fujita. *Gnathopogon elongatus suwae*: FMNH 58708, holotype, 68.9 mm SL, Suwa Lake, Nagano Prefecture, Japan, 1922, Jordan, D. S.; CAS-SU 23541, paratypes, 62.6–70.9 mm SL, 5, Suwa Lake, Nagano Prefecture, Japan, 1922, Jordan, H. S.; FAKU-P 485, 3, 45.5–57.2 mm SL, Suwa Lake, August 1927, D. Miyaji.

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Table 1. Counts and measurements (expressed as percentages of standard length) of specimens of *Gnathopogon elongatus suwae* in ZUMT.

<i>n</i> = 7		
Standard length (SL; mm)	43.4–61.9	
Counts		Modes
Dorsal-fin rays	III, 6 or 7	III, 7
Anal-fin rays	III, 5–7	III, 6
Pectoral-fin rays	14 or 15	14
Pelvic-fin rays	8 or 9	9
Pored lateral-line scales	34–38	35
Scale rows above lateral-line	5 or 6	5
Scale rows below lateral-line	4	4
Pre-dorsal-fin scales	14–16	15
Caudal peduncle scales	14–16	15
Scales between anus and anal fin origin	1–3	1
Gill rakers	6–8	6
Vertebrae	20 or 21 +	
(abdominal + caudal)	14–16 = 34–37	20 + 16 = 36
Measurements (% of SL)		Means
Body depth	19.2–24.9	22.9
Body width	11.2–19.0	14.7
Head length	25.1–28.3	26.6
Head width	12.6–15.5	14.1
Snout length	6.4–8.6	7.5
Eye diameter	6.0–8.0	7.1
Pupil diameter	2.7–3.7	3.2
Postorbital length	12.6–14.6	13.7
Interorbital width	9.2–10.0	9.5
Upper jaw length	6.1–7.0	6.7
Lower jaw length	5.5–7.2	6.4
Barbel length	3.6–5.6	4.6
Pre-dorsal length	50.2–52.3	51.4
Pre-anal length	66.2–74.9	71.3
Pre-pectoral length	24.7–28.0	25.7
Pre-pelvic length	45.7–52.8	49.7
Length between pectoral fin origin and pelvic fin origin	25.3–29.4	27.0
Length between pelvic fin origin and anal fin origin	21.3–24.7	23.2
Length between anus and anal fin origin	1.4–2.2	1.9
Dorsal fin length	19.0–23.0	20.7
Anal fin length	14.9–16.6	15.6
Pectoral fin length	14.3–18.7	16.3
Pelvic fin length	14.2–16.5	15.2
Dorsal fin base length	9.7–13.7	12.1
Anal fin base length	8.3–9.9	9.0
Caudal-peduncle depth	10.4–12.5	11.5
Upper caudal-peduncle length	34.2–39.3	37.4
Lower caudal-peduncle length	18.7–21.6	20.1

Table 2. Frequency distribution of selected counts of *G. elongatus elongatus* from Tenryu River system, and *G. elongatus suwae*.

	Gill rakers					Pored lateral-line scales							
	5	6	7	8	9	32	33	34	35	36	37	38	
<i>G. elongatus elongatus</i> (Tenryu River system)	4	12	10	3					10	13	5		
<i>G. elongatus suwae</i>	1	5	3	1	1	1		3	4	4	3	1	
	Abdominal vertebrae		Caudal vertebrae			Total vertebrae							
	20	21		14	15	16		34	35	36	37		
<i>G. elongatus elongatus</i> (Tenryu River system)	5	2			5	2				7			
<i>G. elongatus suwae</i>	4	3		1	3	3		1	1	4	1		

Table 3. Results of values of Pearson's correlation coefficient, and analysis of Welch's t-test and covariance (ANCOVA) for *Gnathopogon elongatus elongatus* from Tenryu River system and *Gnathopogon elongatus suwae*. Values of Pearson's correlation coefficient (r) close to -1 or 1 indicate a strong liner association between standard length (SL) and measurements. Welch's t-test calculated the P -value for morphometric characters (all as % of SL). ANCOVA using SL as a covariate, calculated the P -value for the intercepts of morphometric characters (all as % of SL) among both groups. ANCOVA was performed for only morphometric characters with the correlation ($r \geq 0.2$ or $r \leq -0.2$) in the same direction in both groups using Pearson's correlation coefficient.

	t-test (P -value)	Pearson's correlation Coefficient (r)		ANCOVA (P -value)
		<i>G. elongatus elongatus</i>	<i>G. elongatus suwae</i>	
Body depth	0.665	0.478	-0.079	-
Body width	0.639	0.363	0.375	0.086
Head length	0.002*	-0.333	-0.209	0.119
Head width	0.264	0.197	0.217	-
Snout length	0.026	-0.326	0.102	-
Eye diameter	0.018	-0.756	-0.545	0.000*
Pupil diameter	0.017	-0.296	-0.600	0.586
Postorbital length	0.001*	0.122	-0.061	-
Interorbital width	0.000*	-0.044	-0.013	-
Upper jaw length	0.852	0.023	-0.067	-
Lower jaw length	0.114	-0.490	0.397	-
Barbel length	0.044	0.534	0.295	0.000*
Pre-dorsal length	0.738	0.001	0.473	-
Pre-anal length	0.753	-0.056	0.480	-
Pre-pectoral length	0.003*	-0.545	0.380	0.831
Pre-pelvic length	0.075	0.127	0.527	-
Length between pectoral fin origin and pelvic fin	0.669	0.519	0.478	0.143
Length between pelvic fin origin and anal fin origin	0.071	-0.035	0.154	-
Length between anus and anal fin origin	0.005*	-0.460	-0.117	-
Dorsal fin length	0.060	-0.374	-0.076	-
Anal fin length	0.012	-0.368	0.267	-
Pectoral fin length	0.018	0.216	0.126	-
Pelvic fin length	0.000*	-0.247	0.216	-
Dorsal fin base length	0.050	0.369	0.201	0.001*
Anal fin base length	0.055	0.216	0.179	-
Caudal-peduncle depth	0.073	-0.023	-0.658	-
Upper caudal-peduncle	0.143	0.148	-0.188	-
Lower caudal-peduncle	0.481	0.213	-0.329	-

* $P < 0.01$

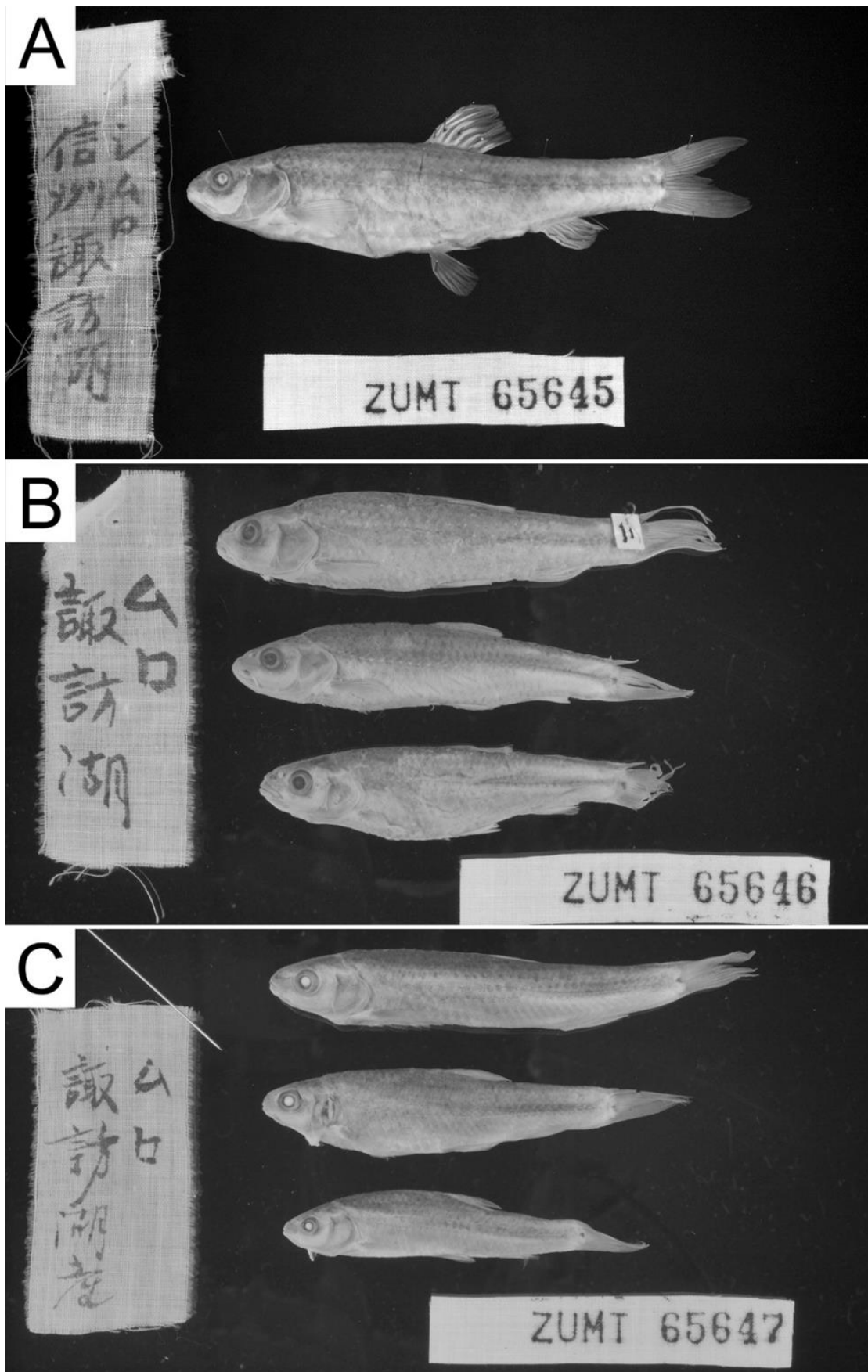


Figure 1. Preserved specimens of *Gnathopogon elongatus suwae* collected from Suwa Lake, Japan.
 A: ZUMT 65645, 71.3 mm SL; B: ZUMT 65646, 3, 54.0–61.9 mm SL; C: ZUMT 65647, 3, 43.4–60.0 mm SL.

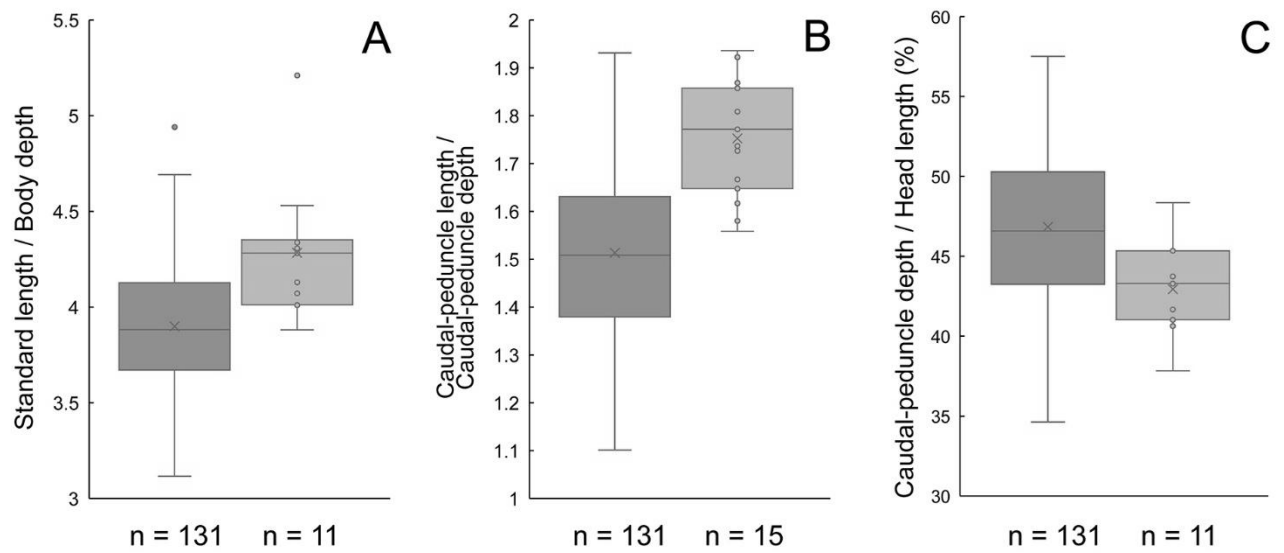


Figure 2. Boxplots for ratio of standard length and body depth (A); caudal-peduncle length and caudal-peduncle depth (B); and caudal-peduncle depth and head length (C) in *Gnathopogon elongatus elongatus* (orange boxplots) and *Gnathopogon elongatus suwae* (green boxplots).

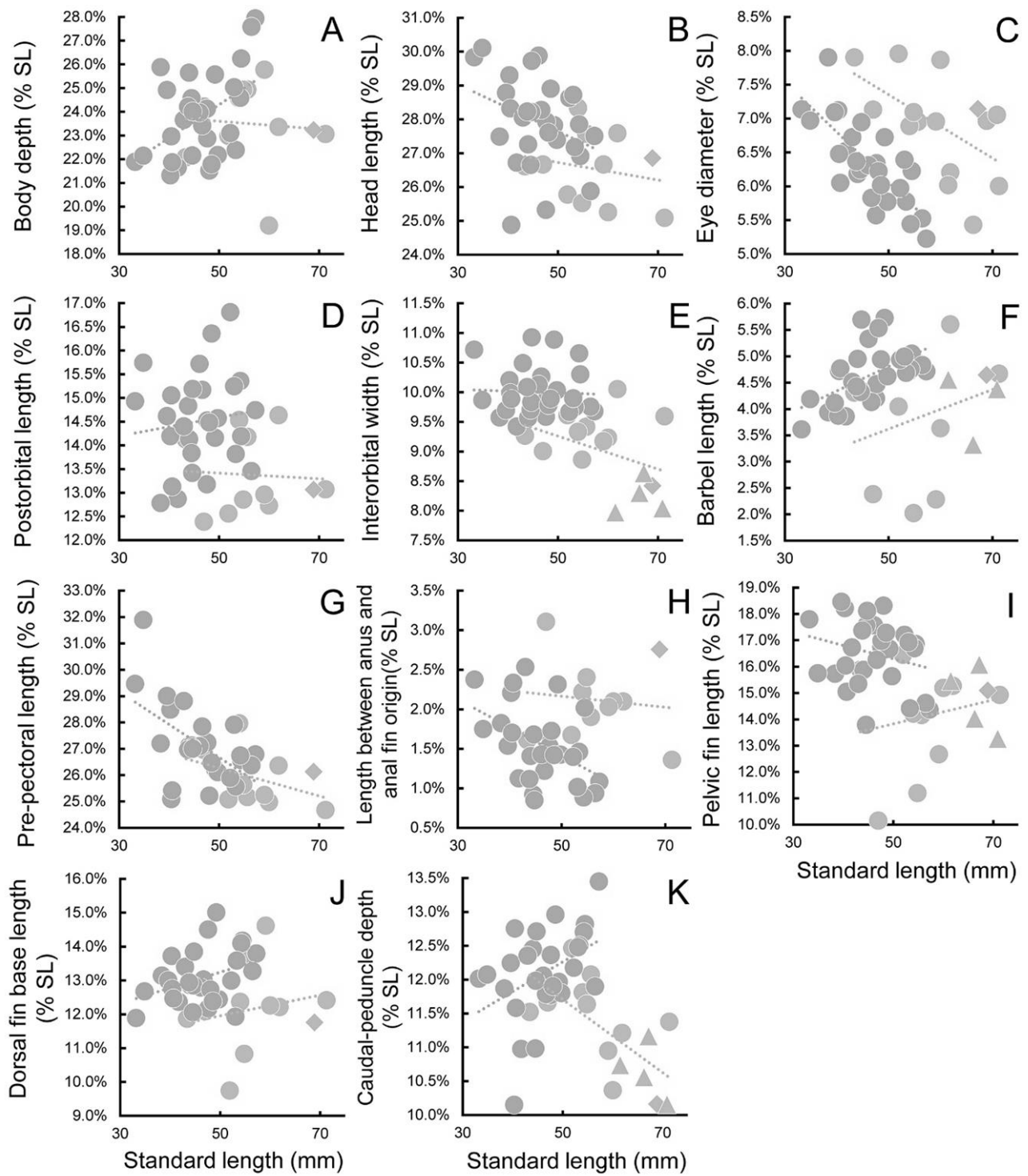


Figure 3. Relationships between body depth (A); head length (B); eye diameter (C); postorbital length (D); interorbital width (E); barbel length (F); pre-pectoral length (G); length between anus and anal fin origin (H); pelvic fin length (I); dorsal fin base length (J); and caudal-peduncle length (K) (all as % of SL) and standard length (mm) in *Gnathopogon elongatus elongatus* from Tenryu River system (blue circles) and *Gnathopogon elongatus suwae* (green circles, rhombi, and triangles), showing selected measurements. Rhombi and triangles indicates holotype and paratypes, respectively.

Report on specimens of seamoths (Gasterosteidae: Pegasidae) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The specimens of seamoths (Gasterosteidae: Pegasidae) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were re-identified in the present study. In total 42 specimens in 14 lots, representing 3 species of 2 genera, *Eurypegasus draconis* (Linnaeus, 1766), *Pegasus laternarius* Cuvier, 1816 and *P. volitans* Linnaeus, 1758 were found from the collection. No types are known for the family.

Introduction

The fishes of the family Pegasidae Bonaparte, 1831, commonly known as seamoths, usually inhabit on sandy or muddy bottoms of shallow waters, and rarely collected from seaweeds floating on the seawater surface offshore (Palsson and Pietsch 1989; Senou et al. 1999; Satapoomin 2013; Senou 2013; Itou et al. 2016; Mitsui and Senou 2020; Oyama and Aizawa 2024). Seamoths are characterized by horny depressed bodies, subterminal mouths, and large, horizontal pectoral fins, which make them well adapted to a benthic lifestyle (Palsson and Pietsch 1989). The Pegasidae currently comprises eight species of two genera from tropical and subtropical zone of the Indo-Pacific (Palsson and Pietsch 1989; Fricke et al. 2024). Among those, three species of two genera, viz., *Eurypegasus draconis* (Linnaeus, 1766), *Pegasus laternarius* Cuvier, 1816, and *P. volitans* Linnaeus, 1758, are recorded from Japanese waters (Senou 2013).

To aid future taxonomic and biogeographic studies, a list of specimens of Pegasidae deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) is herein provided.

Materials and Methods

Species nomenclature and identifications of ZUMT specimens generally followed Palsson and Pietsch (1989) and Senou (2013). Size of the specimens are expressed in standard length (mm; abbreviated as SL). The collection year and collector for some specimens were estimated by following Koeda et al. (2022).

Collection of Pegasidae in ZUMT

As a result of our survey, 42 specimens (in 14 lots) of three species belonging to two genera, *Eurypegasus draconis* (Linnaeus, 1766), *Pegasus laternarius* Cuvier, 1816, and *P. volitans* Linnaeus, 1758 were confirmed. No types for the family were found from the collection.

Pegasidae Bonaparte, 1831 ウミテング科
Eurypegasus Bleeker, 1863 ウミテング属
Eurypegasus draconis (Linnaeus, 1766) ウミテング
(Fig. 1)

JAPAN

ZUMT 1128: 31.1 mm SL, Yodomi (ヨドミ; fishing point), Sagami Bay, Kanagawa Pref., 200 hiro (尋) depth (1 hiro = 1.515 m or 1.816 m), 13 Jan. 1897, daho-nawa (だほ縄; a kind of bottom longline), coll. Uno (宇野; first name unknown).

ZUMT 5458: 44.0 mm SL, Eno-shima Island, Sagami Bay, Kanagawa Pref., 1894, donated by A. Owston on 14 Dec. 1899.

ZUMT 18756: 83.9 mm SL, Kashiwa-jima Island, Kochi Pref., 12 Mar. 1905, coll. K. Tago (田子勝彌).

ZUMT 20304: 45.2 mm SL, Wakayama Pref.

ZUMT 21842: 56.7 mm SL, Kagoshima Pref.

ZUMT 22255: 53.4 mm SL, probably near Tokyo Metropolis.

ZUMT 62233: 61.1 mm SL, Okino-shima Island, Kochi Pref., Aug. 2021, hand, coll. S. Masumoto (増本奏太).

ZUMT 68998: 8.1 mm SL, off Nakaminato, Ibaraki Pref., July 1992, donated by M. Kamogawa (鴨川 充/茨城県立太田第一高等学校).

ZUMT 69440: 37.9 mm SL, Shimizu Port, Suruga Bay, Shizuoka Pref., 0 m depth, 5 Sept. 2022, hand net, coll. R. Aonuma (青沼龍太郎).

Remarks. Oyama and Aizawa (2024) reported ZUMT 68998 as the northernmost record of *E. draconis*.

Pegasus Linnaeus, 1758 テングノオトシゴ属
Pegasus laternarius Cuvier, 1816 テングノオトシゴ
(Fig. 2)

JAPAN

ZUMT 30085: female, 69.5 mm SL, Sagami Bay, off Hayama, Kanagawa Pref., Aug. 1934.

ZUMT 34643: male, 55.1 mm SL, Kochi Pref., coll. T. Kamohara (蒲原稔治).

ZUMT 63047: male, 46.4 mm SL, Sagami Bay, off Kozu, Odawara City, Kanagawa Pref., July 1959.

TAIWAN

ZUMT 68999: 29 specimens, 64.4–89.1 mm SL, Jan. 1975, purchased at a herbal medicine store in Taipei by Y. Tominaga (富永義昭).

Pegasus volitans Linnaeus, 1758 ヤリテング
(Fig. 3)

TAIWAN

ZUMT 19707: 59.5 mm SL, coll. H. Saito (佐藤春吉/台北基隆中学校).

Acknowledgements

We are deeply grateful to the late Y. Tominaga for his dedication and efforts to the ZUMT collection. We are also grateful to H. Wada (Kanagawa Prefectural Museum of Natural History), S. Mabuchi, J. Oi, K. Seki and O. Sakai (Azabu Junior and Senior High School), S. Fujiwara, M. Fukatani, A. Iinuma, S. Ito, H. Kamei, Y. Kaneko, K. Kobayashi, K. Mochizuki, N. Osakabe, M. Saito, A. Takahashi and other volunteers of ZUMT for providing curatorial assistance.

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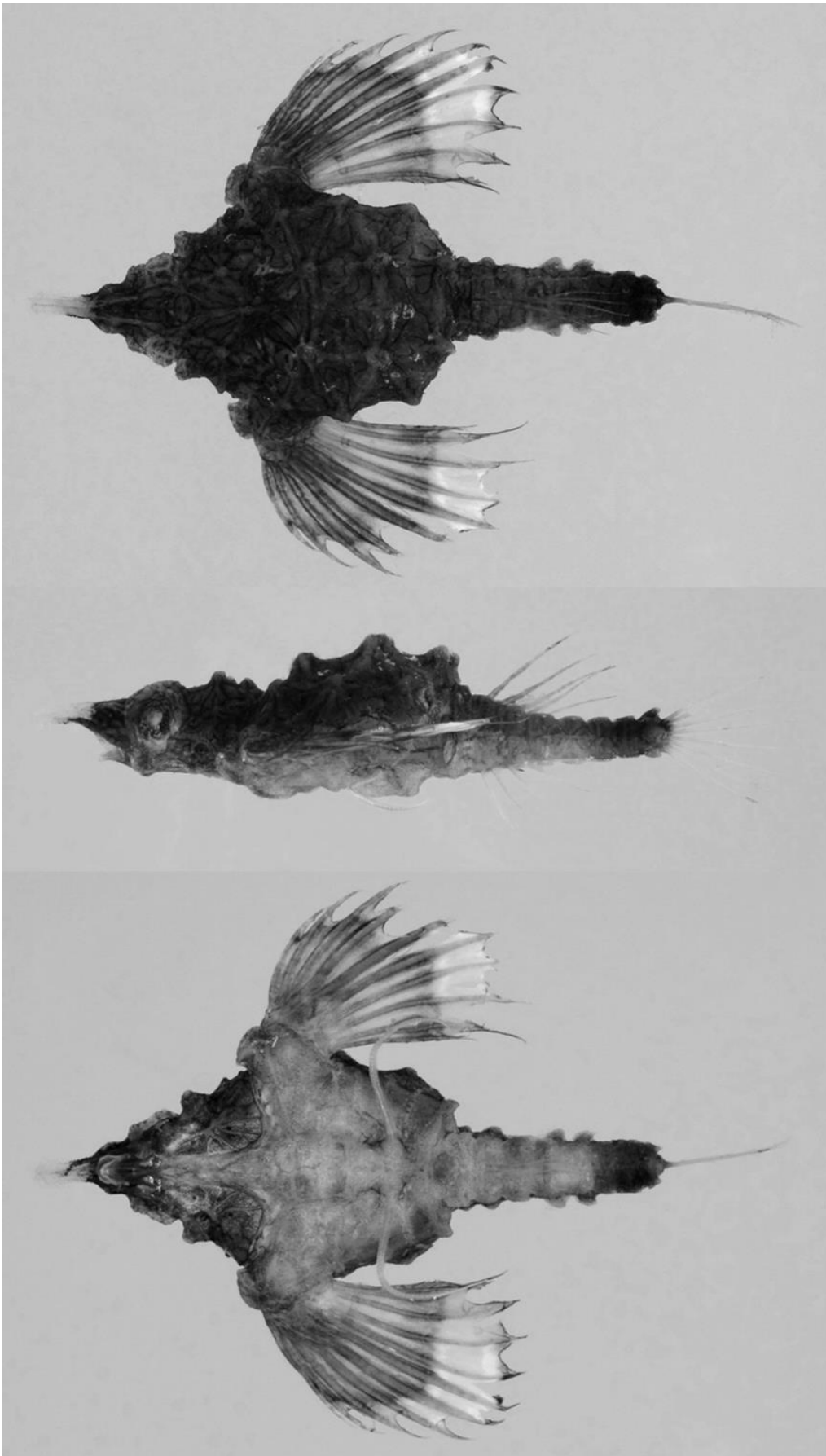


Figure 1. Dorsal (top), lateral (middle), and ventral (bottom) views of *Eurypegasus draconis* from Suruga Bay, Shizuoka Pref., Japan, in fresh condition after refrigeration (ZUMT 69440, 37.9 mm SL). Photos by D. Oyama.

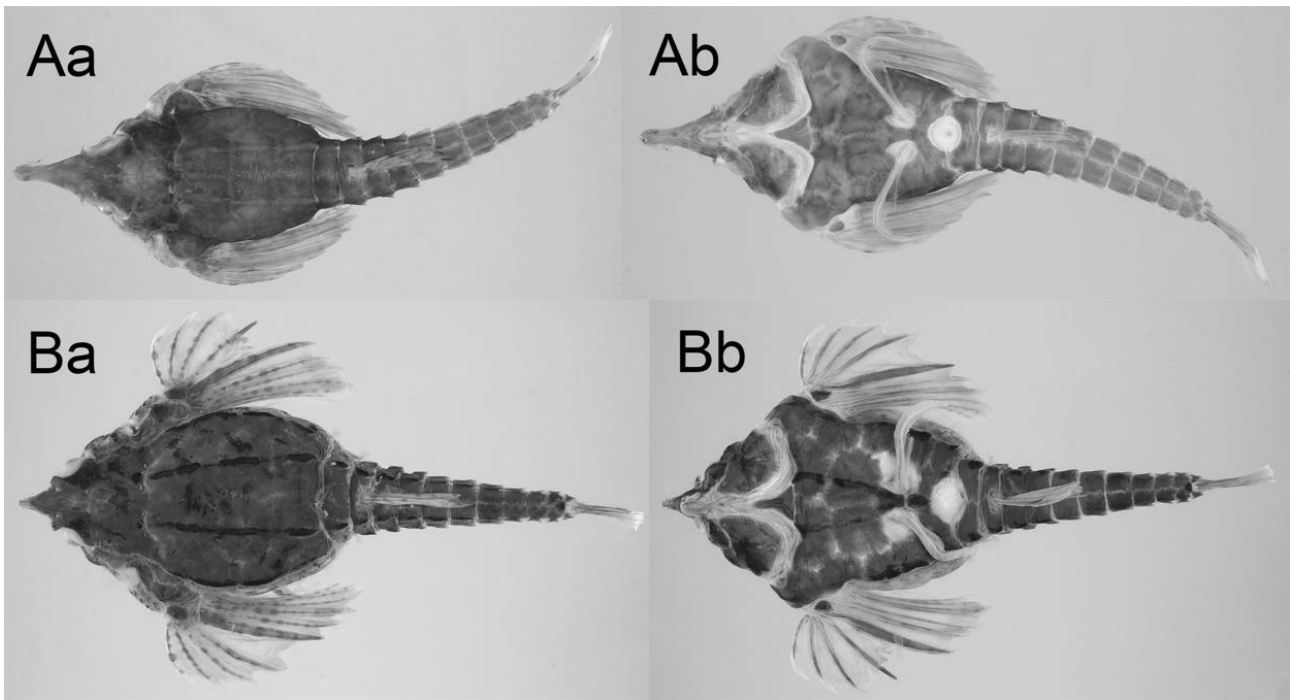


Figure 2. Dorsal (a) and ventral (b) views of preserved specimens of *Pegasus laternarius* (A: ZUMT 34643, male, 55.1 mm SL, Kochi Pref.; B: ZUMT 30085, female, 69.5 mm SL, Sagami Bay). Photos by D. Oyama.



Figure 3. Dorsal (top) and ventral (bottom) views of preserved specimen of *Pegasus volitans* from Taiwan (ZUMT 19707, 59.5 mm SL). Photos by D. Oyama.

A list of syngnathid (Teleostei) specimens deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The syngnathid specimens deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) comprise 279 cataloged lots, including 1027 individuals representing 20 genera with 44 species. The holotype of *Hippocampus takakurae* Tanaka, 1916 was confirmed as extant, although the holotype of *Hippichthys amakusensis* Tomiyama, 1972 was not found.

Introduction

The family Syngnathidae includes 57 genera, with more than 300 species (Dawson, 1985; Fricke et al., 2024), of which at least 70 are distributed in Japan (Motomura, 2024).

This catalog presents information obtained from both specimens and collection records of the family Syngnathidae in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT). Most of the specimens were collected in Japan.

Materials and Methods

The syngnathid specimens deposited in the Department of Zoology, The University Museum, The University of Tokyo (abbreviated as ZUMT) were identified following Dawson (1985), Lourie et al. (2004), Senou (2013), Yuki et al. (2023), and Yuki and Motomura (2024). Counts and measurements followed Dawson (1985) and Lourie et al. (2004). The standard lengths of specimens were generally measured for each, although only of the largest and smallest specimens when a large number were included in a single lot. In cases where accurate counts and measurements of specimens were not possible due to damage, "+" is appended. Collection data of specimens are omitted if the same as that for the previous specimen.

Collection of Syngnathidae in ZUMT

A total of 1,021 syngnathid specimens, representing 44 species in 20 genera, were located in the ZUMT collection. The holotype of *Hippocampus takakurae* Tanaka, 1916 was verified, whereas the holotype of *Hippichthys amakusensis* Tomiyama, 1972 was not located. Three species, *Acentronura tentaculata* Günther, 1870, *Hippocampus sindonis* Jordan and Snyder, 1901, and *Solegnathus (Solegnathus) lettiensis* Bleeker, 1860 had been collected from areas outside their recognized distribution to date.

Species Accounts

Syngnathidae ヨウジウオ科

Acentronura Kaup, 1853 タツノイトコ属

Acentronura gracilissima (Temminck and Schlegel, 1850) タツノイトコ

[JAPAN]

Chiba Pref.

ZUMT 22676: 73.5 mm SL, Tateyama Bay, Apr. 1914, coll. by U. Takakura.

Acentronura tentaculata Günther, 1870 タツノハトコ

[JAPAN]

Nagasaki Pref.

ZUMT 33563: 69.5 mm SL, donated by I. Kaneko.

Locality unknown

ZUMT 34734: 65.5 mm SL, probably Suruga Bay, Numazu, Shizuoka Pref., Japan, donated by S. Yamamoto.

Remarks: Previous specimen-based records of this species from Japan included the Kagoshima mainland, and Ishigaki-jima and Iriomote-jima islands (Senou et al., 1993; Yuki and Motomura, 2024). The specimen collected from Nagasaki Prefecture (ZUMT 33563) represents the first record of *A. tentaculata* from the prefecture and the northernmost record for the species.

Coelonotus Peters, 1855 イッセンヨウジ属

Coelonotus leiaspis (Bleeker, 1854) イッセンヨウジ

[JAPAN]

Nagasaki Pref.

ZUMT 13493: 100.4 mm SL, Kino River, 22 July 1924, coll. by I. Hoshino.

Wakayama Pref.

ZUMT 39182: 97.6 mm SL, Ukitsu River, coll. by S. Tanaka.

Okinawa Pref.

ZUMT 58105: 147.0 mm SL, ZUMT 58106: 135.5 mm SL, ZUMT 58107: 137.2 mm SL, Nakama River, Iriomote-jima island, 9 July 1988, coll. by H. Senou and M. Aizawa; ZUMT 58142: 126.7 mm SL, ZUMT 58143: 146.3 mm SL, Nakama River, Iriomote-jima island, 10 July 1988, coll. by H. Senou and M. Aizawa; ZUMT 60065: 97.2 mm SL, Urauchi River, Iriomote-jima island, 17 Aug. 1989, coll. by H. Senou and M. Aizawa.

Locality unknown

ZUMT 8749: 105.5 mm SL, coll. by T. Nekoyama.

Corythoichthys Kaup, 1853 イシヨウジ属

Corythoichthys amplexus Dawson and Randall, 1975 オビイシヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 60409: 80.8 mm SL, Amitori Bay, Iriomote-jima island, 24 Aug. 1989, coll. by M. Aizawa, H. Senou, T. Suzuki, and T. Uryu.

Corythoichthys flavofasciatus (Rüppell, 1838) キシマイシヨウジ

[JAPAN]

Kagoshima Pref.

ZUMT 29703: 56.5 mm SL, ZUMT 29704: 67.3 mm SL, Tokuno-shima island, 10 Sept. 1910, donated by Miyashita.

Corythoichthys haematopterus (Bleeker, 1851) イシヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 5456: 120.3 mm SL, Ishigaki-jima island, Apr. 1899; ZUMT 22766: 104.5+ mm SL.

[PHILIPPINES]

ZUMT 31855: 99.7 mm SL, Boeton Is., Sept. 1935–Jan. 1936, coll. by R. Wada; ZUMT 68662: 120+ mm SL, Basilan Island, coll. by U. Yamamura and Y. Yamamura.

[PALAU]

ZUMT 68649: 152.1 mm SL, ZUMT 68650: 151.3 mm SL, Palau Islands, Aug. 1936–May 1937, coll. by T. Abe.

Corythoichthys intestinalis (Ramsay, 1881) リュウキュウイシヨウジ

[USA]

ZUMT 26190: 103.2+ mm SL, Saipan, coll. by A. Nakajima.

[PALAU]

ZUMT 31972: 110.9 mm SL, July 1935; ZUMT 55315: 80.3 mm SL, Aug. 1935, coll. by Haneda and Yada; ZUMT 68651: 102.7 mm SL, ZUMT 68652: 112.3–114.7 mm SL (2 specimens), ZUMT 68658: 98.3+ mm SL, Palau Islands, Aug. 1936–May 1937, coll. by T. Abe.

Corythoichthys polynotatus Dawson, 1977 オボロイシヨウジ

[PALAU]

ZUMT 68653: 123.3 mm SL, ZUMT 68654: 105.1 mm SL, ZUMT 68655: 87.5 mm SL, ZUMT 68656: 75.9 mm SL, ZUMT 68657: 63.8 mm SL, Palau Islands, Aug. 1936–May 1937, coll. by T. Abe.

Cosmocampus Dawson, 1979 ヒナヨウジ属

Cosmocampus banneri (Herald and Randall, 1972) ヒナヨウジ

[JAPAN]

Tokyo Metropolitan Area

ZUMT 68667: 53.0 mm SL, Miyanohama, Chichi-jima island, Ogasawara Islands, 10 July 2004, coll. by H. Tachikawa.

Doryichthys Kaup, 1856

Doryichthys boaja (Bleeker, 1850)

[MALAYSIA]

ZUMT 62957: 332.8+ mm SL, ZUMT 62958: 294.8+ mm SL, Borneo I., Sarawak, donated by T. Harrison before 1961.

Doryichthys deokhatoides (Bleeker, 1854)

[MALAYSIA]

ZUMT 62959: 118.8+ mm SL, Borneo I., Sarawak, donated by T. Harrison before 1961.

Doryrhamphus Kaup, 1856 ヒバシヨウジ属

Doryrhamphus (Doryrhaphus) excisus excisus Kaup, 1856 ヒバシヨウジ

[USA]

ZUMT 57568: 43.6 mm SL, Hawaiian Is., 10 Apr. 1986, coll. by J. E. Randall.

Doryrhamphus (Doryrhaphus) negrosensis negrosensis Herre, 1934 セスジヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 60738: 9.0–21.1 mm SL (3 specimens), Kabira Bay, Ishigaki-jima island, 29 Aug. 1989, coll. by H. Senou and M. Aizawa.

Doryrhamphus (Doryrhaphus) japonicus Araga and Yoshino, 1975 ノコギリヨウジ

[JAPAN]

Wakayama Pref.

ZUMT 68659: 65.6+–78.7+ mm SL, Shirahama, coll. by Suma Aquarium.

Doryrhamphus (Dunckerocampus) dactyliophorus Bleeker, 1853 オイランヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 60470: 86.5 mm SL, Amitori Bay, Iriomote-jima island, 24 Aug. 1989, coll. by M. Aizawa, H. Senou, T. Suzuki, and T. Uryu.

[PALAU]

ZUMT 68647: 119.6 mm SL, Palau Islands, Aug. 1936–May 1937, coll. by T. Abe.

Festucalex Whitley, 1931 アマクサヨウジ属

Festucalex amakusensis (Tomiyama, 1972) アマクサヨウジ

[JAPAN]

Nagasaki Pref.

ZUMT 2465: 74.2 mm SL, Aug. 1909.

Remarks: The holotype of *Hippichthys amakusensis* Tomiyama, 1972 was not located in ZUMT, and is most likely to have been lost during its transfer from Aitsu Marine Biological Station to ZUMT.

Halicampus Kaup, 1856 ウミヤッコ属
Halicampus brocki (Herald, 1953) ノコギリウミヤッコ

[JAPAN]

Tokyo Metropolitan Area

ZUMT 68668: 46.0 mm SL, Ani-jima island, Ogasawara Islands, 6 Oct. 2001, coll. by H. Tachikawa and M. Inaba.

Halicampus grayi Kaup, 1856 ウミヤッコ

[JAPAN]

Nagasaki Pref.

ZUMT 27123: 112.8 mm SL, donated by I. Kaneko.

Kagoshima Pref.

ZUMT 26943: 105.4 mm SL.

Locality unknown

ZUMT 7358: 70.8 mm SL.

Halicampus macrorhynchus Bamber, 1915 タツウミヤッコ

[JAPAN]

Nagasaki Pref.

ZUMT 22675: 121.7 mm SL, Tateyama Bay, Apr. 1914, coll. by U. Takakura.

Halicampus punctatus (Kamohara, 1952) ホシヨウジ

[JAPAN]

Kanagawa Pref.

ZUMT 44907: 121.7 mm SL; ZUMT 50985: 96.8 mm SL, 20 July 1952; ZUMT 50988: 101.1–101.3 mm SL (2 specimens), 3 Apr. 1935.

Hippichthys Bleeker, 1849 カワヨウジ属
Hippichthys (Hippichthys) cyanospilos (Bleeker, 1854) ハクテンヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 58475: 58.3–69.7 mm SL (2 specimens), Amitori Bay, Iriomote-jima island, 14 July 1988, coll. by H. Senou and M. Aizawa; ZUMT 60709: 78.3 mm SL, Kabira Bay, Ishigaki-jima island, 29 Aug. 1989, coll. by M. Aizawa, H. Senou, T. Uryu, and H. Masuda; ZUMT 60775: 75.4–82.1 mm SL (2 specimens), Sukuji beach, Ishigaki-jima island, 29 Aug. 1989, coll. by H. Senou and M. Aizawa; ZUMT 68872: 35.3 mm SL, Iriomote-jima island, coll. by R. Aonuma.

Hippichthys (Hippichthys) heptagonus Bleeker, 1849 アミメカワヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 58541: 110.7 mm SL, Urauchi River, Iriomote-jima island, 15 July 1988, coll. by H. Senou and M. Aizawa;

ZUMT 67488, 89.9 mm SL, ZUMT 67489, 77.7 mm SL, Genka River, Okinawa-jima island, 18 Mar. 2024.

Hippichthys (Hippichthys) spicifer (Rüppell, 1838) カワヨウジ

[JAPAN]

Chiba Pref.

ZUMT 67348: 101.1 mm SL, ZUMT 67349: 90.2 mm SL, Shirako Port, 10 Sept. 2022, coll. by S. Makiguchi;
ZUMT 67365: 126.8 mm SL, Kaito River, 18 Dec. 2023, coll. by I. Fukuchi and T. Momose.

Okinawa Pref.

ZUMT 58344: 116.4 mm SL, ZUMT 58345: 102.3 mm SL, Yonada River, Iriomote-jima island, 13 July 1988, coll. by H. Senou and M. Aizawa; ZUMT 58540: 85.6–130.8 mm SL (5 specimens), Urauchi River, Iriomote-jima island, 15 July 1988, coll. by H. Senou and M. Aizawa; ZUMT 60124: 136 mm SL, Urauchi River, Iriomote-jima island, 18 Aug. 1989, coll. by H. Senou and M. Aizawa; ZUMT 60287: 118.1 mm SL, Yonada River, Iriomote-jima island, 20 Aug. 1989, coll. by M. Aizawa, H. Senou, T. Suzuki, and T. Uryu; ZUMT 60295: 117.9 mm SL, Yonada River, Iriomote-jima island, 20 Aug. 1989, coll. by H. Senou and M. Aizawa.

[TANZANIA]

ZUMT 65799: 91.5–121.6 mm SL (10 specimens), Dar es Salaam, 28 Aug. 1972.

Hippichthys (Parasyngnathus) penicillus (Cantor, 1849) ガンテンイシヨウジ

[JAPAN]

Nagasaki Pref.

ZUMT 57370: 83.4 mm SL, Dandou River, 22 Sept. 1987, coll. by H. Senou and T. Saruwatari.

Chiba Pref.

ZUMT 27579: 130.7 mm SL, ZUMT 27580: 135.5 mm SL, ZUMT 29410: 125.6 mm SL.

Tokyo Metropolitan Area

ZUMT 1340: 149.2 mm SL, Haneda; ZUMT 12754: 125.1 mm SL, ZUMT 12789: 120.4 mm SL.

Kanagawa Pref.

ZUMT 21032: 116.1 mm SL, ZUMT 21033: 160.4 mm SL, Sagami Bay, Misaki, Miura, 1930; ZUMT 68621: 60.2–94.9 mm SL (27 specimens), Sagami Bay, Misaki, Miura, 1942.

Aichi Pref.

ZUMT 6055: 158.1 mm SL, Nagoya.

Kagoshima Pref.

ZUMT 1131: 99.8 mm SL, 1 Apr. 1896, coll. by K. Mitsukuri and J. Hara; ZUMT 26945: 116.4 mm SL.

[TAIWAN]

ZUMT 12386: 165.0+ mm SL, Taipei, coll. by T. Aoki.

Locality unknown

ZUMT 7204: 118.0 mm SL, probably Ehime Pref., Japan, coll. by K. Otsuki; ZUMT 36000: 113.9 mm SL; ZUMT 48354: 130.2 mm SL, probably Nagasaki Pref. Japan, coll. by Fukue high school.

Hippocampus Rafinesque, 1810 タツノオトシゴ属
Hippocampus abdominalis Lesson, 1827

[AUSTRALIA]

ZUMT 68956: 261.2 mm SL, ZUMT 68957: 276.3 mm SL, Tasmania.

Hippocampus coronatus Temminck and Schlegel, 1850 タツノオトシゴ

[JAPAN]

Nagasaki Pref.

ZUMT 50392: 74.8 mm SL, Usukou, Oct. 1953, coll. by I. Tomiyama.

Miyagi Pref.

ZUMT 24571: 52.3 mm SL, Watanoha, 10 Dec. 1931, coll. by Y. Fukuda.

Locality unknown

ZUMT 68681: 138.0 mm SL, coll. by T. Abe.

Hippocampus histrix Kaup, 1856 イバラタツ

[JAPAN]

Wakayama Pref.

ZUMT 20230: 202.8 mm SL, Jan. 1920, coll. by N. Ui.

Kochi Pref.

ZUMT 19556: 207.3 mm SL, Susaki city, Oct. 1928, coll. by T. Kamohara.

Kagoshima Pref.

ZUMT 29699: 104.4 mm SL, Amami-oshima island, 30 Aug. 1910, donated by Miyashita.

[TAIWAN]

ZUMT 14847: 98.7 mm SL, Hairen, coll. by T. Aoki; ZUMT 35994: 159.0 mm SL, Tainan, donated by Yamagoe.

[PHILIPPINES]

ZUMT 31860: 137.1 mm SL, Boeton Is., Sept. 1935–Jan. 1936, coll. by R. Wada.

Locality unknown

ZUMT 5153: 79.5 mm SL; ZUMT 34150: 226.3 mm SL, probably Kochi Pref., Japan, Sept. 1919, coll. by Kochi Fisheries Research Station; ZUMT 68680: 125.4 mm SL, 1961, coll. by T. Abe; ZUMT 68683: 186.3 mm SL, ZUMT 68684: 200.2 mm SL, ZUMT 68685: 162.0 mm SL, ZUMT 68686: 133.5 mm SL, ZUMT 68687: 118.8+ mm SL.

Hippocampus kelloggi Jordan and Snyder, 1901 オオウミウマ

[JAPAN]

Kochi Pref.

ZUMT 19564: 182.6 mm SL, Okino-shima island, Aug. 1928, coll. by T. Kamohara.

Hippocampus kuda Bleeker, 1852 クロウミウマ

[JAPAN]

Tokyo Metropolitan Area

ZUMT 12777: 169.1 mm SL.

Okinawa Pref.

ZUMT 1062: 143.1 mm SL, Ishigaki-jima island.

Locality unknown

ZUMT 63767: 86.8 mm SL; ZUMT 68682: 151.1 mm SL, 1958, coll. by T. Abe.

Hippocampus mohnikei Bleeker, 1853 サンゴタツ

[JAPAN]

Nagasaki Pref.

ZUMT 26685: 49.7 mm SL, coll. by I. Kaneko; ZUMT 33543: 42.8 mm SL, donated by I. Kaneko.

Chiba Pref.

ZUMT 27565: 70.1 mm SL.

Tokyo Metropolitan Area

ZUMT 35996: 56.2 mm SL, Tokyo Bay.

Kanagawa Pref.

ZUMT 21345: 81.1 mm SL, Tomioka or Misaki, 1930, coll. by S. Fukuda.

Kagoshima Pref.

ZUMT 26947: 145.1 mm SL.

[CHINA]

ZUMT 68688: 47.8 mm SL, ZUMT 68689: 42.0 mm SL, East China Sea 2 June 1980, coll. by Y. Tominaga.

Locality unknown

ZUMT 26264: 69.8 mm SL, probably Yamaguchi Pref., Japan, coll. by Okikaze Junior High School; ZUMT 33932: 79.7 mm SL, ZUMT 33933: 76.5 mm SL, ZUMT 33934: 66.3 mm SL, ZUMT 33936: 93.0 mm SL, ZUMT 33937: 82.1 mm SL, probably Aichi Pref., Jpn, coll. by H. Niwa; ZUMT 35262: 66.9 mm SL, ZUMT 35264: 54.6 mm SL, probably Shizuoka Pref., Japan, donated by S. Araki.

Hippocampus sindonis Jordan and Snyder, 1901 ハナタツ

[JAPAN]

Kanagawa Pref.

ZUMT 68617: 53.4–114.2 mm SL (9 specimens), Sagami Bay, Misaki, Miura, 31 May 1911.

Nagasaki Pref.

ZUMT 43306: 58.6 mm SL.

Remarks: Previous Japanese records of the species included Sagami Bay, Izu-oshima island, Enshu-nada Sea, Mie Prefecture, Wakayama Prefecture, and Seto Inland Sea, Yamaguchi Prefecture (Senou, 2013; Han et al., 2017; Yoshigou, 2018). ZUMT 43306 represents the first record of *H. sindonis* from Nagasaki Prefecture.

Hippocampus trimaculatus Leach, 1814 タカクラタツ
(Fig. 1; Table 1)

[JAPAN]

Nagasaki Pref.

ZUMT 48274: 176.0 mm SL, Oct. 1953.

Chiba Pref.

ZUMT 22674: 199.0 mm SL, Hojyou, Tateyama, 1913, coll. by U. Takakura.

Kanagawa Pref.

ZUMT 4178: 183.6 mm SL, Misaki, 1914, coll. by I. Oga; ZUMT 57999: 111.0 mm SL, Hayakawa Fishing Port, 25 Nov. 1988, coll. by M. Aizawa.

Shizuoka Pref.

ZUMT 33001, 169.9 mm SL, ZUMT 33003, 146.6 mm SL, ZUMT 33004, 166.2 mm SL, ZUMT 33005, 138.0 mm SL, ZUMT 33006, 138.4 mm SL, Sagami Bay, Ajiro, Atami, 7 Dec. 1933, coll. by S. Tanaka.

Wakayama Pref.

ZUMT 9644: 166.3 mm SL, coll. by N. Ui; ZUMT 22452: 119.4 mm SL, coll. by N. Ui.

Kochi Pref.

ZUMT 19555: 138.4 mm SL, Oct. 1928, coll. by T. Kamohara.

Remarks: The holotype of *Hippocampus takakurae* Tanaka, 1916, a junior synonym of *Hippocampus trimaculatus* Leach, 1814, was considered to have been lost (Fricke et al., 2024). However, that specimen was located in ZUMT (ZUMT 22674).

Hippocampus sp.

[JAPAN]

Kanagawa Pref.

ZUMT 65299: 34.0+ mm SL, Sagami Bay, Misaki, Miura, stomach contents of *Neosebastes entaxis* Jordan and Starks, 1904 (ZUMT 2634).

Remarks: The specimen was in such poor condition that specific identification was impossible.

Ichthyocampus Kaup, 1853

Ichthyocampus sp.

[TANZANIA]

ZUMT 65798: 81.4 mm SL, Dar es Salaam, 28 Aug. 1972.

Remarks: ZUMT 65798 had a greater number of dorsal and pectoral-fin rays than *Ichthyocampus carce* (Hamilton, 1822), and may represent an undescribed species. It is tentatively listed here as *Ichthyocampus* sp.

Micrognathus Duncker, 1912 カンムリヨウジ属

Micrognathus andersonii (Bleeker, 1858) カンムウリヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 58654: 37.8 mm SL, Kabira Bay, Ishigaki-jima island, 18 July 1988, coll. by H. Senou and M. Aizawa;

ZUMT 58693: 41.6 mm SL, Sukuji Beach, Ishigaki-jima island, 19 July 1988, coll. by H. Senou and M. Aizawa.

[PALAU]

ZUMT 68648: 49.7 mm SL, Palau Islands, Aug. 1936–May 1937, coll. by T. Abe.

Microphis Kaup, 1853 テングヨウジ属

Microphis (Lophocampus) retzii (Bleeker, 1856) タニヨウジ

[PHILIPPINES]

ZUMT 68661: 98.0–111.8 mm SL (3 specimens), Basilan Island, coll. by U. Yamamura and Y. Yamamura.

Microphis (Oostethus) brachyurus brachyurus (Bleeker, 1853) テングヨウジ

[TAIWAN]

ZUMT 12387: 156.0+ mm SL, Taipei, coll. by T. Aoki.

[PALAU]

ZUMT 68643: 167.5 mm SL, ZUMT 68644: 166.5 mm SL, ZUMT 68645: 174.2 mm SL, Palau Islands, Aug. 1936–May 1937, coll. by T. Abe.

Locality unknown

ZUMT 1138: 144.0 mm SL, 1892; ZUMT 63017: 104.7 mm SL.

Phoxocampus Dawson, 1977 ボウヨウジ属
Phoxocampus belcheri (Kaup, 1856) ボウヨウジ

[JAPAN]

Okinawa Pref.

ZUMT 27366, 55.9 mm SL, ZUMT 27367, 75.8 mm SL, ZUMT 27368, 52.4 mm SL, ZUMT 27369, 53.0 mm SL, ZUMT 27370, 68.8 mm SL, ZUMT 27371, 52.8 mm SL, ZUMT 27372, 68.0 mm SL, ZUMT 27373, 47.9 mm SL, Naha, 23 May 1900, coll. by Miyajima.

Phyllopteryx Swainson, 1839
Phyllopteryx taeniolatus (Lacepède, 1804)

[AUSTRALIA]

ZUMT 1802: 317.1 mm TL, ZUMT 68955: 371.7 mm TL, Tasmania.

Solegnathus Swainson, 1839 スミツキヨウジ属
Solegnathus (Solegnathus) lettiensis Bleeker, 1860 シンカイスミツキヨウジ

[JAPAN]

Kagoshima Pref.

ZUMT 21685: 297.0+ mm TL, Tanega-shima island, Mar. 1930, coll. by T. Kamohara.

Remarks: The previous specimen-based records of this species from Japan included the middle of the Okinawa Trough, and Kamikoshiki-sima island (Okamura, 1985; Yuki et al., 2023). ZUMT 21685 represents the first record of *Solegnathus (Solegnathus) lettiensis* from Tanega-shima island.

Syngnathoides Bleeker, 1851 トゲヨウジ属
Syngnathoides biaculeatus (Bloch, 1785) トゲヨウジ

[JAPAN]

Kanagawa Pref.

ZUMT 40297: 176.2 mm TL, Misaki, 16 Aug. 1909.

Hyogo Pref.

ZUMT 9148: 195.1 mm TL, Himeji, coll. by R. Abe and C. Sakamoto.

Kagoshima Pref.

ZUMT 21836: 207.0+ mm TL.

Okinawa Pref.

ZUMT 5448: 203.5 mm TL, Ishigaki-jima island, Apr. 1899.

[PHILIPPINES]

ZUMT 31856: 212.0 mm TL, Celebes, Sept. 1935–Jan. 1936, coll. by R. Wada; ZUMT 68660: 155.3–160.0+ mm TL (2 specimens), Basilan Island, coll. by U. Yamamura and Y. Yamamura.

[PALAU]

ZUMT 42753: 189.2 mm TL, ZUMT 42754: 207.0+ mm TL, Palau Islands, coll. by Y. Haneda; ZUMT 55316: 183.5 mm TL, Palau Islands, Aug. 1935, coll. by Y. Haneda; ZUMT 68646: 182.1 mm TL, Palau Islands, Aug. 1936–May 1937, coll. by T. Abe.

Locality unknown

ZUMT 63757: 212.0 mm TL.

Syngnathus Linnaeus, 1758 ヨウジウオ属
Syngnathus schlegeli Kaup, 1853 ヨウジウオ

[RUSSIA]

ZUMT 7280: 186.3+ mm SL, Vladivostok, coll. by I. Kaneko.

[JAPAN]

Hokkaido Pref.

ZUMT 8240: 202.5 mm SL, Takashima.

Aomori Pref.

ZUMT 13002: 213.1–222.9 mm SL (2 specimens), Aomori, 4 Nov. 1923, coll. by S. Tanabe.

Toyama Pref.

ZUMT 32496: 94.4–118.0 mm SL (3 specimens), Higashiiwase, 28 Aug. 1935, coll. by H. Yamashita.

Yamaguchi Pref.

ZUMT 10126: 210.5 mm SL, Senzaki, coll. by S. Tanaka; ZUMT 26178: 242.1 mm SL, coll. by M. Nagatomi.

Nagasaki Pref.

ZUMT 2537: 197.0 mm SL, Oct. 1909; donation from Nagasaki Shihan School; ZUMT 5309: 163.0+–211.3 mm SL, Tsushima, 29 Sept. 1903, coll. by S. Watarase and S. Yasuda; ZUMT 27125: 194.0 mm SL, donated by Kaneko; ZUMT 33789: 237.0+ mm SL, Mar. 1909, coll. by S. Tanaka; ZUMT 48032: 181.8 mm SL, Hirado, 29 May 1953, coll. by I. Tomiyama.

Kumamoto Pref.

ZUMT 3274: 135.5 mm SL, 21 Jan. 1912, coll. by S. Kawakami.

Iwate Pref.

ZUMT 13080: 205.9 mm SL, Miyako Bay, coll. by S. Tanabe.

Chiba Pref.

ZUMT 27581: 101.5 mm SL, ZUMT 27582: 99.3 mm SL, ZUMT 27583: 98.3 mm SL, Boshu.

Tokyo Metropolitan Area

ZUMT 1139: 154.3–182.3 mm SL (2 specimens), Haneda; ZUMT 4097: 223.3 mm SL; ZUMT 4535: 214.5 mm SL, ZUMT 4536: 147.2 mm SL, ZUMT 4537: 189.2 mm SL, ZUMT 4538: 230.5 mm SL, ZUMT 4539: 223.9 mm SL, Tokyo Bay; ZUMT 5784: 140.1 mm SL; ZUMT 11953: 125.8 mm SL; ZUMT 12765: 187.5 mm SL; ZUMT 12783: 199.5 mm SL; ZUMT 21009: 110.4–225.1 mm SL (20 specimens), ZUMT 21010: 182.5 mm SL.

Kanagawa Pref.

ZUMT 5450: 141.5–220.0 mm SL (20 specimens), ZUMT 5454: 90.8 mm SL, Misaki, 1915; ZUMT 20295: 179.8 mm SL, ZUMT 20601: 197.2 mm SL, ZUMT 20641: 213.1 mm SL, ZUMT 20642: 196.1 mm SL, ZUMT 20643: 206.3 mm SL, ZUMT 20644: 213.5 mm SL, ZUMT 20703: 195.8 mm SL, ZUMT 20766: 224.1 mm SL, ZUMT 20767: 203.6 mm SL, ZUMT 20768: 207.3 mm SL, ZUMT 20769: 203.2 mm SL, ZUMT 20800: 175.7 mm SL, ZUMT 20837: 189.6 mm SL, ZUMT 20932: 171.2 mm SL, ZUMT 21034: 140.2 mm SL, ZUMT 22292: 186.3 mm SL, ZUMT 22293: 179.1 mm SL, ZUMT 22294: 178.1 mm SL, Misaki, 1930; ZUMT 27425: 103.5 mm SL, ZUMT 27426: 114.8 mm SL, ZUMT 27427: 118.5 mm SL, Sagami Bay, Misaki, Miura, 1934, coll. by S. Miyoshi; ZUMT 37572: 154.5 mm SL, ZUMT 37573: 166.0 mm SL, Sagami Bay, Misaki, Miura, 1936, coll. by S. Miyoshi; ZUMT 43607: 199.5 mm SL, ZUMT 43608: 140.0+ mm SL, Misaki, 1942; ZUMT 44446: 106.0+–192.5 mm SL (20 specimens), Sagami Bay, Misaki, Miura, 1943; ZUMT 48812: 66.2 mm SL, Arasaki, 24 July 1956, coll. by Imperial Household Agency; ZUMT 68622: 63.4–175.8 mm SL (27 specimens), Sagami Bay, Misaki, Miura, 1942.

Shizuoka Pref.

ZUMT 15797: 237.6 mm SL, Shimizu; ZUMT 18553: 202.0 mm SL, Lake Hamana, coll. by S. Omori.

Wakayama Pref.

ZUMT 20385: 146.1 mm SL, Tanabe, coll. by N. Ui; ZUMT 22525: 232.5 mm SL, Jan. 1920, coll. by N. Ui.

Hyogo Pref.

ZUMT 7418: 217.2 mm SL, Moroyose, coll. by K. Yamatori; ZUMT 7419: 185.7 mm SL, ZUMT 7422: 191.7 mm SL, Mikage, coll. by K. Yamatori.

Locality unknown

ZUMT 5455: 125.7–131.1 mm SL (17 specimens); ZUMT 26049: 164.1 mm SL, probably Toyama Pref., Japan, coll. by K. Kikuchi; ZUMT 36124: 173.5 mm SL, ZUMT 36125: 175.6 mm SL, ZUMT 46810: 155.5+–184.3 mm SL (10 specimens), ZUMT 63562: 69.7 mm SL; ZUMT 68665: 221.0–225.8 mm SL (2 specimens); ZUMT 68666: 139.1 mm SL, coll. by T. Abe.

Syngnathus typhle Linnaeus, 1758

[GERMANY]

ZUMT 68664: 100.5–224.1 mm SL (11 specimens), Kiel, coll. by I. Iijima.

Trachyrhamphus Kaup, 1853 ヒフキヨウジ属
Trachyrhamphus longirostris Kaup, 1856 イトヒキヨウジ

[Thailand]

ZUMT 66059: 218.0 mm SL, Gulf of Thailand, 9 July 1985.

Trachyrhamphus serratus (Temminck and Schlegel, 1850) ヒフキヨウジ

[JAPAN]

Nagasaki Pref.

ZUMT 7281: 225.8 mm SL, ZUMT 7315: 225.0+ mm SL, coll. by I. Kaneko; ZUMT 27124: 163.0+ mm SL, donated by I. Kaneko.

Kanagawa Pref.

ZUMT 4177: 250.5+ mm SL, Misaki, 1914, coll. by I. Oga; ZUMT 20786: 318.3 mm SL, Misaki, 1930; ZUMT 44094: 322.3 mm SL, ZUMT 44095: 286.5 mm SL, Misaki.

Shizuoka Pref.

ZUMT 33008: 305.6 mm SL, Sagami Bay, Ajiro, Atami, coll. by S. Tanaka.

Kagoshima Pref.

ZUMT 26944: 206.9 mm SL.

Locality unknown

ZUMT 7357: 110.6 mm SL; ZUMT 8039: 242.5 mm SL, probably Wakayama Pref., Japan, coll. by I. Hoshino; ZUMT 68663: 251.5+ mm SL, 30 Aug. 1883, coll. by F. Sakamoto.

Urocampus Günther, 1870 オクヨウジ属
Urocampus nanus Günther, 1870 オクヨウジ

[JAPAN]

Aomori Pref.

ZUMT 13004: 76.6–101.5 mm SL (2 specimens), Aomori, 4 Nov. 1923, coll. by S. Tanabe.

Kanagawa Pref.

ZUMT 27584: 106.4 mm SL, ZUMT 27585: 105.1 mm SL, ZUMT 27586: 109.6 mm SL, ZUMT 27587: 104.5 mm SL, ZUMT 27588: 109.2 mm SL, ZUMT 27589: 109.7 mm SL, ZUMT 27590: 106.9 mm SL, ZUMT 27591: 101.0 mm SL, ZUMT 27592: 95.6 mm SL, ZUMT 27593: 78.8 mm SL, ZUMT 27594: 73.4 mm SL, ZUMT

27595: 98.3 mm SL, Boshu; ZUMT 43243: 77.3–87.8 mm SL (563 specimens), Sagami Bay, Misaki, Miura, 1942; ZUMT 67473: 114.1 mm SL, Ena Bay, 12 May 2024; ZUMT 68608: 109.6–130.1 mm SL (2 specimens), Sagami Bay, Misaki, Miura, 1943.

Locality unknown

ZUMT 29223: 116.0 mm SL, ZUMT 29224: 113.5 mm SL, probably Shizuoka Pref., Japan, coll. by Y. Ito.

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Table 1. Counts and measurements of holotype of *Hippocampus takakurae* from Hojo, Tateyama, Chiba Prefecture, Japan.

	ZUMT22674
Sex	male
Standard length (mm)	199.0
Counts	
Trunk rings	11
Tail rings	41
Pectoral-fin rays (left/right)	17/17
Dorsal-fin rays	21
Anal-fin rays	4
Measurements (% of SL)	
Trunk length	23.3
Tail length	55.2
Head length	14.6
Trunk depth between 4th and 5th trunk rings	6.9
Trunk depth between 9th and 10th trunk rings	11.5
Trunk width between 9th and 10th trunk rings	6.6
Trunk depth, including lateral spines, at 9th rings	4.8
Dorsal fin length	9.1
Pectoral fin length	3.3
Measurements (% of HL)	
Head depth	61.5
Snout length	47.4
Snout depth	12.6
Coronet height	29.4
Orbital diameter	18.5
Postorbital length	38.1



Figure 1. Preserved holotype of *Hippocampus takakurae* (ZUMT 22674) from Hojo, Tateyama, Chiba Prefecture, Japan.

List of specimens of the families Neosebastidae and Scorpaenidae (Actinopterygii: Perciformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

Examination of all specimens of the families Neosebastidae and Scorpaenidae (subfamilies Pteroinae and Scorpaeninae) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) revealed that there are 336 catalog numbers, including 433 specimens, representing two species of *Neosebastes* in Neosebastidae and 17 genera and 36 species in Scorpaenidae. The holotype of *Sebastella littoralis* Tanaka, 1917 (ZUMT 7439), now synonymized under *Scorpaenodes evides* (Jordan and Thompson, 1914), and a single paratype of *Pterois paucispinula* Matsunuma and Motomura, 2014 (ZUMT 46873) are included in the collection of scorpaenids. The holotype of *Pterois tanabensis* Tanaka, 1918 [synonymized with *Parapterois heterura* (Bleeker, 1856)] was apparently lost.

Introduction

The families Neosebastidae (gurnard perches) and Scorpaenidae (scorpionfishes, lionfishes, and their relatives), included in the suborder Scorpaenoidei within the order Perciformes, are characterized by a large, spiny head and strong, sometimes venomous fin spines (Poss, 1999). Neosebastidae includes mostly small- to medium-sized benthic species that are divided into two genera, *Maxillicosta* Whitley, 1935 and *Neosebastes* Guichenot, 1867 (Motomura, 2004). Scorpaenidae is currently classified into 38 genera distributed worldwide, most of the species outside the area for important fisheries due to small body size and venomous fin spines (Poss, 1999; Fricke et al., 2024). Two species of Neosebastidae and 73 species of Scorpaenidae are known from Japanese waters (Motomura, 2024).

Ongoing taxonomic studies of scorpaenids led by the second author's with colleagues have revealed high species diversity within the family in the Indo-Pacific region, including Japan. In the past 20 years, 18 scorpaenid fishes have been newly recorded or described as new taxa from Japanese waters (e.g., Motomura et al., 2014; Matsumoto and Motomura, 2023; Mochizuki and Motomura, 2024). In addition, the third author's ongoing research on *Neosebastes multisquamus* Motomura, 2004 is revealing the morphological changes with growth and the geographic distribution along southern Japan of the species, which has long been considered endemic to the Ogasawara Islands. As an aid to future taxonomic studies, a list of specimens of the families Neosebastidae and Scorpaenidae (including the subfamilies Pteroinae and Scorpaeninae) deposited in the Department of Zoology, The University Museum, The University of Tokyo is provided here.

Material and Methods

Specimens of the families Neosebastidae and Scorpaenidae deposited in the Department of Zoology, The University Museum, The University of Tokyo (abbreviated as ZUMT) were identified during this study following Poss (1999), Motomura (2004), Motomura et al. (2004, 2014), Morishita and Motomura (2018), Nakabo and Kai (2013), Motomura and Kanade (2015), Hoshino and Motomura (2021), Wibowo and Motomura (2021), Matsumoto and Motomura (2023), and Matsumoto et al. (2023). After the ZUMT numbers, the following data are given, where available: specimen numbers (if more than one included in the lot), standard length measured to the nearest 0.1 mm (abbreviated as SL), locality, collection date, and collector. The year of collection and collector for some specimens have been estimated following Koeda et al. (2022). The ZUMT specimens listed here were stored in Room 406 (specimen storage room) in the museum building. Species are arranged in alphabetical order.

Results and Species Accounts

During this study, a total of six neosebastid (six lots) and 427 scorpaenid specimens (330 lots) representing two species of *Neosebastes* in Neosebastidae and 17 genera and 36 species in Scorpaenidae in the ZUMT fish collection. In scorpaenid collection, the holotype of *Sebastella littoralis* Tanaka, 1917 (ZUMT 7439), the holotype of *Pterois tanabensis* Tanaka, 1918, and a single paratype of *Pterois paucispinula* Matsunuma and Motomura, 2014 (ZUMT 46873) are included. However, the holotype of *P. tanabensis* was apparently lost (see Aizawa et al., 2024).

Neosebastidae ヒレナガカサゴ科

Neosebastes Guichenot, 1867 ヒレナガカサゴ属

Neosebastes entaxis Jordan and Starks, 1904 ヒレナガカサゴ

JAPAN

Kanagawa Pref.

ZUMT 2634, 147.0 mm SL, Misaki, Miura, eastern Sagami Bay, 1910, coll. by K. Aoki

ZUMT 44090, 76.4 mm SL, probably Kanagawa Pref., 1942

ZUMT 68826, 123.1 mm SL, ZUMT 68827, 113.1 mm SL, Manazuru, Sagami Bay, 1962, coll. by T. Abe

Kochi Pref.

ZUMT 47126, 73.1 mm SL, precise locality unknown, before 1956

Neosebastes multisquamus Motomura, 2004 オガサワラカサゴ (Fig. 1)

JAPAN

ZUMT 23961, 138.5 mm SL, Naya, Kagoshima, Kagoshima Bay, before 1931

Remarks. Naya was first established in 1615 from 48 fish wholesale stores, and all fish stores moved to the Kagoshima Central Fish Market in 1935. This specimen was most likely to be purchased at a fish store at Naya, and to be collected from Kagoshima Bay. This specimen is identified here as *N. multisquamus* on the basis of the following features: underside of mandible with numerous sensory pores, lacking ridges; supraocular ridge occurring anteriorly and posteriorly to vertical midline of eye; lower opercular spine extending beyond opercular margin; upper opercular spine simple with pointed tip; interorbital space concave, moderately narrow, without scales; interorbital ridge absent; 36 pored lateral-line scales; 60 scale rows in longitudinal series; 6 scale rows between last dorsal-fin spine and lateral line; pectoral fin long, 34.2% of SL; bilobed portion of swimbladder short, ca. 20% of total swimbladder length; no black spots apparent on head or lateral line. Because *N. multisquamus* has previously been recorded only from Sagami Bay and the Ogasawara Islands (Motomura, 2004; Yoshikawa and Kai, 2016; Honda et al., 2024), this specimen represents the first record of the species from Kagoshima Bay.

Scorpaenidae フサカサゴ科
Subfamily Pternoinae ミノカサゴ亜科
Brachypterois Fowler, 1938 ノコギリカサゴ属
Brachypterois serrulate (Richardson, 1846) ノコギリカサゴ

JAPAN

ZUMT 47227, 70.5 mm SL, precise locality unknown, before 1956

THAILAND

ZUMT 66163, 72.9 mm SL, ZUMT 66164, 73.4 mm SL, southwest of Gulf of Thailand, 22 Aug. 1985

Dendrochirus Swainson, 1839
Dendrochirus zebra キリンミノ

JAPAN

ZUMT 13954, 56.6 mm SL, probably Okinawa-jima I., Ryukyu Is., coll. by S. Sakaguchi

ZUMT 41116, 42.6 mm SL, Kagoshima Bay, June 1938, coll. by K. Ogawa

ZUMT 64572, 46.8 mm SL, Shizuoka Pref.

PHILIPPINES

ZUMT 14584, 58.6 mm SL, precise locality unknown

TAIWAN

ZUMT 37443, 81.6 mm SL, Tām-tsuí-khu, July 1908

Ebosia Jordan and Starks, 1904 エボシカサゴ属
Ebosia bleekeri エボシカサゴ

JAPAN

Tokyo

ZUMT 12540, 106.9 mm SL, ZUMT 46722, 117.4 mm SL, Tokyo Market

Kanagawa Pref.

ZUMT 20657, 60.2 mm SL, ZUMT 21781, 90.4 mm SL, Misaki, Miura, 1930

Kagoshima Pref.

ZUMT 40376, 114.6 mm SL, precise locality unknown, June 1938, coll. by K. Ogawa

EAST CHINA SEA

ZUMT 52112, 116.0 mm SL, ZUMT 52120, 119.2 mm SL, fishing area no. 253 to 254 (ca. 33°30'N, 127°15'E; vicinity of Jeju I.)

Precise locality unknown

ZUMT 32763, 92.8 mm SL

Neochirus Chou, Liu and Liao, 2023
Neochirus bella (Jordan and Hubbs, 1925) ヒメヤマノカミ

JAPAN

ZUMT 12541, 97.4 mm SL, Tokyo?

ZUMT 40657, 77.1 mm SL, Morioka?, Iwate Pref.

ZUMT 47129, 77.2 mm SL, Tosa Bay, Kochi Pref.

ZUMT 48301, 71.8 mm SL, Aburatsubo, Misaki, Miura, eastern Sagami Bay, Kanagawa Pref., 1935, T. Abe

Neochirus brachyptera (Cuvier, 1829) シマヒメヤマノカミ

JAPAN

ZUMT 17396, 81.8 mm SL, Naha, Okinawa-jima I., coll. by S. Tanabe

INDONESIA

ZUMT 31857, 25.5 mm SL, Buton I. (Boeton, Butung), southeast Sulawesi, Sept. 1935 to Jan. 1936, coll. by R. Wada

Parapterois Bleeker, 1876 セトミノカサゴ属

Parapterois heterura (Bleeker, 1856) セトミノカサゴ

JAPAN

Iwate Pref.

ZUMT 40696, 101.9 mm SL, Morioka?

Tokyo

ZUMT 12498, 130.9 mm SL, Tokyo Market

ZUMT 12562, 148.3 mm SL, ZUMT 48405, 108.4 mm SL, Tokyo Market (from western Shizuoka Pref., Suruga Bay)

Kanagawa Pref.

ZUMT 19062, 89.8 mm SL, Misaki, Miura, 1929, coll. by T. Azuma

ZUMT 33211, 59.1 mm SL, Kozu, Odawara, 5 Nov. 1933, coll. by K. Minoshima

ZUMT 48300, 88.6 mm SL, Aburatsubo, Misaki, Miura, eastern Sagami Bay, 1935, coll. by T. Abe

ZUMT 50872, 54.4 mm SL, off Hayama, Sagami Bay, 1 Feb. 1955

ZUMT 50934, 66.7 mm SL, off Hayama, Sagami Bay, 6 Dec. 1959

Shizuoka Pref.

ZUMT 33012, 95.3 mm SL, Ajiro, Atami, 7 Dec. 1933, coll. by S. Tanaka

Enshu-nada Sea

ZUMT 33916, 106.2 mm SL

Mie Pref.

ZUMT 23356, 83.2 mm SL, Owase, coll. by K. Nakahara

Wakayama Pref.

ZUMT 22492, 57.1 mm SL, Tanabe, 11 Aug. 1920, coll. by N. Ui

Kochi Pref.

ZUMT 19009, 176.5 mm SL, Kashiwa-jima I., 10 Mar. 1929, coll. by T. Kamohara

ZUMT 47050, 176.3 mm SL, ZUMT 47127, 95.9 mm SL, ZUMT 47149, 111.5 mm SL, ZUMT 47155, 65.2 mm SL, ZUMT 47156, 104.4 mm SL, ZUMT 47229, 44.2 mm SL, Tosa Bay

Kagoshima Pref.

ZUMT 31617, 134.8 mm SL, ZUMT 31623, 136.4 mm SL, precise locality unknown, Mar. 1936, coll. by Y. Miyoshi

Nagasaki Pref.

ZUMT 2662, 72.6 mm SL, precise locality unknown, Feb. 1910, coll. by Nagasaki Normal School

ZUMT 7336, 124.0 mm SL, precise locality unknown, coll. by I. Kaneko

EAST CHINA SEA

ZUMT 65049, 93.5 mm SL, ZUMT 65050, 88.5 mm SL, ZUMT 65051, 69.9 mm SL, ZUMT 65052, 68.3 mm SL, ZUMT 65053, 70.1 mm SL, ZUMT 65054, 63.4 mm SL, western East China Sea, fishing area no. 504 (ca. 28°15'N, 124°45'E), 23 May 1968, coll. by Y. Tominaga

Remarks. *Pterois tanabensis* Tanaka, 1918 (synonymized with *Parapterois heterura*; see Matsunuma and Motomura, 2021) was originally described on the basis of a single specimen (235 mm TL) from Tanabe, Wakayama Prefecture, Japan. The holotype of *Pterois tanabensis*, supposedly deposited at ZUMT, is apparently lost (see Aizawa et al., 2024).

Pterois Oken, 1817 ミノカサゴ属

Pterois lunulata Temminck and Schlegel, 1843 ミノカサゴ

JAPAN

Kanagawa Pref.

ZUMT 20708, 120.6 mm SL, ZUMT 21779, 109.8 mm SL, Misaki, Miura, 1930

ZUMT 27240, 82.8 mm SL, Koajiro, Misakimachi, Miura, 27 July 1904, coll. by S. Tanabe

ZUMT 48853, 63.3 mm SL, off Hayama, Sagami Bay, 16 Jan. 1957, coll. by Imperial Household Agency

Shizuoka Pref.

ZUMT 49571, 91.4 mm SL, Ajiro, Atami, 1959, coll. by T. Abe

Mie Pref.

ZUMT 23366, 128.5+ mm SL (tail broken), Owase, coll. by K. Nakahara

Wakayama Pref.

ZUMT 22471, 93.4 mm SL, Tanabe, 11 Aug. 1920, coll. by N. Ui

Nagasaki Pref.

ZUMT 48143, 75.0 mm SL, Tomie, Fukue-jima I., Goto Is., 24 May 1953, coll. by I. Tomiyama

Precise locality unknown

ZUMT 46454, 115.2 mm SL

EAST CHINA SEA

ZUMT 52296, 140.2 mm SL, fishing area no. 253 to 254 (ca. 33°30'N, 127°15'E; vicinity of Jeju I.), before 5 May 1960, coll. by FV No. 1 & 2 *Shotoku-maru*

Pterois russellii Bennett, 1831

PHILIPPINES

ZUMT 14585, 191.7 mm SL, precise locality unknown

ZUMT 39596, 155.3 mm SL, Manicahan, Zamboanga, 20 Dec. 1936, coll. by U. Yamamura and Y. Yamamura

THAILAND

ZUMT 66109, 170.9 mm SL, off Songkhla, southwest of Gulf of Thailand, 9 July 1985

Pterois volitans (Linnaeus, 1758) ハナミノカサゴ
(Fig. 2)

JAPAN

Fukushima Pref.

ZUMT 18380, 46.7 mm SL, Niinuma, Soma, 9 Nov. 1902, coll. by S. Tomita

Tokyo

ZUMT 54185, 78.7 mm SL, Hachijo-jima I., Izu Is., Sept. 1922, coll. by M. Uchiyama

Kagoshima Pref.

ZUMT 22224, 119.6 mm SL, Naze (Amami-oshima I.), coll. by K. Enoya

ZUMT 64454, 80.5 mm SL, Okidomari, China, Okinoerabu-jima I., 14 Mar. 2022, coll. by M. Fukatani

Okinawa Pref.

ZUMT 4911, 68.8 mm SL, Yaeyama Is.

ZUMT 4915, 149.9 mm SL, Yaeyama Is., 6 May 1900, coll. by Miyashima

ZUMT 16851, 75.6 mm SL, Onna, Okinawa I., coll. by S. Tanabe

Remarks. This species is known from the Sea of Japan south of Toyama Pref., the Pacific coast south of Chiba Pref., and southern islands in Japanese waters (Nakabo and Kai, 2013). ZUMT 18380 from Fukushima Pref. represents the northernmost record of *P. volitans*.

Pteropterus Swainson, 1839

Pteropterus paucispinula (Matsunuma and Motomura, 2014) ミズヒキミノカサゴ

Precise locality unknown

ZUMT 46873, 138.4 mm SL, paratype of *Pteropterus paucispinula*, no data

Remarks. The type information on ZUMT 46873 was provided by Aizawa et al. (2024).

Subfamily Scorpaeninae フサカサゴ亜科

Hoplosebastes Schmidt, 1929 ハナカサゴ属

Hoplosebastes armatus Schmidt, 1929 ハナカサゴ

JAPAN

Kanagawa Pref.

ZUMT 18908, 108.0 mm SL, probably Kanagawa Pref., before 1929, coll. by Suga Elementary School

Kochi Pref.

ZUMT 9269, 58.1 mm SL, probably Kochi Pref., before 1920, coll. by T. Iyoda

ZUMT 23504, 125.7 mm SL, Urado, Tosa Bay, 1 Mar. 1930, coll. by T. Kamohara

ZUMT 24302, 76.4 mm SL, Mimase, Tosa Bay, 24 Jan. 1932, coll. by T. Kamohara

ZUMT 34715, 92.9 mm SL, precise locality unknown, Aug. 1935, coll. by T. Kamohara

ZUMT 47124, 104.9 mm SL, precise locality unknown, before 1956

Fukuoka Pref.

ZUMT 49766, 88.2 mm SL, probably Fukuoka Pref. (purchased at Fukuoka Fish Market), July 1959

Nagasaki Pref.

ZUMT 7318, 121.6 mm SL, precise locality unknown, before 1918, coll. by I. Kaneko

EAST CHINA SEA

ZUMT 51416, 85.3 mm SL, precise locality unknown, Sept. 1959

Neomerinthe Fowler, 1935 マツバラカサゴ属

Neomerinthe rotunda (Alcock, 1896) ヤブサメカサゴ

JAPAN

ZUMT 21509, 62.7 mm SL, probably Kanagawa Pref., 28 Apr. 1929, coll. by T. Senba

Neomerinthe megalepis (Fowler, 1938) オボロマツバラカサゴ

THAILAND

ZUMT 65890, 34.8 mm SL, ZUMT 66162, 59.6 mm SL, ZUMT 68817, 38.6 mm SL, ZUMT 68818, 56.8 mm SL, ZUMT 68819, 67.9 mm SL, ZUMT 68820, 71.9 mm SL, ZUMT 68821, 74.3 mm SL, southwest of Gulf of Thailand, 20 Aug. 1985
ZUMT 66110, 37.0 mm SL, off Songkhla, southwest of Gulf of Thailand, 9 July 1985

Neomerinthe ignea Matsumoto, Muto and Motomura, 2023 ホムラカサゴ

TAIWAN

ZUMT 25102, 106.7 mm SL, Taipei, 1 June 1929 or 1930, coll. by M. Imai

Parascorpaena Bleeker, 1876 ネットアイフサカサゴ属
Parascorpaena aurita (Rüppell, 1838) チブルネットアイフサカサゴ

MALAYSIA

ZUMT 63211, 85.2 mm SL, ZUMT 63212, 84.8 mm SL, Sarawak, Borneo I., before 1961, donated from T. Harrison (Sarawak Museum) to I. Tomiyama in 1961

Parascorpaena mossambica (Peters, 1855) ネットアイフサカサゴ

JAPAN

ZUMT 17030, 76.4 mm SL, Itoman, Okinawa-jima I., Ryukyu Is., before 1926, coll. by S. Tanabe
ZUMT 54212, 3 specimens, 20.7–27.4 mm SL, Hachijo-jima I., Izu Is., Sept. 1922, coll. by M. Uchiyama
ZUMT 65702, 82.3 mm SL, Mikurajima Port, Mikura-jima I., Izu Is., 6 June 2023, coll. by S. Nishikawa

Pteroidichthys Bleeker, 1856 ツノカサゴ属
Pteroidichthys noronhai (Fowler, 1938) シノノメツノカサゴ

JAPAN

ZUMT 44091, 42.7 mm SL, ZUMT 44092, 35.9 mm SL, probably Kanagawa Pref., before 1942
ZUMT 65140, 38.0 mm SL, East China Sea, 19 May 1968, coll. by Y. Tominaga

Rhinopias Gill, 1905 ボロカサゴ属
Rhinopias eschmeyeri Condé, 1977 ホウセキカサゴ

JAPAN

ZUMT 21138, 126.3 mm SL, probably Kochi Pref., before 1930

Scorpaena Linnaeus, 1758 フサカサゴ属
Scorpaena miostoma Günther, 1877 コクチフサカサゴ

JAPAN

Tokyo

ZUMT 4052, 113.9 mm SL, precise locality unknown, before 1915

Kanagawa Pref.

ZUMT 15475, 109.0 mm SL, Misaki, Miura, eastern Sagami Bay, Dec. 1924, coll. by S. Miyashiro

ZUMT 15494, 97.2 mm SL, ZUMT 15496, 81.2 mm SL, ZUMT 15497, 97.3 mm SL, probably Kanagawa Pref., before 1926, coll. by S. Miyashiro

ZUMT 18909, 88.8 mm SL, probably Kanagawa Pref., before 1929, coll. by Suga Elementary School

ZUMT 32521, 105.4 mm SL, Misaki, Miura, eastern Sagami Bay, 1936

ZUMT 36404, 98.5 mm SL, Hayama, Miura, Sagami Bay, Aug. 1936, coll. by S. Inuo

ZUMT 49681, 66.8 mm SL, Maruyamadashi (local fishing ground), Hayama, Miura, eastern Sagami Bay, 14 July 1957, coll. by Imperial Household Agency

ZUMT 50881, 104.4 mm SL, Kannonzukadashi (local fishing ground), Hayama, Miura, eastern Sagami Bay, 5 June 1957

ZUMT 59459, 113.7 mm SL, ZUMT 59460, 102.8 mm SL, Nagai, Yokosuka, eastern Sagami Bay, July 1989, coll. by H. Shikatani

ZUMT 59461, 114.7 mm SL, Nagai, Yokosuka, eastern Sagami Bay, 1990

ZUMT 68830, 88.6 mm SL, ZUMT 68831, 113.5 mm SL, Manazuru, Sagami Bay, 21 Apr. 1960, coll. by T. Abe

Mie Pref.

ZUMT 7737, 82.9 mm SL, probably Mie Pref., before 1918, coll. by M. Kobayashi

ZUMT 20076, 91.7 mm SL, probably Mie Pref., before 1930, coll. by A. Tsuchida

ZUMT 33397, 51.3 mm SL, off Daiozaki, Shima, before 1936, coll. by Aichi Prefectural Fisheries Experiment Station

Nagasaki Pref.

ZUMT 2260, 89.0 mm SL, precise locality unknown, July 1909

Wakayama Pref.

ZUMT 7556, 78.4 mm SL, ZUMT 7557, 88.0 mm SL, Hiro, Arita, before 1918, coll. by I. Hoshino

ZUMT 9647, 75.8 mm SL, probably Wakayama Pref., before 1920, coll. by N. Ui

Hyogo Pref.

ZUMT 42954, 68.5 mm SL, Yura, Awaji-shima I., Sumoto, before 1940

Kochi Pref.

ZUMT 47218, 71.6 mm SL, precise locality unknown, before 1956

Kagoshima Pref.

ZUMT 5770, 71.1 mm SL, off Biro-jima I., Shibushi Bay, 10 Mar. 1903

ZUMT 23908, 113.4 mm SL, Arata, Kagoshima Bay, before 1931

Toyama Pref.

ZUMT 23220, 95.1 mm SL, Toyama Bay, 16 Dec. 1930, coll. by K. Kikuchi

ZUMT 25833, 102.8 mm SL, probably Toyama Pref., 22 July 1933, coll. by K. Kikuchi

Yamaguchi Pref.

ZUMT 10083, 120.3 mm SL, Senzaki, Nagato, before 1923, coll. by S. Tanaka

Precise locality unknown

ZUMT 4635, 110.6 mm SL, Tokyo Market, before 1915

ZUMT 12567, 83.6 mm SL, Tokyo Market, before 1926

ZUMT 33232, 82.8 mm SL, Terpenye Bay, Sakhalin Oblast, Russia (most likely error), before 1936, coll. by K. Sakamoto

ZUMT 33525, 100.0 mm SL, no data, before 1936

ZUMT 40634, 117.2 mm SL, ZUMT 40662, 137.7 mm SL, no data, before 1940

EAST CHINA SEA

ZUMT 51299, 114.8 mm SL, precise locality unknown, 2 Sept. 1959, coll. by Y. Tominaga

Scorpaena neglecta Temminck and Schlegel, 1843 イズカサゴ

JAPAN

Fukushima Pref.

ZUMT 33794, 81.7 mm SL, ZUMT 34069, 100.1 mm SL, Onahama, Iwaki, before 1936, coll. by H. Kadota

Tokyo

ZUMT 3962, 109.3 mm SL, ZUMT 3963, 134.0 mm SL, ZUMT 4048, 92.0 mm SL, ZUMT 4049, 99.1 mm SL, ZUMT 4051, 125.0 mm SL, precise locality unknown, before 1915

ZUMT 41044, 112.7 mm SL, Hachijo-jima I., Izu Is., before 1940, coll. by S. Watanabe

ZUMT 68637, 197.5 mm SL, Hachijo-jima I., Izu Is., July 1929, coll. by Y. Otsuki

Kanagawa Pref.

ZUMT 2633, 175.0 mm SL, Misaki, Miura, eastern Sagami Bay, 1910, coll. by K. Aoki

ZUMT 4899, 205.0 mm SL, Misaki, Miura, eastern Sagami Bay, 1915

ZUMT 20633, 95.4 mm SL, ZUMT 20634, 51.2 mm SL, ZUMT 20712, 90.3 mm SL, ZUMT 20713, 100.0 mm SL, ZUMT 20884, 64.2 mm SL, Misaki, Miura, eastern Sagami Bay, 1930

ZUMT 48685, 66.0 mm SL, ZUMT 48698, 54.0 mm SL, Hayama, Miura, eastern Sagami Bay, 5 Feb. 1957, coll. by Imperial Household Agency

ZUMT 48849, 61.9 mm SL, Hayama, Miura, eastern Sagami Bay, 21 Jan. 1957, coll. by Imperial Household Agency

ZUMT 48852, 68.1 mm SL, Hayama, Miura, eastern Sagami Bay, 17 Jan. 1957, coll. by Imperial Household Agency

ZUMT 49200, 137.0 mm SL, Misaki, Miura, eastern Sagami Bay, 12 Feb. 1958, coll. by I. Tomiyama

ZUMT 49606, 68.3 mm SL, Hayama, Miura, eastern Sagami Bay, 11 Feb. 1959, coll. by Imperial Household Agency

ZUMT 50880, 71.9 mm SL, between Aoyamadashi and Kannonzukuradashi (local fishing grounds), Hayama, Miura, eastern Sagami Bay, 15 July 1958

ZUMT 50924, 91.0 mm SL, Hayama, Miura, eastern Sagami Bay, 6 Dec. 1959

ZUMT 50930, 91.0 mm SL, ZUMT 50931, 62.1 mm SL, Hayama, Miura, eastern Sagami Bay, 15 Jan. 1960

Mie Pref.

ZUMT 23386, 94.8 mm SL, Owase, before 1930, coll. by K. Nakahara

Wakayama Pref.

ZUMT 8305, 125.0 mm SL, probably Wakayama Pref., before 1918, coll. by N. Ui

ZUMT 21732, 144.0 mm SL, precise locality unknown, 10 Feb. 1906

Kochi Pref.

ZUMT 17620, 169.0 mm SL, precise locality unknown, 21 May 1927, coll. by Y. Yamamoto

ZUMT 23482, 132.0 mm SL, Urado, Tosa Bay, 11 Jan. 1930, coll. by T. Kamohara (donated from S. Watanabe)

ZUMT 47070, 129.7 mm SL, precise locality unknown, before 1956

Miyazaki Pref.

ZUMT 22670, 175.0 mm SL, precise locality unknown, before 1930

Kagoshima Pref.

ZUMT 23877, 198.0 mm SL, Taniyama, Kagoshima Bay, before 1931

ZUMT 32909, 153.0 mm SL, ZUMT 32910, 130.0 mm SL, precise locality unknown, before 1936

Niigata Pref.

ZUMT 24234, 247.0 mm SL, Teradomari, Nagaoka, before 1931, coll. by Niigata Prefectural Fisheries Experiment Station

ZUMT 24424, 168.0 mm SL, precise locality unknown, 28 Mar. 1932

Toyama Pref.

ZUMT 23219, 168.0 mm SL, Toyama Bay, 16 Dec. 1930, coll. by K. Kikuchi

ZUMT 32701, 75.7 mm SL, Higashi-iwase, Apr. 1935, coll. by H. Yamashita

ZUMT 41449, 194.0 mm SL, Uozu, Toyama Bay, June 1932, coll. by I. Tomiyama
ZUMT 44046, 90.0 mm SL, probably Toyama Pref., before 1942, coll. by K. Kikuchi
ZUMT 46306, 185.0 mm SL, Namerikawa, Toyama Bay, before 1956, coll. by I. Tomiyama

Ishikawa Pref.

ZUMT 7958, 180.0 mm SL, probably Ishikawa Pref., before 1918, coll. by M. Tokuhisa

Fukui Pref.

ZUMT 15969, 165.0 mm SL, ZUMT 16004, 180.0 mm SL, probably Fukui Pref., before 1926, coll. by Fukui Prefectural Fisheries Experiment Station

Yamaguchi Pref.

ZUMT 27063, 149.0 mm SL, precise locality unknown, 7 June 1934, coll. by M. Nagatomi

Nagasaki Pref.

ZUMT 2632, 190.0 mm SL, precise locality unknown, 23 Jan. 1910, coll. by Nagasaki Normal School
ZUMT 3823, 150.0 mm SL, south of Cape Osezaki, Fukue-jima I., Goto Is., coll. by Z. Tashiro
ZUMT 7317, 147.0 mm SL, precise locality unknown, before 1918, coll. by I. Kaneko
ZUMT 48084, 210.0 mm SL, Sasebo (purchased at Sasebo Fish Market), 2 June 1953, coll. by I. Tomiyama
ZUMT 56949, 113.8 mm SL, ZUMT 56950, 139.9 mm SL, ZUMT 56951, 181.9 mm SL, ZUMT 56952, 183.0 mm SL, southeast of Tsushima I., 10 July 1987, coll. by M. Aizawa
ZUMT 68814, 174.0 mm SL, off Cape Osezaki, Fukue-jima I., Goto Is., before 1915, coll. by FV *Hayatori-maru*

Kumamoto Pref.

ZUMT 12494, 145.0 mm SL, precise locality unknown, before 1926

Precise locality unknown

ZUMT 12545, 80.0 mm SL, ZUMT 12574, 142.0 mm SL, Tokyo Market, before 1926
ZUMT 68815, 130.0 mm SL, probably Japan, before 1940, coll. by T. Abe

EAST CHINA SEA

ZUMT 3605, 188.0 mm SL, 30°31'N, 127°35'E to 30°20'N, 127°32'E, before 1913
ZUMT 51012, 167.0 mm SL, precise locality unknown, 16 Mar. 1960
ZUMT 51409, 165.0 mm SL, precise locality unknown, Sept. 1959
ZUMT 52078, 144.0 mm SL, precise locality unknown (purchased at Fukuoka Fish Market), before 1960
ZUMT 52259, 57.0 mm SL, fishing area no. 253 to 254 (ca. 33°30'N, 127°15'E; vicinity of Jeju I.), 5 May 1960, coll. by FV *No. 1 & 2 Shotoku-maru*
ZUMT 52355, 165.8 mm SL, fishing area no. 253 to 254 (ca. 33°30'N, 127°15'E; vicinity of Jeju I.), 6 May 1968, coll. by RV *Hakuho-maru*
ZUMT 52367, 185.3 mm SL, precise locality unknown, 6 May 1968, coll. by RV *Hakuho-maru*

Scorpaena onaria Jordan and Snyder, 1900 フサカサゴ

JAPAN

Fukuoka Pref.

ZUMT 51461, 115.2 mm SL, probably Fukuoka Pref., 10 Dec. 1959, coll. by FV *Sano*

Tokyo

ZUMT 55596, 147.9 mm SL, Ni-jima I., Izu Is., 30 Sept. 1986, coll. by H. Senou

Kanagawa Pref.

ZUMT 50901, 76.8 mm SL, Maruyamadashi (local fishing ground), Hayama, Miura, eastern Sagami Bay, 17 July 1959

Wakayama Pref.

ZUMT 66455, 171.4 mm SL, off Shionomisaki Cape, Kushimoto, 22 Oct. 2023, coll. by M. Fukatani

Nagasaki Pref.

ZUMT 52576, 158.5 mm SL, Sasebo (purchased at Naze Fish Market), 31 May 1966
ZUMT 56948, 107.3 mm SL, southeast of Tsushima I., 10 July 1987, coll. by M. Aizawa

ZUMT 56965, 66.4 mm SL, ZUMT 56966, 83.3 mm SL, southeast of Tsushima I., 10 July 1987, coll. by Y. Tominaga and M. Aizawa

Ariake Sea

ZUMT 35561, 42.5 mm SL, Oct. 1931, coll. by I. Tomiyama

***Scorpaena porcus* Linnaeus, 1758**

BLACK SEA

ZUMT 21784, 139.1 mm SL, Black Sea, before 1930

***Scorpaenodes* Bleeker, 1857 イソカサゴ属**

***Scorpaenodes evides* (Jordan and Thompson, 1914) イソカサゴ**

JAPAN

Tokyo

ZUMT 41045, 79.0 mm SL, Hachijo-jima I., Izu Is., before 1940, coll. by S. Watanabe

ZUMT 54211, 31 specimens, 19.6–81.0 mm SL, Hachijo-jima I., Izu Is., Sept. 1922, coll. by M. Uchiyama

ZUMT 63068, 7 specimens, 42.3–88.9 mm SL, ZUMT 63085, 10 specimens, 46.0–80.7 mm SL, ZUMT 63113, 25 specimens, 38.1–85.0 mm SL, ZUMT 63114, 21 specimens, 28.7–80.2 mm SL, Izumi-hama Beach, Izu-o-shima I., Izu Is., 1 Aug. 1993, coll. by K. Sakamoto

Kanagawa Pref.

ZUMT 4583, 49.5 mm SL, Misaki, Miura, Sagami Bay, 2 May 1912

ZUMT 7439, 77.5 mm SL, holotype of *Sebastella littoralis*, Misaki, Miura, Sagami Bay, Nov. 1916, coll. by S. Tanaka

ZUMT 12421, 63.0 mm SL, ZUMT 12422, 70.2 mm SL, Aburatsubo, Misaki, Miura, eastern Sagami Bay, 1925

ZUMT 21278, 77.8 mm SL, ZUMT 21279, 72.8 mm SL, precise locality unknown, 20 Sept. 1925, coll. by Shona Normal School

ZUMT 28667, 29.5 mm SL, Misaki, Miura, Sagami Bay, 2 May 1909

ZUMT 38965, 32.8 mm SL, ZUMT 38966, 29.3 mm SL, Misaki, Miura, eastern Sagami Bay, 1938

ZUMT 40267, 36.0 mm SL, Misaki, Miura, eastern Sagami Bay, 1939

ZUMT 44449, 48 specimens, 21.6–43.2 mm SL, Misaki, Miura, eastern Sagami Bay, 31 May 1911

ZUMT 48687, 62.6 mm SL, Nagai, Yokosuka, eastern Sagami Bay, 16 June 1956, coll. by Imperial Household Agency

ZUMT 48807, 44.9 mm SL, Kannonzukadashi (local fishing ground), Hayama, Miura, eastern Sagami Bay, 16 Jan. 1957, coll. by Imperial Household Agency

ZUMT 48824, 44.4 mm SL, Kurosaki, Miura, eastern Sagami Bay, 10 June 1956, coll. by Imperial Household Agency

ZUMT 54196, 16 specimens, 21.3–68.0 mm SL, Misaki, Miura, Sagami Bay, 2 May 1912

ZUMT 54741, 65.0 mm SL, tidepool at Misaki, Miura, eastern Sagami Bay, 20 July 1966

ZUMT 55663, 47.6 mm SL, ZUMT 55665, 78.4 mm SL, ZUMT 55666, 39.3 mm SL, ZUMT 55667, 42.1 mm SL, Moroiso, Misaki, Miura, eastern Sagami Bay, 29 July 1986, coll. by M. Aizawa et al.

ZUMT 56883, 50.8 mm SL, Joga-shima I., eastern Sagami Bay, Misaki, Miura, 2 Aug. 1987, coll. by M. Aizawa

ZUMT 56884, 55.4 mm SL, tidepool at Joga-shima I., eastern Sagami Bay, Misaki, Miura, 2 Aug. 1987, coll. by M. Aizawa

ZUMT 64591, 47.8 mm SL, Cape Arasaki, Nagai, Yokosuka, Sagami Bay, 10 Nov. 2021, coll. by M. Fukatani

Shizuoka Pref.

ZUMT 9275, 39.8 mm SL, ZUMT 9276, 46.4 mm SL, Shizuura, Numazu, eastern Suruga Bay, before 1920, coll. by N. Kuroda

ZUMT 13389, 47.8 mm SL, Shizuura, Numazu, eastern Suruga Bay, before 1926, coll. by N. Kuroda

ZUMT 33333, 44.8 mm SL, Shizuura, Numazu, eastern Suruga Bay, before 1936
ZUMT 33358, 58.8 mm SL, ZUMT 33359, 65.9 mm SL, ZUMT 33360, 60.8 mm SL, precise locality unknown, before 1936
ZUMT 33841, 55.5 mm SL, ZUMT 33842, 53.2 mm SL, Shizuura, Numazu, eastern Suruga Bay, before 1936, coll. by N. Kuroda
ZUMT 36120, 46.9 mm SL, Shizuura, Numazu, eastern Suruga Bay, 1921, coll. by N. Kuroda
ZUMT 68629, 2 specimens, 22.5–25.1 mm SL, Shizuura, Numazu, eastern Suruga Bay, 31 May 1911
ZUMT 69413, 30.1 mm SL, Cape Tsumekizaki, Suzaki, Shimoda, Sagami Bay, 14 Dec. 2024, coll. by D. Oyama et al.

Tokushima Pref.

ZUMT 58796, 53.3 mm SL, ZUMT 58807, 58.1 mm SL, Oshima I., Mugi, Ama, 21 July 1989, coll. by M. Aizawa et al.
ZUMT 68639, 57.4 mm SL, ZUMT 68640, 53.7 mm SL, Hachijo-jima I., Izu Is., July 1929, coll. by Y. Otsuki

Remarks. ZUMT 7439 is considered to be the holotype of *Sebastella littoralis* Tanaka, 1917, now synonymized by Motomura et al. (2010) under *Scorpaenodes evides*. Detailed discussion of the type status of ZUMT 7439 was provided by Aizawa et al. (2024).

Scorpaenodes guamensis (Quoy and Gaimard, 1824) グアムカサゴ

JAPAN

Tokyo

ZUMT 41046, 83.3 mm SL, ZUMT 41048, 58.6 mm SL, Hachijo-jima I., Izu Is., before 1940, coll. by S. Watanabe

Kanagawa Pref.

ZUMT 21280, 60.5 mm SL, precise locality unknown, 20 Sept. 1925, coll. by Shona Normal School
ZUMT 49677, 56.4 mm SL, Tsunone (local fishing ground), Hayama, Miura, eastern Sagami Bay, 24 July 1957, coll. by Imperial Household Agency
ZUMT 49683, 30.6 mm SL, Arasaki (local fishing ground), Hayama, Miura, eastern Sagami Bay, 11 June 1957, coll. by Imperial Household Agency

Shizuoka Pref.

ZUMT 69412, 32.1 mm SL, Cape Tsumekizaki, Suzaki, Shimoda, Sagami Bay, 14 Dec. 2024, coll. by D. Oyama et al.

Okinawa Pref.

ZUMT 4950, 58.1 mm SL, Tomari, Okinawa-jima I., Ryukyu Is., 17 Apr. 1901, coll. by K. Mitsukuri
ZUMT 14502, 77.0 mm SL, ZUMT 14503, 53.2 mm SL, Ryukyu Is., 24 Mar. 1925, coll. by S. Sakaguchi
ZUMT 37930, 51.8 mm SL, Kerama Is., Ryukyu Is., Apr. 1924
ZUMT 40435, 70.5 mm SL, Ryukyu Is., 20 May 1921, coll. by S. Sakaguchi
ZUMT 58276, 40.7 mm SL, ZUMT 58277, 49.6 mm SL, Hoshizuna-no-hama beach, Iriomote-jima I., Yaeyama Is., Ryukyu Is., 12 July 1988, coll. by H. Senou and M. Aizawa
ZUMT 58590, 47.8 mm SL, Hoshizuna-no-hama beach, Iriomote-jima I., Yaeyama Is., Ryukyu Is., 16 July 1988, coll. by M. Aizawa
ZUMT 58640, 4 specimens, 22.0–52.7 mm SL, Kabira, Ishigaki-jima I., Yaeyama Is., Ryukyu Is., 18 July 1988, coll. by H. Senou and M. Aizawa
ZUMT 60519, 43.5 mm SL, ZUMT 60520, 41.2 mm SL, Hoshizuna-no-hama beach, Iriomote-jima I., Yaeyama Is., Ryukyu Is., 23 Aug. 1989, coll. by H. Senou and M. Aizawa

PALAU

ZUMT 68828, 37.9 mm SL, ZUMT 68829, 68.0 mm SL, precise locality unknown, Aug. 1936 to May 1937, coll. by T. Abe

PHILIPPINES

ZUMT 25530, 72.5 mm SL, ZUMT 25531, 50.6 mm SL, precise locality unknown, 12 May 1933, coll. by A. W. Herre

Precise locality unknown

ZUMT 48493, 63.9 mm SL, before 1957

ZUMT 63035, 68.5 mm SL, no data

Scorpaenodes kelloggi (Jenkins, 1903) スズメイソカサゴ

USA

ZUMT 57570, 4 specimens, 17.9–28.3 mm SL, Oahu, Hawaiian Is., 10 Apr. 1986, coll. by J. E. Randall

Scorpaenodes sp. イソカサゴ属の1種

The following poor condition juvenile specimen was not identifiable.

JAPAN

ZUMT 41886, 25.6 mm SL, Hachijo-jima I., Izu Is., Sept. 1922, coll. by Y. Uchiyama

Scorpaenopsis Heckel, 1837 オニカサゴ属
Scorpaenopsis cirrosa (Thunberg, 1793) オニカサゴ

JAPAN

Kanagawa Pref.

ZUMT 68816, 185.0 mm SL, Zaimokuza Beach, Sagami Bay, Kamakura, 2 May 1932, coll. by T. Abe

ZUMT 68822, 185.0 mm SL, Zaimokuza Beach, Sagami Bay, Kamakura, Feb. 1934, coll. by T. Abe

Nagasaki Pref.

ZUMT 2593, 197.0 mm SL, precise locality unknown, 1 Aug. 1909, coll. by Nagasaki Normal School

ZUMT 50542, 200.0 mm SL, probably Nagasaki Pref., 26 Aug. 1959, coll. by Y. Tominaga

Precise locality unknown

ZUMT 3647, 190.0 mm SL, Tokyo Market, Jan. 1913

Scorpaenopsis cotticeps Fowler, 1938 ヒメサツマカサゴ

JAPAN

ZUMT 2713, 64.9 mm SL, Nagasaki Pref. (precise locality unknown), Apr. 1910, coll. by Nagasaki Normal School

Scorpaenopsis diabolus (Cuvier, 1829) ニライカサゴ

JAPAN

ZUMT 44117, 126.7 mm SL, Hachijo-jima I., Izu Is., Tokyo, Sept. 1922, coll. by M. Uchiyama

Scorpaenopsis neglecta Heckel, 1837 サツマカサゴ

JAPAN

Kanagawa Pref.

ZUMT 48573, 40.9 mm SL, Misaki, Miura, eastern Sagami Bay, 7 Nov. 1955, coll. by I. Tomiyama

Shizuoka Pref.

ZUMT 27166, 49.3 mm SL, Hamanako, 13 Sept. 1934, coll. by S. Oe

Kochi Pref.

ZUMT 18647, 125.4 mm SL, Suzaki, Tosa Bay, 2 Nov. 1928, coll. by T. Kamohara

ZUMT 24309, 83.5 mm SL, Mimase, Tosa Bay, 29 Nov. 1931, coll. by T. Kamohara

ZUMT 43301, 82.9 mm SL, probably Kochi Pref., before 1940, coll. by Joto Normal School

ZUMT 47128, 92.2 mm SL, precise locality unknown, before 1956

Ehime Pref.

ZUMT 7152, 100.0 mm SL, Uchiumi, Minami-uwa, 7 Nov. 1915, coll. by K. Otsuki

Kagoshima Pref.

ZUMT 3863, 80.7 mm SL, Chosa, Aira, Kagoshima Bay, before 1915, coll. by Z. Tashiro

ZUMT 20140, 94.5 mm SL, ZUMT 20156, 125.1 mm SL, ZUMT 20191, 76.2 mm SL, precise locality unknown, before 1930

ZUMT 26540, 122.1 mm SL, ZUMT 26869, 111.7 mm SL, ZUMT 26890, 62.7 mm SL, precise locality unknown, before 1933

ZUMT 26949, 59.6 mm SL, precise locality unknown, 31 Aug. 1934

ZUMT 29616, 81.8 mm SL, Kakeroma-jima I., Amami Is., 23 Aug. 1910, coll. by K. Enoya

ZUMT 32911, 122.4 mm SL, precise locality unknown, before 1936

ZUMT 40486, 86.1 mm SL, ZUMT 40490, 122.5 mm SL, precise locality unknown, before 1940

Scorpaenopsis papuensis (Cuvier, 1829) ウルマカサゴ

JAPAN

ZUMT 19415, 180.3 mm SL, Hachijo-jima I., Izu Is., Tokyo, before 1929, coll. by Y. Oshizu

Scorpaenopsis possi Randall and Eschmeyer, 2002 ミミトゲオニカサゴ

JAPAN

ZUMT 12318, 140.1 mm SL, probably Amami-oshima I., Ryukyu Is., Kagoshima Pref., before 1926

ZUMT 64575, 85.0 mm SL, Shizuoka Pref. (precise locality unknown)

Scorpaenopsis ramaraoi Randall and Eschmeyer, 2002 イヌカサゴ

TAIWAN

ZUMT 37442, 109.7 mm SL, Keelung, Taipei, Sept. 1908

PHILIPPINES

ZUMT 39595, 127.4 mm SL, Manicahan, Zamboanga, 20 Dec. 1936, coll. by U. Yamamura and Y. Yamamura

MALAYSIA

ZUMT 63210, 90.5 mm SL, Sarawak, Borneo I., before 1961, donated from T. Harrison (Sarawak Museum) to I. Tomiyama in 1961

***Scorpaenopsis venosa* (Cuvier, 1829)** ヒュウガカサゴ

TAIWAN

ZUMT 2168, 141.3 mm SL, Keelung, Taipei, before 1911

***Sebastapistes* Gill, 1877** マダラフサカサゴ属

***Sebastapistes mauritiana* (Cuvier, 1829)** ハチジョウフサカサゴ

JAPAN

ZUMT 29691, 50.5 mm SL, Tehena, Kakeroma-jima I., Amami Is., Kagoshima Pref., 23 Aug. 1910

***Sebastapistes perplexa* Motomura, Aizawa and Endo, 2014** アカマダラフサカサゴ

JAPAN

ZUMT 19235, 19.0 mm SL, Hachijo-jima I., Izu Is., Tokyo, 1 July 1929, coll. by Y. Otsuki

***Sebastapistes strongia* (Cuvier, 1829)** マダラフサカサゴ

JAPAN

ZUMT 4925, 43.2 mm SL, Ishigaki-jima I., Yaeyama Is., Ryukyu Is., Okinawa Pref., Apr. 1899

PHILIPPINES

ZUMT 42036, 43.2 mm SL, Basilan I., 1926, coll. by U. Yamamura and Y. Yamamura

***Thysanichthys* Jordan and Starks, 1904** フンドウカサゴ属

***Thysanichthys crossotus* Jordan and Starks, 1904** フンドウカサゴ

JAPAN

ZUMT 50936, 79.6 mm SL, Tsunone (local fishing ground), Hayama, Miura, eastern Sagami Bay, 29 July 1959

***Scorpaeninae* indet. gen. and sp.** フサカサゴ亜科の 1 種

The following poor condition juvenile specimens were not identifiable.

JAPAN

Chiba Pref.

ZUMT 34254, 25.7 mm SL, ZUMT 34255, 29.4 mm SL, Tateyama Bay, Tateyama, July 1917, coll. by A. Takahashi

Tokyo

ZUMT 42804, 2 specimens, 21.3–25.2 mm SL, Hachijo-jima I., Izu Is., Sept. 1922, coll. by M. Uchiyama

Shizuoka Pref.

ZUMT 31112, 21.2 mm SL, ZUMT 31113, 18.4 mm SL, Shizuura (Suruga Bay), Numazu, coll. by N. Kuroda

ZUMT 34728, 23.9 mm SL, Numazu, donated from S. Yamamoto

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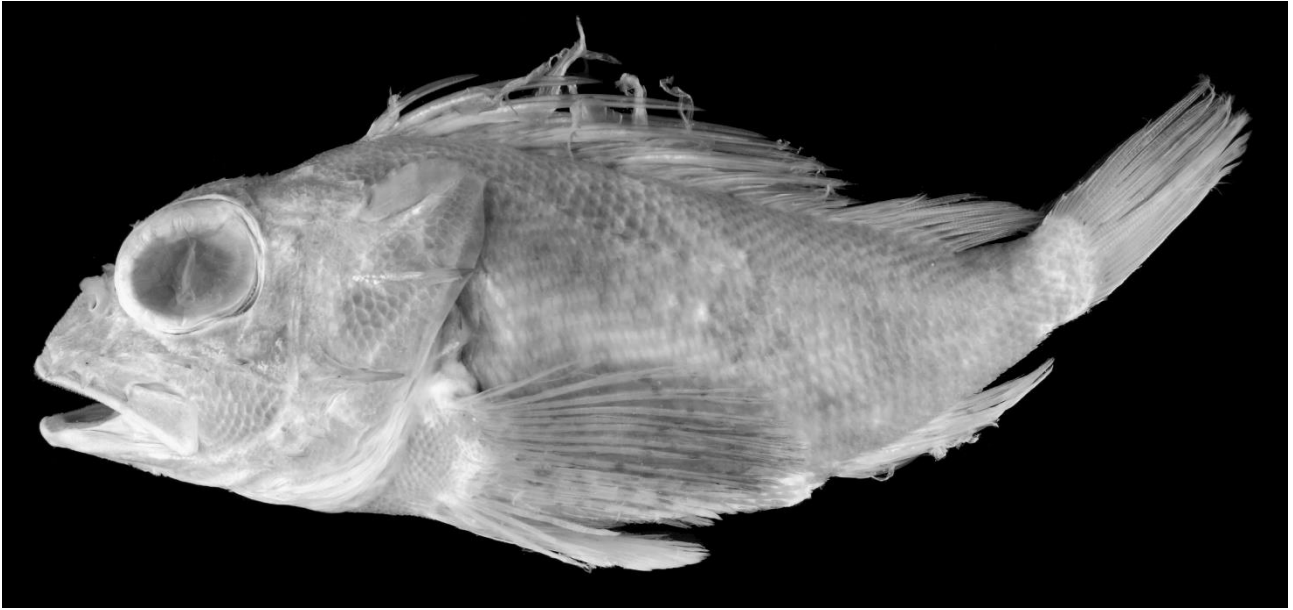


Figure 1. Specimen of *Neosebastes multisquamus* (ZUMT 23961, 138.5 mm SL, Kagoshima Bay, Kagoshima Pref., Japan).

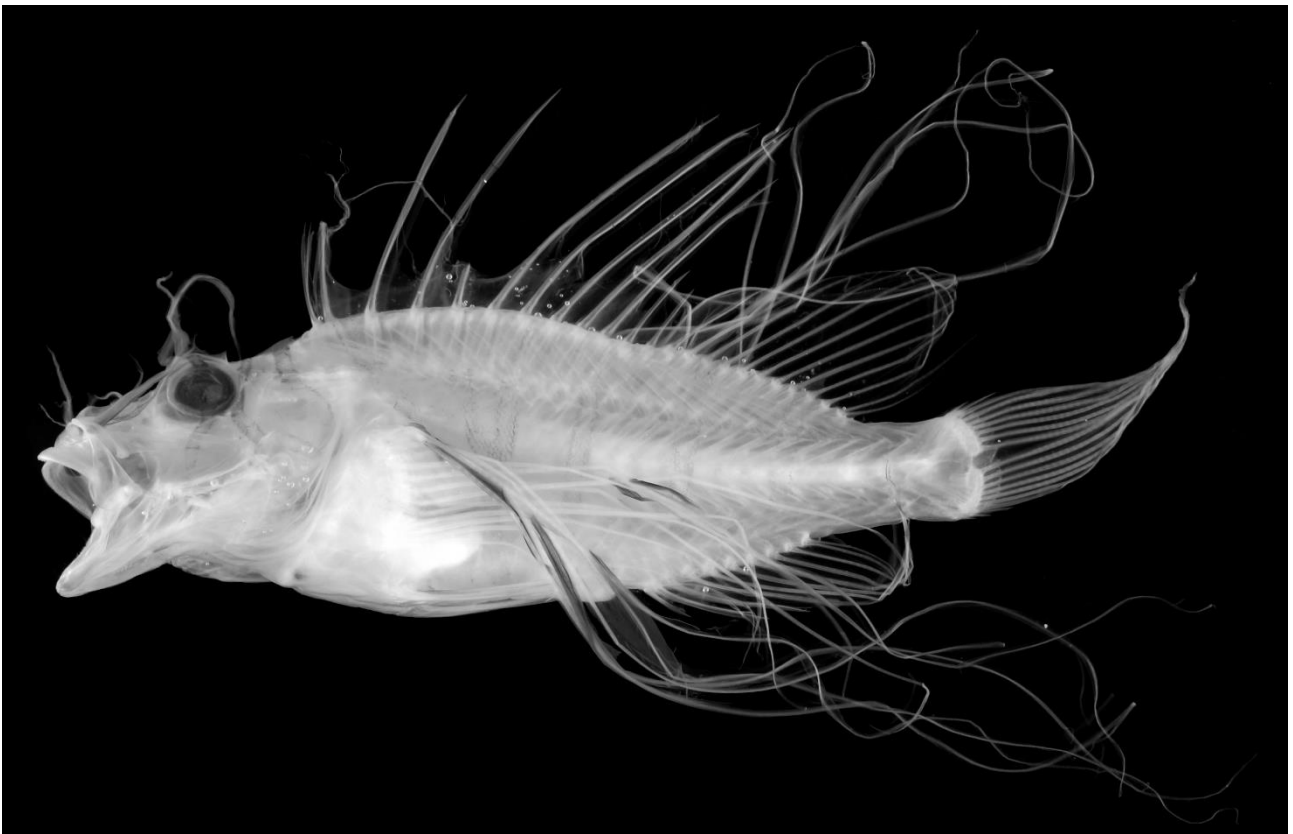


Figure 2. Specimen of *Pterois volitans* (ZUMT 18380, 46.7 mm SL, Niinumaura, Soma, Fukushima Pref., Japan).

A list of specimens of Triglidae (Actinopterygii: Teleostei) in the Department of Zoology, The University Museum, The University of Tokyo with comments on type specimens of Triglidae deposited in the museum's Department of Fisheries

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Abstract

A list of specimens in the collection of Triglidae (Teleostei), excluding species of the subfamily Peristediinae, held in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT), consisting of 554 specimens in 525 lots, and representing 15 species, is provided. The collection of the Department of Fisheries in the museum (FUMT) was investigated. The holotype of *Lepidotrigla paradoxa* Matsubara and Hiyama, 1932 was found and catalogue numbers of syntypes of *Lepidotrigla hime* Matsubara and Hiyama, 1932 and *Lepidotrigla teraoi* Matsubara and Hiyama, 1932 were identified.

Introduction

The Triglidae, known as gurnards or sea-robins, is distributed in tropical to temperate waters around the world (Nelson et al., 2016). Although the family had been recognized as consisting of three subfamilies (Richards and Jones, 2002), recent phylogenetic studies have shown the Triglidae as previously recognized to be paraphyletic and have proposed a new classification, which includes a fourth subfamily Peristediinae, formerly recognized as the family Peristediidae, known as armored sea-robins (Portnoy et al., 2017; Smith et al., 2018). Some studies have adopted the new classification (e.g. Roy et al., 2023; Fricke et al., 2024), while others continue to follow the previous classification (e.g. Yato, 2020a, b; Richards, 2022; Kawai and Richards, 2022). In the series of the lists of the collection of the Department of Zoology, The University Museum, The University of Tokyo (ZUMT), the list of Peristediinae was presented as the family Peristediidae (Wada et al., 2022). A list of specimens of Triglidae deposited in the ZUMT, excluding the Peristediinae, is given in this study. The remaining triglid specimens of ZUMT were collected mainly in 1902–1988 from Japan, East China Sea, China, Taiwan, and Thailand.

The museum also has a collection of the Department of Fisheries (FUMT). Matsubara and Hiyama (1932) was the first study to review and describe in detail the Triglidae in Japan, including seven new species. As stated in the description, type specimens were deposited in the museum of the Zoological Laboratory, Imperial Fisheries Institute, Tokyo, and the museum of the Fishery Institute, Faculty of Agriculture, Tokyo Imperial University (currently FUMT), but catalogue numbers for the specimens were not given. As a consequence, types of the species have been considered to be lost (Fricke et al., 2024). The identification of the holotype of *Lepidotrigla paradoxa* Matsubara and Hiyama, 1932 and some information about type specimens of other species found are based on examinations of the FUMT collection during this study.

Materials and Methods

The specimens of Triglidae, except for the Peristediinae, in the ZUMT were re-identified in the present study, based on Kamohara (1936), Richards (1968), Ochiai and Yato (1984), Yato (1985), Richards and Yato (2012), Yamada and Yagishita (2013), Ye et al. (2015), Prokofiev (2022) and comparisons with type specimens. The standard length (SL) of the specimens were measured to the nearest 0.1 mm for all specimens following the method of Richards et al. (2003). The collection year for specimens without collecting dates in the ledger or on specimen tags was estimated following Koeda et al. (2022). The following list includes the ZUMT number, number of specimens when more than one, SL, collection locality, collection depth, collection date, collecting method, collector or donator and affiliation, and remarks when applicable. Counts and measurements follow Gomon and Psomadakis (2018).

Comparative materials: *Lepidotrigla argyrosoma*: USNM 98873, holotype, 72.6 mm SL; *Lepidotrigla venusta*: USNM 98872, holotype, 86.8 mm SL.

Results and Discussion

Specimen list in ZUMT

A total of 554 specimens in 525 lots representing 15 species in four genera are confirmed in the ZUMT collection.

Triglidae ホウボウ科

Chelidonichthys Kaup, 1873 ホウボウ属

Chelidonichthys spinosus (McClelland, 1843) ホウボウ

[Japan]

Hokkaido Pref.

ZUMT 11327: 141.8 mm SL, Muroran, 22 Nov. 1923, M. Tsuda (津田三津彦／北海道水産試験場室蘭支場), local name “kanagashira カナガシラ”.

Aomori Pref.

ZUMT 12914: 154.0 mm SL; **ZUMT 12915**: 198.5 mm SL, Koen-maehama, Aomori, 4 Nov. 1923, beach seine, S. Tanabe (田辺貞夫), local name “kimyoo キミヨオ”.

ZUMT 13289: 201.1 mm SL, off Fukaura, Nishitsugaru-gun, 5 Dec. 1923, S. Tanabe (田辺貞夫).

Iwate Pref.

ZUMT 13063: 127.5 mm SL, coast of Sokei, Shimohei-gun, probably before 1925, S. Tanabe (田辺貞夫).

Chiba Pref.

ZUMT 28321: 25.6 mm SL, 1927, S. Obama (小浜 秀／千葉県女子師範学校).

ZUMT 32531: 64.5 mm SL, Onuki, Kazusa, Aug. 1928, S. Watanabe (渡辺洲三／下目黒).

Tokyo

ZUMT 19592: 185.4 mm SL, Tokyo market, local name “kurohooboo クロホオボオ”.

ZUMT 20454: 101.7 mm SL; **ZUMT 20455**: 135.9 mm SL; **ZUMT 20456**: 103.3 mm SL; **ZUMT 20457**: 121.9 mm SL; **ZUMT 21690**: 86.0 mm SL; **ZUMT 21691**: 125.5 mm SL; **ZUMT 21692**: 118.2 mm SL; **ZUMT 21693**: 119.4 mm SL; **ZUMT 21694**: 114.2 mm SL; **ZUMT 21695**: 106.4 mm SL; **ZUMT 21696**: 121.3 mm SL; **ZUMT 21697**: 111.9 mm SL, Tokyo market.

ZUMT 31773: 124.1 mm SL, Tokyo market, 6 May 1936, S. Inuo (犬尾三郎).

Kanagawa Pref.

ZUMT 41898: 122.6 mm SL, Sagami Bay, Odawara, probably 1942, T. Fujita (藤田 正).

ZUMT 43655: 23.1 mm SL, Sagami Bay, Misaki, probably 1942.

ZUMT 64967: 114.4 mm SL, Sagami Bay, Zaimokuza, Kamakura, 14 Apr. 1932, T. Abe (阿部宗明).
ZUMT 64968: 89.2 mm SL; **ZUMT 64969:** 78.7 mm SL; **ZUMT 64970:** 53.5 mm SL, Sagami Bay, Yuigahama Beach, Kamakura, 31 Mar. 1932, T. Abe (阿部宗明).

Niigata Pref.

ZUMT 23342: 189.1 mm SL, Niigata, K. Igarashi (五十嵐こづる／新潟県立新潟高等女学校), local name “kimiyo キミヨ”.

ZUMT 46640: 183.1 mm SL, around Niigata, Aug. 1923, M. Imai (今井倭武).

Shizuoka Pref.

ZUMT 16275: 117.4 mm SL; **ZUMT 16276:** 101.3 mm SL, Sagami Bay, Kakisaki, Shimoda, T. Yoneyama (米山太郎吉／静岡県伊豆下田高女).

ZUMT 31110: 72.8 mm SL; **ZUMT 31111:** 52.9 mm SL, Suruga Bay, Shizuura, Numazu, donated by N. Kuroda (黒田長礼).

Wakayama Pref.

ZUMT 20367: 93.6 mm SL, Tanabe, N. Ui (宇井縫蔵).

Kyoto Pref.

ZUMT 24356: 156.2 mm SL, Miyazu, Tango, Nov. 1931, Kyoto Fisheries Training Institute (京都府水産講習所).

Shimane Pref.

ZUMT 31199: 189.3 mm SL, Matsue, T. Yanai (柳井隆一／松江高等学校).

Fukuoka Pref.

ZUMT 34995: 51.4 mm SL; **ZUMT 34996:** 45.3 mm SL; **ZUMT 34997:** 48.9 mm SL; **ZUMT 34998:** 45.8 mm SL, Ariake Sea, Okinohata, Yamato-gun, 28–31 May 1931, I. Toyama (富山一郎).

ZUMT 49797: 206.5 mm SL, Fukuoka fish market, July 1959.

ZUMT 49839: 245.5 mm SL, Fukuoka fish market, 28 July 1959.

ZUMT 50783: 138.6 mm SL; **ZUMT 50784:** 133.3 mm SL, Fukuoka fish market, 1 Sept. 1959.

ZUMT 51881: 126.1 mm SL, Fukuoka fish market, July or early in Aug. 1959.

ZUMT 52281: 129.9 mm SL, Fukuoka fish market, 18 Aug. 1960.

Nagasaki Pref.

ZUMT 2288: 128.3 mm SL, Nagasaki, 27 June 1909.

ZUMT 2306: 164.6 mm SL, 11 July 1909.

ZUMT 33781: 82.5 mm SL, Mar. 1909. S. Tanaka (田中茂穂).

ZUMT 48149: 71.5 mm SL; **ZUMT 48150:** 51.4 mm SL; **ZUMT 48151:** 55.3 mm SL; **ZUMT 48152:** 58.5 mm SL; **ZUMT 48153:** 50.9 mm SL; **ZUMT 48154:** 58.8 mm SL; **ZUMT 48155:** 59.2 mm SL; **ZUMT 48156:** 44.2 mm SL, fish market of Fishery Cooperative of Fukue, Fukue-jima I., Goto Is., 20, 21, 25 May 1953, I. Tomiyama (富山一郎).

Miyazaki Pref.

ZUMT 21163: 94.4 mm SL, Fishery Cooperative of Fukushima (福島村漁業組合).

Kagoshima Pref.

ZUMT 20003: 100.0 mm SL; **ZUMT 26543:** 81.5 mm SL, Kagoshima market, 17 Mar. 1920, local name “kanagashira カナガシラ”.

ZUMT 22897: 147.0 mm SL, Sea near Shibushi, 27 Oct. 1902, local name “fugu フグ and kanagashira カナガシラ”.

ZUMT 23878: 207.1 mm SL, Naya, local name “hobo ホボ”.

[China]

ZUMT 21244: 214.4 mm SL, China.

[Taiwan]

ZUMT 37449: 138.5 mm SL, Keelung, Aug. 1908.

[East China Sea]

ZUMT 51274: 205.1 mm SL; **ZUMT 51285:** 203.1 mm SL, East China Sea (landed at Fukuoka fish market collected by the 51st and 52nd Tenyo-maru), 24 Dec. 1959, Y. Tominaga (富永義昭).

ZUMT 51774: 126.6 mm SL, East China Sea, the 51st Tenyo-maru arrived in port on 17 Aug. 1959.

ZUMT 54430: 151.1 mm SL; **ZUMT 54431:** 164.2 mm SL; **ZUMT 54432:** 173.5 mm SL; **ZUMT 54433:** 146.4 mm SL; **ZUMT 54434:** 175.1 mm SL; **ZUMT 54435:** 151.0 mm SL; **ZUMT 54436:** 169.4 mm SL, Yellow Sea, 34°47'N, 122°20'E, Agriculture and Forestry District 351, 24 m depth, 15 Oct. 1984, trawl net, M. Aizawa (藍澤正宏), the eighth Tenyo-maru.

ZUMT 54444: 151.5 mm SL; **ZUMT 54445:** 159.7 mm SL; **ZUMT 54549:** 158.4 mm SL, Yellow Sea, 34°23'N, 122°38'E, Agriculture and Forestry District 342, 25 m depth, 14 Oct. 1984, M. Aizawa (藍澤正宏), the eighth Tenyo-maru.

ZUMT 54471: 157.0 mm SL, Yellow Sea, 32°35'N, 122°40'E, Agriculture and Forestry District 345, 23 m depth, 11 Oct. 1984, M. Aizawa (藍澤正宏), the eighth Tenyo-maru.

ZUMT 64999: 281.1 mm SL, Western East China Sea, 28°2.0'N, 124°58.7'E, Agriculture and Forestry District 504, 103 m depth, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

[Locality unknown]

ZUMT 13341: 242.8 mm SL, S. Tanabe (田辺貞夫).

ZUMT 27442: 84.4 mm SL, Chiba or Ibaraki Pref., donated by S. Yoshida (吉田貞次／山形県米沢市).

ZUMT 46523: 130.4 mm SL; **ZUMT 65003:** 80.0 mm SL; **ZUMT 65004:** 104.1 mm SL.

Eutrigla Fraser-Brunner, 1938
Eutrigla gurnardus (Linnaeus, 1758)

[Locality unknown]

ZUMT 12300: 104.7 mm SL, donated by British Museum.

Lepidotrigla Günther, 1860 カナガシラ属
Lepidotrigla abyssalis Jourdan and Starks, 1904 ソコカナガシラ

[Japan]

Aomori Pref.

ZUMT 13259: 136.2 mm SL; **ZUMT 13260:** 76.3 mm SL; **ZUMT 13261:** 95.7 mm SL, off Fukaura, Nishitsugaru-gun, May. 1923, S. Tanabe (田辺貞夫).

Akita Pref.

ZUMT 13361: 129.9 mm SL; **ZUMT 13363:** 133.3 mm SL, 12 miles off of Nyudozaki, 95 m depth, 24 Nov. 1923, S. Tanabe (田辺貞夫).

Kanagawa Pref.

ZUMT 15474: 116.6 mm SL; **ZUMT 15519:** 95.6 mm SL, S. Miyashiro (宮代周輔／東神奈川工業学校).

ZUMT 18901: 99.0 mm SL, Suka Elementary School, Hiratsuka.

ZUMT 20630: 102.8 mm SL; **ZUMT 20709:** 97.2 mm SL; **ZUMT 20840:** 89.2 mm SL, Sagami Bay, Misaki,

probably 1930.

ZUMT 49624: 77 mm SL, Sagami Bay, off Hayama, Miura, 10 Feb. 1959, Danish seine.

ZUMT 49687: 67.5 mm SL; **ZUMT 49688:** 71.5 mm SL, Sagami Bay, off Hayama, Miura, 4 Dec. 1957, Danish seine.

ZUMT 49710: 72.6 mm SL, Sagami Bay, off Hayama, Miura, 3 Dec. 1957, Danish seine.

Niigata Pref.

ZUMT 24441: 114.1 mm SL, Niigata.

ZUMT 25046: 106.2 mm SL, Nou, Itoigawa, local name “ijimi イジミ”.

ZUMT 32896: 111.1 mm SL, Nou, Itoigawa, Niigata Nou Fisheries School (新潟県能生水産学校), donated on 12 Sept. 1933.

Toyama Pref.

ZUMT 41424: 120.6 mm SL, Namerikawa and Uozu, I. Tomiyama (冨山一郎).

ZUMT 46230: 116.7 mm SL; **ZUMT 46310:** 101.6 mm SL, Namerikawa, I. Tomiyama (冨山一郎).

Fukui Pref.

ZUMT 16032: 164.4 mm SL, 23 Feb. 1922, Danish seine, Fukui Prefectural Fisheries Experimental Station (福井県水産試験場).

ZUMT 16036: 126.2 mm SL, 6 Feb. 1922, Danish seine, Fukui Prefectural Fisheries Experimental Station (福井県水産試験場), local name “shishinbo シシンボ”.

Shizuoka Pref.

ZUMT 33514: 61.1 mm SL, Suruga Bay, Shizuura, Numazu, May 1935, N. Kuroda (黒田長礼).

Wakayama Pref.

ZUMT 9646: 76.4 mm SL, Tanabe, Kishu, N. Ui (宇井縫蔵).

ZUMT 22447: 57.0 mm SL, Tanabe, Kishu, 11 Aug. 1920, N. Ui (宇井縫蔵).

ZUMT 29521: 88.7 mm SL, Wakayama, Mar. 1909, S. Tanaka (田中茂穂).

Kochi Pref.

ZUMT 47095: 97.2 mm SL, probably Tosa.

Nagasaki Pref.

ZUMT 43521: 67.9 mm SL; **ZUMT 43522:** 63.1 mm SL; **ZUMT 43523:** 66.2 mm SL, 12 Feb. 1912.

ZUMT 43718: 68.9 mm SL; **ZUMT 43719:** 63.3 mm SL.

ZUMT 47962: 116.0 mm SL; **ZUMT 47963:** 102.0 mm SL; **ZUMT 47964:** 118.1 mm SL; **ZUMT 47966:** 113.6 mm SL; **ZUMT 47967:** 111.1 mm SL, Miiraku, Fukue-jima I., Goto Is., 22 May 1953, I. Tomiyama (冨山一郎).

ZUMT 48263: 43.3 mm SL; **ZUMT 48264:** 42.2 mm SL, Tamanoura, Minamimatsuura-gun, 23 May 1953, I. Tomiyama (冨山一郎).

ZUMT 49915: 99.4 mm SL, Fukue, Fukue-jima I., Goto Is., 10 June 1953, I. Tomiyama (冨山一郎).

ZUMT 50280: 116.3 mm SL; **ZUMT 50281:** 102.9 mm SL; **ZUMT 50289:** 103.7 mm SL, Sasebo fish market, Miura, Sasebo, 22 Oct. 1953, I. Tomiyama (冨山一郎).

ZUMT 51716: 102.1 mm SL, Sasebo fish market, Miura, Sasebo, 25 Aug. 1959, trawl net.

Miyazaki Pref.

ZUMT 18817: 118.3 mm SL; **ZUMT 18818:** 113.9 mm SL, Miyazaki.

ZUMT 21767: 115.4 mm SL; **ZUMT 22394:** 106.2 mm SL, Miyazaki, S. Tanaka (田中茂穂).

Kagoshima Pref.

ZUMT 20164: 101.0 mm SL; **ZUMT 21952:** 121.8 mm SL, Kagoshima.

ZUMT 23834: 125.3 mm SL; **ZUMT 23835:** 127.1 mm SL, Naya, Kagoshima, local name “kanagashita カナガシタ”.

[East China Sea]

ZUMT 52073: 150.8 mm SL, East China Sea, Agriculture and Forestry District 253 or 254, landed at Fukuoka fish market on 2 May 1960.

ZUMT 54310: 123.0 mm SL; **ZUMT 56553:** 95.8 mm SL; **ZUMT 56554:** 98.8 mm SL; **ZUMT 56558:** 92.7 mm SL; **ZUMT 56559:** 100.7 mm SL; **ZUMT 56560:** 97.7 mm SL; **ZUMT 56561:** 106.7 mm SL; **ZUMT 56562:** 103.8 mm SL; **ZUMT 56563:** 98.0 mm SL; **ZUMT 56565:** 96.7 mm SL; **ZUMT 56568:** 99.0 mm SL; **ZUMT 56571:** 98.7 mm SL; **ZUMT 56572:** 95.6 mm SL; **ZUMT 56573:** 98.4 mm SL; **ZUMT 56574:** 97.7 mm SL; **ZUMT 56575:** 99.1 mm SL; **ZUMT 56576:** 92.5 mm SL; **ZUMT 56577:** 98.8 mm SL; **ZUMT 56578:** 107.7 mm SL; **ZUMT 56580:** 109.2 mm SL; **ZUMT 56581:** 97.6 mm SL; **ZUMT 56582:** 100.1 mm SL; **ZUMT 56583:** 88.2 mm SL; **ZUMT 56588:** 113.3 mm SL; **ZUMT 56591:** 104.0 mm SL; **ZUMT 56594:** 107.2 mm SL; **ZUMT 56595:** 107.2 mm SL; **ZUMT 56596:** 98.4 mm SL; **ZUMT 56597:** 113.5 mm SL; **ZUMT 56599:** 101.4 mm SL; **ZUMT 56600:** 91.5 mm SL; **ZUMT 56601:** 81.4 mm SL; **ZUMT 56602:** 105.8 mm SL; **ZUMT 56604:** 89.5 mm SL; **ZUMT 56606:** 113.0 mm SL; **ZUMT 56607:** 93.9 mm SL; **ZUMT 56608:** 97.4 mm SL; **ZUMT 60971:** 90.9 mm SL; **ZUMT 60972:** 94.4 mm SL; **ZUMT 60973:** 91.3 mm SL; **ZUMT 60974:** 97.8 mm SL; **ZUMT 60975:** 107.5 mm SL; **ZUMT 60977:** 97.8 mm SL; **ZUMT 60978:** 90.3 mm SL; **ZUMT 60979:** 94.4 mm SL; **ZUMT 60980:** 116.9 mm SL; **ZUMT 60981:** 94.0 mm SL; **ZUMT 60982:** 88.7 mm SL; **ZUMT 60983:** 100.9 mm SL; **ZUMT 60984:** 92.7 mm SL; **ZUMT 60985:** 96.0 mm SL; **ZUMT 60986:** 90.9 mm SL; **ZUMT 60987:** 99.1 mm SL; **ZUMT 60988:** 106.9 mm SL; **ZUMT 60989:** 85.5 mm SL; **ZUMT 60990:** 88.6 mm SL, Southern East China Sea, 26°55.0'N, 125°0.5'E–26°56.6'N, 125°2.5'E, Agriculture and Forestry District 497, 120 m depth, 24 May 1968, otter trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

ZUMT 60995: 110.8 mm SL; **ZUMT 60997:** 107.8 mm SL; **ZUMT 60998:** 117.0 mm SL; **ZUMT 60999:** 109.8 mm SL, East China Sea, 31°30'N, 128°3'E, 147 m depth, 14 May 1988, M. Aizawa (藍澤正宏).

ZUMT 64621: 130.2 mm SL; **ZUMT 64623:** 104.7 mm SL; **ZUMT 64624:** 100.6 mm SL; **ZUMT 64628:** 101.6 mm SL; **ZUMT 64629:** 88.0 mm SL; **ZUMT 64630:** 87.7 mm SL; **ZUMT 64631:** 91.3 mm SL; **ZUMT 64633:** 83.1 mm SL; **ZUMT 64634:** 99.7 mm SL; **ZUMT 64635:** 106.6 mm SL, East China Sea, 32°29'N, 127°30'E, 133 m depth, 9 May 1988, M. Aizawa (藍澤正宏).

[Locality unknown]

ZUMT 64975: 67.7 mm SL.

Lepidotrigla alata (Houttuyn, 1782) イゴダカホドリ

[Japan]

Kanagawa Pref.

ZUMT 43647: 46.7 mm SL, Sagami Bay, Misaki, probably 1942.

ZUMT 44255: 33.2 mm SL, Sagami Bay, Odawara, probably 1942.

Shizuoka Pref.

ZUMT 16277: 67.3 mm SL, Sagami Bay, Kakizaki, Shimoda, T. Yoneyama (米山太郎吉／静岡県立伊豆下田高女).

Wakayama Pref.

ZUMT 41025: 107.7 mm SL, Tatsugahama, Minoshima, Arita-gun, 20 Nov. 1941, M. Inoue (井上光雄).

ZUMT 41837: 121.7 mm SL, Shirahama or Tatsugahama, 10 Apr. 1942, M. Inoue (井上光雄).

Ehime Pref.

ZUMT 24955: 168.5 mm SL, coast of Horie, Onsen-gun, Oct. 1931, J. Ishikawa (石川重治郎／松山高等女学校).

Kochi Pref.

ZUMT 18655: 61.3 mm SL, Suzaki, July 1926, T. Kamohara (蒲原稔治), local name “ganando ガナンド”.

ZUMT 47157: 87.5 mm SL; **ZUMT 47194:** 60.1 mm SL, Tosa.

Nagasaki Pref.

ZUMT 20589: 112.2 mm SL; **ZUMT 33783:** 107.8 mm SL, Mar. 1903, S. Tanaka (田中茂穂).

ZUMT 32006: 132.7 mm SL, trawl net, donated by T. A. Glover (倉場富三郎).

ZUMT 50073: 139.5 mm SL; **ZUMT 50074:** 104.4 mm SL, Tamanoura, Fukue-jima I., Goto Is. 14 Oct. 1953, I. Tomiyama (冨山一郎), local name “kanagashira カナガシラ”.

ZUMT 50335: 96.2 mm SL, Usuka, 20 Oct. 1953, I. Tomiyama (冨山一郎), local name “gattsu ガッツ or kanagashira カナガシラ”.

ZUMT 50368: 112.5 mm SL; **ZUMT 50369:** 118.7 mm SL; Himosashi, Kitamatsuura-gun, Oct. 1953, I. Tomiyama (冨山一郎).

Miyazaki Pref.

ZUMT 21149: 138.9 mm SL, Fishery Cooperative of Fukushima, Miyazaki (宮崎県福島村漁業組合).

Kagoshima Pref.

ZUMT 24123: 148.7 mm SL, Kushikino, local name “kanahobu カナホブ”.

[Taiwan]

ZUMT 13654: 153.5 mm SL; **ZUMT 13655:** 164.3 mm SL, 150 miles off the Northwest of Pengjia Islet, probably before 1945, T. Aoki (青木赳雄／台湾総督府水産課).

[East China Sea]

ZUMT 51099: 152.4 mm SL, East China Sea, Dec. 1959, trawl net.

ZUMT 65107: 138.2 mm SL, Southeastern waters of the East China Sea, 29°49.0'N, 124°32.2'E, 66 m depth, 23 May 1968, trawl net, Y. Tominaga, Hakuho-maru.

[Locality unknown]

ZUMT 52220: 110.2 mm SL; **ZUMT 64971:** 113.2 mm SL; **ZUMT 64972:** 90.1 mm SL; **ZUMT 65000:** 128.5 mm SL; **ZUMT 65001:** 132.5 mm SL.

***Lepidotrigla argyrosoma* Fowler, 1938**

[Thailand]

ZUMT 66069: 103.3 mm SL, off Sonkhla, Southeast of Gulf of Thailand, 09 July 1985, trawl net.

Remarks: this specimen has the following characters: posterior margin of pectoral fin pointed; breast scaled; posterior margin of opercular flap beyond origin of first dorsal fin; posterior tip of longest free pectoral-fin rays beyond anus. These characters are consistent with *Lepidotrigla lepidojuglata* Li, 1981 (Ye et al., 2015; Prokofiev, 2022), and type specimens of *Lepidotrigla argyrosoma* Fowler, 1938 and *Lepidotrigla venusta* Fowler, 1938 examined by the first author. These three species are confused taxonomically and a revision is needed. This specimen is provisionally identified as *Lepidotrigla argyrosoma* because it has seniority if the these names are found to be synonymous (International Commission on Zoological Nomenclature, 1999).

[Japan]

Akita Pref.

ZUMT 13359: 170.9 mm SL; **ZUMT 13360:** 170.6 mm SL; **ZUMT 13362:** 124.9 mm SL, 12 miles off Nyudosaki, 95 m depth, 24 Nov. 1923, S. Tanabe (田辺貞夫).

Yamagata Pref.

ZUMT 43563: 135.9 mm SL, C. Sugihara (杉原千代太／酒田市第一国民学校), donated on 16 Dec. 1942.

Tokyo

ZUMT 32572: 172.3 mm SL, Fukagawa fish market, (currently Monzen-naka-cho, Koto-ku), Nov. 1931, S. Watanabe (渡辺洲三).

Kanagawa Pref.

ZUMT 20607: 67.9 mm SL; **ZUMT 20653:** 71.2 mm SL; **ZUMT 20839:** 104.4 mm SL, Sagami Bay, Misaki, Miura, probably 1930.

ZUMT 26729: 53.8 mm SL, Aburatsubo, Sagami Bay, Misaki, Miura, Oct. 1903.

ZUMT 42908: 67.0 mm SL, Sagami Bay, Misaki, Miura, 27 Mar. 1906, local name “kanadou カナドウ”.

ZUMT 49109: 194.3 mm SL; **ZUMT 49129:** 191.7 mm, Sagami Bay, Misaki, Miura, 1956, I. Tomiyama (冨山一郎).

ZUMT 49598: 55.9 mm SL, Sagami Bay, off Hayama (Amadaiba, Kannotsukadashi), Miura, 16 Feb. 1959, Danish seine.

ZUMT 49628: 62.1 mm SL, Sagami Bay, 1.5 miles off the southwest of Jogashima, Miura, 87–89 m depth, 21 Jan. 1959.

ZUMT 49700: 81.0 mm SL, Sagami Bay, off Hayama (Amadaiba, Maruyamadashi), Miura, 14 July 1957.

ZUMT 49711: 76.7 mm SL, Sagami Bay, off Hayama (Amadaiba, Kannotsukadashi), Miura, 16 July 1959.

ZUMT 50884: 115.6 mm SL, Sagami Bay, off Hayama (Amadaiba, Kannotsukadashi), Miura, 60–65 m depth, 29 July. 1957.

ZUMT 50911: 92.2 mm SL; **ZUMT 50921:** 41.5 mm SL, Sagami Bay, off Hayama (Amadaiba, Maruyamadashi), Miura, 60–65 m depth, 17 July 1959.

ZUMT 50916: 47.1 mm SL, Sagami Bay, 2.5 km off the south of Jogashima, Miura, 85 m depth, 27 July 1959.

ZUMT 50938: 84.0 mm SL, Sagami Bay, off Hayama (Amadaiba, Kannotsukadashi), Miura, 70–80 m depth, 21 July 1959.

ZUMT 50961: 52.3 mm SL, Sagami Bay, off Hayama (Amadaiba, Kannotsukadashi), Miura, 70–62 m depth, 23 July 1957.

Niigata Pref.

ZUMT 32895: 106.9 mm SL, Nou, Itoigawa, Niigata Nou Fisheries School (新潟県能生水産学校), donated on 12 Sept. 1933.

ZUMT 34704: 158.8 mm SL; **ZUMT 34705:** 171.1 mm SL, around Niigata, Aug. 1923, M. Imai (今井倭武).

Toyama Pref.

ZUMT 41503: 188.4 mm SL, Uozu, June 1932, I. Tomiyama (冨山一郎).

ZUMT 46283: 138.3 mm SL; **ZUMT 46684:** 122.8 mm SL, Toyama Bay, Namerigawa, I. Tomiyama (冨山一郎).

Shizuoka Pref.

ZUMT 18528: 115.6 mm SL, Maisaka, S. Ooe (大恵尚一／静岡県浜松市高等魚学校).

ZUMT 31109: 40.8 mm SL; **ZUMT 43352:** 49.5 mm SL; **ZUMT 43353:** 42.9 mm SL, Suruga Bay, Shizuura, Numazu, donated by N. Kuroda (黒田長礼).

ZUMT 32900: 179.4 mm SL, donated by Fuji Girl's High School (静岡県立富士高等女学校) on 27 Oct. 1933.

ZUMT 33515: 57.0 mm SL; **ZUMT 33516:** 49.9 mm SL, Suruga Bay, Shizuura, Numazu, May 1935, N. Kuroda (黒田長礼).

ZUMT 54682: 102.6 mm SL; **ZUMT 54683:** 147.0 mm SL; **ZUMT 54684:** 140.4 mm SL; **ZUMT 54685:** 154.4 mm SL, Suruga Bay, off Kunouzan, 9 May 1983, trawl net.

ZUMT 64574: 102.9 mm SL, Shizuoka, date unknown, hand net, M. Fukatani (深谷真央).

Mie Pref.

ZUMT 23421: 120.2 mm SL, Owase, T. Nakahara (中原綱作), local name “kanagashira カナガシラ”.

ZUMT 25361: 102.3 mm SL, 200 fathoms off the south of Shima, 31 Mar. 1933, S. Yoshikane (吉兼宗一／愛知県女子師範学校).

Kyoto Pref.

ZUMT 5408: 111.2 mm SL, Taiza, Takeno-gun, F. Azuma (東 文治), donated on 14 Aug. 1902.

Kochi Pref.

ZUMT 47089: 126.3 mm SL, probably Tosa.

Fukuoka Pref.

ZUMT 35793: 143.3 mm SL, Ariake Sea, Okinohata, Yanagawa, Oct. 1931, I. Tomiyama (冨山一郎), local name “kanagashira カナガシラ”.

Nagasaki Pref.

ZUMT 47965: 138.2 mm SL; **ZUMT 47968:** 161.1 mm SL, Miiraku, Fukue-jima I., Goto Is., 22 May 1953, I. Tomiyama (冨山一郎).

ZUMT 49929: 149.6 mm SL, Fukue, Fukue-jima I., Goto Is., 10 June 1953, I. Tomiyama (冨山一郎).

ZUMT 50277: 155.9 mm SL, Sasebo fish market, Miura, Sasebo, 22 Oct. 1953, I. Tomiyama (冨山一郎).

ZUMT 56931: 128.9 mm SL; **ZUMT 56932:** 118.0 mm SL, Southeast waters of Tsushima, 34°23.1'N, 129°51.0'E, 116 m depth, 10 July 1987, trawl net, Y. Tominaga (冨永義昭) and M. Aizawa (藍澤正宏), the 36th Tenyo-maru.

ZUMT 56967: 133.6 mm SL, **ZUMT 56968:** 119.3 mm SL, Southeast waters of Tsushima, 34°20.7'N, 129°56.6'E, 119–122 m depth, 10 July 1987, Y. Tominaga (冨永義昭) and M. Aizawa (藍澤正宏), the 36th Tenyo-maru.

Oita Pref.

ZUMT 5667: 3, 37.9–74.0 mm SL, Beppu, T. Terasaki (寺崎留吉).

Kagoshima Pref.

ZUMT 23776: 154.5 mm SL; **ZUMT 23777:** 147.6 mm SL, Taniyama, 20 July 1930.

ZUMT 31613: 142.3 mm SL, Kagoshima, donated by Y. Miyoshi (三好保徳) in Mar. 1936.

[East China Sea]

ZUMT 51023: 99.6 mm SL, East China Sea, 16 Mar. 1960, trawl net, the 35th or 38th Tenyo-maru, landed at Fukuoka fish market.

ZUMT 51589: 93.0 mm SL, East China Sea, Agriculture and Forestry District 266, 28 Mar. 1960.

ZUMT 51717: 138.7 mm SL, East China Sea, collected at Sasebo fish market, 25 Aug. 1959, trawl net.

ZUMT 52081: 123.5 mm SL, East China Sea, Agriculture and Forestry District 253 or 254, landed at Fukuoka fish market on 2 May 1960.

ZUMT 52221: 161.5 mm SL, East China Sea.

ZUMT 52253: 86.8 mm SL, East China Sea, around Jeju I., Agriculture and Forestry District 253 or 254, the first and second Shotoku-maru, 5 May 1960.

ZUMT 52262: 146.2 mm SL, East China Sea, Agriculture and Forestry District 319, 23 May 1960, trawl net, Y. Tominaga (冨永義昭), the 31st Tenyo-maru.

ZUMT 54302: 132.4 mm SL; **ZUMT 56556:** 110.3 mm SL; **ZUMT 56557:** 117.1 mm SL; **ZUMT 56564:** 137.0 mm SL; **ZUMT 56567:** 85.7 mm SL; **ZUMT 56569:** 138.3 mm SL; **ZUMT 56570:** 105.0 mm SL; **ZUMT 56584:** 141.9 mm SL; **ZUMT 56585:** 122.5 mm SL; **ZUMT 56589:** 138.0 mm SL; **ZUMT 56592:** 129.2 mm SL; **ZUMT 56598:** 101.8 mm SL; **ZUMT 56605:** 100.0 mm SL; **ZUMT 56609:** 81.8 mm SL, South of East China Sea, 26°55.0'N, 125°0.5'E–26°56.6'N, 125°2.5'E, Agriculture and Forestry District 497, 120 m depth, 24 May 1968, otter trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

ZUMT 57638: 144.2 mm SL; **ZUMT 64622:** 141.0 mm SL; **ZUMT 64625:** 78.0 mm SL; **ZUMT 64626:** 68.4 mm SL; **ZUMT 64627:** 64.2 mm SL; **ZUMT 64632:** 92.8 mm SL, East China Sea, 32°29'N, 127°30'E, 133 m depth, 9 May 1988, M. Aizawa (藍澤正宏).

ZUMT 57670: 154.1 mm SL; **ZUMT 60991:** 148.2 mm SL; **ZUMT 60992:** 140.2 mm SL; **ZUMT 60993:** 156.5 mm SL; **ZUMT 60994:** 139.4 mm SL; **ZUMT 60996:** 127.2 mm SL; **ZUMT 61000:** 142.2 mm SL, East China Sea, 31°30'N, 128°3'E, 147 m depth, 14 May 1988, M. Aizawa (藍澤正宏).

ZUMT 64638: 162.1 mm SL, East China Sea, collected at Fukuoka fish market, 22 Mar. 1963, Y. Tominaga (富永義昭).

ZUMT 65096: 97.4 mm SL, west waters of East China Sea, 28°2.0'N, 124°58.7'E, Agriculture and Forestry District 504, 103 m depth, 23 May 1968, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

ZUMT 65123: 52.9 mm SL, East China Sea, 31°42.6'N, 126°44.0'E, 103 m depth, 19 May 1968, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

[Locality unknown]

ZUMT 46880: 115.8 mm SL; **ZUMT 46906:** 115.4 mm SL; **ZUMT 48403:** 117.4 mm SL; **ZUMT 48404:** 117.8 mm SL; **ZUMT 64965:** 123.6 mm SL; **ZUMT 64982:** 142.0 mm SL; **ZUMT 65002:** 207.1 mm SL.

Lepidotrigla hime Matsubara and Hiyama, 1932 ヒメソコカナガシラ

[East China Sea]

ZUMT 57627: 11, 81.9–99.3 mm SL, East China Sea, 30°18'N, 126°40'E, 93 m depth, 7 May 1988, M. Aizawa (藍澤正宏).

[Taiwan]

ZUMT 19036: 117.8 mm SL, Keelung, H. Sato (佐藤春吉).

[Locality unknown]

ZUMT 64974: 61.4 mm SL.

Lepidotrigla japonica (Bleeker, 1854) トゲカナガシラ

[Japan]

Kanagawa Pref.

ZUMT 26728: 43.2 mm SL; **ZUMT 26731:** 65.0 mm SL, Sagami Bay, Aburatsubo, Misaki, Miura, Oct. 1903.

ZUMT 30082: 79.3 mm SL, Sagami Bay, Hayama, Miura, Aug. 1934.

ZUMT 43648: 49.4 mm SL; **ZUMT 43649:** 48.7 mm SL; **ZUMT 43650:** 49.8 mm SL; **ZUMT 43651:** 49.9 mm SL; **ZUMT 43652:** 52.1 mm SL; **ZUMT 43653:** 47.6 mm SL; **ZUMT 43654:** 48.4 mm SL, Sagami Bay, Misaki, Miura, probably 1942.

Wakayama Pref.

ZUMT 22451: 92.6 mm SL, Tanabe, Kishu, N. Ui (宇井縫蔵), donated on 11 Aug. 1920.

ZUMT 22527: 67.5 mm SL, Tanabe, Wakayama, Jan. 1920, N. Ui (宇井縫蔵).

Yamaguchi Pref.

ZUMT 10113: 119.2 mm SL, Senzaki, S. Tanaka (田中茂穂).

Fukuoka Pref.

ZUMT 34994: 90.7 mm SL, Ariake Sea, Okinohata, Yamato, Fukuoka, 28–31 May 1931, I. Tomiyama (富山一郎).

Nagasaki Pref.

ZUMT 27099: 45.7 mm SL, Nagasaki, donated by I. Kaneko (金子一狼) on 8 June 1911.

ZUMT 32009: 125.1 mm SL, off Nagasaki, trawl net, donated by T. A. Glover (倉場富三郎).

ZUMT 35339: 45.6 mm SL.

ZUMT 47878: 144.5 mm SL; **ZUMT 47879:** 133.2 mm SL; **ZUMT 47923:** 135.9 mm SL; **ZUMT 48198:** 61.3 mm SL, Tamanoura, Fukue-jima I., Goto Is., 23 May 1953, trawl net, I. Tomiyama (富山一郎).

ZUMT 50149: 125.0 mm SL, Tamanoura, Fukue-jima I., Goto Is., 16 Oct. 1953, I. Tomiyama (富山一郎).

ZUMT 50417: 120.0 mm SL; **ZUMT 50418:** 136.9 mm SL, Ichibu, Ikitsuki, 25 Oct. 1953, triangular set net, I. Tomiyama (富山一郎).

Miyazaki Pref.

ZUMT 21153: 124.7 mm SL, Fishery Cooperatives of Fukushima (福島漁業協同組合), Miyazaki.

Kagoshima Pref.

ZUMT 23880: 124.7 mm SL, Naya, Kagoshima, local name “kanagashita カナガシタ”.

ZUMT 24022: 98.1 mm SL; **ZUMT 24023:** 103.7 mm SL, Shibushi.

ZUMT 24136: 120.6 mm SL, Kushikino, local name “kanahobu カナホブ”.

[Taiwan]

ZUMT 13648: 164.6 mm SL; **ZUMT 13649:** 164.2 mm SL, 150 miles off the Northwest of Pengjia Islet, probably before 1945, T. Aoki (青木赳雄／台湾総督府水産課).

[East China Sea]

ZUMT 65124: 25.6 mm SL, East China Sea, 31°42.6'N, 126°44.0'E, 103 m depth, 19 May 1968, Y. Tominaga (富永義昭), Hakoho-maru.

[Locality unknown]

ZUMT 812: 46.1 mm SL.

ZUMT 46904: 127.6 mm SL.

ZUMT 64973: 95.9 mm SL.

ZUMT 64991: 133.6 mm SL.

Lepidotrigla kanagashira Kamohara, 1936 ヒレナガカナガシラ

[Japan]

Kanagawa Pref.

ZUMT 26727: 42.8 mm SL; **ZUMT 26730:** 40.7 mm SL, Sagami Bay, Aburatsubo, Misaki, Miura, Oct. 1903.

Aichi Pref.

ZUMT 24909: 84.9 mm SL, Toyohashi fish market, 23 Sept. 1932.

Nagasaki Pref.

ZUMT 43600: 56.7 mm SL, Nagasaki, Feb. 1912.

Kagoshima Pref.

ZUMT 18850: 140.8 mm SL, Kagoshima.

[Locality unknown]

ZUMT 29988: 41.1 mm SL, probably Southern Japan.

Lepidotrigla kishinouyei Snyder, 1911 オニカナガシラ

[Japan]

Ibaraki Pref.

ZUMT 59379: 107.6 mm SL; **ZUMT 59380:** 103.1 mm SL, Kashimanada, off Nakaminato, Hitachinaka, ca. 36°19.51'N, 140°37.12'E, 70–73 m depth, 29 Oct. 1988, trawl net.

Kanagawa Pref.

ZUMT 15472: 113.1 mm SL; **ZUMT 15473:** 99.7 mm SL, S. Miyashiro (宮代周輔／横浜工業学校).

Niigata Pref.

ZUMT 23430: 137.3 mm SL, Niigata, K. Igarashi (五十嵐こづる／新潟県立新潟高等女学校), local name “kanagashira カナガシラ”.

ZUMT 24440: 90.1 mm SL, Niigata.

ZUMT 33478: 84.8 mm SL, Shibata or environs, before 15 Apr. 1909, H. Hatayama (畠山久重).

Toyama Pref.

ZUMT 25831: 131.3 mm SL; **ZUMT 25832:** 132.7 mm SL; **ZUMT 25867:** 77.1 mm SL, probably Toyama Bay, K. Kikuchi (菊池勘左衛門／富山高等学校).

ZUMT 32696: 32.2 mm SL, Toyama Bay, H. Yamashita (山下博三／富山高校), donated on 14 Sept. 1935.

ZUMT 41425: 115.0 mm SL, Uozu or Namerikawa, Toyama, I. Tomiyama (富山一郎).

ZUMT 41502: 103.3 mm SL, Uozu, Toyama, June 1932, I. Tomiyama (富山一郎).

ZUMT 46305: 105.5 mm SL; **ZUMT 46683:** 90.8 mm SL, Namerikawa, Toyama, I. Tomiyama (富山一郎).

Mie Pref.

ZUMT 20068: 115.4 mm SL; **ZUMT 20069:** 107.4 mm SL; **ZUMT 20070:** 105.5 mm SL; **ZUMT 20071:** 94.6 mm SL; **ZUMT 20414:** 94.9 mm SL; **ZUMT 20415:** 105.2 mm SL; **ZUMT 20416:** 97.3 mm SL; **ZUMT 20417:** 98.9 mm SL, Y. Tsuchiga (槌賀安平／三重県宇治山田市).

ZUMT 23373: 115.8 mm SL, Owase, T. Nakahara (中原綱作), local name “karando カランド”.

Shimane Pref.

ZUMT 31243: 113.7 mm SL, Matsue, T. Yanai (柳井隆一／松江高校).

Kochi Pref.

ZUMT 23471: 88.8 mm SL, Urado, Oct. 1930, T. Kamohara (蒲原稔治／高知高等学校).

Fukuoka Pref.

ZUMT 49806: 88.6 mm SL, Fukuoka fish market, July 1959.

Nagasaki Pref.

ZUMT 17629: 102.1 mm SL, off Goto Is., 13 May 1927, Y. Yamamoto (山本義光／大分県師範学校), local name “kanagashira カナガシラ”.

ZUMT 48191: 59.0 mm SL, Tomie, Fukue-jima I., Goto Is., 24 May 1953, I. Tomiyama (富山一郎).

ZUMT 49914: 66.2 mm SL; **ZUMT 49949:** 108.1 mm SL, Fukue, Fukue-jima I., Goto Is., 10 June 1953, I.

Tomiyama (富山一郎).

ZUMT 49996: 67.6 mm SL, Arikawa, Nakadoori-jima I., Goto Is., 10 June 1953, I. Tomiyama (富山一郎).

ZUMT 50145: 123.1 mm SL; **ZUMT 50146:** 94.8 mm SL; **ZUMT 50147:** 98.3 mm SL, Tamanoura, Fukue-jima I., Goto Is., 16 Oct. 1953, trawl net, I. Tomiyama (富山一郎).

ZUMT 50228: 65.9 mm SL; **ZUMT 50229:** 64.4 mm SL, Fuefuki, Ojika-jima I., Goto Is., 10 June 1953, I. Tomiyama (富山一郎).

ZUMT 50617: 72.9 mm SL; **ZUMT 50618:** 79.4 mm SL, Ainoura fish market, Sasebo, 26 Aug. 1959, Y. Tominaga (富永義昭).

Kagoshima Pref.

ZUMT 22896: 117.5 mm SL, near Kushikino, 17 Nov. 1902, local name “tsunohobu ツノホブ”.

[East China Sea]

ZUMT 51124: 81.3 mm SL, East China Sea, Dec. 1959, trawl net.

ZUMT 56555: 96.8 mm SL; **ZUMT 56579:** 97.6 mm SL; **ZUMT 56586:** 98.0 mm SL; **ZUMT 56587:** 97.0 mm SL; **ZUMT 56590:** 104.1 mm SL; **ZUMT 56593:** 117.6 mm SL; **ZUMT 56603:** 119.5 mm SL, Southern East China Sea, 26°55.0'N, 125°0.5'E–26°56.6'N, 125°2.5' E, Agriculture and Forestry District 497, 120 m depth, 24 May 1968, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

ZUMT 65086: 133.3 mm SL; **ZUMT 65087:** 97.1 mm SL; **ZUMT 65088:** 100.3 mm SL; **ZUMT 65089:** 95.8 mm SL; **ZUMT 65090:** 98.9 mm SL; **ZUMT 65091:** 99.1 mm SL; **ZUMT 65092:** 98.9 mm SL; **ZUMT 65093:** 95.6 mm SL; **ZUMT 65094:** 93.6 mm SL; **ZUMT 65095:** 116.6 mm SL, Western East China Sea, 28°2.0'N, 124°58.7'E, Agriculture and Forestry District 504, 103 m, 23 May 1968, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

ZUMT 65151: 78.1 mm SL; **ZUMT 65152:** 82.5 mm SL; **ZUMT 65153:** 91.3 mm SL; **ZUMT 65154:** 95.1 mm SL; **ZUMT 65155:** 97.8 mm SL; **ZUMT 65156:** 96.4 mm SL; **ZUMT 65157:** 101.9 mm SL; **ZUMT 65158:** 100.1 mm SL; **ZUMT 65159:** 102.9 mm SL; **ZUMT 65160:** 103.3 mm SL; **ZUMT 65161:** 107.3 mm SL; **ZUMT 65162:** 102.6 mm SL; **ZUMT 65163:** 103.3 mm SL; **ZUMT 65164:** 114.5 mm SL; **ZUMT 65165:** 110.1 mm SL, Yellow Sea, 34°5'N, 122°33'E, Agriculture and Forestry District 342, 13 Oct. 1984, trawl net, M. Aizawa (藍澤正宏), the eighth Tenyo-maru.

[Locality unknown]

ZUMT 15974: 139.1 mm SL, 8 Dec. 1921, Danish seine.

ZUMT 32680: 75.8 mm SL.

ZUMT 39359: 117.1 mm SL.

ZUMT 64976: 4, 45.2–51.8 mm SL.

ZUMT 64977: 93.8 mm SL.

ZUMT 64978: 93.5 mm SL.

ZUMT 64979: 95.6 mm SL.

ZUMT 64980: 93.3 mm SL.

Lepidotrigla longifaciata Yato, 1981 ツラナガソコカナガシラ

[Japan]

Shizuoka Pref.

ZUMT 64573: 94.1 mm SL, Shizuoka, date unknown, hand net, M. Fukatani (深谷真央).

[Japan]

Aomori Pref.

ZUMT 12944: 213.7 mm SL, Koen-maehama, Aomori, Apr. 1922, beach seine, S. Tanabe (田辺貞夫).

ZUMT 13152: 144.6 mm SL, Samemura-maehama, 23 Oct. 1923, S. Tanabe (田辺貞夫).

ZUMT 13287: 188.2 mm SL; **ZUMT 13288:** 175.7 mm SL, off Fukaura, Nishitsugaru-gun, 5 Dec. 1923, S. Tanabe (田辺貞夫).

ZUMT 41706: 192.0 mm SL; **ZUMT 41707:** 171.4 mm SL; **ZUMT 41708:** 168.2 mm SL, Asamushi, probably before 1925, S. Tanabe (田辺貞夫).

Iwate Pref.

ZUMT 13035: 100.8 mm SL; **ZUMT 13036:** 112.5 mm SL; Miyako Bay, Shirahamazaki and Fudozaki, probably before 1925, S. Tanabe (田辺貞夫).

ZUMT 13060: 61.6 mm SL; **ZUMT 13061:** 70.4 mm SL; **ZUMT 13062:** 155.9 mm SL, coast of Sokei, Shimohe-gun, probably before 1925, S. Tanabe (田辺貞夫).

ZUMT 13813: 207.8 mm SL, Iwate, 16 Dec. 1924, G. Toba (鳥羽源蔵／岩手県師範学校).

Akita Pref.

ZUMT 13371: 175.1 mm SL, 12 miles off Nyudozaki, 95 m depth, 24 Nov. 1923, S. Tanabe (田辺貞夫).

Ibaraki Pref.

ZUMT 31661: 242.4 mm SL, donated by K. Tashiro (田代清友／茨城県水産試験場長).

Fukushima Pref.

ZUMT 11501: 155.1 mm SL; **ZUMT 11502:** 146.3 mm SL; **ZUMT 11506:** 173.3 mm SL, T. Nakahira (中平貞次郎／福島県小名浜水産試験場).

Toyama Pref.

ZUMT 5406: 199.4 mm SL, Fushigi, Etchu.

ZUMT 11519: 163.1 mm SL, Toyama, 20 fathoms depth, 16 Nov. 1922, S. Nakahira (中平貞次郎／福島県小名浜水産試験場).

ZUMT 41501: 227.9 mm SL, Uozu, June 1932, I. Tomiyama (富山一郎).

ZUMT 45791: 50.2 mm SL, Namerikawa, I. Tomiyama (富山一郎).

ZUMT 46210: 131.8 mm SL, probably Uozu or Namerikawa, I. Tomiyama (富山一郎).

Mie Pref.

ZUMT 20072: 95.7 mm SL; **ZUMT 20418:** 97.5 mm SL, Y. Tsuchiga (槌賀安平／三重県宇治山田市).

ZUMT 23375: 142.5 mm SL, Owase, T. Nakahara (中原綱作), local name “kana カナ, karando カランド or houboo ホウボオ”.

Wakayama Pref.

ZUMT 22508: 96.3 mm SL, Tanabe, Kishu, Jan. 1920, N. Ui (宇井縫蔵).

Yamaguchi Pref.

ZUMT 10099: 107.7 mm SL, Senzaki, S. Tanaka (田中茂穂).

ZUMT 17533: 147.8 mm SL; **ZUMT 17534:** 144.3 mm SL, Y. Makiyama (牧山吉郎／山口県熊毛郡宝積町牛島), local name “kanando カナンド”.

Kagoshima Pref.

ZUMT 18853: 122.1 mm SL; **ZUMT 21820:** 138.1 mm SL, Kagoshima.

[China]

ZUMT 36239: 152.7 mm SL, Zhifu, Yantai, Shandong, Apr. 1906, H. Kuwano (桑野久任).

ZUMT 61332: 263.3 mm SL, Yantai, Shandong, 1905.

[East China Sea]

ZUMT 51265: 124.2 mm SL; **ZUMT 51286:** 218.6 mm SL, East China Sea (landed at Fukuoka fish market from the 51st and 52nd Tenyo-maru), 24 Dec. 1959, Y. Tominaga (富永義昭).

ZUMT 51321: 146.0 mm SL; **ZUMT 51323:** 184.7 mm SL, East China Sea, 2 Sept. 1959, Y. Tominaga (富永義昭).

ZUMT 51683: 246.3 mm SL; **ZUMT 51684:** 167.6 mm SL; **ZUMT 51685:** 176.2 mm SL, East China Sea, Agriculture and Forestry District 319–320, 1–5 Apr. 1960.

ZUMT 64636: 210.5 mm SL; **ZUMT 64637:** 180.6 mm SL, East China Sea (landed at Fukuoka fish market), 22 Mar. 1963, Y. Tominaga (富永義昭).

[Locality unknown]

ZUMT 62579: 60.7 mm SL.

Lepidotrigla punctipectoralis Fowler, 1938 ヒレホシカナガシラ

[East China Sea]

ZUMT 65122: 72.7 mm SL, East China Sea, off the west of Kyusyu, 31°42.6'N, 126°44.0'E, 103 m, 19 May 1968, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

Lepidotrigla sp. カナガシラ属の未同定種

[Japan]

Kanagawa Pref.

ZUMT 49669: 39.4 mm SL, Sagami Bay, off Hayama (Amadaiba, Maruyamadashi and Kannontsukadashi), Miura, 24 July 1957.

ZUMT 50915: 36.7 mm SL, Sagami Bay, off Hayama (Amadaiba, Kannontsukadashi), Miura, 21 July 1957.

Nagasaki Pref.

ZUMT 48261: 35.4 mm SL; **ZUMT 48262:** 39.0 mm SL, Tamanoura, Minamimatsuura-gun, 23 May 1953, I. Tomiyama (冨山一郎).

East China Sea

ZUMT 65142: 30.7 mm SL; **ZUMT 65166:** 20.1 mm SL, East China Sea, off the west of Kyusyu, 31°42.6'N, 126°44.0'E, 103 m depth, 19 May 1968, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

ZUMT 65239: 15, 23.4–32.5 mm SL, Central East China Sea, 30°32.2'N, 125°17.6'E–30°31.3'N, 125°18.0'E, 62 m depth, Agriculture and Forestry District 289, 21 May 1968, trawl net, Y. Tominaga (富永義昭), Hakuho-maru.

Remarks: these specimens could not be identified to species because they are immature and have not developed important diagnostic characters, such as rostral spines and inner surface of pectoral-fin pattern.

Pterygotrigla Waite, 1899 ソコホウボウ属
Pterygotrigla hemisticta (Temminck and Schlegel, 1843) ソコホウボウ

[Japan]

Kanagawa Pref.

ZUMT 15385: 205.7 mm SL, Sagami Bay, Odawara, Apr. 1925, Danish seine, T. Fujita (藤田 正), Odawara Kisen.

Nagasaki Pref.

ZUMT 49951: 137.5 mm SL, Fukue, Fukue-jima I., Goto Is., 10 June 1953, I. Tomiyama (冨山一郎).

[Locality unknown]

ZUMT 64981: 270.6 mm SL.

Pterygotrigla ryukyuensis Matsubara and Hiyama, 1932 リュウキュウソコホウボウ

[Locality unknown]

ZUMT 52219: 231.1 mm SL.

Type specimens in FUMT collection

The holotype of *Lepidotrigla paradoxa* was found and catalogue numbers of the syntypes of *Lepidotrigla hime* and *Lepidotrigla teraoi* were discovered in the ledger of the FUMT in this study.

Lepidotrigla paradoxa Matsubara and Hiyama, 1932 カワリイゴダカ
(Fig. 1)

Holotype: FUMT-P 2568, 155.8 mm SL, Kumamoto, Y. Wakiya (脇谷洋次郎).

Remarks: the description of *Lepidotrigla paradoxa* was based on a single specimen deposited in the museum of Fishery Institute, Faculty of Agriculture, Tokyo Imperial University, without a catalogue number. The FUMT collection has a registration number, FUMT-P 2568, recorded as belonging to the Hiyama collection with the same locality information as the type of *L. paradoxa*. It consists of two specimens from Kumamoto (the locality given for the specimen on which the description is based) and China Sea (probably East China Sea). The fixed condition of the former specimen is consistent with the figure of the original description (Fig. 1). Comparisons of measurements and meristic characters of the specimen and the original description failed to identify significant differences, except for pectoral-fin length, pelvic-fin length, suborbital stay depth, cleithral spine length, numbers of lateral line scales and numbers of branchiostegal rays (Table 1). Because Matsubara and Hiyama (1932) did not describe their methods for taking measurements, the methods used in our study cannot be assured to be the same as for the original description. The mismatches are assumed to be due to differences in the methodology for these measurements. The differences of the number of lateral-line scales are considered to be a miscount in the original description. The number of branchiostegal rays is six in the original description but seven in our study. Because the number of branchiostegal rays is usually seven in the Triglidae (Nelson et al., 2016), we assume the value in the original description is a miscount. Because the catalogue number of the specimen is also close to that of other specimens referred to by Matsubara and Hiyama (1932), we conclude that the specimen from Kumamoto is the holotype of *L. paradoxa*. To avoid further confusion, the holotype retain the registration number FUMT-P 2568 and the specimen from the China Sea is now registered as FUMT-P 21736. As the holotype of *Lepidotrigla paradoxa* is identifiable as *L. alata* (Houttuyn, 1782) the two names are synonymous, and latter holds priority (Kuronuma, 1939; Shindo, 1951; Richards, 1992).

Syntype: FUMT-P 2558 (2).

Remarks: in the original description, specimens of *Lepidotrigla hime* were deposited in the Imperial Fisheries Institute Museum and registered as No. 13. FUMT-P 2558 was recorded as the cotype of *L. hime* in a ledger of the FUMT. As *Lepidotrigla hime* was apparently described, from two specimens without either designated as the holotype, FUMT-P 2558 is considered to represent syntypes. A search of all specimens of Triglidae in the FUMT failed to find FUMT-P 2558 and we conclude it to be lost. Kuronuma (1931) and Shindo (1951) indicated that *L. hime* is a synonym of *L. abyssalis* Jordan and Starks, 1904, while both of species is currently recognized as a valid species (Yato, 1985; Richards, 1991; Yamada and Yagishita, 2013).

Lepidotrigla teraoi Matsubara and Hiyama, 1932 テラオカナド

Syntype: FUMT-P 2559 (4).

Remarks: in the original description, types of *Lepidotrigla teraoi* were stated as having been deposited in the Imperial Fisheries Institute Museum and recorded as No. 11. As with the syntypes of *L. hime*, FUMT-P 2559 was described as the cotype of *Lepidotrigla teraoi* in a FUMT ledger. The description of *Lepidotrigla teraoi* was based on four specimens without any designated as the holotype, FUMT-P 2559 is considered to represent syntypes. We were also unable to find FUMT-P 2559 and conclude it to be lost as well. *Lepidotrigla teraoi* is currently recognized as a synonym of *L. guentheri* Hilgendorf, 1879 (Kuronuma, 1939; Shindo, 1951; Richards, 1992).

Other type specimens

Matsubara and Hiyama (1932) described seven new species. The holotype of *L. paradoxa* was found and the catalogue numbers of *L. hime* and *L. teraoi* were revealed in this study. Type specimens of the remaining four species, *Lepidotrigla alitivelis*, *Lepidotrigla brevispinis*, *Lepidotrigla truncate* and *Pterygotrigla ryukyuensis*, were apparently not registered in the FUMT as the names were not found in a ledger. We examined all specimens of Triglidae deposited in the FUMT and could not find specimens consistent with figures and measurements appearing the original descriptions. Therefore, we conclude that type specimens of four species are not registered in the FUMT.

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Table 1. Comparison of measurements and counts of holotype of *Lepidotrigla paradoxa* taken for the present study and those of Matsubara and Hiyama (1932).

	Present study FUMT-P 2568	Matsubara and Hiyama (1932) Holotype
Total length (mm)	N/A*	196
Standard length		
Mouth open	160.9	162.9**
Mouth closed	155.8	N/A
Measurements		
% TL		
Body depth	N/A*	26.3***
Head length (HL)	N/A*	31.3***
% HL		
Orbit diameter (OD)	28.2	27.0***
Snout length	50.6	50.0***
Upper jaw length	35.4	37.0***
Interorbital width	28.7	28.6***
First dorsal-fin spine length	45.6	44.4***
Second dorsal-fin spine length	57.1	58.8***
Third dorsal-fin spine length	54.4	55.6***
Fourth dorsal-fin spine length	45.0	45.5***
Pectoral-fin length	84.2	90.9***
Pelvic-fin length	74.6	69.0***
% OD		
Rostral spine length	N/A*	66.7***
Inter-rostral spines width	N/A*	64.5***
Suborbital stay depth	124.5	130***
Cleithral spine length	124.5	130***
Counts		
Dorsal-fin spines	8	8
Dorsal-fin rays	16	16
Anal-fin rays	16	16
Subdorsal scute	24	24
Lateral-line scales	61	60
Total gill rakers	9	9
Branchiostegal rays	7	6

* Rostral spines broken.

** Calculated using aspect of TL and SL from figure in original description.

*** Recalculated as “% TL, HL or OD” to compare with calculations, like “in TL” or “times of eye”, use in original description.

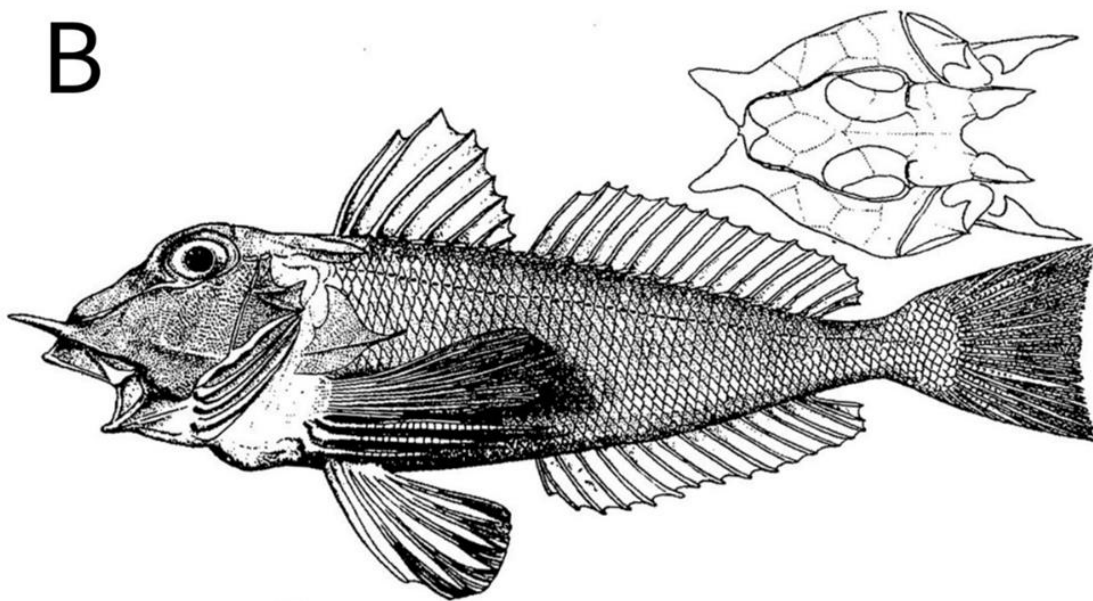
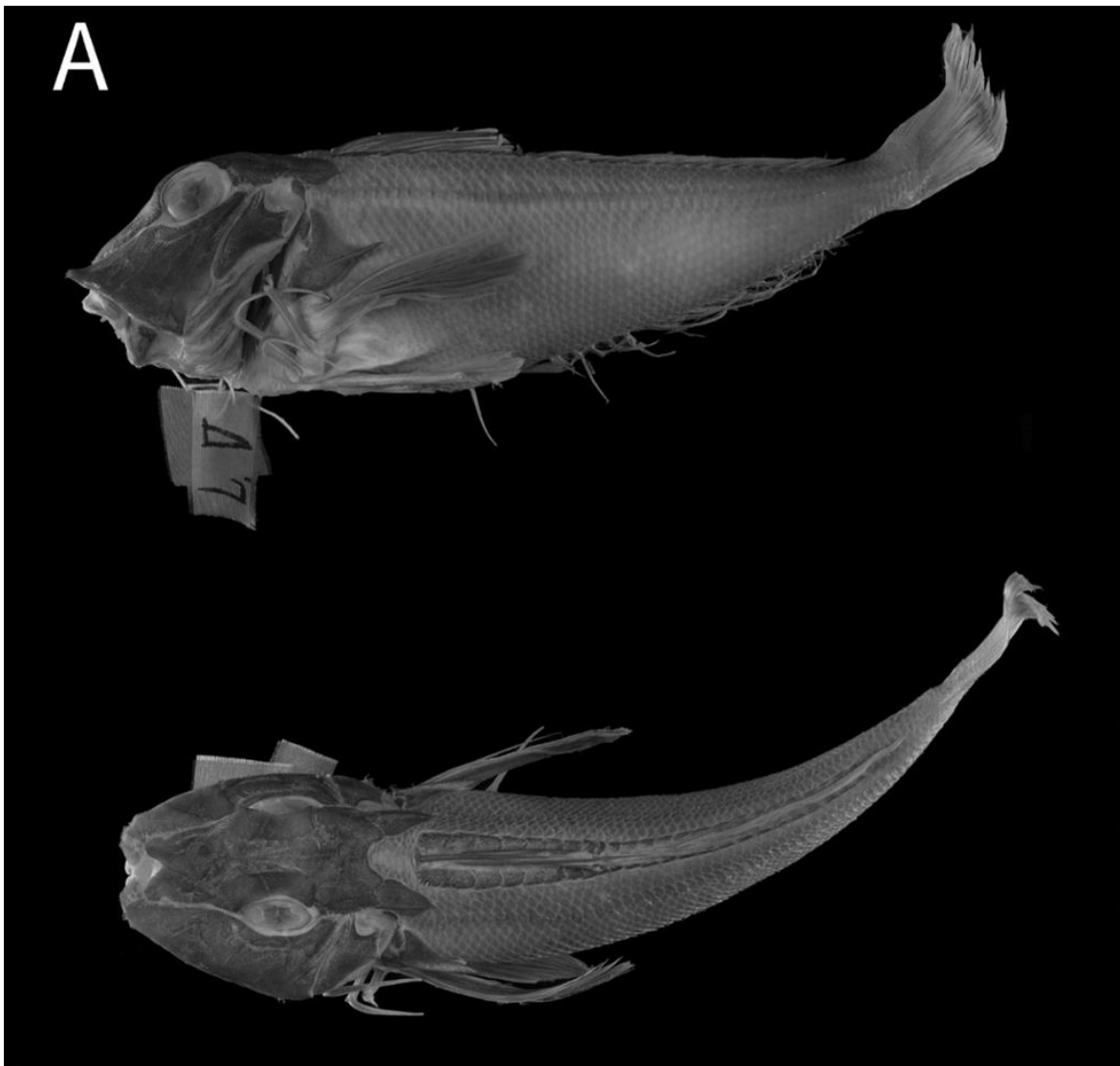


Figure 1. Holotype of *Lepidotrigla paradoxa*. (A) lateral view (upper) and dorsal view (lower) of the preserved specimen, FUMT-P 2568, 155.8 mm SL, with broken rostral spines, and (B) figure in original description (from Matsubara and Hiyama, 1932), with intact rostral spines.

Report on specimens of the families Glaucosomatidae and Banjosidae (Teleostei: Perciformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The collection of the families Glaucosomatidae Temminck & Schlegel, 1843 and Banjosidae Jordan & Thompson, 1912 (Teleostei: Perciformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were re-identified in the present study. For Glaucosomatidae, in total 3 specimens representing a single species, *Glaucosoma buergeri* Richardson, 1845 were found. Additionally, for Banjosidae, in total 20 specimens in 18 lots of *Banjos banjos banjos* (Richardson, 1846) were found. No types for the families were found.

Introduction

The specimens of two families of Perciformes, Glaucosomatidae Temminck & Schlegel, 1843 and Banjosidae Jordan & Thompson, 1912, deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were re-identified by the first author in the present study.

The Glaucosomatidae, including only a single genus *Glaucosoma* Temminck & Schlegel, 1843, comprises four species (McKay 1997). Three of them are endemic to Australia and the other, *Glaucosoma buergeri* Richardson, 1845 is widely distributed in the Indo-West Pacific including northwestern coast of Australia, Malaysia, Vietnam, southern coast of mainland China, Taiwan and Japan (McKay 1997; Hayashi and Hagiwara 2013; Hata et al. 2016).

The Banjosidae includes a single genus, *Banjos* Bleeker, 1876 (Matsunuma and Motomura 2017; Wibowo et al. 2019). It comprises three species from the western Pacific Ocean (Japan to Australia) and the southeastern Indian Ocean at relatively deep habitat (Matsunuma and Motomura 2017; Wibowo et al. 2019). Recently, Matsunuma and Motomura (2017) separated one of them *B. banjos* (Richardson, 1846) into two subspecies: namely, *B. banjos banjos* (Richardson, 1846) and *B. banjos brevispinis* Matsunuma & Motomura, 2017. The former is from the northwestern Pacific, and the latter is from the southeastern Indian Ocean (Matsunuma and Motomura 2017).

In order to aid future taxonomic and biogeographic studies, a list of specimens of Glaucosomatidae and Banjosidae deposited in ZUMT is provided below.

Materials and Methods

Species nomenclature and identifications of specimens of Glaucosomatidae and Banjosidae deposited in ZUMT generally followed Hayashi and Hagiwara (2013) and Hatoooka (2013), and Matsunuma and Motomura (2017). Size of the specimens are expressed in standard length (mm; abbreviated as SL). The collection year and collector for some specimens were estimated by following Koeda et al. (2022).

Collection of Glaucosomatidae in ZUMT

As a result of our survey, 3 specimens of a single species, *Glaucosoma buergeri* Richardson, 1845 were confirmed. No types for the family Glaucosomatidae were found from the collection.

Glaucosomatidae Temminck & Schlegel, 1843 アオバダイ科
Glaucosoma Temminck & Schlegel, 1843 アオバダイ属
Glaucosoma buergeri Richardson, 1845 アオバダイ

JAPAN

ZUMT 54925: 191.2 mm SL, Nagasaki Fish Market (長崎魚市場), Nagasaki Pref., Sept. 1975, coll. M. Aizawa (藍澤正宏).

TAIWAN

ZUMT 54926: 136.4 mm SL, Chitose-cho Market (千歳町市場), Taipei, 22 Nov. 1930.

ZUMT 54927: 122.2 mm SL, Tamsui Market (淡水市場), Taipei, 19 Oct. 1930.

ZUMT 54928: 106.5 mm SL, same data as above, dissected and stained with Alizarin Red S by Y. Tominaga (富永義昭).

LOCALITY UNKNOWN

ZUMT 54161: 242 mm SL, donated by M. Katayama (片山正夫／山口大学), dissected and stained with Alizarin Red S by Y. Tominaga.

Remarks. ZUMT 54161 and ZUMT 54928 were examined by Tominaga (1986).

Collection of Banjosidae in ZUMT

As a result of our survey, 20 specimens in 18 lots of a single subspecies, *Banjos banjos banjos* (Richardson, 1846) were confirmed. No types for the family Banjosidae were found from the collection.

Banjosidae Jordan & Thompson, 1912 チョウセンバカマ科
Banjos Bleeker, 1876 チョウセンバカマ属
Banjos banjos banjos (Richardson, 1846) チョウセンバカマ

JAPAN

ZUMT 3917: 157.9 mm SL; **ZUMT 3924:** 155.7 mm SL; **ZUMT 3925:** 112.1 mm SL, Tokyo (probably Tokyo Market).

ZUMT 8330: 230.5 mm SL, probably Wakayama Pref., coll. N. Ui (宇井縫蔵).

ZUMT 22590: 35.1 mm SL, Tanabe (田辺), Wakayama Pref., Jan. 1920, coll. N. Ui.

ZUMT 23417: 132.7 mm SL, Owase (尾鷲), Mie Pref., coll. K. Nakahara (中原鋼作).

ZUMT 31222: 91.6 mm SL, Matsue (松江), Shimane Pref., coll. R. Yanai (柳井隆一／松江高校教授).

ZUMT 31491: 214.9 mm SL, probably Matsue, Shimane Pref., before Nov. 1935, coll. R. Yanai.

ZUMT 33536: 49.6 mm SL, Nagasaki Pref., donated by I. Kaneko (金子一狼).

ZUMT 47061: 211.7 mm SL, probably Kochi Pref.

ZUMT 47961: 161.4 mm SL, Miiraku (三井楽), Fukue-jima Island, Goto Islands, Nagasaki Pref., 22 May 1953, coll. I. Tomiyama (富山一郎).

ZUMT 52101: 134.6 mm SL; **ZUMT 52104:** 62.0 mm SL; **ZUMT 52106:** 68.1 mm SL, East China Sea (東シナ海, 農林 253, 254 区), landed on Fukuoka Fish Market (福岡魚市) in May 1960.

ZUMT 52103: same data as above, dissected and stained with Alizarin Red S by Y. Tominaga.

ZUMT 67656: 162.5 mm SL, probably same data as ZUMT 47961.

ZUMT 67567: 3 specimens, 23.5–38.6 mm SL, detailed locality and date unknown.

ZUMT 67761: 115.2 mm SL; **ZUMT 67762:** 161.6 mm SL, detailed locality and date unknown, coll. T. Abe (阿部宗明).

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List of specimens of the family Epigonidae (Actinopterygii: Teleostei) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

A list of specimens of the family Epigonidae deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) is provided. In total 39 specimens in 19 lots of two genera composing five species were found from the collection.

Introduction

The deepwater cardinalfish family Epigonidae comprises seven genera and 51 nominal species worldwide, are found mainly on continental and insular slopes and seamounts, from temperate to tropical latitudes in depths of 4–1200 m (Okamoto and Gon, 2018; Okamoto et al., 2024). One monotypic genus of these genera, *Brinkmannella*, has been designated a junior synonym of *Brephostoma* by Fedoryako (1976); however, because of differences in body shape, some consider it valid species and is included here (the first author is currently studying it.). The genus *Epigonus* is most species-rich in the family, with 42 valid species divided into four species groups (Mayer, 1974; Okamoto et al., 2024). In Japanese waters, six species of *Epigonus*, one species of *Sphyrænops*, and one species of *Brephostoma* have been reported (Balanov et al., 2009; Hayashi, 2013; Okamoto and Miyamoto, 2022).

This catalogue provides information attained from the specimens and from the ledgers of the collections of the family Epigonidae in the Department of Zoology at The University Museum, University of Tokyo (ZUMT). The collection treated here consists of specimens collected mainly from Japan, Suriname, and Oceania.

Material and Methods

The specimens of Epigonidae deposited in the Department of Zoology, at the University Museum, The University of Tokyo (abbreviated as ZUMT) were identified following Hayashi (2013), Okamoto and Gon (2018), Okamoto (2019), and Okamoto and Miyamoto (2022). Japanese names of the species also follow these studies. Type attributes follow Aizawa et al. (2024). In this list, the ZUMT specimens are described as “ZUMT XXXX”, while the specimens of “ABE collection”, which was collected by Tokiharu ABE (阿部宗明) and once registered aside from ZUMT collection, are described as “ZUMT ABE XXXX.” After ZUMT numbers, the following data are given when available: type attributes (abbreviated for non-type); standard length (SL) measured to the nearest 0.1 mm; locality; collecting date; collectors; donors; local names; collecting methods; remarks. Species are arranged in alphabetical order.

Results and Remarks

During the study, a total of 39 epigonid fish specimens from five species and two genera were discovered in the ZUMT collection. In this survey, the most common specimens found was that of *Epigonus denticulatus*, and this species has been known to be widely distributed in the world (Okamoto and Gon, 2018). The specimens of *Epigonus*

macrops were collected during study by Uyeno et al. (1983), and this species is unique in the genus by having a ventral luminous organ (Okamoto and Nakayama, 2016). Two specimens of *Epigonus pactinifer* were described as paratypes in Mayer (1974); however, another specimen could not be found (ABE 64-2085). The four specimens of *Sphyrænops bairdianus* were the basis for the description in Suda and Tominaga (1983), and two of them were cleared and stained specimens. The tags inside the bottles stated the family name in Japanese as “ハゲムツ科”; however, the correct family name today is “ヤセムツ科”.

Species Accounts

Epigonidae ヤセムツ科

Epigonus Rafinesque, 1810 ヤセムツ属

Epigonus denticulatus Dieuzeide, 1950 ハゲヤセムツ

[JAPAN]

Shizuoka Pref.

ZUMT 54665 (16 specimens): 61.6–96.0 mm SL; off Kunozan (久能山沖), Suruga Bay, 9 May 1983; bottom trawl.

ZUMT 59502: 100.6 mm SL, ZUMT 59503: 120.4 mm SL; Suruga Bay; 20 Sept. 1982; *Sanwa-maru* (三和丸); bottom trawl.

Mie Pref.

ZUMT 55360 (6 specimens): 88.6–120.2 mm SL; Owase (尾鷲); Sept. 1980; bottom trawl.

Aichi Pref.

ZUMT 68780: 74.4 mm SL, off Atsumi Peninsula (渥美半島沖), 19 July 1991; bottom trawl, coll. by FV *Shin-sei-maru* (新勢丸), donated by Hekinan Seaside Aquarium (碧南海浜水族館); 160 m depth.

Kochi Pref.

ZUMT 23512: 72.3 mm SL; Urado (浦戸); 16 March 1931; coll. by T. Kamohara (蒲原稔治).

ZUMT 34714: 122.6 mm SL; Aug. 1935; coll. by T. Kamohara (蒲原稔治).

Okinawa Pref.

ZUMT 14497: 156.9 mm SL; 24 March 1925; coll. by S. Sakaguchi (坂口総一郎).

Epigonus macrops (Brauer, 1906) クシバヤセムツ

[SURINAME]

ZUMT 61179: 123.8 mm SL; Jan. 1980.

ZUMT 65765: 115.4 mm SL; 19 July 1981; coll. by R/V *Nisshin-maru* No. 201 (第201日進丸); bottom trawl; 740 m depth.

Epigonus pectinifer Mayer, 1974 ヤセムツ

[JAPAN]

Shizuoka Pref.

ZUMT ABE 64-2245 (paratype): 94.3 mm SL; Suruga Bay; 14–31 Oct. 1964; bottom trawl.

ZUMT ABE 64-2248 (paratype): 95.8 mm SL; Suruga Bay; Oct. 1964; bottom trawl.

Remarks: The whereabouts of ABE 64-2085 (paratype in Mayer, 1974) is unknown (Aizawa et al., 2024).

Epigonus telescopus (Risso, 1810) オオヤセムツ

[New Zealand]

ZUMT 61283: 244.4 mm SL, **ZUMT 68823**: 279.0 mm SL, **ZUMT 68824**: 243.0 mm SL, **ZUMT 68825**: 239.0 mm SL; Chatham Rise; 1968; 446 m depth.

Sphyraenops Gill, 1861 トゲメオキムツ属
Sphyraenops bairdianus Poey, 1861 トゲメオキムツ

[JAPAN]

ZUMT 54252: 77.2 mm SL, near Ogasawara Islands, June 1976.

[Australia]

ZUMT 54149: 54.0 mm SL (cleared and stained), **ZUMT 54150**: 50.0 mm SL (cleared and stained), **ZUMT 54151**: 46.5 mm SL, **ZUMT 54152**: 49.0 mm SL; off northwestern coast of Australia; 21 Jan. 1968; coll. by Chokai-maru (鳥海丸); larval net.

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List of specimens of the family Polynemidae (Actinopterygii: Perciformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

Examination of all specimens of the family Polynemidae (threadfin) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) revealed that there are 115 catalog numbers, including 139 specimens, representing the following seven species in four genera: *Eleutheronema rhadinum* (Jordan and Evermann, 1902), *E. tetradactylum* (Shaw, 1804), *Leptomelanosoma indicum* (Shaw, 1804), *Polydactylus plebeius* (Broussonet, 1782), *Polyd. sexfilis* (Valenciennes, 1831), *Polyd. sextarius* (Bloch and Schneider, 1801), and *Polynemus melanochir melanochir* Valenciennes, 1831. No types are known for the family in the collection.

Introduction

The family Polynemidae (threadfin) is important in commercial and sport fisheries of tropical and subtropical seas, especially in the Middle and Near East, South Asia, Southeast Asia, Oceania, and western Africa (Motomura, 2004b). The family is characterized by having a conical snout, inferior mouth, adipose eyelids (firm transparent gelatinous tissue) covering the eyes, two well-separated dorsal fins, 3 to 16 thread-like (individually-separated) lower pectoral-fin rays (pectoral filaments) and the caudal fin deeply forked to lunate (Motomura, 2004b, 2022), and includes eight genera and 43 species, including subspecies (Motomura, 2004a, b, 2013, 2022; Lim et al., 2010). Only four species in two genera, viz., *Eleutheronema rhadinum* (Jordan and Evermann, 1902), *Polydactylus plebeius* (Broussonet, 1782), *Polydactylus sexfilis* (Valenciennes, 1831), and *Polydactylus sextarius* (Bloch and Schneider, 1801), are known to occur in Japanese waters (Motomura, 2024).

The first author has examined all original descriptions and available type specimens of 96 nominal species attributed to the family and recognized 33 species, including one subspecies, as valid (63 nominal species synonymized) and 10 species, including one subspecies, as new (Motomura, 2004a, b, 2013). However, recent molecular analyses (mostly unpublished) have shown that there are additional cryptic species in the family. As an aid to future taxonomic studies, a list of specimens of the family Polynemidae deposited in the Department of Zoology, The University Museum, The University of Tokyo is provided here.

Material and Methods

Specimens of the family Polynemidae deposited in the Department of Zoology, The University Museum, The University of Tokyo (abbreviated as ZUMT) were identified during this study following Motomura (2002, 2003, 2004b), Motomura et al. (2000, 2001a–c, 2002, 2007), Motomura and Iwatsuki (2001a, b), Motomura and Sabaj (2002), and Motomura and Senou (2002). After the ZUMT numbers, the following data are given, where available: specimen numbers (if more than one included in the lot), standard length measured to the nearest 0.1 mm

(abbreviated as SL), locality, collection date, and collector. The year of collection and collector for some specimens have been estimated following Koeda et al. (2022). The ZUMT specimens listed here were stored in Room 406 (specimen storage room) in the museum building. Species are arranged in alphabetical order.

Results and Species Accounts

During this study, a total of 139 polynemid specimens in 115 lots representing seven species in four genera were confirmed in the ZUMT fish collection. No types are known for the family in the collection.

Polynemidae ツバメコノシロ科

Eleutheronema Bleeker, 1862 ミナミコノシロ属

Eleutheronema rhadinum (Jordan and Evermann, 1902) ミナミコノシロ

TAIWAN

ZUMT 13644, 195.3 mm SL, Tām-tsuí Port, Tām-tsuí, before 1926, coll. by T. Aoki

ZUMT 13645, 209.0 mm SL, Tām-tsuí Port, Tām-tsuí, before 1926, coll. by T. Aoki

ZUMT 14955, 206.8 mm SL, off Tai-nan, before 1926, coll. by T. Aoki

ZUMT 64201, 230.1 mm SL, Ximen Market, Taipei

CHINA

ZUMT 33313, 52.4 mm SL, Suzhou, Jiangsu, 1926, coll. by N. G. Gee

ZUMT 52237, 241.7 mm SL, off Shanghai, East China Sea, 30°45'N, 124°15'E, 23 May 1960, coll. by Y. Tominaga

Eleutheronema tetradactylum (Shaw, 1804)

INDONESIA

ZUMT 42128, 163.5 mm SL, Jakarta, Java, 5 Mar. 1909, coll. by I. Iijima and K. Aoki

Leptomelanosoma Motomura and Iwatsuki, 2001

Leptomelanosoma indicum (Shaw, 1804)

MALAYSIA

ZUMT 62646, 175.5 mm SL, ZUMT 62649, 177.5 mm SL, Sarawak; before 1960, donated from T. Harrison (Sarawak Museum) to I. Tomiyama in 1960

Polydactylus Lacepède, 1803 ツバメコノシロ属

Polydactylus plebeius (Broussonet, 1782) ツバメコノシロ

JAPAN

Chiba Pref.

ZUMT 59847, 116.0 mm SL, Tokyo Bay, Kisarazu, before 1993, coll. by M. Aizawa, clear and stained specimen

ZUMT 62595, 141.3 mm SL, ZUMT 62596, 135.8 mm SL, Tateyama, 27 Oct. 1959

Tokyo

ZUMT 3789, 111.6 mm SL, ZUMT 3790, 118.1 mm SL, Tokyo Market, before 1913, probably collected from Kanto Region

ZUMT 22988, 116.7 mm SL, Tokyo Market, before 1930, probably collected from Kanto Region

Kanagawa Pref.

ZUMT 5914, 47.4 mm SL, Sagami Bay, Misaki, Miura, 1915, coll. by K. Aoki

ZUMT 48608, 133.3 mm SL, Sagami Bay, Koajiro, Misaki, Miura, 22 Nov. 1955, coll. by I. Tomiyama

ZUMT 68765, 182.3 mm SL, Sagami Bay, Manazuru, coll. by T. Abe

ZUMT 68778, 128.2 mm SL, ZUMT 68779, 117.1 mm SL, Sagami Bay, Manazuru, 1960, coll. by T. Abe

Shizuoka Pref.

ZUMT 10555, 56.3 mm SL, ZUMT 10556, 50.2 mm SL, Suruga Bay, Shizuura, Numazu, Aug. 1922, coll. by N. Fukuroda

ZUMT 23302, 102.7 mm SL, Suruga Bay, Maisaka, Hamamatsu, 22 Jan. 1931, coll. by S. Ooe

ZUMT 33851, 57.3 mm SL, ZUMT 33852, 59.9 mm SL, Suruga Bay, Shizuura, Numazu, before 1936

ZUMT 40238, 50.7 mm SL, ZUMT 40239, 51.4 mm SL, ZUMT 40240, 40.6 mm SL, Suruga Bay, Shizuura, Numazu, Aug. 1922, coll. by N. Kuroda

Wakayama Pref.

ZUMT 20199, 164.9 mm SL, Jan. 1920

ZUMT 22405, 137.7 mm SL, ZUMT 22496, 39.2 mm SL, Tanabe, 11 Aug. 1920, coll. by N. Ui

Osaka Pref.

ZUMT 7378, 160.3 mm SL, probably Osaka Pref., before 1918, coll. by I. Watanabe (Ichioka Junior High School, Osaka)

Hyogo Pref.

ZUMT 6370, 149.5 mm SL, Minume, Nada, May 1915, coll. by K. Yamatori

ZUMT 44649, 36.8 mm SL, Awaji-shima I., Sumoto, before 1940

Kochi Pref.

ZUMT 5885, 108.1 mm SL, Fukushima Village, Fukushima, Usa, Tosa, before 1915

ZUMT 18629, 77.8 mm SL, Okino-shima I., Sukumo, 22 July 1926, coll. by K. Akamatsu

Yamaguchi Pref.

ZUMT 25237, 119.0 mm SL, 17 Mar. 1933

Nagasaki Pref.

ZUMT 5071, 143.4 mm SL, 3 Oct. 1909, coll. by I. Kaneko

Oita Pref.

ZUMT 11555, 167.8 mm SL, probably Saiki, 17 Dec. 1923

Miyazaki Pref.

ZUMT 64158, 84.3 mm SL, ZUMT 64159, 74.4 mm SL, ZUMT 64160, 77.4 mm SL, mm SL, Kadokawa Bay, Kadokawa, Higashi-usuki, 26 Nov. 2021, coll. by M. Wada

ZUMT 64423, 97.6 mm SL, Kadokawa Bay, Kadokawa, Higashi-usuki, 9 Nov. 2021, coll. by M. Wada

ZUMT 64685, 95.5 mm SL, Kadokawa Bay, Kadokawa, Higashi-usuki, 25 Oct. 2021, coll. by M. Wada

ZUMT 64691, 95.1 mm SL, Kadokawa Bay, Kadokawa, Higashi-usuki, 15 Nov. 2021, coll. by M. Wada

Kagoshima Pref.

ZUMT 23749, 106.7 mm SL, Kagoshima Bay, Taniyama, Kagoshima, 20 July 1930

ZUMT 23844, 120.1 mm SL, ZUMT 23959, 115.5 mm SL, Kagoshima Bay, Naya, Kagoshima, before 1931

ZUMT 24026, 90.4 mm SL, Shibushi, before 1931

ZUMT 24064, 85.6 mm SL, ZUMT 24065, 98.0 mm SL, ZUMT 24066, 55.7 mm SL, Kagoshima Bay, Taniyama, Kagoshima, before 1931

ZUMT 29602, 63.3 mm SL, ZUMT 29603, 56.1 mm SL, probably Kagoshima Pref., before 1934, coll. by K. Enoya

ZUMT 32103, 55.3 mm SL, Amagi, Tokuno-shima I., before 1936 (registered as Amagi, Amami-oshima I., but probably from Tokuno-shima I.)

ZUMT 33742, 117.9 mm SL, probably Kagoshima Pref., before 1936

Okinawa Pref.

ZUMT 11151, 108.5 mm SL, ZUMT 11152, 112.1 mm SL, Ryukyu Is., before 1924, coll. by S. Sakaguchi

ZUMT 19953, 86.1 mm SL, Ryukyu Is., before 1930

ZUMT 27346, 36.5 mm SL, Okinawa-jima I., Ryukyu Is., Naha, Okinawa Pref., 23 May 1900

ZUMT 39710, 56.7 mm SL, ZUMT 39711, 55.1 mm SL, ZUMT 39712, 59.0 mm SL, ZUMT 39713, 57.0 mm SL,

Okinawa-jima I., Ryukyu Is., 8 July 1936, coll. by S. Inuo
ZUMT 45867, 43.4 mm SL, ZUMT 45868, 5 specimens, 46.4–95.7 mm SL, Okinawa-jima I., Ryukyu Is., 8 July 1936

ZUMT 46983, 47.9 mm SL, Okinawa-jima I., Ryukyu Is., before 1940

Precise locality unknown

ZUMT 27951, 44.2 mm SL, probably southern Japan, before 1934

TAIWAN

ZUMT 23590, 88.8 mm SL, Kaohsiung, Aug. 1929

PHILIPPINES

ZUMT 11096, 97.6 mm SL, Basilan I., before 1923, coll. by U. Yamamura and Y. Yamamura

ZUMT 40938, 111.8 mm SL, Jolo I., Sulu Is., Feb. 1909, coll. by I. Iijima and K. Aoki

ZUMT 42134, 187.1 mm SL, ZUMT 42180, 104.4 mm SL, ZUMT 42181, 146.9 mm SL, ZUMT 42197, 122.6 mm SL, ZUMT 42219, 131.2 mm SL, ZUMT 42266, 130.3 mm SL, Basilan I., 1926, coll. by U. Yamamura and Y. Yamamura

PALAU

ZUMT 68766, 116.8 mm SL, ZUMT 68767, 111.1 mm SL, ZUMT 68768, 138.6 mm SL, ZUMT 68769, 97.5 mm SL, ZUMT 68770, 103.6 mm SL, ZUMT 68771, 83.0 mm SL, ZUMT 68772, 91.9 mm SL, ZUMT 68773, 96.3 mm SL, ZUMT 68774, 108.9 mm SL, ZUMT 68775, 107.8 mm SL, ZUMT 68776, 107.4 mm SL, ZUMT 68777, 94.1 mm SL, 1936–1937, coll. by T. Abe

Polydactylus sexfilis (Valenciennes, 1831) ナンヨウアゴナシ

JAPAN

Tokyo

ZUMT 42883, 62.2 mm SL, ZUMT 42884, 64.7 mm SL, ZUMT 42885, 52.7 mm SL, ZUMT 42886, 53.1 mm SL, ZUMT 42887, 62.7 mm SL, ZUMT 42888, 51.0 mm SL, ZUMT 42889, 41.9 mm SL, ZUMT 42890, 38.6 mm SL, ZUMT 42891, 48.8 mm SL, ZUMT 42892, 42.3 mm SL, ZUMT 42893, 43.0 mm SL, ZUMT 42894, 48.8 mm SL, Hachijo-jima I., Izu Is., Sept. 1922, coll. by M. Uchiyama

Shizuoka Pref.

ZUMT 40241, 44.6 mm SL, Suruga Bay, Shizuura, Numazu, Aug. 1922, coll. by N. Kuroda

Kochi Pref.

ZUMT 18628, 71.8 mm SL, Okino-shima I., Sukumo, 22 July 1926, coll. by K. Akamatsu

Okinawa Pref.

ZUMT 39864, 51.8 mm SL, ZUMT 39865, 44.5 mm SL, Ryukyu Is., Mar. 1925, coll. by S. Sakaguchi

PALAU

ZUMT 68007, 263.6 mm

Polydactylus sextarius (Bloch and Schneider, 1801) カタグロアゴナシ

JAPAN

ZUMT 46831, 129.0 mm SL, precise locality unknown, 6 Nov. 1934

ZUMT 51156, 120.4 mm SL, East China Sea, 22 Jan. 1960

ZUMT 64424, 67.4 mm SL, Kadokawa Bay, Kadokawa, Higashi-usuki, Miyazaki Pref., 9 Nov. 2021, coll. by M. Wada

TAIWAN

ZUMT 63280, 21 specimens, 29.9–42.4 mm SL, Tām-tsuí, Oct. 1930

PHILIPPINES

ZUMT 39546, 96.5 mm SL, Manicahan, Zamboanga City, Zamboanga Peninsula, 20 Dec. 1936, coll. by U. Yamamura and Y. Yamamura

INDONESIA

ZUMT 62629, 102.9 mm SL, ZUMT 62630, 107.1 mm SL, Jakarta, Java, 5 Mar. 1909, coll. by I. Iijima and K. Aoki

Polynemus Linnaeus, 1758

Polynemus melanochir melanochir Valenciennes, 1831

MALAYSIA

ZUMT 62647, 145.0 mm SL, ZUMT 62648, 154.3 mm SL, Sarawak; before 1960, donated from T. Harrison (Sarawak Museum) to I. Tomiyama in 1960

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List of specimens of the family Tripterygiidae (Actinopterygii: Blennioformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

An investigation of the family Tripterygiidae (Actinopterygii: Blennioformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) revealed a total of 1,441 specimens in 89 lots, including 929 unregistered specimens. Re-identification of the specimens confirmed that they represented eight species in three genera (all recorded from Japan). In addition, specimens registered as ZUMT 1973 [*Enneapterygius theostoma* (Jordan and Snyder, 1902), 25 specimens, 29.3–54.1 mm standard length] were recognized as having been utilized by Tanaka (1912).

Introduction

Triplefins [family Tripterygiidae Whitley, 1931 (Actinopterygii: Blennioformes)] are generally small bottom living fishes, characterized by three dorsal fins, ctenoid scales on the lateral body surface, continuous or discontinuous lateral lines, and 14–32 anal-fin rays (Fricke, 1997). The family currently includes 30 genera, and at least 150 species distributed worldwide in cold to tropical waters (Fricke, 1997; Fricke et al., 2024), usually inhabiting intertidal rock pools or subtidal rocky or coral reefs (Fricke, 1997). To date, 35 tripterygiid species have been recognized in Japanese waters (Hayashi, 2013; Tashiro and Motomura, 2013, 2014, 2018; Motomura et al., 2015; Tashiro et al., 2018; Dewa et al., 2021, 2023, 2024; Dewa and Motomura, 2022).

In this study, the collection of specimens in the family Tripterygiidae deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) (including 929 unregistered specimens) were re-identified, and an updated catalog of all tripterygiid specimens in ZUMT provided.

Materials and Methods

Nomenclature and identifications of ZUMT specimens generally followed Shen (1994), Fricke (1997), Hayashi (2013), Tashiro and Motomura (2014) and Dewa et al. (2023). The standard lengths of specimens were generally measured for each specimen, although only of the largest and smallest specimens when a large number were included in a single lot. Contents included in parentheses following registration numbers are as follows: [specimen numbers, standard length; collection locality; collection date; collector; remarks (if applicable)]. Collection data of specimens are omitted if the same as that for the previous specimen. An asterisk (*) following each registration number indicates specimens that were newly registered during this study. The specimens listed herein were stored in glass bottles in Room 406 (specimen storage room) in the ZUMT building.

Collection of Tripterygiidae in ZUMT

The specimens of Tripterygiidae deposited in ZUMT comprised 89 lots, totaling 1,441 specimens [eight species

(all previously recorded from Japan) in three genera], including 929 unregistered specimens. The majority (96%) of the ZUMT tripterygiid specimens were identified as *Enneapterygius theostoma* (Jordan and Snyder, 1902). No tripterygiid type specimens were found in the ZUMT collection.

Species Accounts

Family Tripterygiidae

Enneapterygius Rüppell, 1835 ヘビギンボ属

Enneapterygius cerasinus Jordan and Seale, 1906 セダカヘビギンボ

ZUMT 68857 (1, 17.5 mm; Maruma Beach, Uehara, Iriomote-jima island, Yaeyama Islands, Okinawa, Japan)

Enneapterygius erythrosoma Shen, 1994 スバルヘビギンボ

ZUMT 69321 (1, 18.6 mm; Sokodo, Hachijo-jima island, Izu Islands, Tokyo, Japan)

Enneapterygius theostoma (Jordan and Snyder, 1902) ヘビギンボ

JAPAN

CHIBA Pref.

ZUMT 34340 (1, 40.5 mm; Okitsu; Aug. 1930; coll. by S. Masuda)

ZUMT 68961 (1, 30.3 mm; Osawa, Katsuura; 27 May 1980; coll. by H. Tachikawa and J. Takayama)

TOKYO Metropolitan Area

ZUMT 2020 (1, 43.4 mm; vicinity of Tokyo)

IZU-OSHIMA ISLAND

ZUMT 55276 (31, 19.9–28.9 mm; Motomura Beach; 18 or 19 Aug. 1933; coll. by I. Tomiyama)

ZUMT 62976 (15, 31.7–44.3 mm; Izu-oshima island; 1 Aug. 1992)

ZUMT 63009 (45, 32.3–49.7 mm; Okada Port; 28 July 1991; coll. by K. Sakamoto)

ZUMT 63066 (18, 34.0–49.1 mm), ZUMT 63093 [(16, 35.7–50.2 mm); Izumihama; 1 Aug. 1993; coll. by K. Sakamoto]

ZUMT 63117 (11, 36.9–44.0 mm; Izumihama; 1 Aug. 1989)

NIIGATA Pref.

ZUMT 11001 (1, 35.7 mm; Awa-shima island; donated by M. Nakamura)

TOYAMA Pref.

ZUMT 32320 (1, 39.2 mm; Abuga-shima island; donated by H. Yamashita)

KANAGAWA Pref.

ZUMT 1776 (28, 29.9–55.9 mm; Misaki; 1990's)

ZUMT 1973 [25, 29.3–54.1 mm; Misaki; May 1908; coll. by S. Tanaka; referenced in Tanaka (1912)]

ZUMT 5731 (2, 42.5–45.0 mm), ZUMT 5738 (30, 27.2–52.3 mm), ZUMT 5745 (47, 30.7–50.1 mm), ZUMT 5754 [(2, 33.4–36.0 mm); Jogashima]

ZUMT 20700 (1, 37.5 mm), ZUMT 20701 (1, 41.0 mm), ZUMT 20871 (1, 36.0 mm), ZUMT 20941 [(1, 37.4 mm); Misaki, Sagami Bay; 1930]

ZUMT 26421 (1, 45.9 mm), ZUMT 26422 [(1, 45.6 mm); Hayama, Sagami Bay; Aug. 1929; coll. by I. Tomiyama]

ZUMT 27710 (1, 43.2 mm; vicinity of Soshu, Sagami Bay; 1934; donated by N. Kuroda)

ZUMT 28664 (1, 29.7 mm), ZUMT 28665 [(1, 27.5 mm); Misaki, Sagami Bay; 2 May 1909]

ZUMT 28977 (1, 43.2 mm), ZUMT 28978 (1, 39.3 mm), ZUMT 28979 (1, 40.4 mm), ZUMT 28980 (1, 38.7 mm), ZUMT 28981 (1, 42.9 mm), ZUMT 28982 (1, 46.2 mm), ZUMT 28983 (1, 44.1 mm), ZUMT 28984 (1, 40.2

mm), ZUMT 28986 (1, 39.6 mm), ZUMT 28990 (1, 37.8 mm), ZUMT 28991 (1, 45.4 mm), ZUMT 28992 (1, 38.8 mm), ZUMT 28993 (1, 36.1 mm), ZUMT 28994 (1, 40.3 mm), ZUMT 28996 (1, 38.4 mm), ZUMT 28997 (1, 41.4 mm), ZUMT 28999 [(1, 39.2 mm); Misaki, Sagami Bay; May 1918]
 ZUMT 32562 (1, 51.3 mm; Misaki, Sagami Bay; 1936; coll. by S. Watanabe)
 ZUMT 34872 (1, 39.5 mm; probably Misaki; 1936)
 ZUMT 38994 (81, 23.6–48.7 mm; Misaki, Sagami Bay; 1938)
 ZUMT 44246 (1, 45.2 mm), ZUMT 44247 [(1, 36.3 mm); Odawara, Sagami Bay; 1942]
 ZUMT 54739 (42, 22.8–54.6 mm; Mito Beach, Miura Pen.; 20 July 1966)
 ZUMT 54783 (1, 34.2 mm), ZUMT 54846 [(1, 26.6 mm); Hamamoroiso, Miura, Sagami Bay; 5 May 1985; coll. by M. Aizawa]
 ZUMT 56872 (7, 38.5–52.5 mm; Jogashima; 2 Aug. 1987; M. Aizawa)
 ZUMT 64590 (1, 22.9 mm; Arasaki, Miura; M. Fukatani)
 ZUMT 67492 (5, 24.4–44.2 mm; Nebukawa, Odawara; M. Fukatani)
 ZUMT 68616* (49, 27.8–50.6 mm), ZUMT 68623* (165, 29.8–50.4 mm), ZUMT 68628* (127, 29.0–52.4 mm), ZUMT 68631* (149, 27.4–54.8 mm), ZUMT 68633* (139, 26.1–56.2 mm), ZUMT 68636* [(189, 27.3–54.2 mm); Misaki, Soshu; 31 May 1911]
 ZUMT 68626* (64, 27.0–48.0 mm; Misaki; May 1911)
SHIZUOKA Pref.
 ZUMT 32736 (1, 46.7 mm), ZUMT 32737 (1, 42.6 mm), ZUMT 32738 [(1, 41.6 mm); Shizuura, Numazu, Sagami Bay; donated by N. Kuroda in Jan. 1932]
 ZUMT 33336 (1, 25.3 mm; Shizuura, Numazu, Sagami Bay)
 ZUMT 60801 (1, 46.4 mm), ZUMT 60802 [(1, 37.5 mm); Futo Fishing Port, Harai, Ito, Sagami Bay, 34°53'36"N, 139°08'09"E; 24 May 1990; coll. by H. Senou and M. Aizawa]
YAMAGUCHI Pref.
 ZUMT 9883 (1, 35.8 mm; Suo-oshima island; coll. by T. Yamahara)
EHIME Pref.
 ZUMT 25295 (1, 36.1 mm; Gogo-shima island; July 1932; coll. by M. Katayama)
NAGASAKI Pref.
 ZUMT 2751 (2, 26.0–27.8 mm; Mogi; Apr. 1910; coll. by Nagasaki Normal School)
 ZUMT 6576 (1, 38.2 mm; Tameishi; July 1915; coll. by I. Kaneko)
OKINAWA Pref.
 ZUMT 40436 [2, 41.9–43.0 mm; Okinawa Pref. (Ryukyu); donated by S. Sakaguchi on 20 May 1921]
 ZUMT 45886 (3, 32.0–43.2 mm; Okinawa-jima island; 8 July 1936; coll. by Dr. Inuya)
 ZUMT 68610* (24, 21.7–30.0 mm; Onnason, Okinawa-jima island; 2 Aug. 1919; coll. by S. Tanabe)
LOCALITY UNKNOWN
 ZUMT 68615* (2, 36.4–37.1 mm; Japan; 1940)
 ZUMT 68618* (7, 20.5–49.3 mm; 21 Aug. 1900)

Remarks. The specimen label of ZUMT 1973 (25 specimens, 29.3–54.1 mm SL, collected from Misaki) stated that the specimens were used in “Figures and descriptions Vol. 41”(Tanaka, 1927). However, *E. etheostoma* had been previously reported by Tanaka (1912) on the basis of ZUMT 1793, and Tanaka (1927) included no information on that species. In addition, the voucher number ZUMT 1793 had been assigned to *Misgurnus anguillicaudatus* (Cantor, 1842), collected from Lake Biwa in Aug. 1890, according to the original ledger. Tanaka (1912) had most likely cited the registration number of the *E. etheostoma* specimens incorrectly, and the remarks on the specimen label of ZUMT 1973 should be revised following the “Figures and descriptions Vol. 6” (Tanaka, 1912).

During our Nov. 2024 survey of specimens, 916 specimens of *E. etheostoma* were newly registered. Of them, 818 specimens (ZUMT 68616, 68623, 68628, 68631, 68633, and 68636) had been collected in Misaki, Soshu (historical name of Kanagawa area), on 31 May 1911. Those specimens have been preserved in five glass bottles with tags bearing the locality and collection date. Thirteen additional specimens (five species of five families) were also included, having been collected with *E. etheostoma* at the same sampling sites: *Scorpaenodes evides* (Jordan and Thompson, 1914) (Scorpaenidae): ZUMT 68629* (2, 22.5–25.1 mm); *Pseudoblennius marmoratus* (Döderlein,

1884) (Cottidae): ZUMT 68625* (3, 32.5–39.1 mm); *Neoclinus bryope* (Jordan and Snyder, 1902) (Chaenopsidae): ZUMT 68632* (1, 46.9 mm); *Omobranchus elegans* (Steindachner, 1876) (Blenniidae): ZUMT 68634* (2, 37.0–38.8 mm); and *Chaenogobius annularis* Gill, 1859 (Gobiidae): ZUMT 68624* (3, 16.7–43.1 mm), ZUMT 68635* (1, 15.5 mm).

***Enneapterygius minutus* (Günther, 1877) クサギンボ**

ZUMT 45889 (1, 26.3 mm; Okinawa-jima island; 8 July 1936; coll. by Dr. Inuya)
ZUMT 68609* (1, 27.1 mm; Onnason, Okinawa-jima island; 2 Aug. 1919; coll. by S. Tanabe)

Remarks. Although *E. minutus* (Günther, 1877) had been previously regarded as a junior synonym of an Indo Pacific widespread species *Enneapterygius philippinus* (Peters, 1868) (Fricke, 1997), Dewa et al. (2023) redescribed the former as a valid on the basis of 109 specimens, including the types. Furthermore, re-examination of type and non-type specimens in that study revealed that *E. philippinus* is known only from Luzon, the Philippines, on the basis of two type specimens (Dewa et al., 2023).

The standard Japanese name “Kusa-gimpo” was originally proposed for *Enneapterygius tusitalae* Jordan and Seale, 1906 by Jordan et al. (1913) (erroneously spelled as *E. tusitale*). However, they provided neither description nor figures of the species, and the standard Japanese name bearing type of “Kusa-gimpo” is unknown. In this case, following the recommendation of the Ichthyological Society of Japan (2020: art. 2.2, 4.1.1), the standard Japanese name “Kusa-gimpo” is considered to have been designated by Hayashi (2000) in Nakabo (ed.) (2000), being applicable to *E. minutus*. In addition, the morphological characters and sketches of “Kusa-gimpo” agreed closely with the description of *E. minutus* provided by Dewa et al. (2023). Furthermore, *E. tusitalae* is currently treated as a junior synonym of *E. minutus* based on re-examination of the type specimens (Dewa et al., 2023). Thus, the standard name “Kusa-gimpo” should be applied to *E. minutus*.

***Enneapterygius miyakensis* Fricke, 1987 ミヤケヘビギンボ**

ZUMT 41885 (42, 24.1–39.7 mm; Hachijo-jima island, Izu Islands; Sept. 1922; coll. by Y. Uchiyama)
ZUMT 68612* (9, 41.4–45.7 mm; Okada Port, Izu-oshima island, Izu Islands; 28 July 1991; coll. by K. Sakamoto; separated from ZUMT 63009)

***Enneapterygius* sp. ヘビギンボ属の一種**

ZUMT 27365 (1, 25.8 mm; Naha, Okinawa-jima island; 23 May 1900; coll. by Miyajima)
ZUMT 41074 (6, 16.2–25.8 mm; Hachijo-jima island; coll. by S. Watanabe)

Remarks. The above seven specimens were badly damaged, with no remaining distinctive species diagnostic characters.

***Helcogramma* McCulloch and Waite, 1918 クロマスク属**

***Helcogramma fuscipectoris* (Fowler, 1946) クロマスク**

ZUMT 30567 (1, 17.5 mm; Onnason, Okinawa-jima island, 26°29'50"N, 127°51'13"E; 2 Aug. 1925; coll. by S. Tanabe)

Helcogramma nesion Williams and Howe, 2003 ヨゴレヘビギンボ

ZUMT 34356 (1, 29.9 mm; Hachijo-jima island; Sept. 1922; coll. by M. Uchiyama)

***Helcogramma* sp.** クロマスク属の一種

ZUMT 68611* (1, 26.9 mm; Hachijo-jima island, Izu Islands; Sept. 1922; coll. by Y. Uchiyama; separated from ZUMT 41885)

Remarks. Although this species is most similar to *Helcogramma fuscipectoris* (Fowler, 1946), having 14 second dorsal-fin rays, 9 mandibular pores, short unbranched orbital tentacles, and a black mask on the head, the former differs from the latter in having six suborbital pores and a restricted black area on the head (upper edge of black mask not reaching eye) (Fricke, 1997; Tashiro and Motomura, 2014; Dewa, unpub. data).

Springerichthys Shen, 1994 ヒメギンボ属

Springerichthys bapturus (Jordan and Snyder, 1902) ヒメギンボ

ZUMT 26950 (1, 55.1 mm; Kagoshima Pref.; collection date unknown)

ZUMT 33366 (1, 52.6 mm, Shizuoka Pref.; collection date unknown)

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Specimens of the family Icosteidae (Actinopterygii: Teleostei) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

Three specimens of *Icosteus aenigmaticus* Lockington, 1880 (sole species of the family Icosteidae) deposited in the Department of Zoology, The University Museum, The University of Tokyo are reported.

Introduction

Icosteus aenigmaticus Lockington, 1880, the sole species of the family Icosteidae, is characterized by a largely cartilaginous skeleton, soft body, single dorsal and anal fins with 50–56 and 33–44 soft rays, respectively, a single lateral line canal with keels of minute spines, and the maxilla margined by the premaxilla (Mecklenburg 2003; Hatooka 2013). The species, attaining a maximum standard length (SL) of ca. 2 meters, is known for significant changes in body appearance with growth, juveniles being deep-bodied with numerous distinct black spots, and well-formed pelvic fins and body scales. However, adults (individuals greater than ca. 60 cm SL) have an elongated and uniformly dark colored body, lacking pelvic fins and scales (Allen 2001; Hatooka 2018). Commonly called “ragfish”, although differing from some southern species of Centrolophidae to which the same common name has also been applied (McMillan et al. 2019), *I. aenigmaticus* has been widely recorded from the northern Pacific Ocean, from northern Japan to the Bering Sea, and along the North American coast north of southern California, USA (larvae recorded from Baja California, Mexico), the number of individuals being apparently relatively low in all areas (Fukuhara 1953; Moser et al. 1994; Allen 2001; Love et al. 2021). In Japanese waters, the species has been recorded from Hokkaido (off Kushiro City and Usujiri Town; Sasaki et al. 1989; Amaoka et al. 1989; Amaoka 1997), off Sanriku coast (Okamoto 2024), Aomori Pref. (off Misawa City and Hachinohe City; Shiogaki et al. 2004), Iwate Pref. (Funakoshi Bay, off Kamaishi City, and off Ayasato, Ofunato City; Maruyama 1971; Ida 1987; Goto 2016), Miyagi Pref. [Oyamura (currently southeastern part of Kesennuma City) and off Kesennuma City; Abe 1954, 1963], Ibaraki Pref. (off Kuji-gawa River estuary and Nakaminato, Hitachinaka City; Mochizuki et al. 1994; IMARS 2007), Chiba Pref. (Tateyama City; Hagiwara and Kimura 2005), Kanagawa Pref. (Odawara City and Manazuru Town; Abe 1954, 1963; Senou 2000), Shizuoka Pref. (Kuboda and Uyeno 1971), Mie Pref. (Owase Bay; Suzuki and Tsukada 1994), Seto Inland Sea coast of Hyogo Pref. (southwest of Kobe City; Inoue 1962), and Kochi Pref. (Urado Bay; Kamohara 1962). Additionally, larvae and juveniles have also been collected off eastern Tohoku District (Okamoto et al. 2002).

For an aid to future research, the specimens of *Icosteus aenigmaticus* (family Icosteidae) deposited in the Department of Zoology, The University Museum, The University of Tokyo are enumerated herein.

Materials and Methods

Specimens of Icosteidae in the Department of Zoology, The University Museum, The University of Tokyo (abbreviated as ZUMT) were identified during the present study, following Allen (2001) and Hatooka (2013).

Parentheses following registration numbers include standard length, collection locality, and collection date.

The ZUMT specimens listed herein were stored in shelved containers in Room 406 (specimen storage room) in the museum building (as of Sept. 2023). Although some of the ZUMT specimens, collected by Dr. Tokiharu Abe, had not been registered into the ZUMT collection, with the collection data of most missing, they are listed herein together with their ZUMT ABE number (number with underbar written on the specimen label), in the hope that Dr Abe's catalog books with collection data will be rediscovered in the future.

Results

Three non-type specimens of *Icosteus aenigmaticus* collected from Kamchatka Peninsula were confirmed in the ZUMT collection.

Species accounts

Family Icosteidae イレズミコンニャクアジ科

Icosteus aenigmaticus Lockington, 1880 イレズミコンニャクアジ

RUSSIA

ZUMT 38997 (429.0 mm; Kamchatka; donation from Pacific Fisheries Research Office, Masago, Hakodate City, Hokkaido)

LOCALITY UNKNOWN

ZUMT ABE 10150 [456.0 mm; labelled as 「北洋」 (“hokuyo”, general term for northern ocean), 1954]

ZUMT 64081 (148.8 mm; no data)

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Report on specimens of the family Rhyacichthyidae (Teleostei: Gobiiformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The specimens of the family Rhyacichthyidae (Teleostei: Gobiiformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were re-identified in the present study. In total 5 specimens representing only a single species, *Rhyacichthys aspro* (Valenciennes, 1837) were found from the collection. No types for the family were found.

Introduction

The loach gobies of the family Rhyacichthyidae Jordan, 1905 are characterized by the following combination of characters: pelvic fins separated; complete lateral-line system; three epural bones in caudal skeleton; six branchiostegal rays; and no ventral sucker (Asaoka et al. 2014; Senou 2021; Haÿ et al. 2022). Because of Rhyacichthyidae is a sister group of all other Gobiiformes, it is regarded as the most primitive group of gobies (Springer 1983; Asaoka et al. 2014; Senou 2021; Haÿ et al. 2022). Rhyacichthyidae comprises two genera from the Indo-Pacific: *Protogobius* Watson and Pöllabauer, 1998 and *Rhyacichthys* Boulenger, 1901. The former is monospecific (*P. attiti* Watson and Pöllabauer, 1998) and the latter currently includes three valid species, *R. aspro* (Valenciennes, 1837), *R. guilberti* Dingerkus & Séret, 1992 and *R. novaeguineae* Boulenger, 1903 (Haÿ et al. 2022). Gobies of Rhyacichthyidae usually inhabit the lower to middle courses of clear and rapid streams and all of them are regarded as amphidromous species: i.e., adults spawn in the freshwater habitats, larvae after hatching immediately migrate downstream to the marine waters, and thereafter, the juveniles recruit to the inland waters (Tabouret et al. 2014; Suzuki 2015; Senou 2021; Haÿ et al. 2022). Although many species of Rhyacichthyidae are assessed by IUCN and/or governments due to concerns about habitat destruction caused by river construction and pollution of river water (e.g., Keith 2002; Suzuki 2015; Larson 2020), some of them are listed as “DD” (Data Deficient)” due to the lack of enough data to determine their conservational status (Larson 2012; Jaafer 2019).

To aid future taxonomic and biogeographic studies and conservation, a list of specimens of Rhyacichthyidae deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) is herein provided.

Materials and Methods

Species nomenclature and identifications of ZUMT specimens generally followed Akihito et al. (2013) and Haÿ et al. (2022). Size of the specimens are expressed in standard length (mm; abbreviated as SL). Sex of the specimens are determined by following Cole and Parenti (2022). The localities of some specimens collected recently are given at the island scale to protect the collection sites from overexploitation by ornamental fish dealers, aquarium hobbyists, and researchers. The collection year and collector for some specimens were estimated by following Koeda et al. (2022).

Collection of Rhyacichthyidae in ZUMT

As a result of our survey, 5 specimens of a single species, *Rhyacichthys aspro* (Valenciennes, 1837) were confirmed. No specimens of *Protogobius* or types for the family Rhyacichthyidae were found from the collection.

Rhyacichthyidae Jordan, 1905 ツバサハゼ科
Rhyacichthys Boulenger, 1901 ツバサハゼ属
Rhyacichthys aspro (Valenciennes, 1837) ツバサハゼ
(Figs. 1, 2)

JAPAN

ZUMT 58108: female, 120.0 mm SL, Nakama-gawa River (仲間川), Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., Ryukyu Archipelago, 9 July 1988, hand net, coll. H. Senou (瀬能 宏) and M. Aizawa (藍澤正宏).

ZUMT 60623: female, 90.8 mm SL, Ara-kawa River (荒川), Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., Ryukyu Archipelago, 27 Aug. 1989, coll. H. Senou and M. Aizawa.

ZUMT 67184: male, 81.3 mm SL, Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., Ryukyu Archipelago, 19 Dec. 2023, hand net, coll. K. Seki (関 航志).

TAIWAN

ZUMT 52500: female, 98.6 mm SL, upper branch of Kao-Ping-Chi (Shimo-Tansui Kei) River, near Liukuel (Rokki) at Tek-AhMug (Chikushimon), 51 km from the mouth of the river, Kaohsiung County (Takao-ken) [高雄県六龜付近, 竹子門, 高屏溪 (下淡水溪) 上流], 28 Mar. 1969, coll. M. Watanabe (渡部正雄).

Remarks. Watanabe (1972) reported ZUMT 52500 as the first Taiwanese record of *R. aspro*.

PHILIPPINES

ZUMT 42622: female, 124.1 mm SL, Basilan Island, 1926, coll. U. Yamamura (山村樸次郎) and Y. Yamamura (山村八重子).

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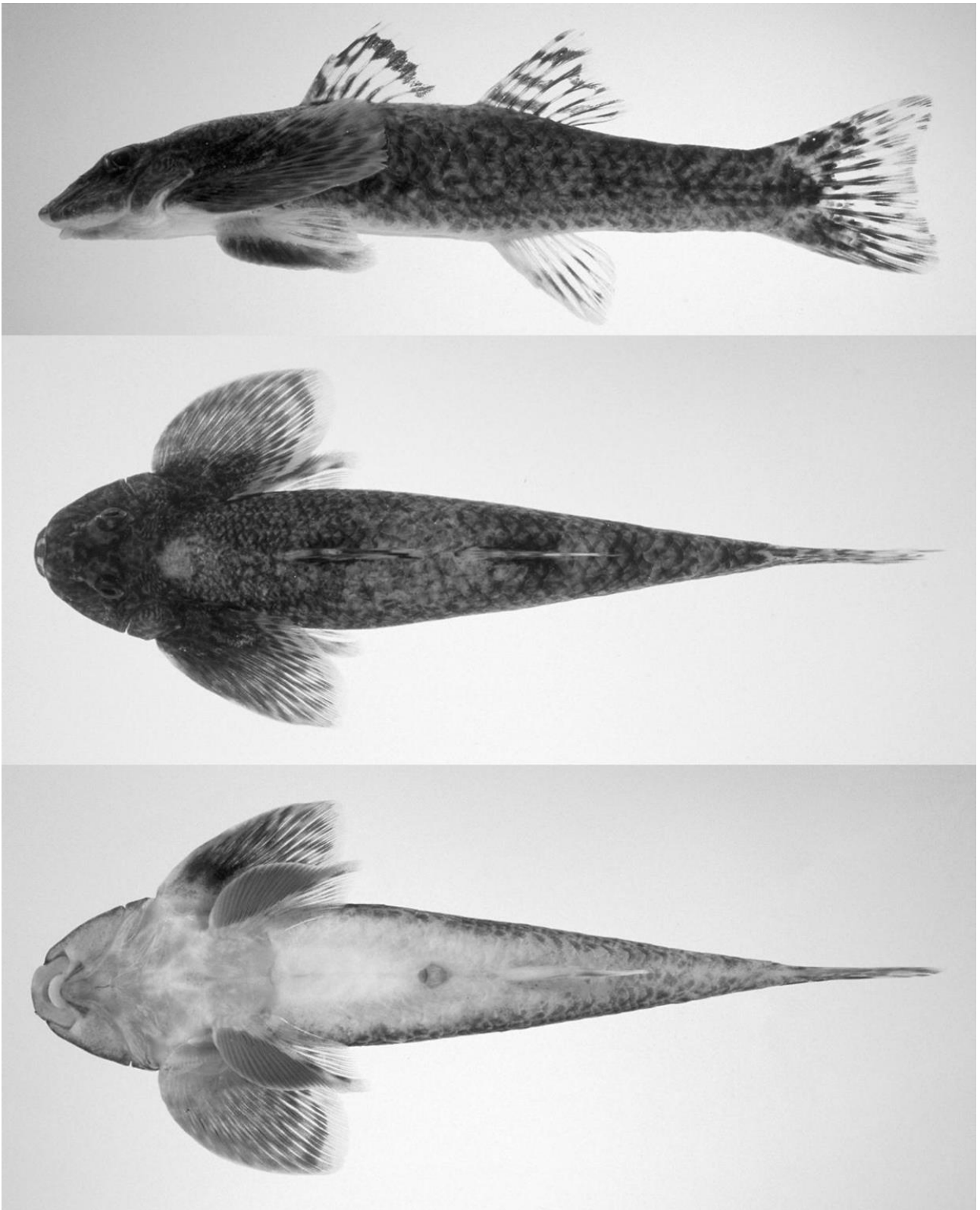


Figure 1. *Rhyacichthys aspro* from Iriomote-jima I., Yaeyama Is., Ryukyu Archipelago, Japan, immediately after fixation (ZUMT 58108, female, 120.0 mm SL). Photos by M. Aizawa.



Figure 2. *Rhyacichthys aspro* from Ishigaki-jima I., Yaeyama Is., Ryukyu Archipelago, Japan, immediately after fixation (ZUMT 67184, male, 81.3 mm SL). Photos by D. Oyama.

Report on specimens of the family Xenisthmidae (Teleostei: Gobiiformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The specimens of the family Xenisthmidae (Teleostei: Gobiiformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were re-identified in the present study. In total 3 specimens representing two species, *Xenisthmus clarus* (Jordan & Seale, 1906) and *X. nigrolateralis* Chen, Harefa, Jiang & Chang, 2022 were found from the collection. No types for the family were found.

Introduction

The gobies of the family Xenisthmidae Miller, 1973 inhabit sand patches adjacent to coral reefs or reef rubble throughout subtropical and tropical zone of the Indo-West Pacific (Springer 1983; Gill and Hoese 1993, 2004; Gill et al. 2014, 2017; Senou 2021). Presently, Xenisthmidae comprises 17 species representing six genera (Springer 1983; Gill and Hoese 1993; Gill et al. 2014; Fricke et al. 2024). In Japanese waters, two species of the genus *Xenisthmus* Snyder, 1908, *X. clarus* (Jordan & Seale, 1906) and *X. polyzonatus* (Klunzinger, 1871), were formally recorded (e.g., Akihito et al. 2013; Senou 2021), but some unidentified species have remained (Yoshigou and Nakamura 2008; Akihito et al. 2013; Hagiwara 2018, 2019). In addition, an unidentified species of the genus *Paraxenisthmus* Gill & Hoese, 1993 was illustrated from Amami-oshima Island, Amami Islands, Ryukyu Archipelago (Hagiwara 2018, 2019).

To aid future taxonomic and biogeographic studies, a list of specimens of Xenisthmidae deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) is herein provided.

Materials and Methods

Species nomenclature and identifications of ZUMT specimens generally followed Akihito et al. (2013) and Hagiwara (2018, 2019). Size of the specimens are expressed in standard length (mm; abbreviated as SL). Abbreviations pertaining to the cephalic sensory pore system followed Akihito et al. (2002). Institutional codes generally follow Sabaj (2020).

Collection of Xenisthmidae in ZUMT

As a result of our survey, 3 specimens representing two species of *Xenisthmus*, *X. clarus* (Jordan & Seale, 1906) and *X. nigrolateralis* Chen, Harefa, Jiang & Chang, 2022 were confirmed. No specimens representing other genera or types for the family Xenisthmidae were found from the collection.

Xenisthmidae Miller, 1973 ヤナギハゼ科
Xenisthmus Snyder, 1908 ヤナギハゼ属
Xenisthmus clarus (Jordan & Seale, 1906) ヤナギハゼ
(Fig. 1)

JAPAN

ZUMT 58093: 21.3 mm SL, stained with Alizarin Red S, Ayamaru (あやまる), Amami-oshima Island, Amami Islands, Kagoshima Pref., Ryukyu Archipelago, 17 Sept. 1989, hand net, coll. M. Aizawa (藍澤正宏) et al.

ZUMT 60424: 14.8 mm SL, Hoshizuna-no-hama Beach (星砂の浜), Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., Ryukyu Archipelago, 23 Aug. 1989, hand net, coll. M. Aizawa, H. Senou (瀬能 宏), T. Suzuki (鈴木寿之) and T. Uryu (瓜生知史).

Xenisthmus nigrolateralis Chen, Harefa, Jiang & Chang, 2022 クロヤナギハゼ
(Fig. 2)

JAPAN

ZUMT 58915: 20.2 mm SL, Ikegachi (生勝), Amami-oshima Island, Amami Islands, Kagoshima Pref., Ryukyu Archipelago, 15 Sept. 1989, hand net, coll. M. Aizawa.

Remarks. Hayashi (1990) reported a single specimen (NSMT-P 31485, 18.5 mm SL) from Amami-oshima Island as an undescribed species, *Xenisthmus* sp. B sensu Hayashi, Aizawa, Itoh & Arai, 1990, and proposed a standard Japanese name, Kuro-yanagi-haze, based on the specimen. After that, “Kuro-yanagi-haze” has long been treated as an unidentified species in Japanese literature (e.g., Akihito et al. 2013; Hagiwara 2018, 2019). Chen et al. (2022) described a new species, *X. nigrolateralis* Chen, Harefa, Jiang & Chang, 2022, based on two specimens from Taiwan. Although Chen et al. (2022) did not refer to “Kuro-yanagi-haze”, the morphology of “Kuro-yanagi-haze” reported in Japanese literature is well matched with that of *X. nigrolateralis* in the following combination of characters: dorsal fin rays VI-I, 13; anal fin rays I, 12–13 [I, 13 in Chen et al. (2022)]; pectoral fin rays 15–17 [16]; longitudinal scale rows 69 [68–70]; five sensory canal pores (M', N, O, P, Q') on preopercle; lateral side of trunk with broad, deep brown stripe from rear of lateral gill opening to caudal fin base; two indistinct dark lines from eyes to upper part of opercle; center of caudal fin with brown stripe (Hayashi et al. 1990; Akihito et al. 2013; Hagiwara 2018, 2019; this study). Therefore, we identified “Kuro-yanagi-haze” as *X. nigrolateralis*.

Acknowledgements

We are deeply grateful to the late Y. Tominaga for his dedication and efforts to the ZUMT collection. We are also grateful to H. Wada (Kanagawa Prefectural Museum of Natural History), S. Mabuchi, J. Oi, K. Seki and O. Sakai (Azabu Junior and Senior High School), S. Fujiwara, M. Fukatani, A. Iinuma, S. Ito, H. Kamei, Y. Kaneko, K. Kobayashi, K. Mochizuki, N. Osakabe, M. Saito, A. Takahashi and other volunteers of ZUMT for providing curatorial assistance.

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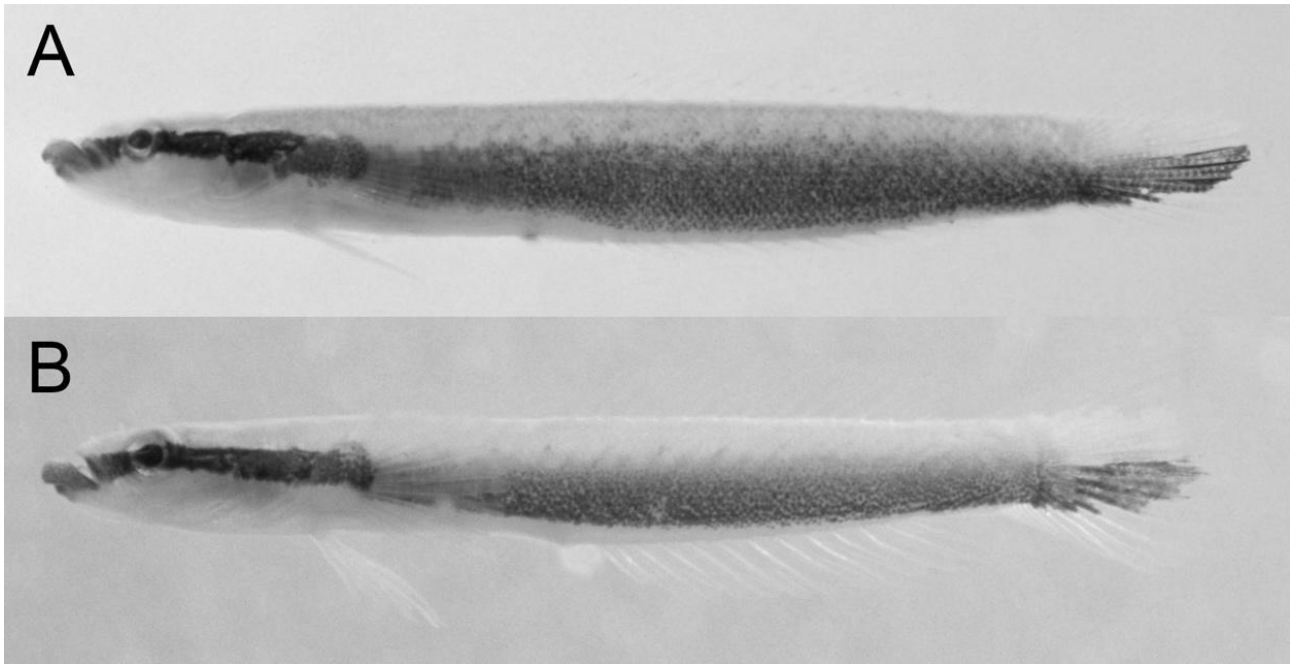


Figure 1. *Xenisthmus clarus*, immediately after fixation (A: ZUMT 58093, 21.3 mm SL, Amami-oshima Island, Amami Islands; B: ZUMT 60424, 14.8 mm SL, Iriomote-jima Island, Yaeyama Islands). Photos by M. Aizawa.

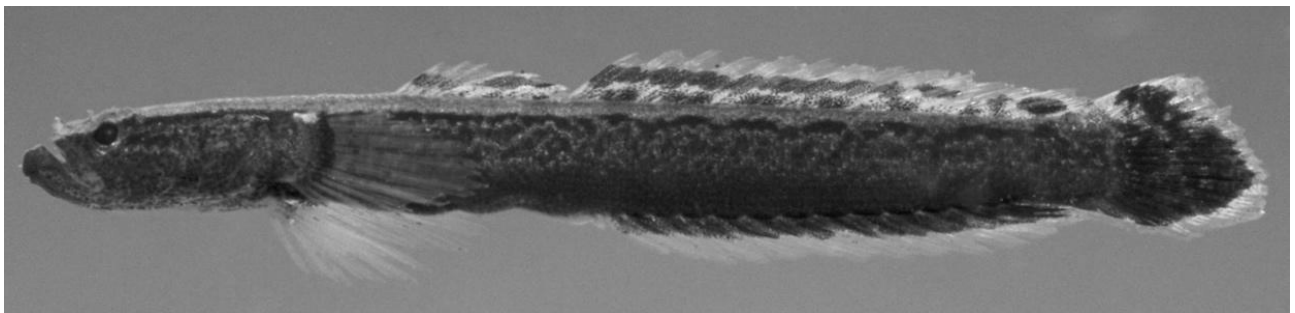


Figure 2. *Xenisthmus nigrolateralis* from Amami-oshima Island, Amami Islands, Ryukyu Archipelago, Japan, immediately after fixation (ZUMT 58915, 20.2 mm SL). Photo by M. Aizawa.

Report on specimens of the subfamily Sicydiinae (Teleostei: Gobiidae) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

Specimens of the subfamily Sicydiinae (Teleostei: Gobiidae) deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were re-identified in the present study. In total 196 specimens in 182 lots representing 8 species with 6 genera of sicydiine gobies were found from the collection. This collection includes type series of *Sicyopterus japonicus* (Tanaka, 1909): the holotype (ZUMT 2138, 80.2 mm SL) and the paratype (ZUMT 2139, 84.7 mm SL).

Introduction

The gobies of the subfamily Sicydiinae (Teleostei: Gobiiformes) inhabit freshwater streams in tropical and subtropical zone of the Indo-Pacific and Atlantic (Keith et al. 2015; Maeda 2018). Sicydiinae currently comprises more than 100 species belonging to 9 genera (Keith et al. 2015; Maeda 2018) and a putative undescribed genus is also reported (Taillebois et al. 2014). All sicydiine gobies exhibit amphidromous life cycle: i.e., adults spawn in the freshwater habitats, larvae after hatching immediately migrate downstream to the marine waters, and thereafter, the juveniles recruit to the inland waters (e.g., Yamasaki and Tachihara 2006; Keith et al. 2009, 2015; Maeda 2018). The larvae sometimes disperse to another island and colonize in new habitats (Keith et al. 2009, 2015). Although many species of Sicydiinae are assessed by IUCN and/or the Ministry of the Environment, Government of Japan (Keith et al. 2015; Maeda 2018), some of them are listed as “DD” (Data Deficient)” due to the lack of enough data to determine their conservational status.

To aid future taxonomic and biogeographic studies and conservation, a list of specimens of Sicydiinae deposited in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) is provided below.

Materials and Methods

Species nomenclature and identifications of ZUMT specimens generally followed Akihito and Meguro (1979), Watson (2000), Lucena et al. (2013), Keith and Taillebois (2014), Keith et al. (2015), Maeda (2018), Maeda and Saeki (2018) and Maeda et al. (2021). The size of the specimens are expressed in standard length (mm; abbreviated as SL). Detail localities of some recently collected specimens are omitted here for conservation purpose. The collection year and collector for some specimens were estimated by following Koeda et al. (2022).

Collection of Sicydiinae in ZUMT

In total of 196 specimens in 182 lots, representing 8 species belonging to 6 genera were found in ZUMT collection.

It includes type series of *Sicyopterus japonicus* (Tanaka, 1909): holotype (ZUMT 2138, 80.2 mm SL) and paratype (ZUMT 2139, 84.7 mm SL).

Sicydiinae Gill, 1860 ボウズハゼ亜科

Lentipes Günther, 1861 ヨロイボウズハゼ属

Lentipes armatus Sakai & Nakamura, 1979 ヨロイボウズハゼ

(Fig. 1)

JAPAN

[Ryukyu Archipelago]

ZUMT 60612: male, 33.3 mm SL, Ara-kawa River (荒川), Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., 26 Aug. 1989, hand net, coll. H. Senou (瀬能 宏) and M. Aizawa (藍澤正宏).

ZUMT 60621: female, 39.6 mm SL; **ZUMT 60624**: male, 39.1 mm SL; **ZUMT 60625**: male, 34.4 mm SL; **ZUMT 60626**: female, 38.9 mm SL; **ZUMT 60627**: female, 38.3 mm SL; **ZUMT 60657**: male, 32.2 mm SL; **ZUMT 60658**: male, 31.5 mm SL; **ZUMT 60659**: male, 33.4 mm SL; **ZUMT 60660**: male, 32.5 mm SL, Ara-kawa River, Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., 27 Aug. 1989, hand net, coll. H. Senou and M. Aizawa.

ZUMT 67172: female, 27.4 mm SL; **ZUMT 67467**: male, 23.3 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 17 Mar. 2024, hand net, coll. D. Oyama (尾山大知), T. Kinoshita (木下智貴), M. Shibata (柴田将司) and R. Yamazaki (山崎 伶).

ZUMT 67797: female, 20.7 mm SL; **ZUMT 67798**: female, 31.9 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 23 Aug. 2024, hand net, coll. D. Oyama and S. Mabuchi (馬淵俊輔).

Sicyopterus Gill, 1860 ボウズハゼ属

Sicyopterus japonicus (Tanaka, 1909) ボウズハゼ

(Fig. 2)

JAPAN

[Honshu]

ZUMT 2139: 84.7 mm SL, paratype of *Sicydium japonicum* Tanaka, 1909, Wakayama Pref., coll. H. Nakamura (中村久楠).

ZUMT 3634: 2 specimens, 59.5–83.8 mm SL, Naka-gawa River (那珂川), Tochigi Pref., coll. S. Takahashi (高橋 新太郎／鳥山中学校).

ZUMT 8132: 81.7 mm SL; **ZUMT 8759**: 77.2 mm SL, Tanabe (田辺), Wakayama Pref., coll. N. Ui (宇井縫蔵).

ZUMT 10499: 93.6 mm SL, Hiki-gawa River (日置川), Wakayama Pref., 22 July 1922, coll. H. Kuroiwa (黒岩恒), local name “Numerichichiko (ヌメリチコ)”.

ZUMT 10506: 68.2 mm SL, Houki-gawa River, Naka-gawa River system (那珂川水系箒川), Tochigi Pref., coll. S. Arakawa (荒川重理／栃木県矢板町県立農林学校).

ZUMT 11564: 80.1 mm SL, Kino-kawa River (紀の川), Wakayama Pref., Aug. 1923, coll. Y. Numajiri (沼尻 好／高野山中学校), local name “Haze (ハゼ)”.

ZUMT 15537: 58.5 mm SL, Tsurumi-gawa River (鶴見川), Kanagawa Pref., coll. S. Miyadai (宮代周輔／東神奈川工業学校).

ZUMT 17487: 82.1 mm SL, Nakatsu-gawa River, Sagami-gawa River system (相模川水系中津川), Kanagawa Pref., coll. Kanagawa Prefectural Fisheries Experimental Station (神奈川県水産試験場).

ZUMT 20430: 132.9 mm SL, probably Ujiyamada (宇治山田), Mie Pref., coll. S. Tsuchiga (槌賀安平／三重県南牟婁郡木本町木本中学校校長), local name “Hongochi (ホンゴチ)”.

ZUMT 20528: 106.5 mm SL; **ZUMT 20529:** 41.4 mm SL, Wakayama Pref., Jan. 1920.

ZUMT 21460: 63.0 mm SL; **ZUMT 21461:** 69.1 mm SL; **ZUMT 21462:** 75.3 mm SL, Atsugi (厚木), Kanagawa Pref., received on 28 Apr. 1929, coll. T. Semba (仙波高尚／神奈川県立厚木中学校).

ZUMT 21965: 60.0 mm SL; **ZUMT 21966:** 58.4 mm SL; **ZUMT 21967:** 60.9 mm SL, Wakayama Pref., Jan. 1920.

ZUMT 22408: 96.2 mm SL; **ZUMT 22409:** 69.7 mm SL; **ZUMT 22410:** 75.5 mm SL; **ZUMT 22411:** 80.3 mm SL; **ZUMT 22412:** 76.1 mm SL; **ZUMT 22413:** 87.9 mm SL, Tanabe, Wakayama Pref., received on 11 Aug. 1920, coll. N. Ui.

ZUMT 23162: 82.8 mm SL; **ZUMT 23164:** 66.4 mm SL, Ido-gawa River (井戸川), Mie Pref., Aug. 1927, coll. S. Tsuchigaya, donated by T. Koide (小出哲夫), local name “Namerabozu (ナメラボオズ)”.

ZUMT 24199: 87.5 mm SL, Katsura-gawa River (=Sagami-gawa River) [桂川 (=相模川)], near Fukagawa village (深川村), Kitatsuru-gun (北都留郡), Yamanashi Pref., coll. M. Nakamura (中村百太郎／大月高等女学校).

ZUMT 25706: 98.5 mm SL, Nokami-gawa River, Kino-kawa River system (紀の川水系野上川), near Nakanokami village (中野上村), Wakayama Pref., June 1933, coll. S. Sakaguchi (坂口総一郎／和歌山県師範).

ZUMT 29970: 41.1 mm SL, probably Shizuoka Pref., coll. K. Ikeda (池田和市／清水市江尻庵原中学校).

ZUMT 30385: 34.2 mm SL, Yokohama (横浜) or Ninomiya (二宮), Kanagawa Pref.

ZUMT 56033: male, 71.3 mm SL; **ZUMT 56034:** female, 66.1 mm SL; **ZUMT 56035:** young female, 40.5 mm SL, Kawazu-nanadaru Falls (河津七滝), Kawazu-gawa River (河津川), Izu Peninsula, Shizuoka Pref., 6 Mar. 1987, coll. M. Aizawa.

ZUMT 67366: 99.5 mm SL; **ZUMT 67367:** 103.5 mm SL; **ZUMT 67368:** 113.0 mm SL, probably Wakayama Pref., before 1910.

ZUMT 67491: 54.7 mm SL, Shiraito-gawa River (白糸川), Nebukawa (根府川), Odawara City, Kanagawa Pref., 14 Jan. 2023, hand net, coll. M. Fukatani (深谷真央).

ZUMT68785: 52.6 mm SL, Suzu-kawa River, Kaname-gawa River system (金目川水系鈴川), Kanagawa Pref., 14 Mar. 2023, hand net, coll. M. Fukatani.

[Seto Inland Sea]

ZUMT 30098: 82.5 mm SL, Sumoto (洲本), Awaji-shima Island, Hyogo Pref.

[Shikoku]

ZUMT 2138: 80.2 mm SL, **holotype of *Sicydium japonicum* Tanaka, 1909**, Kochi Pref., coll. C. Oda (織田千齡).

ZUMT 3674: 99.4 mm SL, Yoshino-gawa River (吉野川), Wakimachi (脇町), Tokushima Pref., coll. T. Kasai (笠井高三郎).

ZUMT 6796: 112.2 mm SL; **ZUMT 6797:** 79.7 mm SL, Aki (安芸), Kochi Pref., coll. S. Ueda (上田庄馬／高知第二中学校), local name “Miminashi (ミミナシ)” (commonly in Aki District／安芸地方一般), “Miminashi (ミミナシ)” or “Kanachichibu (カナチチブ)” (in Kira-gawa River basin／吉良川地方).

ZUMT 6987: 72.2 mm SL; **ZUMT 6988:** 67.5 mm SL; **ZUMT 6989:** 64.3 mm SL, probably Kochi Pref., coll. S. Ota (太田章一／土佐師範).

ZUMT 15696: 74.0 mm SL; **ZUMT 15697:** 61.4 mm SL; **ZUMT 15698:** 90.2 mm SL; **ZUMT 15699:** 63.7 mm SL; **ZUMT 15700:** 54.3 mm SL, probably Kochi Pref., 17 July 1925, coll. T. Yoshimura (吉村都吉／高知市第四小学校長).

ZUMT 29244: 72.6 mm SL; **ZUMT 29245:** 61.1 mm SL; **ZUMT 29246:** 60.5 mm SL; **ZUMT 29247:** 68.9 mm SL; **ZUMT 29248:** 66.2 mm SL; **ZUMT 29249:** 80.9 mm SL; **ZUMT 29250:** 74.4 mm SL; **ZUMT 29251:** 63.3

mm SL; **ZUMT 29252**: 57.4 mm SL; **ZUMT 29253**: 80.5 mm SL; **ZUMT 29254**: 89.1 mm SL; **ZUMT 29255**: 113.1 mm SL; **ZUMT 29256**: 87.4 mm SL; **ZUMT 29257**: 91.9 mm SL; **ZUMT 29258**: 65.6 mm SL; **ZUMT 29259**: 104.0 mm SL; **ZUMT 29260**: 90.8 mm SL; **ZUMT 29261**: 80.3 mm SL; **ZUMT 29262**: 80.5 mm SL; **ZUMT 29263**: 65.3 mm SL; **ZUMT 29264**: 94.9 mm SL; **ZUMT 29265**: 70.2 mm SL; **ZUMT 29266**: 68.1 mm SL; **ZUMT 29267**: 68.0 mm SL; **ZUMT 29268**: 66.2 mm SL, Tano (田野), Kochi Pref., 16 July 1932, coll. T. Kamohara (蒲原稔治).

ZUMT 677765: 85.0 mm SL; **ZUMT 67766**: 49.2 mm SL; **ZUMT 67767**: 46.0 mm SL; **ZUMT 67768**: 42.3 mm SL, Kochi City, Kochi Pref., 6 June 1919, coll. T. Yoshimoto (吉本都吉／高知市第四小学校).

[Kyushu]

ZUMT 10610: 94.8 mm SL, Hirose-gawa River (広瀬川), Kawanabe (川辺), Kagoshima Pref., coll. N. Shinagawa (品川 渚／川辺中学校).

ZUMT 28815: 102.0 mm SL, probably Kagoshima Pref., coll. K. Ogawa (小川一男／鹿児島県川辺中学).

ZUMT 30991: 81.9 mm SL; **ZUMT 30992**: 81.3 mm SL; **ZUMT 30993**: 1, 79.8 mm SL; **ZUMT 30994**: 106.9 mm SL, lower reach of Gokase-gawa River (五ヶ瀬川), Nobeoka (延岡), Miyazaki Pref., coll. K. Hino (日野光次／鹿児島七高), local name “Dokuwan (ドクワン)”.

[Ryukyu Archipelago]

ZUMT 8889: 59.3 mm SL; **ZUMT 8890**: 65.4 mm SL; **ZUMT 8891**: 65.0 mm SL; **ZUMT 8893**: 100.4 mm SL; **ZUMT 8895**: 72.6 mm SL, Kominato-gawa River, Amami-oshima Island, Amami Islands, 1 July 1919, coll. H. Kuroiwa.

ZUMT 9372: 76.1 mm SL; **ZUMT 9373**: 79.8 mm SL; **ZUMT 9375**: 85.2 mm SL; **ZUMT 9376**: 79.4 mm SL; **ZUMT 9377**: 58.7 mm SL; **ZUMT 9379**: 71.5 mm SL; **ZUMT 9380**: 75.4 mm SL, Amami-oshima Island, Amami Islands, coll. H. Kuroiwa.

ZUMT 9503: 74.5 mm SL, Okinawa-jima Island, Okinawa Islands, Oct. 1912, coll. H. Kuroiwa, local name “Ibu (イーブー)”.

ZUMT 58109: 3 specimens, 83.0–91.8 mm SL, Nakama-gawa River (仲間川), Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 9 July 1988, hand net, coll. H. Senou and M. Aizawa.

ZUMT 58892: 112.1 mm SL, mouth of Katoku-gawa River (嘉徳川), Amami-oshima Island, Amami Islands, Kagoshima Pref., 15 Sept. 1989, coll. M. Aizawa.

ZUMT 58901: 65.0 mm SL, Yakugachi-gawa River (役勝川), Amami-oshima Island, Amami Islands, Kagoshima Pref., 16 Sept. 1989, coll. M. Aizawa.

ZUMT 60631: 71.6 mm SL, Ara-kawa River, Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., 27 Aug. 1989, coll. H. Senou and M. Aizawa.

ZUMT 67801: 39.8 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 23 Aug. 2024, hand net, coll. D. Oyama and S. Mabuchi.

ZUMT 68641: 53.1 mm SL, Amami-oshima Island, Amami Islands, Kagoshima Pref., 1983, coll. H. Sakai (酒井 治己).

TAIWAN

ZUMT 8876: 115.7 mm SL, Great Lake (太湖), Yilan (宜蘭), 5 July 1917, coll. M. Oshima (大島正満).

ZUMT 8877: 120.3 mm SL; **ZUMT 8878**: 87.2 mm SL, Pinglinbi (坪林尾), Yilan, 14 July 1917, coll. M. Oshima.

ZUMT 8879: 111.7 mm SL; **ZUMT 8880**: 72.1 mm SL; **ZUMT 8881**: 81.4 mm SL, Tamsui River (淡水河), Taipei (台北), Nov. 1915, coll. M. Oshima.

ZUMT 25118: 96.8 mm SL; **ZUMT 25119**: 71.9 mm SL; **ZUMT 25120**: 79.6 mm SL, Tamsui River basin, Taipei, 11 Aug. 1929, coll. M. Imai (今井俊武／台湾医学専門学校), local name “石黒” (pronunciation unknown).

Sicyopterus lagocephalus (Pallas, 1770) ルリボウズハゼ

(Fig. 3)

JAPAN

[Ryukyu Archipelago]

ZUMT 58110: male, 52.9 mm SL, Nakama-gawa River, Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 9 July 1988, hand net, coll. H. Senou and M. Aizawa.

ZUMT 60622: male, 61.8 mm SL; **ZUMT 60628**: young, 24.2 mm SL; **ZUMT 60654**: young, 25.4 mm SL, Arakawa River, Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., 27 Aug. 1989, hand net, coll. H. Senou and M. Aizawa.

ZUMT 67464: male, 36.6 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 17 Mar. 2024, hand net, coll. D. Oyama, T. Kinoshita, M. Shibata and R. Yamazaki.

ZUMT 67802: male, 50.7 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 23 Aug. 2024, hand net, coll. D. Oyama and S. Mabuchi.

Sicydium Valenciennes, 1837

Sicydium punctatum Perugia, 1896

(Fig. 4)

BRAZIL

ZUMT 65472: 1 male and 4 females, 44.5–50.1 mm SL, Ituberá, Bahia, Nordeste, Nov. 1989, aquarium trade from Brazil, donated by T. Urano (浦野貴士／プラザール水生生物研究所).

Sicyopus Gill, 1863 アカボウズハゼ属

Sicyopus zosterophorus (Bleeker, 1857) アカボウズハゼ

(Fig. 5)

JAPAN

[Ryukyu Archipelago]

ZUMT 60630: female, 20.8 mm SL, Arakawa River, Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., 27 Aug. 1989, hand net, coll. H. Senou and M. Aizawa.

ZUMT 67465: male, 28.9 mm SL; **ZUMT 67466**: female, 27.2 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 17 Mar. 2024, hand net, coll. D. Oyama, T. Kinoshita, M. Shibata and R. Yamazaki.

ZUMT 67796: male, 27.5 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 23 Aug. 2024, hand net, coll. D. Oyama and S. Mabuchi.

INDONESIA

ZUMT 67943: male, 38.7 mm SL; **ZUMT 67944**: male, 38.6 mm SL; **ZUMT 67945**: female, 41.4 mm SL; **ZUMT 67946**: female, 41.1 mm SL; **ZUMT 67947**: female, 41.2 mm SL, aquarium trade from Indonesia (detailed locality unknown), 2015, donated by T. Urano.

Smilosicyopus Watson, 1999 カエルハゼ属
Smilosicyopus leprurus (Sakai & Nakamura, 1979) カエルハゼ
(Fig. 6)

JAPAN

[Ryukyu Archipelago]

ZUMT 60610: male, 30.4 mm SL; **ZUMT 60611**: female, 31.6 mm SL, Ara-kawa River, Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., 26 Aug. 1989, hand net, coll. H. Senou and M. Aizawa.
ZUMT 60629: young, 23.3 mm SL; **ZUMT 60655**: young, 15.7 mm SL, Ara-kawa River, Ishigaki-jima Island, Yaeyama Islands, Okinawa Pref., 27 Aug. 1989, hand net, coll. H. Senou and M. Aizawa.

Stiphodon Weber, 1895 ナンヨウボウズハゼ属
Stiphodon alcedo Maeda, Mukai & Tachihara, 2012 ヒスイボウズハゼ
(Fig. 7)

JAPAN

[Ryukyu Archipelago]

ZUMT 67662: male, 42.7 mm SL; **ZUMT 67663**: female, 45.6 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 13 July 2024, hand net, coll. K. Seki (関 航志).

Stiphodon percnopterygionus Watson & Chen, 1998 ナンヨウボウズハゼ
(Fig. 8)

JAPAN

[Honshu]

ZUMT 64824: male, 25.5 mm SL; **ZUMT 64825**: female, 29.9 mm SL; **ZUMT 67453**: male, 26.8 mm SL; **ZUMT 67454**: male, 25.0 mm SL; **ZUMT 67455**: female, 29.0 mm SL; **ZUMT 67456**: female, 29.1 mm SL; **ZUMT 67457**: female, 28.3 mm SL; **ZUMT 67458**: female, 27.5 mm SL; **ZUMT 67459**: female, 26.4 mm SL; **ZUMT 67460**: female, 25.0 mm SL; **ZUMT 67461**: female, 23.3 mm SL; **ZUMT 67462**: female, 25.6 mm SL, a stream in the Izu Peninsula, Shizuoka Pref., 4 Apr. 2023, hand net, coll. D. Oyama and T. Isomi (磯見岳志).
ZUMT 65236: female, 24.5 mm SL, same locality as above, 14 May 2023, hand net, coll. K. Tanaka (田中 駆).
ZUMT 67105: 2 females, 24.2–27.3 mm SL, same locality as above, 21 Aug. 2023, hand net, coll. M. Shibata.
ZUMT 67162: female, 29.3 mm SL, same locality as above, 25 Mar. 2024, hand net, coll. D. Oyama and S. Mabuchi.

Remarks. *Stiphodon percnopterygionus* is widely distributed in tropical and subtropical zone of the northwestern Pacific (Keith et al. 2015; Donaldson et al. 2023). In Japan, this species is abundant in the Ryukyu Archipelago, southern Japan (Yamasaki and Tachihara 2006; Maeda 2013; Lord et al. 2015) whereas records from mainland Japan are sporadically, and Shizuoka records are considered to be resulted from abortive migration up to date (Shibuya and Takahashi 1998; Eguchi et al. 2008; Otsuka et al. 2010; Nakao and Hirashima 2012a, b; Kitahara 2012; Iwatsuki et al. 2017; Kitahara and Shibukawa 2019; Ito et al. 2021). Judging from their size, the present Shizuoka specimens are adult (Yamasaki and Tachihara 2006). In addition, the collection site is strongly influenced by the drainage of hot springs (water temperature in the site usually ca. 20 °C). Therefore, the papulation of *St. percnopterygionus* in the collection site most likely to be able to overwinter.

[Ryukyu Archipelago]

ZUMT 58049: male, 35.0 mm SL; **ZUMT 58050**: female, 35.6 mm SL, Nakama-gawa River, Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 8 July 1988, hand net, coll. H. Senou and M. Aizawa.

ZUMT 58051: 2 males and female, 17.0–34.7 mm SL, same data as above.
ZUMT 58111: female, 37.2 mm SL, Nakama-gawa River, Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 9 July 1988, hand net, coll. H. Senou and M. Aizawa.
ZUMT 58536: male, 25.4 mm SL, Omija-gawa River (大見謝川), Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 15 July 1988, hand net, coll. H. Senou and M. Aizawa.
ZUMT 60171: male, 27.5 mm SL, Aira-gawa River, Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 19 Aug. 1989, hand net, coll. H. Senou and M. Aizawa.
ZUMT 60275: male, 32.6 mm SL; **ZUMT 60276:** female, 35.2 mm SL; **ZUMT 60277:** female, 33.3 mm SL; **ZUMT 60299:** 2 males, 27.1–28.8 mm SL; **ZUMT 60300:** 2 females, 29.4–31.6 mm SL, Omija-gawa River, Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 20 Aug. 1989, hand net, coll. H. Senou and M. Aizawa.
ZUMT 67176: male, 22.3 mm SL; **ZUMT 67177:** 4 females, 24.4–28.2 mm SL, Agina-gawa River, Amami-oshima Island, Amami Islands, Kagoshima Pref., 7 Aug. 1972, coll. H. Sakai.
ZUMT 67799: male, 25.5 mm SL; **ZUMT 67800:** female, 32.4 mm SL, Okinawa-jima Island, Okinawa Islands, Okinawa Pref., 23 Aug. 2024, hand net, coll. D. Oyama and S. Mabuchi.

Specimens recorded in ZUMT specimen ledger, but not found

Lentipes armatus:

ZUMT 60656: male, same data as ZUMT 60621.

Sicyopterus japonicus:

ZUMT 4158: Ise (伊勢), Mie Pref., coll. I. Inuga (犬賀一郎).

ZUMT 6949, 6950: Kagami-gawa River (鏡川), Jyu-roku-mura (十六村), Tosa (土佐), Kochi Pref., coll. H. Takeuchi (武内薄文).

ZUMT 8760: Tanabe, Wakayama Pref., coll. N. Ui.

Remarks. According to Tanaka's handwriting in ZUMT specimen ledger, the specimen was donated to Dr. M. Oshima in Taipei, Taiwan.

ZUMT 8888, 8892, 8894: same data as ZUMT 8889.

ZUMT 9374, 9378: same data as ZUMT 9372.

ZUMT 13390: Sagami-gawa River (相模川), Ogura (小倉), Kawashiri village (川尻村), Tsukui (津久井), Kanagawa Pref., 23 July 1924, coll. N. Kuroda (黒田長礼).

ZUMT 13832: Futamata (二俣), Iwata (磐田), Hamamatsu (浜松), Shizuoka Pref., coll. Ikuma (first name unknown; 生熊氏), donated by S. Arakawa.

ZUMT 23163: same data as ZUMT 23162.

ZUMT 25707: same data as ZUMT 25706.

ZUMT 38171: Kushira (串良), Kimotsuki-gun (肝属郡), Kagoshima Pref., 31 Aug. 1934, coll. K. Ogawa.

ZUMT 58144, 58145, 58146: Nakama-gawa River, Iriomote-jima Island, Yaeyama Islands, Okinawa Pref., 10 July 1988, hand net, coll. H. Senou and M. Aizawa.

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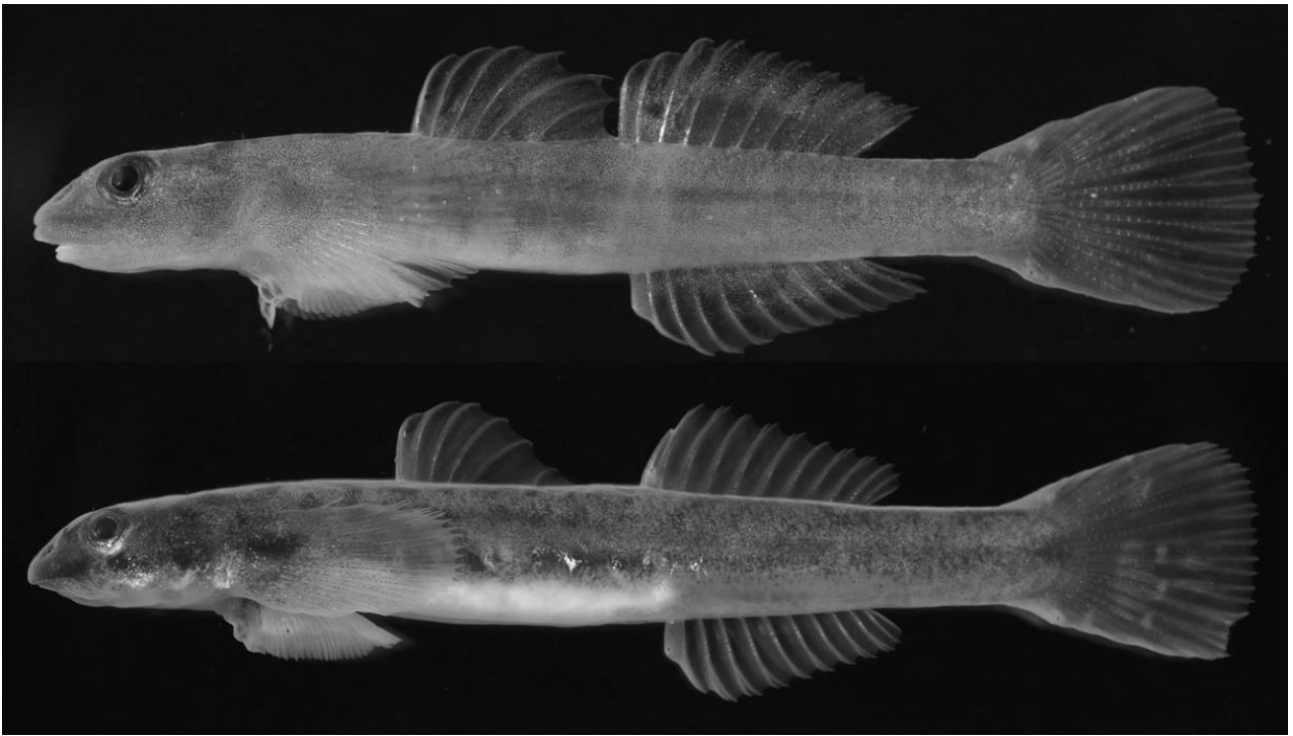


Figure 1. *Lentipes armatus*, immediately after fixation (upper: ZUMT 67467, male, 23.3 mm SL; lower: ZUMT 67798, female, 31.8 mm SL). Photos by D. Oyama.



Figure 2. Preserved holotype of *Sicydium japonicum* (= *Sicyopterus japonicus*) collected from Kochi, Shikoku, Japan (ZUMT 2138, 80.2 mm SL). Photos by H. Wada.



Figure 3. *Sicyopterus lagocephalus*, immediately after fixation (ZUMT 67802, male, 50.7 mm SL). Photo by D. Oyama.



Figure 4. Preserved specimens of *Sicydium punctatum* (upper: one of ZUMT 65472, male, 45.8 mm SL; lower: one of ZUMT 65472, female, 49.2 mm SL). Photos by D. Oyama.



Figure 5. *Sicyopus zosterophorus*, immediately after fixation (upper: ZUMT67465, male, 28.9 mm SL; lower: ZUMT 67466, female, 27.2 mm SL). Photos by D. Oyama.



Figure 6. *Smilosicyopus leprurus*, immediately after fixation (upper: ZUMT 60610, male, 30.4 mm SL; lower: ZUMT 60611, female, 31.6 mm SL). Photos by M. Aizawa.



Figure 7. *Stiphodon alcedo*, immediately after fixation (upper: ZUMT 67662, male, 42.7 mm SL; lower: ZUMT 67663, female, 45.6 mm SL). Photos by D. Oyama.



Figure 8. *Stiphodon percnopterygionus* collected from Izu Peninsula of Honshu, Japan on 4 Apr. 2023, immediately after fixation (upper: ZUMT 64824, male, 25.5 mm SL; lower: ZUMT 67455, female, 29.0 mm SL). Photos by D. Oyama.

List of specimens of the families Triacanthodidae and Triacanthidae (Actinopterygii: Tetraodontiformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The collection of families Triacanthodidae and Triacanthidae (Actinopterygii: Tetraodontiformes) held in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were reassessed. Family Triacanthodidae was composed of 42 lots, including 46 specimens comprising four genera and four species. The specimens were collected between 1893 and 1960. A specimen of *Macrorhamphosodes uradoi* (Kamohara, 1933) collected from Misaki, Kanagawa Prefecture, is the first record from that locality. Family Triacanthidae was composed of 17 lots including 17 specimens comprising three genera and three species. There are no types of any species from these two families in the ZUMT collections. The triacanthid specimens were collected between 1909 and 1980.

Introduction

Tyler (1968) erected Superfamily Triacanthoidea to include the two families Triacanthodidae and Triacanthidae. These two families share the following primitive features: dorsal nerve cord not greatly shortened; pelvic fin spine large and able to be locked into position and with up to two soft rays; upper jaw slightly protractile; dorsal fin usually with six spines and caudal fin with 12 principal rays; 20 vertebrae (Nelson et al., 2016).

The spikefishes of Family Triacanthodidae is composed of two subfamilies comprising 24 species in 11 genera, with a world-wide distribution (Matsuura, 2015; Matsuura et al., 2018). The family Triacanthodidae are usually found at depths of 100–600 m on continental shelves and slopes (Tyler, 1968; Matsuura and Tyler, 1997). Eight of these species have been recorded previously from Japanese waters (Matsuura, 2015; Matsuura et al., 2018).

The triple-spine family Triacanthidae includes 7 species in 4 genera with a world-wide distribution (Matsuura, 2015), usually on continental shelves in the Indo-West Pacific, just below the sea surface down to 60 m (Tyler, 1968; Matsuura, 2015). Only one species, *Triacanthus biaculeatus* (Bloch, 1786), is known from the coast of Japan.

Materials and Methods

The Triacanthodidae and Triacanthidae specimens in ZUMT were identified by the first and second authors with reference to Matsuura (2001), Hayashi and Hagiwara (2013) and Matsuura et al. (2021). Standard length (SL) was measured for each specimen and they are listed below in alphabetical order by species. The list includes ZUMT registration number, SL, (number of specimens in parentheses when there are two or more), type (abbreviated when non-type), collection locality (with Japanese language equivalent in parentheses), collection depth, collection date, collecting method, collector or donator and affiliation, and remarks as applicable. Registration numbers after ZUMT 62000 were assigned during the present study. The year of collection and collector for some specimens have been estimated following Koeda et al. (2022). The ZUMT specimens listed here were stored in Room 406 (specimen storage room) in the museum building. Species are arranged in alphabetical order.

Collection of Triacanthodidae in ZUMT

The specimens of Triacanthodidae deposited at ZUMT include 49 specimens in 45 lots, comprising three species. There are no type specimens in this ZUMT collection. A specimen of *Macrorhamphosodes uradoi* (Kamohara, 1933) collected from Misaki, Kanagawa Prefecture, is the first record from this locality. Specimens were collected between 1893 and 1960, mostly 1931–1960. Many specimens were collected from Sagami Bay.

Triacanthodidae ベニカワムキ科

Bathyphylax Myers, 1934 ヤミカワムキ属

Bathyphylax bombifrons Myers, 1934

ZUMT 48936: 29.1 mm SL, near by Molu Island, Kepulauan Tanimbar, Indonesia, Jan. 1956, Z. Maekawa and T. Suzuki (前川善四郎・鈴木貞次郎).

Macrorhamphosodes Fowler, 1934 フエカワムキ属

Macrorhamphosodes uradoi (Kamohara, 1933) フエカワムキ

ZUMT 19980: 141.6 mm SL, Sagami Bay, Misaki (三崎), Kanagawa Pref., Japan, written as Soshu (相州), before 1930.

Remarks: This specimen is the first record of this species from this locality.

ZUMT 22594: 130.0 mm SL; **ZUMT 23285:** 141.7 mm SL, Kannoura (甲浦), Kochi Pref., Japan, 3 Apr. 1929, T. Kamohara (蒲原稔治).

ZUMT 23463: 112.2 mm SL; **ZUMT 23491:** 123.7 mm SL; **ZUMT 23492:** 64.8 mm SL; **ZUMT 23493:** 55.8 mm SL; **ZUMT 23494:** 74.3 mm SL, Urado (浦戸), Kochi Pref., Japan, 16 Mar. 1931, T. Kamohara.

ZUMT 25593: 41.9 mm SL, off 500 m of Onahama (小名濱), Fukushima Pref., Japan, 10 Apr. 1933, S. Kadota (角田春斉).

ZUMT 64540: 145.6 mm SL; **ZUMT 64541:** 53.4 mm SL; **ZUMT 64542:** 50.0 mm SL, Suruga Bay, Heda (戸田), Numazu (沼津), Shizuoka Pref., Japan, Mar. 1937, donated from MIMB (Mitsui Institute of Marine Biology, Japan).

Paratriacanthodes Fowler, 1934 フエカワムキ属

Paratriacanthodes retrospinis Fowler, 1934 ミスジカワムキ

ZUMT 64544: 26.3 mm SL, Suruga Bay, Heda, Numazu, Shizuoka Pref., Japan, Mar. 1937, donated from MIMB.

Triacanthodes Bleeker, 1857 ベニカワムキ属

Triacanthodes anomalus (Temminck and Schlegel, 1850) ベニカワムキ

ZUMT 1750: 50.2 mm SL, Japan (details unknown), 18 July 1893.

ZUMT 5942 (3): 27.8–28.6 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, before 1915.

ZUMT 8325(3): 19.9–26.7 mm SL, Tanabe (田辺), Wakayama Pref., Japan, before 1918, N. Ui (宇井縫蔵).

ZUMT 18813: 71.2 mm SL; **ZUMT 18814:** 100.9 mm SL; **ZUMT 18815:** 92.0 mm SL; **ZUMT 18816:** 71.6 mm SL, Miyazaki Pref., Japan, before 1928.

ZUMT 21763: 103.8 mm SL, Miyazaki (宮崎), Miyazaki Pref., Japan, before 1930, S. Tanaka (田中茂穂).

ZUMT 23859: 83.9 mm SL; **ZUMT 23860:** 73.6 mm SL, Naya (納屋), Kagoshima (鹿児島), Kagoshima Pref., Japan, before 1931.

ZUMT 26804: 86.1 mm SL; **ZUMT 26805:** 98.9 mm SL; **ZUMT 33766:** 89.1 mm SL; **ZUMT 33767:** 88.3 mm SL, Nagasaki Pref., Japan, Mar. 1909, S. Tanaka.

ZUMT 26883: 95.6 mm SL; **ZUMT 31591:** 80.1 mm SL, Kagoshima Pref., Japan, before 1934.

ZUMT 32008: 102.6 mm SL, off Nagasaki Pref., Japan, before 1936, T. A. Glover (倉場富三郎).

ZUMT 43660: 33.1 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan.

ZUMT 49596: 34.2 mm SL, Sagami Bay, off Hayama (葉山), Kanagawa Pref., Japan, 9 Feb. 1959, hand trawl.

ZUMT 50932: 27.4 mm SL; **ZUMT 50933:** 27.1 mm SL, Sagami Bay, off Hayama, Kanagawa Pref., Japan, 15 Jan. 1960, hand trawl.

ZUMT 51063: 90.9 mm SL; **ZUMT 51228:** 78.8 mm SL, East China Sea, Dec. 1959.

ZUMT 51668: 42.7 mm SL, East China Sea (Norin-kaiku 319 and 320), 4 Apr. 1960.

ZUMT 52235: 82.0 mm SL, East China Sea (Norin-kaiku 319), 23 May 1960.

ZUMT 52302: 33.2 mm SL, East China Sea (Norin-kaiku 253 and 254), FV No. 1–2 Shotoku-maru, before 5 May 1960.

ZUMT 63040: 76.5 mm SL.

ZUMT 65707: 34.0 mm SL, Sagami Bay, Aburatsubo (油壺), Miura (三浦), Kanagawa Pref., Japan, 2 Apr. 1899.

Collection of Triacanthidae in ZUMT

The collection of Triacanthodidae at ZUMT is composed of 17 specimens in 17 lots, comprising three species. There are no types present. The specimens were collected between 1909 and 1980.

Triacanthidae ギマ科

Triacanthus Oken, 1817 ギマ属

Triacanthus biaculeatus (Bloch, 1786) ギマ

ZUMT 5936: 144.0 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, before 1915.

ZUMT 6977: 82.5 mm SL, Tosa (土佐), Kochi Pref., Japan, before 1918.

ZUMT 9678: 52.0 mm SL, Kumamoto Pref. (probably Yatsushiro City), Japan, before 1920, Y. Yamada (山田友記).

ZUMT 18558: 31.8 mm SL; **ZUMT 18559:** 41.7 mm SL; **ZUMT 27157:** 85.6 mm SL, Lake Hamana (浜名湖), Shizuoka Pref., Japan, before 1928, S. Ooe (大恵尚一).

ZUMT 18641: 84.4 mm SL; **ZUMT 18642:** 78.5 mm SL, Urado Bay, Kochi Pref., Japan, 30 July 1925, T. Kamohara.

ZUMT 34485: 27.9 mm SL, Japan (details unknown), before 1936.

ZUMT 51385: 256.7 mm SL, East China Sea (Norin-kaiku 169), 30 Oct. 1959.

ZUMT 55515: 120.0 mm SL, Owashi (尾鷲), Mie Pref., Japan, Aug. 1980., set net, K. Mochizuki (望月賢二).

ZUMT 64479: 202.6 mm SL, Suruga Bay, Mihonomatsubara (三保松原), Shimizu (清水), Shizuoka Pref., 20 Apr. 1979, M. Aizawa (藍澤正宏).

ZUMT 65037: 124.2 mm SL, Sansyu (三州, Aichi Pref., Japan, purchased at Tokyo Market).

ZUMT ABE 59-502: 94.9 mm SL, Japan (probably Sagami Bay, Manazuru (真鶴), Kanagawa Pref.), before 1959, T. Abe (阿部宗明).

Tripodichthys Tyler, 1968
Tripodichthys blochii (Bleeker, 1852)

ZUMT 40834: 56.2 mm SL, Manila, Philippines, 11 Feb. 1909, I. Iijima and K. Aoki (飯島 魁・青木熊吉).

ZUMT 42123: 98.3 mm SL, Jakarta (Batavia), Indonesia, 5 Mar. 1909, I. Iijima and K. Aoki.

Pseudotriacanthus Fraser-Brunner, 1941
Pseudotriacanthus strigilifer (Cantor, 1849)

ZUMT 18472: 117.2 mm SL, Keelung (基隆), Taiwan, Sept. 1927, H. Sato (佐藤春吉).

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List of specimens of the families Aracanidae and Ostraciidae (Actinopterygii: Tetraodontiformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The identifications of specimens in the collection of families Aracanidae and Ostraciidae (Actinopterygii: Tetraodontiformes) held in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were reassessed. Family Aracanidae was composed of 47 lots, including 47 specimens comprising 1 genus and 2 species. The ZUMT collection has been reported to include ZUMT 54171, 54172, 54173, 54174, 54175 and 54176, the paratypes of *Polyplacapros tyleri* Fujii and Uyeno, 1978, but these specimens were not found. Family Ostraciidae is composed of 200 lots, including 237 specimens representing three genera and 10 species. No types of species in this family are included in the collection. Four specimens of *Lactoria cornuta* (Linnaeus 1758), collected from Tsushima Island, Nagasaki Prefecture, and A specimen of *Ostracion cubicum* Linnaeus, 1758, collected from Lake Hamana, Shizuoka Prefecture, comprise the first record of these species from this locality.

Introduction

The tetraodontiform families Aracanidae and Ostraciidae share the following traits: body almost completely encased in a bony shell or carapace formed with thickened scale plates, which usually hexagonal in shape and firmly sutured; carapace triangular, rectangular, pentangular or hexagonal in cross section, with openings for mouth, eyes, gill slits, pectoral, dorsal, and anal fins, and for the flexible caudal peduncle. However, these two families differ externally in the following characters: the Aracanidae have isolated bony plates on the caudal peduncle and the caudal fin has nine branched rays; the Ostraciidae have no isolated bony plates on the caudal peduncle, and the caudal fin has only eight branched rays (Matsuura, 2015).

Family Aracanidae (the trunkfishes) consists of 14 species in six genera and has a worldwide distribution including the warm temperate to tropical waters of the Indo-Pacific, at depths of 5–300 m (Matsuura, 2015, 2023). Two species have been recorded previously from Japanese waters (Matsuura, 2015).

The boxfish family Ostraciidae, too, has a worldwide distribution, in shallow tropical waters, and consists of 22 species in five genera (Matsuura, 2015), with nine species recorded from Japan (Matsuura, 2015).

Materials and Methods

Identifications of the Aracanidae and Ostraciidae specimens in ZUMT were confirmed by the first and second authors, with reference to Fujii and Ueno (1979), Matsuura and Yamakawa (1982), Hayashi and Hagiwara (2013) and Matsuura (2022, 2023). Standard lengths (SL) were measured for all specimens, which are listed below in alphabetical order by species, including ZUMT registration code, SL, number of specimens in parentheses (where there are two or more specimens in the lot), type (abbreviated when non-type), collection locality (with Japanese language equivalent in parentheses), collection depth, collection date, collecting method, collector or donator and affiliation, and remarks as applicable. Catalog numbers after ZUMT 62000 refer to specimen lots registered during this study. The year of collection and collector for some specimens have been estimated following Koeda et al. (2022). The ZUMT specimens listed here were stored in Room 406 (specimen storage room) in the museum building.

Species are arranged in alphabetical order.

Collection of Aracanidae in ZUMT

There is a total of 47 specimens in 47 lots comprising two species of Family Aracanidae at ZUMT, collected between 1927 and 1987. For many of these specimens there is no collection data other than locality, either Sagami Bay or the East China sea. The ZUMT collection has been reported to include lots ZUMT 54171, 54172, 54173, 54174, 54175 and 54176, the paratypes of *Polyplacapros tyleri* Fujii and Uyeno, 1978, but they were not found during the present study.

Aracanidae イトマキフグ科

Kentrocapros Kaup, 1855 イトマキフグ属

Kentrocapros aculeatus (Houttuyn, 1782) イトマキフグ

ZUMT 17632: 45.5 mm SL, off Tosa (土佐), Kochi Pref., Japan, 19 May 1927, Y. Yamamoto (山本義光; 大分県師範学校), local name “Kongo-uo (コンゴウオ)”

ZUMT 17971: 97.4 mm SL, Ariake Sea (有明海), Japan, before 1927, M. Kinoshita (木下盛枝; 福岡県柳川女学校).

ZUMT 18052: 104.7 mm SL, Ariake Sea, Chikugo (筑後), Fukuoka Pref., Japan, Fukuoka Prefectural Fukuoka Fisheries Experimental Station (福岡県水産試験場), before 1927, local name “Hakofugu (ハコフグ)”.

ZUMT 18529: 26.3 mm SL, Maisaka (舞坂), Shizuoka Pref., Japan, before 1928, S. Ooe (大恵尚一; 静岡県浜松高等女学校).

ZUMT 18974: 78.6 mm SL, Kochi (高知), Kochi Pref., 7 Feb. 1929, T. Kamohara (蒲原稔治).

ZUMT 20604: 34.5 mm SL; **ZUMT 20685:** 28.2 mm SL; **ZUMT 20789:** 67.3 mm SL; **ZUMT 20826:** 72.2 mm SL, Sagami Bay, Misaki (三崎), Kanagawa Pref., Japan, before 1930.

ZUMT 23354: 98.0 mm SL, Owase (尾鷲), Mie Pref., Japan, before 1930, K. Nakahara (中原鋼作).

ZUMT 23805: 81.1 mm SL; **ZUMT 23952:** 67.5 mm SL, Naya (納屋), Kagoshima (鹿児島), Kagoshima Pref., Japan, before 1931.

ZUMT 26955: 104.9 mm SL, Miyazaki Pref., Japan, before 1934.

ZUMT 27071: 56.4 mm SL; **ZUMT 31966:** 81.0 mm SL, Nagasaki Pref., Japan, before 1936, I. Kaneko (金子一郎).

ZUMT 27633: 62.7 mm SL, probably Misaki, Kanagawa Pref., Japan, 1934.

ZUMT 31596: 99.3 mm SL, Kagoshima Pref., Japan, before Mar. 1936, H. Miyoshi (三好保徳; 愛媛県八幡浜高等女学校) .

ZUMT 34064: 23.3 mm SL, **ZUMT 46802:** 88.9 mm SL; **ZUMT 46803:** 67.0 mm SL, Onahama (小名浜), Iwaki (いわき), Fukushima Pref., 1933, H. Tsunoda (角田春彦).

Remarks: ZUMT 34064 is referenced in Matsuura and Yamakawa (1982).

ZUMT 47842: 97.3 mm SL; **ZUMT 47843:** 82.5 mm SL, locality unknown (probably Sagami Bay, Kanagawa Pref., Japan), 1953, T. Abe (阿部宗明).

ZUMT 48305: 89.2 mm SL, Sagami Bay, Aburatsubo (油壺), Misaki, Kanagawa Pref., Japan, 1935, T. Abe.

ZUMT 48690: 38.4 mm SL, Sagami Bay, off Hayama (葉山), Kanagawa Pref., Japan, 4 Feb. 1956, hand trawl.

ZUMT 48828: 58.3 mm SL, Sagami Bay, Hayama, Kanagawa Pref., Japan, 1 Feb. 1956.

ZUMT 51067: 73.8 mm SL, East China Sea, Dec. 1959 to Jan. 1960.

ZUMT 52107: 39.3 mm SL; **ZUMT 52108:** 83.5 mm SL; **ZUMT 52109:** 87.5 mm SL; **ZUMT 52126:** 38.3 mm

SL; **ZUMT 52289**: 82.4 mm SL, East China Sea (Norin-kaiku 253 and 254), before 1963.
ZUMT 53905: 78.3 mm SL, southern East China Sea (26°55'00"N, 125°00'5"E to 26°56'06"N, 125°02'06"E),
 24 May 1968, Y. Tominaga (富永義昭), RV Hakuho-maru (白鳳丸).
ZUMT 54303: 129.7 mm SL, details unknown (probably collected from East China Sea in Mar. 1968).
ZUMT 56935: 64.5 mm SL, southeast of Tsushima Island (対馬), Nagasaki Pref., 116 m depth, 10 July 1987,
 bottom trawl, M. Aizawa (藍澤正宏).
ZUMT 65268: 111.4 mm SL; **ZUMT 65280**: 86.0 mm SL; **ZUMT 65290**: 59.3 mm SL, **ZUMT 65296**: 38.1 mm
 SL, details unknown (probably collected from Japan).
ZUMT ABE 6104: 85.4 mm SL; **ZUMT ABE 8597**: 100.7 mm SL, details unknown (probably collected from
 Japan), collected by T. Abe.
ZUMT ABE 59-506: 56.1 mm SL, locality unknown (probably Sagami Bay, Kanagawa Pref., Japan), before
 1959, T. Abe.

Kentrocapros flavofasciatus (Kamohara, 1938) キスジイトマキフグ

ZUMT ABE 59-507: 75.2 mm SL, locality unknown (probably Sagami Bay, Kanagawa Pref., Japan), before
 1959, T. Abe.

***Kentrocapros* sp.** イトマキフグ属の1種

ZUMT 43106: 26.9 mm SL; **ZUMT 43350**: 22.5 mm SL, Suruga Bay, Shizuura (静岡), Numazu (沼津),
 Shizuoka Pref., Japan, before 1940, N. Kuroda (黒田長礼).
ZUMT 43749: 23.9 mm SL, Nagasaki Pref., Japan, before 1940.
ZUMT 65292: 33.0 mm SL, details unknown (probably collected from Japan).
ZUMT ABE 7901: 31.7 mm SL, locality unknown (probably Sagami Bay, Kanagawa Pref., Japan), before 1959,
 T. Abe.

Collection of Ostraciidae in ZUMT

Examination of the ZUMT collections for specimens of Family Ostraciidae deposited at ZUMT resulted in the identification of 237 specimens in 200 lots, comprising 10 species. No type specimens are included. Specimens were collected from 1892 to 1986 but for many specimens no collection date was recorded. Many of the specimens were collected either from Sagami Bay or off Hachijo-jima Island. Four specimens of *Lactoria cornuta* (Linnaeus, 1758), collected from Tsushima Island, Nagasaki Prefecture, and A specimen of *Ostracion cubicum* Linnaeus, 1758, collected from Lake Hamana, Shizuoka Prefecture, comprise the first record of these species from this locality.

Ostraciidae ハコフグ科

Lactoria Jordan and Fowler, 1902 コンゴウフグ属

Lactoria cornuta (Linnaeus, 1758) コンゴウフグ

ZUMT 1019(5): 33.0–41.2 mm SL, Sagami Bay, Misaki?, Miura (三浦), Kanagawa Pref., Japan, written as Soshu
 (相州), before 1911.
ZUMT 1028: 31.1 mm SL, Nakagami (中頭), Okinawa Pref., Japan, 1892, T. Nishi (西常中央).
ZUMT 5271: 33.3 mm SL, Izuhara (厳原), Tsushima Island, written as Taishu (対州), Nagasaki Pref., Japan, 30
 Sept. 1903, S. Watase and S. Yasuda (渡瀬庄三郎・安田真之助).
ZUMT 5929(2): 25.1–31.4 mm SL; **ZUMT 5930**: 36.0 mm SL, Izuhara, Tsushima Island, written as Taishu,

Nagasaki Pref., Japan, 29 Sept. 1903, S. Watase and S. Yasuda.
 Remarks: ZUMT 5271, 5929 and 5930 represents the first of the species from this area.
ZUMT 5932: 35.9 mm SL, Japan (probably eastern Sagami Bay) 3 Aug. 1905, H. Aneo (姉尾秀実).
ZUMT 9930: 26.6 mm SL, Outside Wakayama (和歌山) City, Wakayama Pref., Japan, before 1920, S. Sakaguchi (坂口総一郎; 海草中学校).
ZUMT 17332: 145.3 mm SL, Naha (那覇), Okinawa Pref. Japan, before 1926, S. Tanabe (田辺貞夫).
ZUMT 18663: 15.8 mm SL, Susaki (須崎), Kochi Pref., Japan, 22 July 1925, K. Akamatsu (赤松邦太郎).
ZUMT 20301: 32.6 mm SL, Wakayama Pref., Japan, before 1911.
ZUMT 20574: 34.5 mm SL; **ZUMT 20575**: 36.5 mm SL, Wakayama Pref., Japan, Jan. 1920.
ZUMT 20961: 38.0 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, 1930.
ZUMT 21986: 42.5 mm SL; **ZUMT 21987**: 45.1 mm SL; **ZUMT 21988**: 41.8 mm SL, near Wakayama Pref., Japan, Jan. 1920.
ZUMT 23806: 42.6 mm SL, Arata (荒田) coast, Kagoshima Pref., Japan, before 1931.
ZUMT 29617: 32.5 mm SL, Kakeroma Island (加計呂麻), written as Kakeruma Island (カケルマ島), Amami-oshima Island, Kagoshima Pref., Japan, 27 Aug. 1910, K. Enoya (榎屋兼武).
ZUMT 33858: 27.2 mm SL, Suruga Bay, Shizuura, Numazu, Shizuoka Pref., Japan, before 1936.
ZUMT 39228: 26.1 mm SL, Nagasaki Pref., Japan, 12 Feb. 1912.
ZUMT 42035: 44.8 mm SL, Basilan Island, Philippines, 1926, U. Yamamura and Y. Yamamura (山村樸次郎・山村八重子).
ZUMT 42084: 47.4 mm SL, Basilan Island, Philippines, Jan. 1938, U. Yamamura and Y. Yamamura.
ZUMT 65038: 32.3 mm SL; **ZUMT 65039**: 44.4 mm SL; **ZUMT 65040**: 52.6 mm SL; **ZUMT 65042**: 36.1 mm SL; **ZUMT 65291**: 93.9 mm SL, details unknown (probably collected from Japan).
ZUMT 65041: 26.5 mm SL, Misaki, Kanagawa Pref., Japan, 1937, W. Miyoshi (三好若様).
ZUMT ABE 4826: 40.8 mm SL; **ZUMT ABE 4862**: 46.5 mm SL; **ZUMT ABE 7903**: 37.8 mm SL, details unknown (probably collected from Japan), coll. by T. Abe (阿部宗明).

Lactoria diaphana (Bloch and Schneider, 1801) ウミスズメ

ZUMT 2484: 90.1 mm SL, Nagasaki Pref., Japan, Aug. 1909.
ZUMT 16381: 92.9 mm SL, near Kesen (気仙), Iwate Pref., Japan, 28 June 1919, G. Toba (鳥羽源蔵).
ZUMT 17228: 115.2 mm SL, Unten (運天), Okinawa Pref, before 1926.
ZUMT 19124: 169.4 mm SL, Mitsune (三根) coast, Hachijo-jima Island, Tokyo Pref., Japan, 1 July 1929, spear, Y. Otsuki (大槻洋四郎), local name “Makurafugu (マクラフグ)”.
ZUMT 19253: 230.9 mm SL, 22 July 1929, Y. Oshizu (押津義雄; 八丈島).
ZUMT 20951: 113.4 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, 1930.
ZUMT 23173: 79.9 mm SL, Kimoto (木本), Mie Pref., Japan, 19 May. 1930, coll. by Y. Tsuchiga (槌賀安平 (三重県南牟婁郡木本町木本中学校校長)), donated by T. Koide (小出哲夫), local name “Shiuri or Tsuno-shiuri (シウリ, ツノシウリ).
ZUMT 30072: 95.4 mm SL, Sagami Bay, Hayama, Kanagawa Pref., Japan, written as Soshu., Aug. 1934.
ZUMT 34616: 69.7 mm SL, Kochi Pref., Japan, before 1936, T. Kamohara.
ZUMT 40706: 107.0 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, before 1952.
ZUMT 41839: 153.5 mm SL; **ZUMT 41840**: 157.8 mm SL; **ZUMT 41841**: 200.4 mm SL, Hachijo-jima Island, Tokyo Pref., Sept. 1922, Y. Uchiyama (内山芳五郎).
ZUMT 41910: 181.0 mm SL, Y. Uchiyama, before 1952, local name “Makurafugu (マクラフグ)”.
ZUMT 46582: 157.2 mm SL, **ZUMT 46583**: 178.9 mm SL, before 1952.

ZUMT 46796: 111.5 mm SL; **ZUMT 46797:** 100.8 mm SL, Onahama, Fukushima Pref., Japan, 1933, H. Tsunoda (角田春斉).

ZUMT 47840: 84.9 mm SL, Sagami Bay, Manazuru(真鶴), Kanagawa Pref., Japan, set net, 1953, T. Abe.

ZUMT 48769: 31.7 mm SL; **ZUMT 48770:** 38.3 mm SL; Toyama Pref., Japan, 27 Mar. 1956, Z. Maekawa and T. Suzuki (前川善四郎・鈴木貞次郎).

ZUMT 48776: 35.9 mm SL; **ZUMT 48777:** 20.3 mm SL, Toyama Pref., Japan, 30 Mar. 1956, Z. Maekawa and T. Suzuki.

ZUMT 48981: 39.1 mm SL; **ZUMT 48982:** 31.3 mm SL; **ZUMT 48983:** 24.1 mm SL; **ZUMT 48984:** 18.2 mm SL, Toyama Pref., Japan, 5 Oct. 1956, Z. Maekawa and T. Suzuki.

ZUMT 65043: 181.4 mm SL; **ZUMT 65044:** 133.8 mm SL; **ZUMT 65045:** 108.6 mm SL; **ZUMT 65046:** 108.2 mm SL; **ZUMT 65047:** 182.2 mm SL.; **ZUMT 65048:** 93.3 mm SL; **ZUMT 65281:** 94.5 mm SL, details unknown (probably collected from Japan).

ZUMT ABE 2422: 120.7 mm SL; **ZUMT ABE 2423:** 84.0 mm SL; **ZUMT ABE 2487:** 91.3 mm SL; **ZUMT ABE 4200 (9):** 12.7–34.1 mm SL; **ZUMT ABE 4202:** 98.7 mm SL; **ZUMT ABE 4203:** 94.0 mm SL; **ZUMT ABE 4204:** 81.8 mm SL; **ZUMT ABE 4205:** 115.1 mm SL; **ZUMT ABE 7900:** 42.1 mm SL; **ZUMT ABE 9887:** 53.8 mm SL, details unknown (probably collected from Japan), T. Abe.

ZUMT ABE 59-606: 133.5 mm SL; **ZUMT ABE 60-1150:** 170.2 mm SL, details unknown (probably collected from Sagami Bay, Manazuru, Kanagawa Pref., Japan), T. Abe.

Lactoria fornasini (Bianconi, 1846) シマウミスズメ

ZUMT 1059: about 78 mm SL, caudal deficiency, Tokyo Market, before 1911.

ZUMT 2482: 87.5 mm SL, Nagasaki Pref., Japan, Aug. 1909, female individual.

ZUMT 5977: 35.1 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, 1915.

ZUMT 11095: 76.1 mm SL, Basilan Island, Philippines, before 1923, U. Yamamura and Y. Yamamura.

ZUMT 18671: 71.5 mm SL, Kashiwa-jima Island, Hata (幡多), Kochi Pref., Japan, Aug. 1928, T. Kamohara.

ZUMT 18778: 61.7 mm SL; **ZUMT 18779:** 31.1 mm SL, Kashiwa-jima Island, Tosa, Kochi Pref., Japan, 12 Mar. 1905, K. Tago (田子勝彌).

ZUMT 19164: 92.5 mm SL; **ZUMT 19165:** 95.8 mm SL, 6 July 1929, spear, Y. Otsuki, local name “Makurafugu (マクラフグ)”,

ZUMT 40705: 84.8 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, before 1952.

ZUMT 53287: 46.3 mm SL, Ishigaki-jima Island, Okinawa Pref., Japan, before 1974.

ZUMT 65288: 89.8 mm SL; **ZUMT 65289:** 44.4 mm SL, details unknown (probably collected from Japan).

ZUMT ABE 16161: 64.8 mm SL, details unknown (probably collected from Japan), T. Abe.

ZUMT ABE 60-1056: 37.2 mm SL, details unknown (probably collected from Sagami Bay, Manazuru, Kanagawa Pref., Japan), T. Abe.

Ostracion Linnaeus, 1758 ハコフグ属

Ostracion cubicum Linnaeus, 1758 ミナミハコフグ

ZUMT 11208: 137.5 mm SL, Japan (detail unknown, probably Okinawa Pref. Japan), before 1923, S. Sakaguchi.

ZUMT 15896: 33.4 mm SL, Shimizu (清水), Shizuoka Pref., Japan, before 1926.

ZUMT 17285: 144.7 mm SL, Yaeyama Islands, Okinawa Pref., Japan, S. Tanabe.

ZUMT 26848: 10.5 mm SL, Fukura (福良), Awaji-shima Island, Hyogo Pref., Japan, 5 Mar. 1912, R. Uchimura (内村柳太郎).

ZUMT 27156: 32.2 mm SL, Lake Hamana (浜名湖), Shizuoka Pref., Japan, 13 Sept. 1934, S. Ooe.

Remarks: This the first specimen of this species identified from this locality.

ZUMT 40707: 55.3 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, , before 1952.

ZUMT 42864: 19.0 mm SL; **ZUMT 42865**: 51.4 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, Sept. 1922, M. Uchiyama (内山 操).

ZUMT 53357: 66.9 mm SL, Ishigaki-jima Island, Okinawa Pref., Japan, before 1974.

ZUMT 54099: 87.7 mm SL, Kuji (久慈), Amami-oshima Island, Kagoshima Pref., Japan, 20 May 1966, Y. Tominaga.

ZUMT 64601: Sagami Bay, Cape Arasaki (荒崎岬), Nagai (長井), Yokohama (横浜), Kanagawa Pref., Japan, 35°11'39.5"N 139°35'48.3"E, 10 Nov. 2021, M. Fukatani (深谷真央).

ZUMT ABE 2738: 121.3 mm SL; **ZUMT ABE 2956**: 159.8 mm SL; **ZUMT ABE 2957**: 147.2 mm SL; **ZUMT ABE 3071**: 313.0 mm SL; **ZUMT ABE 3189**: 313.7 mm SL; **ZUMT ABE 3190**: 338.3 mm SL; **ZUMT ABE 3170**: 46.1 mm SL; **ZUMT ABE 3766**: 22.1 mm SL, Palau, coll. by T. Abe.

Ostracion immaculatum Temminck and Schlegel, 1850 ハコフグ

ZUMT 1008: 86.0 mm SL, Sagami Bay, Moroiso Bay, Misaki, Miura, Kanagawa Pref., Japan, 5 Aug. 1902, K. Mitsukuri (箕作佳吉).

ZUMT 5927: 109.8 mm SL, Izuhara, Tsushima Island, written as Taishu, Nagasaki Pref., Japan, 29 Sept. 1903, S. Watase and S. Yasuda.

ZUMT 5931: 60.2 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, 1915.

ZUMT 17960: 115.5 mm SL; **ZUMT 17961**: 114.4 mm SL; **ZUMT 17962**: 140.5 mm SL, Tokyo market, Dec. 1927.

ZUMT 19123: 112.3 mm SL, Mitsune coast, Hachijo-jima Island, Tokyo Pref., Japan, 1 July 1929, spear, Y. Otsuki.

ZUMT 21081: 135.9 mm SL, Tanabe (田邊), Wakayama Pref., Japan, July 1920, N. Ui (宇井縫蔵; 紀州田辺).

ZUMT 26654: 139.8 mm SL, Tokyo market, 1929.

ZUMT 27541: 45.3 mm SL, Bousyu (房州), Chiba Pref., Japan, before 1934.

ZUMT 30069: 129.7 mm SL; **ZUMT 30070**: 151.9 mm SL; **ZUMT 30071**: 118.5 mm SL, Hayama, Kanagawa Pref., written as Soshu, Japan, Aug. 1934.

ZUMT 33857: 21.6 mm SL, Suruga Bay, Shizuura, Numazu, Shizuoka Pref., Japan, before 1936.

ZUMT 38896: 92.3 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, before 1938.

ZUMT 40551: 177.5 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, before 1952.

ZUMT 44100: 93.1 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, Sept. 1922, M. Uchiyama.

ZUMT 47841: 147.5 mm SL, Sagami Bay, Manazuru, Kanagawa Pref., Japan, 1953, set net, T. Abe.

ZUMT 48791: 18.1 mm SL, 2 Apr. 1956, Z. Maekawa and T. Suzuki.

ZUMT 50059: 114.1 mm SL, Miiraku (三井楽), Minamimatsuura (南松浦), Nagasaki. Pref., Japan, 10 June 1953, local name “Yokkadobuku (ヨッカドブク)”, Requested to Miiraku fisheries cooperative.

ZUMT 50319: 155.8 mm SL, Hirado (平戸), Nagasaki Pref., Japan, 10 June 1953, I. Tomiyama (冨山一郎), Requested to Hirado fisheries cooperative.

ZUMT 53283: 150.3 mm SL, Ishigaki-jima Island, Okinawa Pref., Japan, before 1974.

ZUMT 55670: 44.4 mm SL, around Oshima Island, Moroiso (諸磯), Misaki, Miura, Kanagawa Pref., Japan, 29 July 1986, M. Aizawa, H. Senou (瀬能 宏) and Y. Tominaga.

ZUMT 65266: 32.0 mm SL, Sagami Bay, Misaki, Miura, Kanagawa Pref., Japan, 1910.

ZUMT 65267: 78.6 mm SL; **ZUMT 65282**: 59.7 mm SL; **ZUMT 65283**: 51.0 mm SL; **ZUMT 65284**: 33.5 mm SL; **ZUMT 65285**: 18.9 mm SL; **ZUMT 65287**: 123.0 mm SL; **ZUMT 65294**: 147.5 mm SL, details unknown (probably collected from Japan).

ZUMT 65293(22): 70.5–130.7 mm SL, Sagami Bay, Misaki, Miura, Kanagawa Pref., Japan, Nov. 1936.

ZUMT ABE 2225: 169.2 mm SL; **ZUMT ABE 2226:** 162.3 mm SL; **ZUMT ABE 2374:** 123.3 mm SL; **ZUMT ABE 2420:** 64.4 mm SL; **ZUMT ABE 2421:** 79.0 mm SL; **ZUMT ABE 4201:** 151.7 mm SL; **ZUMT ABE 5558:** 158.2 mm SL; **ZUMT ABE 5559:** 113.8 mm SL; **ZUMT ABE 8913:** 127.9 mm SL; **ZUMT ABE 49981:** 119.8 mm SL, details unknown (probably collected from Japan), T. Abe.

Ostracion meleagris Shaw, 1796 クロハコフグ

ZUMT 11196: 114.6 mm SL, before 1923, S. Sakaguchi.

ZUMT 16746: 107.0 mm SL, Onnason (恩納村), Kunigami (国頭), Okinawa Pref., Japan, 26°29'50.6"N 127°51'13.1"E, S. Tanabe.

ZUMT 22764: 119.3 mm SL, Okinawa Pref., Japan, before 1930.

ZUMT 49087: 105.1 mm SL, Vordate Island, Indonesia, 31 Jan. 1955, Z. Maekawa and T. Suzuki.

ZUMT ABE 3117: 105.2 mm SL, Palau, T. Abe.

Ostracion nasus Bloch, 1785 ヒョウモンハコフグ

ZUMT 41034: 73.2 mm SL, Singapore, 12 Mar. 1910, I. Iijima and K. Aoki (飯島 魁・青木熊吉).

Remarks: The Japanese name 'hyomon-hakofugu' was proposed by Kyushin et al. (1982). This species is distributed in the Indo-Pacific (including Sri Lanka, Indonesia, the Philippines, Micronesia and Fiji; Matsuura, 2022), and has not been reported from the Japanese coastal waters.

Ostracion rhinorhynchos Bleeker, 1851 テングハコフグ

ZUMT ABE 13232: 282.9 mm SL, details unknown.

Tetrosomus Swainson, 1839 ラクダハコフグ属

Tetrosomus gibbosus (Linnaeus, 1758) ラクダハコフグ

ZUMT 66081: 86.6 mm SL, south west of Thailand Bay, Songkhla, Thailand, 9 July 1985, trawl.

Tetrosomus reipublicae (Whitley, 1930) ハマフグ

Remarks: The ZUMT specimens of *T. reipublicae* comprise two morphological variants: one with a deep body bearing no blue lines; and the other with a slender body bearing wavy blue lines (Matsuura, 2015). Both variants were identified among the ZUMT specimens and are listed separately, as follows.

Morphological variant with deep body and no blue lines [sensu Matsuura, 2015].

ZUMT 18531: 45.0 mm SL, Maihama, Kyoto Pref., Japan, before 1928, S. Ooe.

ZUMT 18669: 32.6 mm SL, Kasiwa-jima Island, Kochi Pref., Japan, Aug. 1928, T. Kamohara.

ZUMT 20029: 32.1 mm SL, Miyazaki Pref., Japan, before 1930.

ZUMT 20790: 26.6 mm SL; **ZUMT 20791:** 30.3 mm SL, Sagami Bay, Misaki, Kanagawa Pref., 1930.

ZUMT 22534: 33.0 mm SL; **ZUMT 22535:** 46.3 mm SL, Kishutanabe (紀州田辺), Wakayama Pref., Japan, Jan. 1920, N. Ui.

ZUMT 23371: 105.6 mm SL, Owase, Mie Pref., Japan, before 1930, K. Nakahara.

ZUMT 24266: 40.8 mm SL, Mimase (御畳瀬), Kochi Pref., Japan, 15 Jan. 1932, T. Kamohara.

ZUMT 26424: 79.3 mm SL, Nagasaki Pref., Japan, 30 Dec. 1909.

ZUMT 27644: 31.3 mm SL; **ZUMT 27645:** 39.5 mm SL; **ZUMT 27646:** 35.2 mm SL, **ZUMT 27647:** 27.4 mm SL, Tosaishima (土佐相島), Mar. 1905, K. Tago.

ZUMT 43349: 30.8 mm SL, Suruga Bay, Sizuura, Numazu, Shizuoka Pref., Japan, before 1952, N. Kuroda (黒田長礼).

ZUMT 44456: 34.4 mm SL; **ZUMT 44458:** 34.3 mm SL; **ZUMT 44459:** 34.6 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, 1943.

ZUMT 47844: 123.5 mm SL, locality unknown, before 1953.

ZUMT 49131: 67.6 mm SL, Sagami Bay, Misaki, Kanagawa Pref., Japan, 1956, I. Tomiyama.

ZUMT 49685: 54.0 mm SL, Sagami Bay, Hayama, Kanagawa Pref., Japan. written as Sagami, hand trawl., 3 Dec. 1957, donated from Biological laboratory imperial household, Tokyo, Japan.

ZUMT 62597: 29.9 mm SL; **ZUMT 65286(3):** 24.5–39.5 mm SL; **ZUMT 65295:** 33.5 mm SL, details unknown (probably collected from Japan).

ZUMT 66076: 100.8 mm SL, **ZUMT 66077:** 112.1 mm SL, **ZUMT 66079:** 128.0 mm SL, **ZUMT 66080:** 140.1 mm SL, Southwest of Thailand Bay, Songkhla, Thailand, 9 July 1985, trawl.

ZUMT ABE 4822(3): 34.0–37.6 mm SL; **ZUMT ABE 57-372:** 160.5 mm SL; **ZUMT ABE 58-21:** 124.0 mm SL; **ZUMT ABE 59-164:** 132.1 mm SL; **ZUMT ABE 59-293:** 111.8 mm SL; **ZUMT ABE 59-605:** 146.8 mm SL; **ZUMT ABE 61-1056:** 106.6 mm SL, details unknown (probably collected from Sagami Bay, Manazuru, Kanagawa Pref., Japan), T. Abe.

Morphological variant with a slender body bearing wavy blue lines [sensu Matsuura, 2015]

ZUMT 31595: 135.9 mm SL, Kagoshima Pref., Japan, Mar. 1936, H. Miyoshi.

ZUMT 37484: 136.0 mm SL, off Nagasaki Pref., before 1973, trawl, T. A. Glover (倉場富三郎).

ZUMT 48114: 164.2 mm SL, Fish market, Fukue (福江), Minamimatsuura (南松浦), Nagasaki, Pref., Japan, May 1953, I. Tomiyama.

ZUMT 66078: 117.9 mm SL, southwest of Thailand Bay, Songkhla, Thailand, 9 July 1985, trawl.

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List of specimens of the families Diodontidae and Molidae (Actinopterygii: Tetraodontiformes) deposited in the Department of Zoology, The University Museum, The University of Tokyo

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Abstract

The identifications of specimens of Diodontidae and Molidae (Actinopterygii: Tetraodontiformes) held in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) were reassessed. For Family Diodontidae, 81 lots were identified, including 96 specimens comprising three genera and seven species. For Family Molidae, 14 lots were identified, including 14 specimens comprising three genera and three species. There are no type specimens of species in this collection. Lots ZUMT 48961, 48962 and 48963 are larval specimens.

Introduction

The porcupine-fish Family Diodontidae includes 18 species in seven genera described from around the World (Niem, 2001; Matsuura, 2015). Fishes in this family are found among coral or rocky reefs and mud bottoms to a depth of 150 m. The body is wide, capable of great inflation and covered with massive spines, which may be quite long (Matsuura, 2015).

The ocean sunfish Family Molidae is composed of several species in just three genera (Nyegaard et al. 2018; Sawai et al. 2018; Matsuura, 2022). They are usually pelagic and occur in warm temperate and tropical seas (Matsuura, 2015). Fishes in Family Molidae are large, with a total length up to 1 m. *Mola alexandrini* (Ranzani, 1839) is the largest species and is known as the world's heaviest bony fish. The largest specimen to date measured 325 cm in total length, 359 cm body depth and 86 cm maximum width (measured at mid-body), and weighed 2,744 kg. It was captured off the Azores, Portugal (Gomes-Pereira et al., 2022). Larva less than 5 mm prominent spines on body (Fujita and Matsuura, 2014; Matsuura, 2022).

Materials and Methods

Specimens of Diodontidae and Molidae in the ZUMT collections were identified by the first and second author, with reference to Leis (2006), Hatooka and Hagiwara (2013) and Fujita and Matsuura (2014) and the standard length (SL) of each specimen was measured. The species are listed below in alphabetical order, including ZUMT number, SL (number of specimens in parentheses when there are two or more), type (abbreviated when non-type), collection locality (with Japanese language equivalent in parentheses), collection depth, collection date, collecting method, collector or donator and affiliation, and remarks when applicable. Registration numbers after ZUMT 62000 were assigned during the present study. The year of collection and collector for some specimens have been estimated following Koeda et al. (2022). The ZUMT specimens listed here were stored in Room 406 (specimen storage room) in the museum building. Species are arranged in alphabetical order.

Collection of Diodontidae in ZUMT

The ZUMT Diodontidae collection is composed of 96 specimens in 81 lots, comprising seven species. Specimens were collected from 1898 to 1989, mostly between 1922 and 1953. Many were collected from Sagami Bay or off

Hachijo-jima Island. There are no species type specimens of species in this family included the ZUMT collection.

Diodontidae ハリセンボン科

Chilomycterus Brisout de Barneville, 1846 イシガキフグ属

Chilomycterus reticulatus (Linnaeus, 1758) イシガキフグ

ZUMT 19120: 228.0 mm SL, Mitsune (三根) coast, Hachijo-jima Island, Izu Islands, Tokyo Pref., 2 July 1929, spear, coll. by Y. Otsuki (大槻洋四郎), local name “Barafugu (バラフグ)”.

ZUMT 19177: 229.0 mm SL; **ZUMT 19178:** 267.0 mm SL, Hachijo-jima Island, Izu Islands, Tokyo Pref., 7 July 1929, spear, coll. by Y. Otsuki.

ZUMT 19245: 251.0 mm SL, Hachijo-jima Island, Izu Islands, Tokyo Pref., before 22 July 1929, coll. by Y. Oshizu (押津義雄).

ZUMT 19313: 232.0 mm SL, Mitsune, Hachijo-Island, Izu Island, Tokyo Pref. Japan, July, 1929, Y. Oshizu.

ZUMT 19443: 237.0 mm SL, before 1929, Y. Oshizu.

ZUMT 19491: 293.0 mm SL, Mitsune, Hachijo-Island, Izu Island, Tokyo Pref., Japan, before 1929, Y. Oshizu.

ZUMT 46792: 257.0 mm SL; **ZUMT 46794:** 129.0 mm SL, Onahama (小名浜), Iwaki (いわき), Fukuoka Pref., Japan, 36°56'10"N 140°53'45"E, 1933, H. Tsunoda (角田春斉).

ZUMT 66437: 263.0 mm SL, details unknown.

ZUMT ABE 7865: 290.0 mm SL, detail unknown, coll. by T. Abe (阿部宗明).

ZUMT ABE 58-214: 243.0 mm SL; **ZUMT ABE 59-690:** 209.0 mm SL; **ZUMT ABE 60-1646:** 228.0 mm SL;

ZUMT ABE 60-44: 228.0 mm SL; **ZUMT ABE 60-734:** 207.0 mm SL, Japan (probably Sagami Bay, Manazuru, Kanagawa Pref.), coll. by T. Abe.

Chilomycterus schoepfii (Walbaum, 1792)

ZUMT 1034: 74.6 mm SL, locality unknown, before 1911.

Chilomycterus spinosus (Linnaeus, 1758)

ZUMT 65768: 46.6 mm SL, detail unknown.

Cyclichthys Kaup, 1855 メイタイシガキフグ属

Cyclichthys orbicularis (Bloch, 1785) メイタイシガキフグ

ZUMT 30749: 84.4 mm SL, off Nagasaki Pref., Japan, trawl, before 1935, T. A. Glover (倉場富三郎).

ZUMT 66119: 92.7 mm SL, Southwest of Thailand Bay, Thailand, 22 Aug. 1985, trawl.

Diodon Linnaeus, 1758 ハリセンボン属

Diodon holocanthus Linnaeus, 1758 ハリセンボン

ZUMT 1020: 35.6 mm SL, Sagami Bay, Misaki (三崎), Miura (三浦), Kanagawa Pref., Japan, 1910.

ZUMT 1021: 107.2 mm SL, Taiza (間人), Kyoto Pref., Japan, written as Takeno (竹野), Tango (丹後), 14 Aug. 1902, B. Azuma (東 文治), Introduction to Y. Tanaka (田中芳男).

ZUMT 1040: 43.7 mm SL, “44 fathom of Mochi-yama” (local fishing ground: モチ山 44 尋), Sagami Bay, off Miura Pen., Kanagawa Pref., Japan, before 1911, K. Aoki (青木熊吉).

ZUMT 1392: 68.1 mm SL, Otsu (大津), Kitaibaraki (北茨城), Ibaraki Pref., Japan, 12 Oct. 1907, M. Komatsuzaki

(小松崎三枝; 茨城県大津水産学校).

Remarks: ZUMT 1392 is referenced in Tanaka (1907).

ZUMT 1945 (6): 35.4–84.6 mm SL, Sagami Bay, Misaki, Miura, Kanagawa Pref., Japan, 1908, K. Aoki.

ZUMT 5948: 34.5 mm SL, Sagami Bay, Misaki, Miura, Kanagawa Pref., 14 Dec. 1899, donated from A. Owston.

ZUMT 7135: 112.9 mm SL, Pearl oyster farm, Uchiumi (内海), Minamiuwa (南宇和), Ehime Pref., Japan, 5 Aug. 1915, K. Ootsuki (大月菊男; 愛媛県水産試験場).

ZUMT 11094: 48.6 mm SL, Basilan Island, Philippines, before 1923, U. Yamamura and Y. Yamamura (山村樸次郎・山村八重子).

ZUMT 13093: 91.2 mm SL, Miyako Bay (宮古湾), Shirahamazaki (白浜崎) and Fudozaki (不動崎), Iwate Pref., Japan, before 1926, S. Tanabe (田辺貞夫).

ZUMT 13987: 146.0 mm SL, before 1926, S. Sakaguchi (坂口総一郎; 沖縄県立第一中学校).

ZUMT 19179: 170.0 mm SL; **ZUMT 19180:** 175.0 mm SL, 7 July 1929, spear, coll. by Y. Otsuki, local name “Barafugu (バラフグ)”.

ZUMT 19252: 220.0 mm SL, 22 July 1929, Y. Oshizu.

ZUMT 19444: 216.0 mm SL, **ZUMT 19445:** 235.0 mm SL, before 1929, Y. Oshizu.

ZUMT 25105: 101.5 mm SL, inside the port of Keelung Bay, Taiwan, July 1930, M. Imai (今井俊武; 台北医学専門学校), local name “fugu (フグ)”.

ZUMT 30748: 137.0 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, before 1935.

ZUMT 30752: 114.2 mm SL; **ZUMT 30753:** 82.4 mm SL; **ZUMT 30754:** 84.9 mm SL, before 1935.

ZUMT 38841: 142.0 mm SL, **ZUMT 38842:** 145.0 mm SL, **ZUMT 38843:** 184.0 mm SL, Hachijo-jima Island, Tokyo Pref., Japan, Sept. 1922, M. Uchiyama (内山 操).

ZUMT 46795: 62.6 mm SL, Onahama, Iwaki, Fukushima Pref., Japan, 36°56'10"N, 140°53'45"E, 1933, before 1952, H. Tsunoda.

ZUMT 48341: 53.7 mm SL, Tokyo Market, Nov. 1952.

ZUMT 49301: 170.4 mm SL, Ota River (太田川), Doi (土居), Togouchi (戸河内), Yamagata (山縣), Hiroshima Pref., Japan, 20 Aug. 1958, (水岡繁登; 広島大学東雲分校生物).

ZUMT 49946: 59.0 mm SL, Fukue (福江), Nagasaki Pref., Japan, 10 June 1953, I. Tomiyama (冨山一郎), Requested to Fukue fisheries cooperative.

ZUMT 50062: 131.3 mm SL, Miraku (三井楽), Minamimatsuura (南松浦), Nagasaki Pref., Japan, 13 Oct. 1953, Requested to Miraku fisheries cooperative, local name “Igebuku (イゲブク)”.

ZUMT 50320: 126.5 mm SL, Hirado (平戸), Nagasaki Pref., Japan, 10 June 1953, I. Tomiyama, Requested to Hirado fisheries cooperative.

ZUMT 51345: 121.8 mm SL, Fukuoka Market, Dec. 1959.

ZUMT 54100: 111.4 mm SL, Kuji (久慈), Amami-Oshima Island, Kagoshima Pref., Japan, 20 May 1966, Y. Tominaga (富永義昭).

ZUMT 66113: 119.2 mm SL, **ZUMT 66114(2):** 23.5–39.9 mm SL, Sagami Bay, Misaki, Miura, Kanagawa Pref., Japan, 1910.

ZUMT 66115: 56.5 mm SL, Tokyo Market?, 1910.

ZUMT 66116(3): 36.4–41.9 mm SL, Tokyo Market, Otsu, Yokosuka, Kanagawa Pref., Japan, 18 Oct. 1952.

ZUMT 66120: 124.8 mm SL, Yellow Sea, 35°52'N 122°48'E, 27 Aug.

ZUMT ABE 4834: 75.0 mm SL; **ZUMT ABE 9003:** 73.1 mm SL; **ZUMT ABE 9890(3):** 81.4–102.3 mm SL, Japan (detail unknown), T. Abe.

ZUMT ABE 59-706: 123.0 mm SL; **ZUMT ABE 61-950:** 33.9 mm SL; **ZUMT ABE 61-951:** 29.0 mm SL; **ZUMT ABE 61-952:** 26.6 mm SL; **ZUMT ABE 61-953:** 37.1 mm SL; **ZUMT ABE 61-975:** 30.5 mm SL, probably Sagami Bay, Manazuru, Kanagawa Pref., Japan, 1959–1961.

Diodon hystrix Linnaeus, 1758 ネズミフグ

ZUMT 22177: 270.0 mm SL, Tokyo Market, 28 Dec. 1907, H. Kasagawa (笹川秀吉; 浅草).

ZUMT 66438: 357.0 mm SL, **ZUMT 66439:** 264.0 mm SL, **ZUMT 66440:** 238.0 mm SL, **ZUMT ABE 2843:**

294.0 mm SL, details unknown.

ZUMT ABE 2844: 345.0 mm SL, **ZUMT ABE 2929:** 209.0 mm SL, probably Palau, 1937, T. Abe.

Diodon liturosus Shaw, 1804 ヒトヅラハリセンボン

ZUMT 12696: 145.0 mm SL, Basilan Island, Philippines, 6°42'06" N, 121°57'30" E, Aug. 1924, U. Yamamura and Y. Yamamura.

ZUMT 14698: 186.0 mm SL, Yaeyama Islands, Okinawa Pref., Japan, before 1926, H. Yashiro (屋代弘孝; 琉球).

ZUMT 15290: 150.0 mm SL, Japan, before 1926, S. Sakaguchi.

ZUMT 16999: 160.3 mm SL, **ZUMT 17000:** 150.0 mm SL, Itoman (糸満), Okinawa Pref., Japan, before 1926, S. Tanabe.

ZUMT 62215: 174.0 mm SL, Palau, 1937, T. Abe.

ZUMT 62668: 128.7 mm SL, probably around Sarawak, Borneo, coll. before 1960, originally registered in Sarawak Museum (paper tag P-2998), donated in 1960 by Tom Harrison to I. Tomiyama.

ZUMT ABE 2977: 176.0 mm SL, **ZUMT ABE 5992:** 171.0 mm SL, Palau, 1937, T. Abe.

Collection of Molidae in ZUMT

Examination of the ZUMT collections revealed 14 specimens of Family Molidae in 14 lots, comprising three species. The specimens were collected between 1914 and 1956. However, many specimens lack collection data. There are no types specimens of any molid species in this collection. Specimens with registrations ZUMT 48961, 48962 and 48963, are larval specimens.

Molidae マンボウ科

Masturus Gill, 1884 ヤリマンボウ属

Masturus lanceolatus (Liénard, 1840) ヤリマンボウ

ZUMT 48961: 6.68 mm SL; **ZUMT 48962:** 6.58 mm SL; **ZUMT 48963:** 5.73 mm SL, 16 Aug. 1956, Z. Maekawa and T. Suzuki (前川善四郎・鈴木貞次郎).

ZUMT 66443: 471 mm SL, locality unknown.

ZUMT ABE 5708: 168.3 mm SL, Palau, 1937, T. Abe.

Mola Koelreuter, 1766 マンボウ属

Mola mola (Linnaeus, 1758) マンボウ

ZUMT 66441: 515 mm SL, Tokyo Market, 3 Nov. 1914.

ZUMT 66442: 291 mm SL, locality unknown.

Ranzania Nardo, 1840 クサビフグ属

Ranzania laevis (Pennant, 1776) クサビフグ

ZUMT 23033: 183.97 mm SL, off Tanabe, Wakayama Pref., Japan, 6 Oct. 1930, K. Kinoshita (木下虎一郎; 和歌山県水産試験場).

ZUMT 43083: 223.6 mm SL, Sagami Bay, Kozu, Odawara, Kanagawa Pref., Japan, 9 Oct. 1942, K. Minoshima (簗島清夫).

ZUMT 66117: 223.6 mm SL, locality unknown.

ZUMT ABE 10842: 129.2 mm SL; **ZUMT ABE 10843:** 146.0 mm SL; **ZUMT ABE 10844:** 128.6 mm SL;

ZUMT ABE 10845: 119.9 mm SL, locality unknown, T. Abe.

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We are deeply grateful to Y. Tominaga for his dedication to curating the ZUMT collection. D. Oyama (at College of Arts and Sciences, The University of Tokyo) and E. Sawai were asked to obtain the paper. We are also grateful to K. Hori, T. Sakiyama, M. Kitada, A. Adachi, Y. Suzuki (at Enoshima Aquarium), T. Ishibashi (at Shimonoseki Marine Science Museum) and all staff of the Enoshima Aquarium, and S. Haruka, S. Umika, S. Suzuka for supporting the investigation.

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Fish types deposited in the Department of Zoology, The University Museum, The University of Tokyo – Part 6: Gobioidae, Scombroidei, Xiphioidei, Channoidei, Pleuronectiformes and Tetraodontiformes

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Abstract

The current status of type specimens of Gobioidae, Scombroidei, Xiphioidei, Channoidei, Pleuronectiformes and Tetraodontiformes in the ZUMT collection were investigated with recourse to original descriptions, information tags on specimens, and/or the ZUMT specimen ledger. Of the 44 holotypes, 401 syntypes, one lectotype, 246 paratypes and 3 paralectotypes purported to be in the collection and applicable to 64 species in 13 families, only 32 holotypes, 394 syntypes, one lectotype, 225 paratypes and 3 paralectotypes have been located to date.

Introduction

The current designation and status of type specimens in the fish collection, preserved in the Department of Zoology, The University Museum, The University of Tokyo (ZUMT) collection is now under review. The present list is a summary of type specimens of Gobioidae, Scombroidei, Xiphioidei, Channoidei, Pleuronectiformes and Tetraodontiformes currently held.

本研究では、東京大学総合研究博物館動物学部門（ZUMT）に所蔵されるタイプ標本の現状について整理するとともに、タイプ指定に関する議論もおこなった。本リストは、ZUMT に所蔵されるタイプ標本のうちハゼ亜目、サバ亜目、カジキ亜目、タイワンドジョウ亜目、カレイ目、フグ目の魚類についてまとめたものである。

Materials and Methods

The first author confirmed that the type specimen is in the Department of Zoology, the University of Tokyo Museum (ZUMT). We report on Gobioidae, Scombroidei, Xiphioidei, Channoidei, Pleuronectiformes and Tetraodontiformes of fishes. Specimens marked as "available" in this type list are kept in room 407 of the museum. The ZUMT collection also includes a variety of personal specimens acquired by the late Dr. Tokiharu Abe, such being identifiable in the first instance by an underlined number on the specimen tag. These specimens from the Abe collection are not registered in ZUMT. The specimen will be managed as ZUMT ABE○○○○ in the ZUMT collection.

The systematic arrangement of families generally follows Nelson (2006), with species arranged in alphabetical order by species name. The present list includes all the available information pertinent to the ZUMT specimens, including that taken from the ZUMT specimen ledger and/or tags on the specimens.

Information from original description: scientific name, publication, Japanese name in the original description.

Current status on types: available or lost.

Information on type specimens: ZUMT catalog number (number of specimens when more than two), field number or previous catalog number if available, sex, preservation status (stuffed or skin only indicated), collection locality, collection date, collector or donator, collection method, typographical error.

Remarks: Authority for determining type status, correction of previously published erroneous information, and newly determined information from specimen registers and tags.

Current status of species: synonyms, current scientific name and standard Japanese name.

Reference: publications cited in remarks or basis for current status. Listed for each species.

第一著者により、東京大学総合研究博物館動物学部門（ZUMT）に所蔵するタイプ標本が確認されたハゼ亜目、サバ亜目、カジキ亜目、タイワンドジョウ亜目、カレイ目、フグ目魚類を報告する。本タイプリストにおいて「available」と示した標本は博物館の 407 号室に保管されている。ZUMT コレクションには、故阿部宗明博士の個人標本が混在しており、これらは基本的に標本タグに書かれた番号に下線が付されていることで識別可能である。これら阿部氏の標本は、ZUMT コレクションに登録されていない。標本は ZUMT ABE ○○○○と扱い ZUMT コレクションと同様に、管理されている。

科の体系的な順番は、主に Nelson (2006)に従い、種については学名のアルファベット順に示した。本リストでは、ZUMT 標本に基づき（あるいは基づいたと想定される）記載されたハゼ亜目、サバ亜目、カジキ亜目、タイワンドジョウ亜目、カレイ目、フグ目魚類に関する以下の情報を可能な限り示した。また ZUMT 標本台帳や標本のタグから読み取れる情報についても含めた。

原記載の情報：学名、記載された出版物、記載時に与えられた和名。

タイプ標本の確認状況：確認または未確認。

タイプ標本の情報：ZUMT 番号（複数の場合は標本数）、フィールド番号または寄贈前の他機関登録番号、性別、保存状態（剥製または皮膚のみの場合に記載）、採集場所、採集年月日、採集者または寄贈者、採集方法など。標本台帳から読み取れる新たな情報についても可能な限り記した。

備考：該当標本をタイプと判断した根拠、ZUMT のタイプ標本が誤って引用された情報、本研究で新たに確認された標本台帳やタグに関する情報、入力ミスなどについて必要に応じて記した。

種の現状：シノニム関係および適用されている学名と標準和名。

引用文献：備考または現状の根拠として引用された出版物や報告論文を種ごとに示した。

Type specimens of Gobioidae, Scombroidei, Xiphioidei, Channoidei, Pleuronectiformes and Tetraodontiformes in ZUMT

Based on the original descriptions, tags on the specimens, and the ZUMT specimen ledger, type specimens of 64 species of Gobioidae, Scombroidei, Xiphioidei, Channoidei, Pleuronectiformes and Tetraodontiformes in 13 families, including 44 holotypes, 401 syntypes, 1 lectotypes, 246 paratypes, and 3 paralectotypes, were purported to be in the ZUMT collection. 32 holotypes, 394 syntypes, 1 lectotype, 225 paratypes, and 3 paralectotypes, have been confirmed as “available” to date.

原記載、標本のタグおよび ZUMT 台帳の情報などから ZUMT コレクションに所蔵されるハゼ亜目、サバ亜目、カジキ亜目、タイワンドジョウ亜目、カレイ目、フグ目標本には 13 科 64 種のタイプ標本が登録されていることが明らかになった。その内訳は、ホロタイプ 44 標本、シンタイプ 401 標本、レクトタイプ 1 標本、パラタイプ 246 標本、パラレクトタイプ 3 標本である。これらのうち現在、ZUMT に所蔵確認できたものは、ホロタイプ 32 標本、シンタイプ 394 標本、レクトタイプ 1 標本、パラタイプ 225 標本、パラレクトタイプ 3 標本である。

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We are deeply grateful to the late Y. Tominaga for his dedication and efforts to the ZUMT collection. We would also like to thank Daichi Oyama of the University of Tokyo for his assistance in organizing and searching for specimens. We would like to thank Dr. Tomio Iwamoto, Mr. Dave Catania (California Academy of Sciences, San Francisco, California), and Mr. Caleb McMahan (Division of Fishes, Department of Zoology, Field Museum of Natural History, Chicago) for providing the ZUMT specimen number of the type specimen of *Tridentiger kuroiwae*.

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知氏には標本の整理，探索にご協力いただいた。 *Tridentiger kuroi* のタイプ標本の ZUMT 標本番号を調査していただいた Dr. Tomio Iwamoto, Mr. Dave Catania (California Academy of Sciences, San Francisco, California), Mr. Caleb McMahan (Division of Fishes, Department of Zoology, Field Museum of Natural History, Chicago) に感謝する。

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Gobioidei ハゼ亜目
Eleotridae カワアナゴ科
Eleotris fortis Tanaka, 1912 オカメハゼ

Original description: Tanaka (1912): 106, pl. 27 (figs. 108–109), 28 (fig. 113).

田中茂穂. 1912. 日本産魚類図説, 6: 87–108, pls. 26–30. [Tanaka, S. 1912. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 6: 87–108, pls. 26–30. (In Japanese and English)]

Holotype (lost): ZUMT 2499, Tamsui Pier, Taihoku, Taiwan; 18 Mar. 1908; collected by Kunitaro Akamatsu

Remarks: There is no holotype designation in the original description. ZUMT 2499 is the only specimen whose scientific name and collected data match from the records in the ZUMT specimen ledger. ZUMT 2499 is the holotype. Unfortunately, the specimen has not been located at this time, and was judged to have been lost.

原記載にはホロタイプの指定がない。ZUMT 2499 は ZUMT 標本台帳の記録から学名と採集データが一致する唯一の標本である。ZUMT 2499 はホロタイプである (ICZN Art. 73.1.2)。残念ながら，現時点でこの標本は確認できないため，失われたと判断した。

Current status: Synonym of *Eleotris melanosoma* Bleeker, 1853 オカメハゼ

明仁親王. 1967. 日本産魚類カワアナゴ属の 4 種について. 魚類学雑誌, 14 (4–6): 135–166. [Prince Akihito. 1967. On four species of the gobiid fishes of the genus *Eleotris* found in Japan. Japanese Journal of Ichthyology, 14 (4–6): 135–166. (In Japanese)]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1) (art. 5): 37–112.

Ophiocara gracilis Tanaka, 1909

Original description: Tanaka (1909): 19.

Tanaka, S. 1909. Descriptions of one new genus and ten new species of Japanese fishes. Journal of the College of Science. Imperial University, Tokyo 27 (8): 1–27, pl. 1.

Holotype (available, poor condition): ZUMT 1737 (male), Yaeyama Island, Okinawa Pref., Japan; donated by Gintaro Ogawa [沖縄県八重山諸島, 小川銀太郎寄贈 (沖縄尋常師範学校校長)]

Paratypes (lost): ZUMT 2152 (3), same as holotype

Remarks: In the original description, ZUMT 1737 is designated as a type (holotype), and three paratype specimens are a type series. From the records in the ZUMT specimen ledger, the scientific name and collected

data of ZUMT 2152 matched. The paratype ZUMT 2152 has not been located at this time, and was judged to have been lost.

原記載は ZUMT 1737 をホロタイプに指定し、パラタイプとなる 3 標本がタイプシリーズである。ZUMT 標本台帳の記録から ZUMT 2152 が学名と収集データが一致し、この標本をパラタイプとである (ICZN Art. 72.1.1) 。しかし、この標本は現時点でこの標本は確認できないため、失われたと判断した。

Current status: Synonym of *Hypseleotris everetti* (Boulenger, 1895) タナゴモドキ

江口勝久・中島 淳・西田高志・乾 隆帝・中谷裕也・鬼倉徳雄・及川 信. 2008. 宮崎県北川の魚類相. 九州大学大学院農学研究院学芸雑誌, 63: 15–25. [Eguchi, K., J. Nakajima, T. Nishida, R. Inui, M. Nakatani, N. Onikura and S. Oikawa. 2008. Fish fauna of the Kita River in Mitazaki Pref., Japan. Science bulletin of the Faculty of Agriculture, Kyushu University, 63: 15–25. (In Japanese)]

Keith, P. and Mennesson, M. I. 2023. Revision of *Hypseleotris* (Teleostei: Eleotridae) from Indo-Pacific Islands using molecular and morphometric approaches, with description of one new species. Zoological Journal of the Linnean Society, 198 (4): 1035–1069.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編) . 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

武内啓明・朝井俊亘・内山りゅう・細谷和海. 2011. 近畿大学農学部所蔵の内山りゅう標本コレクション. 近畿大学農学部紀要, 44: 63–87. [Takeuchi, H., T. Asai, R. Uchiyama and K. Hosoya. 2011. Fish specimens of the Faculty of Agriculture, Kinki University collected by Ryu Uchiyama. Memoirs of the Faculty of Agriculture of Kinki University, 44: 63–87. (In Japanese)]

Thacker, C. E. and Unmack, P. J. 2005. Phylogeny and biogeography of the eleotrid genus *Hypseleotris* (Teleostei: Gobioidae: Eleotridae), with redescription of *H. cyprinoides*. Records of the Australian Museum, 57: 1–13.

横山智洋・中江雅典. 2024. 静岡県から得られた北限記録のタナゴモドキ. Ichthy, Natural History of Fishes of Japan, 42: 1–4. [Yokoyama, T. and M. Nakae. 2024. Northernmost record of *Hypseleotris everetti* (Eleotridae) from Shizuoka Prefecture, Japan. Ichthy, Natural History of Fishes of Japan, 42: 1–4. (In Japanese, English abstract.)]

Odontobutidae ドンコ科

Odontobutis obscura interrupta Iwata & Jeon, 1985 セマダラドンコ

Original description: Iwata and Jeon (1985): 380, figs. 1E–F, 5A.

Iwata, A., Jeon, S.-R., Mizuno, N. and Choi, K.-C. 1985. A revision of the eleotrid goby genus *Odontobutis* in Japan, Korea and China. Japanese Journal of Ichthyology, 31 (4): 373–388.

Paratype (available): ZUMT 54356 (1), Kum River, Pyung-gun, Chungchongnam-do, Korea; 14 May 1967

Paratypes (available): ZUMT 54357–ZUMT 54360 (4), Ungchon River, Oesan-River, Oesanmyon, Puyo-gun, Chungchongnam-do, Korea; 21 Apr. 1981

Current status: Valid as *Odontobutis interruptus* Iwata & Jeon, 1985 セマダラドンコ

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Sakai, H., Iwata, A. and Jeon, S.-R. 1993. Genetic evidence supporting the existence of three distinct species in the

genus *Odontobutis* (Gobiidae) from Japan and Korea. Japanese Journal of Ichthyology, 40 (1): 61–64.

***Odontobutis platycephala* Iwata & Jeon, 1985 コウライドンコ**

Original description: Iwata and Jeon (1985): 383, figs. 1G–H, 5B.

Iwata, A., Jeon, S.-R., Mizuno, N. and Choi, K.-C. 1985. A revision of the eleotrid goby genus *Odontobutis* in Japan, Korea and China. Japanese Journal of Ichthyology, 31 (4): 373–388.

Paratypes (available): ZUMT 54361–ZUMT 54362 (2), Somchin River, Kyeso-ri, Maryong-myon, Chinan-gun, Chonrapuk-do (35°44'N, 127°20'E), Korea; 15 Aug. 1977

Paratypes (available): ZUMT 54363–ZUMT 54365 (3), Gum River, Simchon-myon, Okchon-gun, Chungchongnam-do, Korea; 29 Aug. 1978

Paratype (available): ZUMT 54366 (1), Wangsuk River, Changhyon-ri, Chinchopmyon, Namyangchu-gun, Kyongki-do, Korea; 1 Mar. 1980

Current status: Valid as *Odontobutis platycephalus* Iwata & Jeon, 1985 コウライドンコ

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Sakai, H., Iwata, A. and Jeon, S.-R. 1993. Genetic evidence supporting the existence of three distinct species in the genus *Odontobutis* (Gobiidae) from Japan and Korea. Japanese Journal of Ichthyology, 40 (1): 61–64.

Gobiidae ハゼ科

***Apocryptodon punctatus* Tomiyama, 1934**

Original description: Tomiyama (1934): 332, figs. 4–5.

Tomiyama, I. 1934. Four new species of gobies of Japan. Journal of the Faculty of Science, University of Tokyo, Section IV Zoology, 3 (3): 325–334.

Holotype (available): ZUMT 26306, Ariake Sea (Okibata or Okihata), Oinohata, Yanagawa City, Fukuoka Pref., Japan; Oct. 1931; collected by Ichiro Tomiyama (福岡県柳川市沖端町 有明海, 昭和6年10月, 富山一郎採集)

Paratypes (available): ZUMT 17694–ZUMT 17696 (3), ZUMT 17700–ZUMT 17702 (3), Ariake Sea, Japan; May 1927; collected by Sahachi Koyanagi (有明海, 小柳佐八採集)

Paratypes (available): ZUMT 18196 (1), ZUMT 18197 (1), Ariake Sea, Japan; Fukuoka Prefectural Fisheries Experiment Station (有明海, 福岡県水産試験場)

Paratypes (available): ZUMT 26332(1), ZUMT 35137–ZUMT 35139 (3), same area as holotype, dated 28 May 1931

Paratypes (available): ZUMT 57512–ZUMT 57514 (3), same area as holotype, dated 28 May 1931

Remarks: The original description designated ZUMT26306 as the holotype. Regarding the type series, it is stated that "Described from many specimens 40–80 mm long with caudal", and the detailed number of specimens is unknown. It was also mentioned that this is the first record of *Apocryptodon* in Japan. Records of the ZUMT specimen ledger included ZUMT 26332, ZUMT 17694–ZUMT 17696, ZUMT 17700–ZUMT 17702 and ZUMT 35137–ZUMT 35139, which correspond to the genus *Apocryptodon* and the Ariake Sea. ZUMT 26332 contains 4 specimens, one specimen was retained in ZUMT 26332 and the other three were re-registered in ZUMT 57512–ZUMT 57514. These specimens are paratypes (ICZN Art. 72.4.1.1, 72.4.5).

原記載で ZUMT26306 をホロタイプに指定された。タイプシリーズについて「Described from many specimens 40–80 mm long with caudal」とあり、詳細な標本数は不明である。さらにタビラクチ属 (*Apocryptodon*) の日本での初記録であることが言及された。ZUMT 標本台帳の記録には、タビラクチ

属 (*Apocryptodon*) と有明海に該当する ZUMT 26332, ZUMT 17694–ZUMT 17696, ZUMT 17700–ZUMT 17702 と ZUMT 35137–ZUMT 35139 があった。ZUMT 26332 は 4 標本が含まれ、1 標本を ZUMT 26332 にのこし、他の 3 個体を ZUMT 57512–ZUMT 57514 に再登録した。これらの標本はすべてパラタイプである (ICZN Art. 72.4.1.1, 72.4.5)。

Current status: Valid as *Apocryptodon punctatus* Tomiyama, 1934 タビラクチ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編)。1984. 日本産魚類大図鑑。東海大学出版会、東京。xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

Matsui, S., Inui, R. and Kai, Y. 2014. Annotated checklist of gobioid fishes (Perciformes, Gobioidae) from Wakasa Bay, Sea of Japan. Bulletin of the Osaka Museum of Natural History, 68: 1–25, Pls. 1–4.

Murase, A., Inui, R., Miki, R. and Miyazaki, Y. 2017. Revising the distribution of a threatened goby, *Apocryptodon punctatus* (Perciformes, Oxudercidae), in Japan with the discovery of an isolated population. ZooKeys, 645: 71–83.

Murdy, E. O. 1989. A taxonomic revision and cladistic analysis of the oxudercine gobies (Gobiidae: Oxudercinae). Records of the Australian Museum Suppl. 11: 1–93.

武藤 滉・伯耆匠二・佐藤達也・河村功一。2022. 三重県鳥羽市より得られた分布東限となるタビラクチの記録と 三重県における本種の生息状況。Ichthy, Natural History of Fishes of Japan, 23: 1–6. [Muto, H., Houki, S., Sato, T. and Kawamura, K. 2022. Easternmost record of an estuarine goby, *Apocryptodon punctatus* Tomiyama, 1934 (Gobiiformes: Gobiidae), from Toba, Mie Prefecture and the information of its habitat status in Mie Prefecture. Ichthy, Natural History of Fishes of Japan, 23: 1–6. (In Japanese with English abstract)]

中坊徹次 (編)。2013. 日本産魚類検索全種の同定 I–III, 第三版。東海大学出版会、秦野。2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

佐藤陽一・藍津正宏。1992. 徳島県吉野川河口から採集されたタビラクチとその分布。徳島県立博物館研報, 2: 43–50. [Sato, Y. and Aizawa, M. 1992. Record of the gobiid fish *Apocryptodon punctatus* from the Yoshino River estuary in Tokushima Prefecture, Japan, with comments on distribution of the species. Bulletin of the Tokushima Prefectural Museum, 2: 43–50. (In Japanese with English abstract)]

鈴木寿之・和田恵次。1999. 和歌山県田辺市内之浦で採集されたタビラクチ (ハゼ科)。南紀生物, 41 (1): 61–63. [Suzuki, T. and Wada, K. 1999. Record of a gobiid fish, *Apocryptodon punctatus* from the Uchinoura Inlet in Wakayama Prefecture, Japan. Nanki Seibutsu, 41 (1): 61–63. (In Japanese)]

Chaenogobius cylindricus Tomiyama, 1936 キセルハゼ

Original description: Tomiyama (1936): 92, fig. 39

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology 7 (1): 37–112.

Holotype (available): ZUMT 30389, Hiroshima Pref., Japan; collected by M. Katayama (広島県, 片山正夫)

Remarks: The original description designated ZUMT 30389 as the holotype. The specimen has two cloth tags, "30389" and "type".

原記載はホロタイプに ZUMT 30389 を指定した。標本に「30389」と「type」の布タグが 2 つ付いている。

Current status: Valid as *Gymnogobius cylindricus* (Tomiyama, 1936) キセルハゼ

荒尾一樹。2008. 三河湾から得られたキセルハゼ。日本生物地理学会会報, 63: 173–175. [Arao, K. 2008. Record of *Gymnogobius cylindricus* from Mikawa Bay, Aichi Prefecture. Bulletin of the Biogeographical Society of Japan, 63: 173–175. (In Japanese)]

- Kim, B.-J., Song, H.-B., An, J.-H. and Choi, S.-H. 2013. First record of *Gymnogobius cylindricus* (Perciformes: Gobiidae) from Incheon River Estuary, Jeonbuk-do, Korea. Korean Journal of Ichthyology, 25 (3): 173–177.
- 益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）． 1984. 日本産魚類大図鑑． 東海大学出版会， 東京． xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- 中坊徹次（編）． 2013. 日本産魚類検索全種の同定 I–III, 第三版． 東海大学出版会， 秦野． 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.
- 鈴木寿之・増田 修． 1993. 兵庫県で再発見されたキセルハゼと分布上興味あるハゼ科魚類 4 種． I. O. P. Diving News, 4 (11): 2–6. [Suzuki, T. and Masuda, O. 1993. Record of the gobiid fish *Chaenogobius cylindricus* from Hyogo Prefecture, Japan, with notes on geographical distribution of four gobioid fishes. I.O.P. Diving News, 4 (11):2–6. (In Japanese with English abstract)]
- 鈴木寿之・吉郷英範・野元彰人・淀 真理・中島 淳・松井 誠． 2006. 絶滅危具種キセルハゼの形態， 生息状況及び分布． 日本生物地理学会会報， 61: 125–134. [Suzuki, T., Yoshigo, H., Nomoto, A., Yodo, M., Nakajima, J. and Matsui, M. 2006. Morphology, habitat and distribution of the endangered goby, *Gymnogobius cylindricus* (Perciformes, Gobiidae). Bulletin of the Biogeographical Society of Japan., 61: 125–134. (In Japanese)]
- Stevenson, D. E. 2002. Systematics and distribution of fishes of the Asian goby genera *Chaenogobius* and *Gymnogobius* (Osteichthyes: Perciformes: Gobiidae), with the description of a new species. Species Diversity, 7 (3): 251–312.

***Chaenogobius isaza* Tanaka, 1916 イサザ**

Original description: Tanaka (1916): 102.

田中茂穂． 1916. 日本産魚類の二新種． 動物学雑誌， 28 (329): 102–103. [Tanaka, S. 1916. Two new species of Japanese fishes. Zoological Magazine Tokyo, 28 (329): 102–103. (In Japanese)]

Syntype (available): ZUMT 57520 (1), Lake Biwa, near Hikone, Shiga Pref., Japan; 26 Jan. 1916; collected by Shiga Prefectural Fisheries Experimental Station (滋賀県彦根附近 琵琶湖， 大正 5 年 1 月 26 日， 滋賀県水産試験場採集， 方言イサザ) An individual with a "type" cloth tag handwritten by Tanaka. 田中直筆の「type」の布タグがついていた個体

Syntypes (available): ZUMT 63213 (64), same as ZUMT 57520

Syntypes (available): LBM (Lake Biwa Museum, Kusatsu, Japan) 1210060300 (10), same as ZUMT 57520

Syntypes (available): ZUMT 1935 (11), Lake Biwa, near Oumi Funaki, Hikone, Shiga Pref., Japan; May 1898 (滋賀県近江舟木 琵琶湖， 明治 31 年 5 月)

Syntypes (available): ZUMT 66024 (1), same as ZUMT 1935. It was identified as *Biwia zezera* (Ishikawa 1895) by this report

Syntypes (available): LBL (Lake Biwa Museum, Kusatsu, Japan) 1210060299 (2), same as ZUMT 1935

Remarks: The original description does not designate a holotype. In the ZUMT collection, there was an unregistered lot specimen with a cloth tag written in ink that read, "Dialect 'Isaza', near Hikone, Shiga Prefecture, Shiga Prefectural Fisheries Experiment Station, collected on January 26, 1919."

Among these unregistered specimens, there was one with a cloth tag with the word "type" handwritten by Tanaka in ink. This specimen was registered under ZUMT 57520, and the remaining 74 specimens were reregistered under ZUMT 63213 (64) and LBM (Lake Biwa Museum, Kusatsu, Japan) 1210060300 (10). Specimen ZUMT 57520 bears a "type" cloth tag, but this is not necessarily evidence that it is the holotype (ICZN Art. 72.4.7).

In the ZUMT specimen ledger, we confirmed ZUMT 1935, whose scientific name was handwritten and

corrected as "*Chaenogobius isaza*". The smallest individual of ZUMT 1935 was re-identified as *Biwia zezera* (Ishikawa 1895), so it was divided and registered as ZUMT66024, and the two individuals of ZUMT 1953 were separated and registered as LBM (Lake Biwa Museum, Kusatsu, Japan) 1210060299 (2). All these specimens are syntypes (ICZN Art. 72.1.1, 72.4, 73.2).

The original generic name *Chaeuogobius* is a typo of *Chaenogobius*.

原記載にはホロタイプの指定がない。ZUMT コレクションには、「方言”イサザ” 滋賀県彦根附近、滋賀県水産試験場 大正 5 年 1 月 26 日採集」と書かれた布タグが入った未登録のロット標本があった。この未登録標本の中に田中直筆の「type」と墨で書かれた布タグをつけた標本があった。この標本を ZUMT 57520 に登録し、残りの 74 標本は、ZUMT 63213 (64)と LBM(滋賀県立琵琶湖博物館：Lake Biwa Museum, Kusatsu, Japan) 1210060300 (10)に再登録した。標本 ZUMT 57520 は「type」の布タグがついていたことがホロタイプである証拠であるとは限らない (ICZN Art. 72.4.7)。

ZUMT 標本台帳には、学名を"*Chaenogobius isaza*"と手書きで訂正した ZUMT 1935 を確認した。ZUMT 1935 の最小個体はゼゼラ *Biwia zezera* (Ishikawa 1895)と再同定されたため、分割し ZUMT66024 に登録し、ZUMT1953 の 2 個体を分轄し LBM(滋賀県立琵琶湖博物館：Lake Biwa Museum, Kusatsu, Japan) 1210060299 (2)に登録した。これら全ての標本はシンタイプとなる (ICZN Art. 72.1.1, 72.4, 73.2)。

原記載の属名 *Chaeuogobius* は *Chaenogobius* の誤植。

Current status: Valid as *Gymnogobius isaza* (Tanaka, 1916) イサザ

Harada, S., Jeon, S.-R., Kinoshita, I., Tanaka, M. and Nishida, M. 2002. Phylogenetic relationships of four species of floating gobies (*Gymnogobius*) as inferred from partial mitochondrial cytochrome *b* gene sequences.

Ichthyological Research, 49 (4): 324–332.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編) . 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Stevenson, D. E. 2002. Systematics and distribution of fishes of the Asian goby genera *Chaenogobius* and *Gymnogobius* (Osteichthyes: Perciformes: Gobiidae), with the description of a new species. Species Diversity, 7 (3): 251–312.

Chloea senbae Tanaka, 1916 センバハゼ

Original description: Tanaka (1916): 228.

田中茂穂. 1916. 日本産魚類の一新種. 動物学雑誌, 28 (332): 228–229. [Tanaka, S. 1916. A new Japanese fish. Zoological Magazine Tokyo, 28 (332): 228–229. (In Japanese)]

Syntypes (available): ZUMT 7085 (11), Senba-numa (Senba-ko), Mito City, Ibaraki Pref., Japan; April 1915 [茨城県水戸市千波沼 (千波湖), 大正 4 年 4 月]

Syntypes (available): ZUMT 13461 (32, females), same as ZUMT 7085, dated May 1916

Syntypes (available): ZUMT 30444 (74), same locality as ZUMT 7085, dated 8 April 1915

Syntypes (available): 5 specimens, ZUMT 30445 (1, female), ZUMT 30446 (1, male), ZUMT 30447 (1, male), ZUMT 30448 (1, female), ZUMT 30452 (1, female), Hitachi Ryugasaki, (Hirahata, Ryugasaki City, Ibaragi Pref., Japan [常陸竜ヶ崎 (茨城県竜ヶ崎市平畑)])

Syntypes (available): ZUMT 44609 (117), same locality as ZUMT 7085, dated April 1916

Syntypes (available): ZUMT 56016 (54), same as ZUMT 7085, dated May 1916

Syntypes (available): ZUMT 57518 (1, female), ZUMT 57519 (1, male), same as ZUMT 7085. An individual

with a "type" cloth tag handwritten by Tanaka. 田中直筆の「type」の布タグがついていた個体.

Remarks: The original description does not designated the holotype. The collection site were Senba-numa (Senba-ko) outside Mito City and Hitachi Ryugasaki and the original description was mainly based on two specimens, female and male, from Senba-numa (Senba-ko). From the records of the ZUMT specimen ledger, there were ZUMT 7085, ZUMT 13641, ZUMT 30444, ZUMT 44609 and ZUMT 56016 applicable to Mito City Senba-numa (Senba-ko), and ZUMT 30445–ZUMT 30448 and ZUMT 30452 applicable to Hitachi Ryugasaki. All these specimens are considered as syntypes (ICZN Art. 72.1.1, 72.4, 73.2). There were two specimens of male and female with the "type" cloth tag in ZUMT 7085. The female was given the registration number ZUMT 57518 and the male was given the registration number ZUMT 57519.

原記載はホロタイプの指定がない。採集地に水戸市外千波沼（千波湖）と常陸竜ヶ崎をあげ、原記載は、主に千波沼産の雌と雄の2標本に基づいて記載された。ZUMT 標本台帳の記録から水戸市外千波沼に該当する ZUMT 7085, ZUMT 13641, ZUMT 30444, ZUMT 44609, ZUMT 56016 と常陸竜ヶ崎に該当した ZUMT 30445–ZUMT 30448, ZUMT 30452 があった。これら全ての標本はシンタイプである（ICZN Art. 72.1.1, 72.4, 73.2）。ZUMT 7085 の中に田中直筆の「type」の布タグが付いた雌雄の2標本があった。この雌に ZUMT 57518, 雄には ZUMT 57519 の登録番号を与えた。

Current status: Synonym of *Gymnogobius castaneus* (O'Shaughnessy, 1875) ジュズカケハゼ

Dyldin, Yu. V. and Orlov, A. M. 2017. Ichthyofauna of fresh and brackish waters of Sakhalin Island: an annotated list with taxonomic comments: 4. Pholidae-Tetraodontidae families. Journal of Ichthyology, 57 (2): 183–218.

Dyldin, Yu. V., Fricke, R., Hanel, L., Vorobiev, D. S., Interesova, E. A., Romanov, V. I. and Orlov, A. M. 2021. Freshwater and brackish water fishes of Sakhalin Island (Russia) in inland and coastal waters: an annotated checklist with taxonomic comments. Zootaxa, 5065 (1): 1–92.

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Stevenson, D. E. 2002. Systematics and distribution of fishes of the Asian goby genera *Chaenogobius* and *Gymnogobius* (Osteichthyes: Perciformes: Gobiidae), with the description of a new species. Species Diversity, 7 (3): 251–312.

***Cryptocentrus oni* Tomiyama, 1936 オニハゼ**

Original description: Tomiyama (1936): 82, fig. 32.

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1): 37–112.

Holotype (available): ZUMT 21898, Izu, Shizuoka Pref., Japan (静岡県伊豆)

Remarks: The original description designated ZUMT 21898 as the holotype. The description states that the total length of "from the tip of the nose to the trailing edge of the caudal fin" is 120 mm. However, the total length of the specimen depicted in Tomiyama (1936: fig. 32) is about 100 mm. The total length of the holotype ZUMT 21898 was measured and again was 98 mm.

原記載はホロタイプに ZUMT 21898 を指定した。記載には、「鼻先から尾鰭の後縁まで」の全長が 120 mm とある。しかし、Tomiyama (1936: fig. 32) に描かれている標本の全長は、約 100 mm である。ホロタイプ ZUMT 21898 の全長を改めて計測したところ、98 mm であった。

Current status: Valid as *Cryptocentrus oni* Tomiyama, 1936 オニハゼ

Allen, G. R., Erdmann, M. V. and Brooks, W. M. 2018. A new species of *Tomiamichthys* shrimpgoby (Pisces: Gobiidae) from Papua New Guinea. Journal of the Ocean Science Foundation, 31: 38–46.

- Hoese, D. F., Shibukawa, K. and Johnson, J. W. 2016. Description of a new species of *Tomiyamichthys* from Australia with a discussion of the generic name. *Zootaxa*, 4079 (5): 582–594.
- 益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）． 1984. 日本産魚類大図鑑. 東海大学出版会，東京． xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- 中坊徹次（編）． 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会，秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I-III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). *Iranian Journal of Ichthyology*, 8 (Supplement 1): 1–480.
- Yanagisawa, Y. 1978. Studies on the interspecific relationship between gobiid fishes and snapping shrimp. I. Gobiid fishes associated with snapping shrimps in Japan. *Publications of the Seto Marine Biological Laboratory*, 24 (4/6): 269–325, pls. 1–3.

***Cryptocentrus yatsui* Tomiyama, 1936 ヤツハゼ**

Original description: Tomiyama (1936): 81, fig. 31.

Tomiyama, I. 1936. Gobiidae of Japan. *Japanese Journal of Zoology*, 7 (1): 37–112.

Holotype (available): ZUMT 25228, Tainan, Taiwan.

Paratypes (available): ZUMT 14896 (1), ZUMT 25229 (1), same as holotype.

Paratypes (lost): ZUMT 14894, ZUMT 14895, ZUMT 14897, ZUMT 14898 (4), same as holotype.

Remarks: In the original description, ZUMT 25228 was designated for the holotype. Further six paratypes were added and described. There were ZUMT 25229 registered serially in the holotype ZUMT 25228, and the corresponding specimen ZUMT 14894–14898 from the records in the ZUMT specimen ledger. These specimens are judged as the paratypes (ICZN Art. 72.4.1.1, 72.4.5).

原記載はホロタイプに ZUMT 25228 を指定した。さらに 6 パラタイプを加え、記載した。ホロタイプ ZUMT 25228 に連番で登録された ZUMT 25229 と、さらに ZUMT 標本台帳の記録から該当した標本 ZUMT 14894–14898 があった。これらの標本はパラタイプである (ICZN Art. 72.4.1.1, 72.4.5)。

Current status: Valid as *Cryptocentrus yatsui* Tomiyama, 1936 ヤツハゼ

Hoese, D. F. and Larson, H. K. 2004. Description of a new species of *Cryptocentrus* (Teleostei: Gobiidae) from northern Australia, with comments on the genus. *The Beagle, Records of the Museums and Art Galleries of the Northern Territory*, 20: 167–174.

Hoese, D. H., Shibukawa, K. and Sakaue, J. 2011. A redescription of the gobiid fish *Cryptocentrus sericus* Herre, with clarification of *Cryptocentrus leptcephalus* and *C. melanopus*. *Aqua, International Journal of Ichthyology*, 17 (3): 163–172.

中坊徹次（編）． 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会，秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I-III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). *Iranian Journal of Ichthyology*, 8 (Supplement 1): 1–480.

***Ctenogobius katonis* Tanaka, 1908 キンカン**

Original description: Tanaka (1908): 35.

Tanaka, S. 1908. Descriptions of eight new species of fishes from Japan. *Annotationes Zoologicae Japonenses*, 7 (1): 27–47.

Holotype (available): ZUMT 2002, Kanazawa, Ishikawa Pref., Japan; Aug. 1908; collected by K. Kato (石川県金沢, 明治 41 年 8 月, 加藤賢三採集)

Paratypes (available): ZUMT 57509–ZUMT 57511(3), same as holotype

Remarks: The original description designated ZUMT 2002 as the holotype. Further 3 paratypes were added and described. ZUMT 2004 is a paratype in which the scientific name and collected data match from the records in the ZUMT specimen ledger. Three individuals of ZUMT 2004 were registered in ZUMT 57509 to ZUMT 57511 of the ZUMT collection. The holotype ZUMT 2002 has two cloth tags, "2002" and "type".

原記載はホロタイプに ZUMT 2002 を指定した。さらに 3 パラタイプを加え、記載した。ZUMT 2004 は、ZUMT 標本台帳の記録から学名と採集データが一致したパラタイプである。ZUMT 2004 の 3 個体は、ZUMT コレクションの ZUMT 57509–ZUMT 57511 に改めて登録した。ホロタイプ ZUMT 2002 には「2002」と「type」の布タグ 2 つが付いている。

Current status: Synonym of *Rhinogobius nagoyae* Jordan & Seale, 1906 シマヨシノボリ

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

鈴木寿之・陳 義雄. 2011. 田中茂穂博士により記載されたヨシノボリ属 3 種. 大阪市立自然史博物館研究報告, 65: 9–24. (Suzuki T. and Chen, I.-S. 2011. Redescriptions of three species of genus *Rhinogobius* (Perciformes, Gobiidae) described by Dr. Shigeho Tanaka. Bulletin of the Osaka Museum of Natural History, 65: 9–24. (In Japanese)]

田中茂穂. 1908. 魚類報告 (第十一回). (第二十六) 加州金澤第二中学校加藤賢三採集せる處左の如し. 動物学雑誌, 20 (241): 492.

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Ctenogobius kurodai Tanaka, 1908 クロダハゼ

Original description: Tanaka (1908): 32.

Tanaka, S. 1908. Descriptions of eight new species of fishes from Japan. Annotationes Zoologicae Japonenses, 7 (1): 27–47.

Holotype (available): ZUMT 2008, a fresh-water pond in the residence of Marquis Kuroda Nagamichi, Fukuyoshi-cho, Akasaka, Tokyo, Japan; 27 Sept. 1908 [東京赤坂福吉町 黒田長礼侯爵邸内の池 (東京都港区赤坂), 明治 41 年 9 月 27 日]

Paratypes (available): ZUMT 2009 (10), same as holotype

Paratypes (available): ZUMT 5232 (2), ZUMT 5281 (2), ZUMT 5285 (18), a fresh-water pond in the garden of Marquis in Kuroda, Fukuyoshi-cho, Akasaka, Tokyo, Japan [東京赤坂福吉町 黒田長礼侯爵邸内の池 (東京都港区赤坂)]

Remarks: The original description designated ZUMT 2008 as the holotype. The holotype ZUMT 2008 has cloth tags indicating "2008, Type". The original description stated "Numerous specimens from a fresh-water pond in the garden of Marquis Kuroda in Tokyo". From the record of the ZUMT specimen ledger, there were 5 lots of specimens corresponding to "the pond in the garden of Marquis Kuroda's residence". The applicable 5 lots of ZUMT 2009 (10), ZUMT 2021, ZUMT 5232 (2), ZUMT 5281 (2), ZUMT 5285 (16) are all paratypes of *Ctenogobius kurodai*. All specimens except ZUMT 2021 were confirmed. In the record of ZUMT specimen ledger, the number of specimens of ZUMT 2009 was "5 individuals", and ZUMT 2021 was described as "numerous". Currently, ZUMT 2009 contains 10 specimens, which means that there are many 5 extra specimens. It was judged that the specimen of ZUMT 2021 was mixed in ZUMT 2009. The paratype ZUMT 2009 was set as 10 individuals, and ZUMT 2021 was set as a missing number.

原記載はホロタイプに ZUMT 2008 を指定した。ホロタイプ ZUMT 2008 には、「2008, Type」と書かれた布タグが付いている。原記載に「Numerous specimens from a fresh-water pond in the garden of Marquis Kuroda in Tokyo」とあった。ZUMT 標本台帳の記録から「黒田侯爵邸の庭にある池」に該当する標本が 5 ロットあった。該当した 5 ロットの ZUMT 2009 (10), ZUMT 2021, ZUMT 5232 (2), ZUMT 5281 (2), ZUMT 5285 (16)は、全て *Ctenogobius kurodai* のパラタイプである (ICZN Art. 72.4.1.1, 72.4.5)。ZUMT 2021 を除く全ての標本が確認できた。ZUMT 標本台帳の記録では、ZUMT 2009 の標本数は「5 個体」、ZUMT 2021 は「numerous」と記述されていた。現在、ZUMT 2009 には 10 標本が含まれ、5 標本が多いことになる。これは ZUMT 2009 に ZUMT 2021 の標本が混入したと判断した。パラタイプ ZUMT 2009 を 10 個体とし、ZUMT 2021 を欠番とした。

Current status: Valid as *Rhinogobius kurodai* (Tanaka, 1908) クロダハゼ

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

鈴木寿之・陳 義雄. 2011. 田中茂穂博士により記載されたヨシノボリ属 3 種. 大阪市立自然史博物館研究報告, 65: 9–24. [Suzuki T. and Chen, I-S. 2011. Redescriptions of three species of genus *Rhinogobius* (Perciformes, Gobiidae) described by Dr. Shigeo Tanaka. Bulletin of the Osaka Museum of Natural History, 65: 9–24. (In Japanese with English abstract)]

Suzuki, T., Shibukawa, K. and Aizawa, M. 2017. *Rhinogobius mizunoi*, a new species of freshwater goby (Teleostei: Gobiidae) from Japan. Bulletin of the Kanagawa Prefectural Museum (Natural Science), 46: 79–95.

***Eleotriodes puellaris* Tomiyama, 1956 オトメハゼ**

Original description: Tomiyama (1956): 1136, pl. 224, fig. 575

Tomiyama, I. and Abe, T. 1956. Figures and descriptions of the fishes of Japan (a continuation of Dr. Shigeo Tanaka's work). Kazama-shobo, Tokyo, 55: 1115–1140, pls. 220–224.

Holotype (available): ZUMT 18924, Kiragawa, Muroto City, Kochi Pref., Japan; 27 Mar. 1929; collected by Toshij Kamohara (高知県室戸市吉良川, 昭和 4 年 3 月 27 日, 蒲原稔治採集)

Current status: Valid as *Valenciennea puellaris* (Tomiyama, 1956) オトメハゼ

Allen, G. R. and Erdmann, M. V. 2012. Reef fishes of the East Indies. Tropical Reef Research, Perth Australia. Vol. II, 425–855 pp.

Hoese, D. F. and Larson, H. K. 1994. Revision of the Indo-Pacific gobiid fish genus *Valenciennea*, with descriptions of seven new species. Indo-Pacific Fishes, 23: 1–71, pls. 1–6.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編) . 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

***Eviota macrophthalmus* Tomiyama, 1936 オオメハゼ**

Original description: Tomiyama (1936): 47, fig. 6.

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1): 37–112.

Holotype (lost): ZUMT 30331, Hachijo-jima I, Izu Islands, Japan; Sept. 1922; collected by Misao Uchiyama (伊豆諸島八丈島, 大正 11 年 9 月, 内山 操採集)

Remarks: Unfortunately, we cannot confirm this holotype at this time, so we decided that it was lost.
残念ながら、現時点でこのホロタイプは確認できないため、失われたと判断した。

Current status: Valid as *Trimma macrophthalmum* (Tomiyama, 1936) オオメハゼ

Allen, G. R. and Erdmann, M. V. 2012. Reef fishes of the East Indies. Tropical Reef Research, Perth Australia.

Vol. III, preface, map, contents and 857–1260 pp.

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Suzuki, T., Yano, K. and Senou, H. 2015. *Trimma yoshinoi*, a new gobiid fish from Japan (Perciformes: Gobiidae). Journal of the Ocean Science Foundation, 14: 66–73.

Winterbottom, R. and Hoese, D. F. 2015. A revision of the Australian species of *Trimma* (Actinopterygii, Gobiidae), with descriptions of six new species and redescriptions of twenty-three valid species. Zootaxa, 3934 (1): 1–102.

Winterbottom, R. 2019. An illustrated key to the described valid species of *Trimma* (Teleostei: Gobiidae). Journal of the Ocean Science Foundation, 34: 1–61.

***Gobiodon gnathus* Tomiyama, 1934**

Original description: Tomiyama (1934): 330, fig. 3.

Tomiyama, I. 1934. Four new species of gobies of Japan. Journal of the Faculty of Science, University of Tokyo, Section IV Zoology 3 (3): 325–334.

Holotype (available): ZUMT 26305, Misaki, Kanagawa Pref., Japan; 1933 (神奈川県三崎, 昭和 8 年)

Paratype (available): ZUMT 26331 (1), same as holotype

Remarks: In the original description, ZUMT 26305 was designated as the holotype. One paratype was added and described. The paratype is ZUMT 26331, whose scientific name and collected data match the records in the ZUMT specimen ledger.

原記載はホロタイプに ZUMT 26305 を指定した。さらに 1 パラタイプを加え、記載した。パラタイプは、学名と採集データが ZUMT 標本台帳の記録に一致した ZUMT 26331 である。

Current status: Synonym of *Lubricogobius exiguus* Tanaka, 1915 ミジンベニハゼ

Randall, J. E. and Senou, H. 2001. Review of the Indo-Pacific gobiid fish genus *Lubricogobius*, with description of a new species and a new genus for *L. pumilus*. Ichthyological Research, 48 (1): 3–12.

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

***Gobius ornatus masago* Tomiyama, 1936 マサゴハゼ**

Original description: Tomiyama (1936): 73, fig. 26.

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1): 37–112.

Holotype (available): ZUMT 30228, locality unknown

Paratype (available): ZUMT 34047 (1), Chiba Pref., Japan (千葉県)

Remarks: In the original description, ZUMT 30228 was designated as the holotype. One paratype was added and described. ZUMT 34047, whose scientific name and collected data match the records in the ZUMT specimen ledger is judged as the paratype.

原記載はホロタイプに ZUMT 30228 を指定した。さらに 1 パラタイプを加え、記載した。ZUMT 34047 は、学名と採集データが ZUMT 標本台帳の記録に一致したパラタイプと判断した。

Current status: Valid as *Pseudogobius masago* (Tomiyama, 1936) マサゴハゼ

Larson, H. K. and Hammer, M. P. 2021. A revision of the gobiid fish genus *Pseudogobius* (Teleostei, Gobiidae, Tridentigerinae), with description of seven new species from Australia and South-east Asia. Zootaxa, 4961 (1): 1–85.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

***Lubricogobius exiguus* Tanaka, 1915** ミジンベニハゼ

Original description: Tanaka (1915): 567.

田中茂穂. 1915. 日本産魚類の十新種. 動物学雑誌, 27 (325): 565–568. [Tanaka, S. 1915. Ten new species of Japanese fishes. Zoological Magazine Tokyo, 27 (325): 565–568. (In Japanese)]

Lectotype: ZUMT 30028, Nagasaki Market, Nagasaki Pref., Japan; collected by Ichiro Kaneko (長崎県長崎市 場, 金子一狼採集)

Paralectotypes (available): ZUMT 6376–ZUMT 6578 (3), same as holotype

Remarks: There is no holotype designation in the original description. From the records in the ZUMT specimen ledger, there are 4 specimens, ZUMT 6376–ZUMT 6578 (3) and ZUMT 30028, which matched the scientific name and collected data. All these specimens are considered are the syntypes (ICZN Art. 72.4.1.1). Randall and Senou (2001) designated ZUMT 30028 with a body length of 1.5 cm as described in the original description as the lectotype.

原記載にホロタイプの指定はない。ZUMT 標本台帳の記録から学名や収集データなどが一致した ZUMT 6376–ZUMT 6578 (3), ZUMT 30028 の 4 標本があった。これらの標本はシントタイプである (ICZN Art. 72.4.1.1)。Randall and Senou (2001)は、原記載にある体長 1.5 cm の ZUMT 30028 をレクトタイプに選択した。

Current status: Valid as *Lubricogobius exiguus* Tanaka, 1915 ミジンベニハゼ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University

- Press, Hadano. 2530 pp. (In Japanese)]
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). *Iranian Journal of Ichthyology*, 8 (Supplement 1): 1–480.
- Randall, J. E. and Senou, H. 2001. Review of the Indo-Pacific gobiid fish genus *Lubricogobius*, with description of a new species and a new genus for *L. pumilus*. *Ichthyological Research*, 48 (1): 3–12.
- Tomiyama, I. 1936. Gobiidae of Japan. *Japanese Journal of Zoology*, 7 (1): 37–112.

***Luciogobius albus* Regan, 1940** ドウクツミミズハゼ

Original description: Regan (1940): 465.

Regan, C. T. 1940. The fishes of the gobiid genus *Luciogobius* Gill. *Annals and Magazine of Natural History*, Ser. 11, 5 (29): 462–465.

Syntypes (available): ZUMT 25762 (1), ZUMT 25693 (1), cave of Daikon-jima, Yatsuka-cho, Yatsuka Dist., Shimane Pref., Japan; Nov. 1931 (島根県八束郡八束町大根島, 昭和6年11月)

Remarks: The original description was based on 2 specimens from Daikon-jima, Shimane Prefecture, illustrated by Tomiyama (1936: 52, fig. 10C). From the records of the ZUMT specimen ledger, there were ZUMT 25762 and ZUMT 25693 corresponding to Daikon-jima, Shimane Prefecture. These 2 specimens are syntypes (ICZN Art. 72.1.1, 72.4.1.1). In addition, the specimen illustrated in fig. 10C of Tomiyama (1936) is ZUMT 25693.

原記載は Tomiyama (1936: 52, fig. 10C) が図示した島根県大根島産の2標本に基づいて記載された。ZUMT 標本台帳の記録から島根県大根島に該当する ZUMT 25762 と ZUMT 25693 があった。この2標本はシンタイプである (ICZN Art. 72.1.1, 72.4.1.1)。Tomiyama (1936) の fig. 10C に図示された標本は、ZUMT 25693 である。

Current status: Valid as *Luciogobius albus* Regan, 1940 ドウクツミミズハゼ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). *Iranian Journal of Ichthyology*, 8 (Supplement 1): 1–480.

Tomiyama, I. 1936. Gobiidae of Japan. *Japanese Journal of Zoology*, 7 (1): 37–112.

渋川浩一・藍澤正宏・鈴木寿之・金川直幸・武藤 文. 2019. 静岡県産ミミズハゼ属魚類の分類学的検討 (予報). *東海自然誌*, 12: 29–96. [Shibukawa K., Aizawa, M., Suzuki, T., Kanagawa, N. and Muto, F. 2019. Preliminary review of earthworm gobies of the genus *Luciogobius* (Gobiiformes, Oxudercidae) from Shizuoka Prefecture, Japan. *Bulletin of the Museum of Natural and Environmental History, Shizuoka*, 12: 29–96. (In Japanese with English abstract)]

渋川浩一・藍澤正宏・鈴木寿之. 2020. *Inu* Snyder, 1909 とは何か? —コマハゼ属の再定義および関係する砂礫間隙性ハゼ類の放散に関する考察. *東海自然誌*, 13: 79–116. [Shibukawa K., Aizawa, M. and Suzuki, T. 2020. Comparative morphology, validity, and limits of the genus *Inu* Snyder, 1909 (Gobiiformes, Oxudercidae), with comments on the diversification of the related interstice-dwelling goby genera in Japan. *Bulletin of the Museum of Natural and Environmental History, Shizuoka*, 13: 79–116. (In Japanese with English abstract)]

***Luciogobius grandis* Arai, 1970 オオミミズハゼ**

Original description: Arai (1970): 199, figs. 1–2; pl. 1 (figs. 3–6).

Arai, R. 1970. *Luciogobius grandis*, a new goby from Japan and Korea. Bulletin of the National Science Museum (Tokyo), 13 (2): 199–206, pl. 1.

Paratypes (available): ZUMT 1350 (1), ZUMT 29960 (1), Toi [Suruga Bay], Izu Peninsula, Shizuoka Pref., Japan; 16 Aug. 1906; collected by Rhotaro Uchiyama (静岡県伊豆市土肥 駿河湾, 明治 39 年 8 月 16 日, 内山柳太郎採集)

Paratypes (available): ZUMT 37896–ZUMT 37900 (5), Ullung-do Island, Korea; 8 Aug. 1937

Paratypes (available): ZUMT 38084–ZUMT 38086 (3), Fukui Pref., Japan; July 1934 (福井県, 1934 年 7 月)

Current status: Valid as *Luciogobius grandis* Arai, 1970 オオミミズハゼ

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

渋川浩一・藍澤正宏・鈴木寿之・金川直幸・武藤 文. 2019. 静岡県産ミミズハゼ属魚類の分類学的検討 (予報). 東海自然誌, 12: 29–96. [Shibukawa K., Aizawa, M., Suzuki, T., Kanagawa, N. and Muto, F. 2019. Preliminary review of earthworm gobies of the genus *Luciogobius* (Gobiiformes, Oxudercidae) from Shizuoka Prefecture, Japan. Bulletin of the Museum of Natural and Environmental History, Shizuoka, 12: 29–96. (In Japanese with English abstract)]

***Luciogobius pallidus* Regan, 1940 イドミミズハゼ**

Original description: Regan (1940): 465.

Regan, C. T. 1940. The fishes of the gobiid genus *Luciogobius* Gill. Annals and Magazine of Natural History, Ser. 11, 5 (29): 462–465.

Syntype (available): ZUMT 11607 (1), Misaki (32°47.3'N, 132°53.0'E.), Tosashimizu City, Kochi Pref., Japan (高知県土佐清水市三崎)

Syntype (available): ZUMT 16147 (1), Uwajima City, Ehime Pref., Japan (愛媛県宇和島市)

Syntype (available): ZUMT 26342 (1), Gobo City, Hidaka Dist., Wakayama Pref., Japan; May 1934 (和歌山県日高郡御坊市, 昭和 9 年 5 月)

Remarks: The original description was based on 3 specimens obtained from the artesian well illustrated by Tomiyama (1936: 52, fig. 10D). From the records in the ZUMT specimen ledger, there are ZUMT 11607, ZUMT 16147 and ZUMT 26342 that corresponded to the collection data. These 3 specimens are syntypes (ICZN Art. 72.1.1, 72.4.1.1). The specimen illustrated in fig. 10D of Tomiyama (1936) is ZUMT 11607.

原記載は Tomiyama (1936: 52, fig. 10D) が図示した自噴井戸から入手した 3 標本に基づいて記載された。ZUMT 標本台帳の記録から収集データに該当する ZUMT 11607, ZUMT 16147 と ZUMT 26342 があつた。この 3 標本はシントタイプである (ICZN Art. 72.1.1, 72.4.1.1)。Tomiyama (1936) の fig. 10D に図示された標本は、ZUMT 11607 である。

Current status: Valid as *Luciogobius pallidus* Regan, 1940 イドミミズハゼ

藍澤正宏. 1998. イドミミズハゼ. pp. 186–187 in 水産庁編. 日本の希少な野生水生生物に関するデータブック. 第III部淡水魚類. 日本水産資源保護協会, 東京. (Aizawa, M. 1998. *Luciogobius pallidus* Regan, 1940. pp. 186–187 in Compiled by the Fisheries Agency. Data book on rare wild aquatic organisms in

- Japan. Part III: Freshwater fishes. Japan Fisheries Resource Conservation Association, Tokyo. [In Japanese]
- Kim, B.-J. 2012. New record of a rare hypogean gobiid, *Luciogobius pallidus* from Jeju island, Korea. Korean Journal of Ichthyology, 24 (4): 306–310.
- 益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- 中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- 岡村恭平・山上竜生・高橋弘明・甲斐嘉晃・遠藤広光. 2024. 高知県におけるイドミミズハゼ種群の分布・生息状況および形態的・遺伝的特徴. Ichthy, Natural History of Fishes of Japan, 43: 20–37. [Okamura, K., Yamagami, R., Takahashi, H., Kai, Y. and Endo, H. 2024. Distribution, habitat status, and morphological and genetic characteristics of the *Luciogobius pallidus* complex sensu Shibukawa et al. (2019) in Kochi Prefecture, Japan. Ichthy, Natural History of Fishes of Japan, 43: 20–37. (In Japanese, English abstract)].
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.
- 渋川浩一・藍澤正宏・鈴木寿之・金川直幸・武藤 文. 2019. 静岡県産ミミズハゼ属魚類の分類学的検討（予報）. 東海自然誌, 12: 29–96. [Shibukawa K., Aizawa, M., Suzuki, T., Kanagawa, N. and Muto, F. 2019. Preliminary review of earthworm gobies of the genus *Luciogobius* (Gobiiformes, Oxudercidae) from Shizuoka Prefecture, Japan. Bulletin of the Museum of Natural and Environmental History, Shizuoka, 12: 29–96. (In Japanese with English abstract)]
- Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1): 37–112.

***Oxyurichthys saru* Tomiyama, 1936 サルハゼ**

Original description: Tomiyama (1936): 78, fig. 29.

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1): 37–112.

Holotype (available): ZUMT 30522, Shizuura, Numazu City, Shizuoka Pref., Japan（静岡県沼津市静浦 駿河湾）

Paratype (available): ZUMT 30523 (1), same as holotype

Remarks: The original description designated ZUMT 30522 as the holotype. One paratype was added and described. ZUMT 30523, whose scientific name and collected data match the records in the ZUMT specimen ledger, is considered as the paratype.

原記載はホロタイプに ZUMT 30522 を指定した。さらに 1 パラタイプを加え、記載した。ZUMT 30523 は、学名と採集データが ZUMT 標本台帳の記録に一致したパラタイプである。

Current status: Valid as *Oxyurichthys saru* Tomiyama, 1936 サルハゼ

- 鈴木寿之・瀬能 宏・坂本勝一・岩田明久・藍澤正宏. 2000. 西表島から得られたサルハゼ属 4 種について. I. O. P. Diving New, 11 (7): 2–7. [Suzuki, T., Senou, H., Sakamoto, K., Iwata, A. and Aizawa, M. 2000. Notes on four species of *Oxyurichthys* (Perciformes, Gobiidae) collected in Iriomote Island, Ryukyu Islands. I. O. P. Diving New, 11 (7): 2–7. (In Japanese with English abstract)]
- 中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.
- 渋川浩一・武藤文人・鈴木寿之・藍澤正宏. 2017. 浜名湖から得られたハゼ科サルハゼ属の 1 未記載種と日本産同属魚類の分類の現状. 東海自然誌, 10: 45–57. [Shibukawa K., Muto, F., Suzuki, T. and

Aizawa, M. 2017. An undescribed goby of the genus *Oxyurichthys* (Gobiidae; Gobionellinae) from Lake Hamana, Shizuoka Prefecture, with comments on taxonomy of the other congeners in Japan. Bulletin of the Museum of Natural and Environmental History, Shizuoka, 10: 45–57. (In Japanese, English abstract)]

Paedogobius kimurai Iwata, Hosoya & Larson, 2001 シラスキバハゼ

Original description: Iwata, Hosoya and Larson (2001): 104, figs. 1–8.

Iwata, A., Hosoya, S. and Larson, H. K. 2001. *Paedogobius kimurai*, a new genus and species of goby (Teleostei: Gobioidae: Gobiidae) from the west Pacific. Records of the Australian Museum, 53 (1): 103–112.

Paratypes (available): ZUMT 59947–ZUMT 59950 (4), Nakagusuku Bay (26°12'N 127°50'E), Okinawa Island, Okinawa Pref., Japan; 29 May 1994 (沖縄県沖縄島中城湾)

Current status: Valid as *Paedogobius kimurai* Iwata, Hosoya & Larson, 2001 シラスキバハゼ

Kottelat, M. 2013. The fishes of the inland waters of Southeast Asia: a catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. Raffles Bulletin of Zoology Supplement, 27: 1–663.

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Parioglossus dotui Tomiyama, 1958 サツキハゼ

Original description: Tomiyama (1958): 1179, pl. 230 (fig. 582).

Tomiyama, I. and Abe, T. 1958. Figures and descriptions of the fishes of Japan (a continuation of Dr. Shigeo Tanaka's work). Kazama-shobo, Tokyo, 57: 1171–1194, pls. 229–231.

Holotype (available, poor condition): ZUMT 49172, Mogi, Kamitsushima-cho, Kamiagata Dist., (Tsushima Is), Nagasaki Pref., Japan; 22 July 1951; collected by Yoshie Dotu (長崎県対馬上県郡上対馬茂木, 昭和 26 年 6 月 22 日, 道津義衛採集)

Paratypes (available): ZUMT 49173–ZUMT 49176 (4), same as holotype

Current status: Valid as *Parioglossus dotui* Tomiyama, 1958 サツキハゼ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編) . 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Rennis, D. S. and Hoese, D. F. 1985. A review of the genus *Parioglossus*, with descriptions of six new species (Pisces, Gobioidae). Records of the Australian Museum, 36 (4): 169–201.

鈴木寿之・瀬能 宏・藍澤正宏. 1994. 西表島で採集された日本初記録のサツキハゼ属魚類 3 種. I. O. P. Diving News, 5 (9): 2–6. [Suzuki, T., Senou, H. and Aizawa, M. 1994. Two newly recorded and one unidentified species of the genus *Parioglossus* from Japan. I. O. P. Diving News, 5 (9): 2–6. (In Japanese, English abstract)]

Tomiyama, I. 1959. Four eleotroid fishes belonging to the genus *Parioglossus*. *Annotationes Zoologicae Japonenses*, 32 (2): 101–104.

***Parioglossus senoui* Suzuki, Yonezawa & Sakaue, 2010 ムスメハゼ**

Original description: Suzuki, Yonezawa and Sakaue (2010): 38, figs 5–8.

Suzuki, T., Yonezawa, T. and Sakaue, J. 2010. Three new species of the ptereleotrid fish genus *Parioglossus* (Perciformes: Gobioidae) from Japan, Palau and India. *Bulletin of the National Museum of Nature and Science* (Ser. A) Supplement, 4: 31–48.

Paratype (available): ZUMT 60443 (1), Hoshizuma-no-hama Beach (24°26'12.84"N, 123°46'30.8"E), Iriomote-jima Island, Yaeyama Group of the Ryukyu Islands, Japan; 23 Aug. 1989; 0.5 m depth; collected by Toshiyuki Suzuki (沖縄県八重山諸島西表島星砂の浜, 平成元年 8 月 23 日, 鈴木寿之採集)

Current status Valid as *Parioglossus senoui* Suzuki, Yonezawa & Sakaue, 2010 ムスメハゼ

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. *Fishes of Japan with pictorial keys to the species I–III*, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). *Iranian Journal of Ichthyology*, 8 (Supplement 1): 1–480.

鈴木寿之・瀬能 宏・藍澤正宏. 1994. 西表島で採集された日本初記録のサツキハゼ属魚類 3 種. I. O. P. Diving News, 5 (9): 2–6. [Suzuki, T., Senou, H. and Aizawa, M. 1994. Two newly recorded and one unidentified species of the genus *Parioglossus* from Japan. I. O. P. Diving News, 5 (9): 2–6. (In Japanese, English abstract)]

***Rhinogobius barbatus* Tomiyama, 1934**

Original description: Tomiyama (1934): 325, fig. 1.

Tomiyama, I. 1934. Four new species of gobies of Japan. *Journal of the Faculty of Science, University of Tokyo*, Section IV Zoology, 3 (3): 325–334.

Holotype (available): ZUMT 26303, Ariake Sea, Okinohata, Yanagawa City, Fukuoka Pref., Japan; May 1931; collected by Ichiro Tomiyama (福岡市柳川市沖端 有明海, 昭和 6 年 5 月, 富山一郎採集)

Paratypes (available): ZUMT 26329 (1), ZUMT 57515–ZUMT 57517 (3), same as holotype

Remarks: In the original description, ZUMT 26303 was designated as the holotype, and 4 paratypes were added. ZUMT 26329 matching the scientific name and collection data of the records in the ZUMT specimen ledger, is considered as the paratypes. This lots originally contained 4 individuals, and 3 individuals other than those with the cloth tag of ZUMT 26329 were registered as ZUMT 57515 to ZUMT 57517.

原記載はホロタイプに ZUMT 26303 を指定し, さらに 4 個体のパラタイプを加え, 記載した. ZUMT 26329 は学名や収集株データが ZUMT 標本台帳の記録に一致したパラタイプである. この標本は 4 個体が含まれ, ZUMT 26329 の布タグが付いたもの以外の 3 個体を ZUMT 57515–ZUMT 57517 に登録した.

Current status: Valid as *Heteroplopomus barbatus* (Tomiyama, 1934) ニラミハゼ

Matsui, S., Inui, R. and Kai, Y. 2014. Annotated checklist of gobioid fishes (Perciformes, Gobioidae) from Wakasa Bay, Sea of Japan. *Bulletin of the Osaka Museum of Natural History*, 68: 1–25, pls. 1–4.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- 中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.
- 清水孝昭. 2001. 愛媛県伊予市沿岸域の魚類目録. 徳島県立博物館研報, 11: 17–99. [Shimizu, T. 2001. An annotated list of the coastal fishes from Iyo City, Ehime Prefecture [sic], Japan. Bulletin of the Tokushima Prefectural Museum, 11: 17–99. (In Japanese with English abstract)]
- Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1): 37–112.

***Rhinogobius fluviatilis* Tanaka, 1925**

Original description: Tanaka (1925): 641, pl. 151.

田中茂穂. 1925. 日本産魚類図説, 34: 629–644, pls. 151–153. [Tanaka, S. 1925. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 34: 629–644, pls. 151–153. (In Japanese and English)]

Holotype (available): ZUMT 9108, Himeji, Hyogo Pref., Japan (兵庫県姫路市)

Remarks: The original description designated ZUMT 9108 as the holotype. ZUMT 9108 in the record of ZUMT specimen ledger is a serial number of ZUMT 9106 to ZUMT 9108, and there is no description of the scientific name in these. Therefore, the two specimens ZUMT 9106 and ZUMT 9107 are not included in the type series because there is no evidence of identification.

原記載はホロタイプに ZUMT 9108 を指定した。ZUMT 標本台帳の記録の ZUMT 9108 は、ZUMT 9106–ZUMT 9108 の連番であり、これらに学名の記述はない。従って、ZUMT 9106 と ZUMT 9107 の 2 標本は同定された証拠がないため、タイプシリーズに含まれない。

Current status: Valid as *Rhinogobius fluviatilis* Tanaka, 1925 オオヨシノボリ

鈴木寿之・陳 義雄. 2011. 田中茂穂博士により記載されたヨシノボリ属 3 種. 大阪市立自然史博物館研究報告, 65: 9–24. (Suzuki T. and Chen, I.-S. 2011. Redescriptions of three species of genus *Rhinogobius* (Perciformes, Gobiidae) described by Dr. Shigeo Tanaka. Bulletin of the Osaka Museum of Natural History, 65: 9–24. (In Japanese)]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

***Rhinogobius hoshinonis* Tanaka, 1917 ホシノハゼ**

Original description: Tanaka (1917): 226.

田中茂穂. 1917. 日本産魚類の三新種. 動物学雑誌, 29 (346): 225–226. [Tanaka, S. 1917. Three new species of Japanese fishes. Zoological Magazine Tokyo, 29 (346): 225–226. (In Japanese)]

Holotype (lost): ZUMT 8038, Hiro, Hirokawa, Arita Dist., Wakayama Pref., Japan; collected by Isaburo Hoshino [紀伊國廣（和歌山県広川広）, 星野伊三郎採集]

Remarks: The original description does not designated the holotype. ZUMT 8038 is the only specimen whose

scientific name and collected data match from the records in the ZUMT specimen ledger. The holotype is ZUMT 8038 (ICZN Art. 73.1.2). No specimen was found at this time, and it was determined that it was lost.

原記載にはホロタイプの指定がない。ZUMT 8038 は原記載の学名と採集データが ZUMT 標本台帳の記録に一致する唯一の標本であり、ホロタイプと判断した (ICZN Art. 73.1.2)。現時点では標本は発見されておらず、紛失したと判断した。

Current status: Valid as *Istigobius hoshinonis* (Tanaka, 1917) ホシノハゼ

林 公義・新井良一・松浦啓一. 1981. 伊豆半島沿岸で採れたホシノハゼ *Acentrogobius hoshinonis* について. 国立科学博物館専報, 14: 144–149. [Hayashi, M., Arai, R. and Matsuura, K. 1981. Notes on a goby *Acentrogobius hoshinonis* from the Izu Peninsula, central Japan. Memoirs of the National Science Museum, 14: 144–149. (In Japanese)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

Matsui, S., Inui, R. and Kai, Y. 2014. Annotated checklist of gobioid fishes (Perciformes, Gobioidae) from Wakasa Bay, Sea of Japan. Bulletin of the Osaka Museum of Natural History, 68: 1–25, pls. 1–4.

Murdy, E. O. and Hoese, D. F. 1985. Revision of the gobiid fish genus *Istigobius*. Indo-Pacific Fishes, 4: 1–41, pls. 1–3.

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Sicydium japonicum Tanaka, 1909

Original description: Tanaka (1909): 22.

Tanaka, S. 1909. Descriptions of one new genus and ten new species of Japanese fishes. Journal of the College of Science. Imperial University, Tokyo 27 (8): 1–27, pl. 1.

Holotype (available): ZUMT 2138, Tosa, Kochi Pref., Japan; collected by Oda (高知県土佐, 織田千齡採集)

Paratype (available): ZUMT 2139 (1), Wakayama Pref., Japan; collected by Hisashi Nakajima (和歌山県, 中島久楠採集)

Remarks: The original description designated ZUMT 2138 as the holotype. Further, a paratype specimen was added and described. This paratype is "Wakayama Prefecture, collected by H. Nakajima", which is ZUMT 2139 in which the scientific name and collected data match from the records in the ZUMT specimen ledger. The figure published in Tanaka (1913)'s the Figures and descriptions of the fishes of Japan (12: pl. 56, figs. 209–211, pl. 58, fig. 215) is paratype ZUMT 2139.

原記載はホロタイプに ZUMT 2138 を指定した。さらにパラタイプ 1 標本を加え、記載された。このパラタイプには「Wakayama Prefecture, collected by H. Nakajima」とあり、ZUMT 標本台帳の記録から学名と収集データが一致した ZUMT 2139 である。田中 (1913: 日本産魚類図説 12: pl. 56, figs. 209–211, pl. 58, fig. 215) に掲載された図は、パラタイプ ZUMT 2139 である。

Current status: Valid as *Sicyopterus japonicus* (Tanaka, 1909) ボウズハゼ

明仁親王・目黒勝介. 1979. *Sicydium* 属と *Sicyopterus* 属の相違について. 魚類学雑誌, 26 (2): 192–202.

[Prince Akihito and Meguro, K. 1979. On the differences between the genera *Sicydium* and *Sicyopterus* (Gobiidae). Japanese Journal of Ichthyology, 26 (2):192–202. (in Japanese with English abstract)]

Maeda, K. and Saeki, T. 2018. Revision of species in *Sicyopterus* (Gobiidae: Sicydiinae) described by de Beaufort

- (1912), with a first record of *Sicyopterus longifilis* from Japan. *Species Diversity*, 23: 253–262.
- Lord, C., Keith, P., Causse, R. and Amick, P. 2020. A new species of *Sicyopterus* (Teleostei: Gobioidae: Sicydiinae) from Papua New Guinea. *Cybiurn*, 44 (2): 127–136.
- 益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- 中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). *Iranian Journal of Ichthyology*, 8 (Supplement 1): 1–480.
- 田中茂穂. 1913. 日本産魚類図説 12: 199–214, pls. 56–60. [Tanaka, S. 1913. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 12: 199–214, pls. 56–60. (In Japanese and English)]
- Yonezawa, T., Shinomiya, A. and Motomura, H. 2010. Freshwater fishes of Yaku-shima Island, Kagoshima Prefecture, southern Japan. pp. 249–261. In: *Fishes of Yaku-shima Island*. National Museum of Nature and Science, Tokyo. *Fishes of Yaku-shima Island*.

***Tomiyamichthys alleni* Iwata, Ohnishi & Hirata, 2000 ヒメオニハゼ**

- Original description: Iwata, Ohnishi and Hirata (2000): 771, figs. 1–2.
- Iwata, A., Ohnishi, N. and Hirata, T. 2000. *Tomiyamichthys alleni*: a new species of Gobiidae from Japan and Indonesia. *Copeia*, 2000 (3): 771–776.

Paratype (available): ZUMT 59946 (1), Kashiwajima Island, Otsuki-cho, Hata-gun, Kochi Prefecture, Japan (高知県幡多郡大月町柏島)

- Current status: Valid as *Tomiyamichthys alleni* Iwata, Ohnishi & Hirata, 2000 ヒメオニハゼ
- Allen, G. R. and Erdmann, M. V. 2012. Reef fishes of the East Indies. *Tropical Reef Research*, Perth Australia. Vol. III, preface, map, contents and 857–1260 pp.
- Allen, G. R., Erdmann, M. V. and Brooks, W. M. 2018. A new species of *Tomiyamichthys* shrimpgoby (Pisces: Gobiidae) from Papua New Guinea. *Journal of the Ocean Science Foundation*, 31: 38–46.
- Hoese, D. F., Shibukawa, K. and Johnson, J. W. 2016. Description of a new species of *Tomiyamichthys* from Australia with a discussion of the generic name. *Zootaxa*, 4079 (5): 582–594.
- 中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). *Iranian Journal of Ichthyology*, 8 (Supplement 1): 1–480.

***Tridentiger kuroiwa* Jordan & Tanaka, 1927**

- Original description: Jordan and Tanaka (1927): 276, pl. 23 (figs. 1–3).
- Jordan, D. S. and Tanaka, S. 1927. The fresh-water fishes of the Riukiu Islands, Japan. *Annals of the Carnegie Museum*, 17 (2): 259–278, pls. 22–23.

Paratypes (available): ZUMT 8913–ZUMT 8918 (6), ZUMT 8920 (1), ZUMT 8923 (1), ZUMT 8925 (1), Yakkachi-gawa River, Sumiyo, Amami-Oshima, Kagoshima Pref., Japan; 1 July 1919; collected by Hisashi Kuroiwa (鹿児島県奄美市住用町 役勝川, 大正 8 年 7 月 1 日, 黒岩 恒採集)

Paratype (available): ZUMT 8936 (1), Kawauchi-gawa River, Surigachi, Sumiyo, Amami City (Amami-Oshima Island), Kagoshima Pref., Japan; 1 July 1919; collected by Hisashi Kuroiwa (鹿児島県奄美市住用町摺勝川内川, 大正 8 年 7 月 1 日, 黒岩 恒採集)

Paratypes (available): ZUMT 9392–ZUMT 9395 (4), ZUMT 9398–ZUMT 9399 (2), ZUMT 9421 (1), Amami-Oshima Islands, Kagoshima Pref., Japan; collected by Hisashi Kuroiwa (鹿児島県奄美大島, 黒岩 恒採集)

Paratypes (available): ZUMT 8822–ZUMT 8824 (3), ZUMT 9463–ZUMT 9464 (2), ZUMT 9466 (1), Yabu-gawa River, Umusa, Nago City, Okinawa Pref., Japan; April 1919; collected by Hisashi Kuroiwa (沖縄県名護市宇茂佐 屋部川, 大正 8 年 4 月, 黒岩 恒採集)

Paratype (available): ZUMT 9441 (1), Ishigaki Island, Okinawa Pref., Japan; collected by Hisashi Kuroiwa (沖縄県石垣島, 黒岩 恒採集)

Paratypes (available): ZUMT 30312 (36), Yakushima Is., Kagoshima Pref., Japan; Arrived in 3 July 1919; collected by Hisashi Kuroiwa (鹿児島県屋久島, 黒岩 恒採集, 大正八年七月 3 日到着)

Paratypes (lost): ZUMT 8911 (1), ZUMT 8926 (1), Yakkachi-gawa River, Sumiyo, Amami-Oshima, Kagoshima Pref., Japan; 1 July 1919; collected by Hisashi Kuroiwa (鹿児島県奄美市住用町 役勝川, 大正 8 年 7 月 1 日, 黒岩 恒採集)

Paratypes (lost): ZUMT 9444 (1), Ishigaki Is., Okinawa Pref., Japan; collected by Hasashi Kuroiwa (沖縄県石垣島, 黒岩 恒採集)

The following ZUMT specimen has been registered as holotype deposited at Field Museum of Natural History, Chicago, Illinois, U.S.A (FMNH 59181).

以下の ZUMT 標本はフィールドミュージアム (米国イリノイ州シカゴ) にホロタイプ (FMNH 59181) として登録されている。

ZUMT 8909, Yakkachi-gawa River, Sumiyo, Amami-Oshima, Kagoshima Pref., Japan; 1 July 1919; collected by Hisashi Kuroiwa (鹿児島県奄美市住用町 役勝川, 大正 8 年 7 月 1 日, 黒岩 恒採集)

The following 9 individuals of ZUMT specimens have been registered as FMNH 59182, paratype.

以下の 9 個体の ZUMT 標本は FMNH 59182 (パラタイプ) として登録されている。

ZUMT 8912 (1), ZUMT 8919 (1), ZUMT 8921–ZUMT 8922 (2), ZUMT 8924 (1), Yakkachi-gawa River, Sumiyo, Amami-Oshima, Kagoshima Pref., Japan; 1 July 1919; collected by Hisashi Kuroiwa (鹿児島県奄美市住用町 役勝川, 大正 8 年 7 月 1 日, 黒岩恒採集)

ZUMT 8820–ZUMT 8821 (2), ZUMT 9465 (1), Yabu-gawa River, Umusa, Nago City, Okinawa Pref., Japan; Apr. 1919; collected by Hisashi Kuroiwa. (沖縄県名護市宇茂佐 屋部川, 大正 8 年 4 月, 黒岩恒採集)

ZUMT 9396 (1), Amami-Oshima Island, Kagoshima Pref., Japan; collected by Hisashi Kuroiwa (鹿児島県奄美大島, 黒岩恒採集)

The following 5 individuals of ZUMT specimens have been registered as paratypes deposited at California Academy of Sciences, San Francisco, California, U.S.A. (CAS-SU 23668).

以下の 5 個体の ZUMT 標本はカリフォルニア科学アカデミー (米国カリフォルニア州サンフランシスコ) にパラタイプ (CAS-SU 23668) として登録されている。

ZUMT 8910 (1), Yakkachi-gawa River, Sumiyo, Amami-Oshima, Kagoshima Pref., Japan; 1 July 1919; collected by Hisashi Kuroiwa (鹿児島県奄美市住用町 役勝川, 大正 8 年 7 月 1 日, 黒岩恒採集)

ZUMT 9390 (or 9391) (1), ZUMT 9395, ZUMT 9397 (2), Amami-Oshima Island, Kagoshima Pref., Japan; collected by Hisashi Kuroiwa (鹿児島県奄美大島, 黒岩恒採集)

ZUMT 9443 (1), Ishigaki Is., Okinawa Pref., Japan; collected by Hasashi Kuroiwa (沖縄県石垣島, 黒岩恒採集)

Remarks: The type series of this species consists of 42 registered lots (2 lots from Yakushima, 28 lots from

Amami Oshima, 9 lots from Okinawa Island, and 3 lots from Ishigaki Island). These are based on freshwater specimens from the Ryukyu Islands collected by Hisashi Kuroiwa in the ZUMT collection. According to the records in the ZUMT specimen ledger, there are 42 registered lots of the genus *Tridentiger* collected by Kuroiwa, of which 1 lot is from Yakushima, 29 lots from Amami Oshima, 9 lots from Okinawa Island, and 3 lots from Ishigaki Island, which are almost the same as the original description. The holotype FMNH 59181 and paratype 14 specimens FMNH 59182 (9) and CAS-SU 23668 (5) are from Amami Oshima. The remaining 27 registered lots were also paratypes, and 25 registered lots could be confirmed from the ZUMT collection (ICZN Art. 72.4.1.1, 72.4.5). From the digital image of the holotype FMNH 59181, it is the ZUMT 8909. Correspondence between 14 registered lots of paratype FMNH 59182 (9) and CAS-SU 23668 (5) and ZUMT registered lots has not been confirmed.

本種のタイプシリーズは、42 登録ロット（屋久島 2 ロット、奄美大島 28 ロット、沖縄島 9 ロット、石垣島 3 ロット）である。これらは、ZUMT コレクションの黒岩 恒の採集した琉球列島の淡水魚類が基になっている。ZUMT 標本台帳の記録では、黒岩の採集したチチブ属 *Tridentiger* は 42 ロットあり、その内訳は屋久島 1 ロット、奄美大島 29 ロット、沖縄島 9 ロット、石垣島 3 ロットと原記載の記述に概ね一致する。ホロタイプ FMNH 59181 とパラタイプ 14 標本の FMNH 59182 (9) と CAS-SU 23668 (5) は、奄美大島産とある。残りの 27 登録ロットもパラタイプであり、ZUMT コレクションから 24 登録ロットを確認できた (ICZN Art. 72.4.1.1, 72.4.5)。

Current status: Valid as *Tridentiger kuroiwa* Jordan & Tanaka, 1927 ナガノゴリ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）．1984．日本産魚類大図鑑．東海大学出版会，東京．xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

Motomura, H., Kuriwa, K., Katayama, E., Senou, H., Ogihara, G., Meguro, M., Matsunuma, M., Takata, Y., Yoshida, T., Yamashita, M., Kimura, S., Endo, H., Murase, A., Iwatsuki, Y., Sakurai, Y., Harazaki, S., Hidaka, K., Izumi, H. and Matsuura, K. 2010. Annotated checklist of marine and estuarine fishes of Yaku-shima Island, Kagoshima, southern Japan. Pp. 65–247. In: Motomura, H. and K. Matsuura (eds.) Fishes of Yaku-shima Island – A World Heritage island in the Osumi Group, Kagoshima Prefecture, southern Japan. National Museum of Nature and Science, Tokyo.

中坊徹次（編）．2013．日本産魚類検索全種の同定 I–III，第三版．東海大学出版会，秦野．2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Yonezawa, T., Shinomiya, A. and Motomura, H. 2010. Freshwater fishes of Yaku-shima Island, Kagoshima Prefecture, southern Japan. pp. 249–261. In: Fishes of Yaku-shima Island. National Museum of Nature and Science, Tokyo. Fishes of Yaku-shima Island.

Tridentiger nudicervicus Tomiyama, 1934 シロチチブ

Original description: Tomiyama (1934): 328, fig. 2.

Tomiyama, I. 1934. Four new species of gobies of Japan. Journal of the Faculty of Science, University of Tokyo, Section IV Zoology, 3 (3): 325–334.

Holotype (available): ZUMT 26304, Ariake Sea, Okinohata, Yanagawa City, Fukuoka Pref., Japan; May 1931; collected by I. Tomiyama（福岡県柳川市沖端 有明海，昭和 6 年 5 月，富山一郎採集）

Paratypes (available): ZUMT 26330 (1), ZUMT 30193–ZUMT 30194 (2), same as holotype

Remarks: The original description designated ZUMT 26304 as the holotype. Further, 3 paratype specimens were added and described. ZUMT 26330, ZUMT 30193, and ZUMT 30194 are specimens whose scientific names and collected data match from the records in the ZUMT specimen ledger, are judged as paratypes.

原記載はホロタイプに ZUMT 26304 を指定した。さらにパラタイプ 3 標本を加え、記載された。ZUMT 26330, ZUMT 30193, および ZUMT 30194 は、ZUMT 標本台帳の記録から学名と採集データが一致する標本である。これらの標本はパラタイプである。

Current status: Valid as *Tridentiger nudicervicus* Tomiyama, 1934 シロチチブ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編) . 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology 7 (1): 37–112.

Valenciennaea phaeochalina Tanaka, 1917 タヅナハゼ

Original description: Tanaka (1917): 225.

田中茂穂. 1917. 日本産魚類の三新種. 動物学雑誌, 29 (346): 225–226. [Tanaka, S. 1917. Three new species of Japanese fishes. Zoological Magazine Tokyo, 29 (346): 225–226. (In Japanese)]

Holotype (lost): ZUMT uncatalogued, Tanabe, Kii Penn. Japan; collected by Nuizo Ui [紀伊國田濱 (和歌山県田辺市), 宇井縫蔵採集]

Remarks: There is no holotype designation in the original description. There is no record of the corresponding specimen in the record of the ZUMT specimen ledger, and no specimen matching the original description were found in the ZUMT collection.

原記載にホロタイプの指定がない。ZUMT 標本台帳の記録にも該当する標本の記録がなく、ZUMT コレクションにも記載に一致する標本を発見できなかった。

Current status: Synonym of *Valenciennaea wardii* (Playfair, 1867) ササハゼ

Allen, G. R. and Erdmann, M. V. 2012. Reef fishes of the East Indies. Tropical Reef Research, Perth Australia. Vol. III, preface, map, contents and 857–1260 pp.

Hoesé, D. F. and Larson, H. K. 1994. Revision of the Indo-Pacific gobiid fish genus *Valenciennaea*, with descriptions of seven new species. Indo-Pacific Fishes, 23: 1–71, pls. 1–6.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編) . 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編) . 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Tomiyama, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology 7 (1): 37–112.

Waitea parvida Tanaka, 1915 カスリハゼ

Original description: Tanaka (1915): 567.

田中茂穂. 1915. 日本産魚類の十新種. 動物学雑誌, 27 (325): 565–568. [Tanaka, S. 1915. Ten new species

of Japanese fishes. Zoological Magazine Tokyo, 27 (325): 565–568. (In Japanese)]

Syntypes (available): ZUMT 6367 (1), ZUMT 63415 (1), Nagasaki Market, Nagasaki Pref., Japan; April 1908; collected by Ichiro Kaneko (長崎県長崎市場, 明治 41 年 4 月, 金子一狼採集)

Remarks: There is no holotype designation in the original description. ZUMT 6367 is a specimen whose scientific name and collected data match from the records in the ZUMT specimen ledger. This ZUMT 6367 contains 2 samples. A specimen with a total length of 35 mm was left on the ZUMT 6367, and a slightly smaller individual was re-registered on the ZUMT 63415. These specimens are syntypes.

原記載にはホロタイプの指定がない。ZUMT 6367 は ZUMT 標本台帳の記録から学名と採集データが一致する標本である。この ZUMT 6367 は 2 標本が含まれる。全長 35 mm の標本を ZUMT 6367 にのこし、やや小さい個体を ZUMT 63415 に再登録した。これらの標本はシタイプである (ICZN Art. 72.1.1, 73.2)。

Current status: Synonym of *Mahidolia mystacina* (Valenciennes, 1837) カスリハゼ

Allen, G. R. and Erdmann, M. V. 2012. Reef fishes of the East Indies. Tropical Reef Research, Perth Australia. Vol. III, preface, map, contents and 857–1260 pp.

Allen, G. R. and Erdmann, M. V. 2019. *Mahidolia paucipora*, a new species of shrimpgoby (Teleostei: Gobiidae) from Papua New Guinea. Journal of the Ocean Science Foundation, 32: 79–88.

Kottelat, M. 2013. The fishes of the inland waters of Southeast Asia: a catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. Raffles Bulletin of Zoology Supplement, 27: 1–663.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. A checklist of the gobioid fishes of the world (Percomorpha: Gobiiformes). Iranian Journal of Ichthyology, 8 (Supplement 1): 1–480.

Tomiya, I. 1936. Gobiidae of Japan. Japanese Journal of Zoology, 7 (1): 37–112.

Yanagisawa, Y. 1978. Studies on the interspecific relationship between gobiid fishes and snapping shrimp. I. Gobiid fishes associated with snapping shrimps in Japan. Publications of the Seto Marine Biological Laboratory, 24 (4/6): 269–325, pls. 1–3.

Scombroidei サバ亜目
Gempylidae クロタチカマス科
Tongaichthys robustus Nakamura & Fujii, 1983

Original description: Nakamura and Fujii (1983): 174, figs. 2–12.

Nakamura, I. and Fujii, E. 1983. A new genus and species of Gempylidae (Pisces: Perciformes) from Tonga Ridge. Publications of the Seto Marine Biological Laboratory, 27 (4/6): 173–191.

Paratypes (available): ZUMT 54254–ZUMT 54256(3), western South Pacific Tonga Ridge (22°10.8'S, 175°23.6'W); 288–312 m depth; 11 Jan. 1977; collected by R.V. *Kaiyo Maru*

Current status: Valid as *Tongaichthys robustus* Nakamura & Fujii, 1983

Randall, J. E., Williams, J. T., Smith, D. G., Kulbicki, M., Mou Tham, G., Labrosse, P., Kronen, M., Clua, E. and Mann, B. S. 2004. Checklist of the shore and epipelagic fishes of Tonga. Atoll Research Bulletin, 502: 1–35.

Xiphiidae カジキ亜目
Istiophoridae マカジキ科
Tetrapturus angustirostris Tanaka, 1915 フウライカジキ

Original description: Tanaka (1915): 324, pl. 88 (fig. 285).

田中茂穂. 1915. 日本産魚類図説, 19: 319–342, pls. 91–95. [Tanaka, S. 1915. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 19: 319–342, pls. 91–95. (In Japanese and English)]

Holotype (lost): ZUMT 4187, Funakata, Tateyama City, Chiba Pref., Japan (千葉県館山市船形)

Remarks: The original description designated ZUMT 4187 as the holotype. The specimen cannot be found at this time, and it was determined that it was lost.

原記載はホロタイプに ZUMT 4187 を指定した。現時点でこの標本は確認できないため、紛失したと判断した。

Current status: Valid as *Tetrapturus angustirostris* Tanaka, 1915 フウライカジキ

畑 晴陵・本村浩之. 2015. 標本に基づくマカジキ科魚類フウライカジキ *Tetrapturus angustirostris* の琉球列島からの記録. Nature of Kagoshima, 41: 153–156. [Hata, H. and Motomura, H. 2015. First record of *Tetrapturus angustirostris* (Perciformes: Istiophoridae) from the Ryukyu Islands on the basis of the collected specimen. Nature of Kagoshima, 41: 153–156. (In Japanese)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Nakamura, I. 1983. Systematics of the billfishes (Xiphiidae and Istiophoridae). Publications of the Seto Marine Biological Laboratory, 28 (5/6): 255–396.

Psomadakis, P., Thein, H., Russell B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.

Channoidei タイワンドジョウ亜目
Channidae タイワンドジョウ科
Channa formosana Jordan & Evermann, 1902

Original description: Jordan and Evermann (1902): 331, fig. 1.

Jordan, D. S. and Evermann, B. W. 1902. Notes on a collection of fishes from the island of Formosa Proceedings of the United States National Museum, 25 (1289): 315–368.

Paratype (available): ZUMT 21677(1), Suwato, Taiwan

Remarks: The original description states that “one specimen of No. 5075, was, now numbered 7132, Stanford University Museum; others, No. 269 was from Suwata”. Due to some mistake, these two specimens were registered in the ZUMT collection. One is that the specimen No. 5075 (metal tag), which is originally the SU 7132 of the Stanford University Museum as a holotype, is in the ZUMT5470, and the other, which is the paratype, the No. 269 (metal tag) from Suwata is in the ZUMT21677. It was registered. The holotype specimen SU 7132 (metal tag No. 5075=ZUMT5470) was transferred from ZUMT to CAS (CAS-SU 107132) in August 1985.

原記載には、「one specimen of No. 5075, was, now numbered 7132, Stanford University Museum; others, No. 269 was from Suwata」とある。何らかの手違いから ZUMT コレクションにこの 2 つの標本が登録されていた。1 つは、ホロタイプとしてスタンフォード大学博物館の SU7132 となる No. 5075（金属タグ）が ZUMT 5470 に、またパラタイプとなるもう 1 つ、Suwata 産の No. 269（金属タグ）は、ZUMT21677 に登録されていた。ホロタイプである SU 7132（金属タグ No. 5075=ZUMT5470）は、1985 年 8 月に ZUMT から CAS（CAS-SU 107132）に移管された。

Current status: Synonym of *Channa asiatica* (Linnaeus, 1758) コウタイ

Courtenay, W. R., Jr. and Williams, J. D. 2004. Snakeheads (Pisces, Channidae) — a biological synopsis and risk assessment. Circular, U. S. Department of the Interior, Geological Survey, 1251: v + 1–143.

Kottelat, M. 2013. The fishes of the inland waters of Southeast Asia: a catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. Raffles Bulletin of Zoology Supplement, 27: 1–663.

Pleuronectiformes カレイ目

Bothidae ダルマガレイ科

Asterorhombus stellifer Tanaka, 1915 セイテンビラメ

Original description: Tanaka (1915): 567.

田中茂穂. 1915. 日本産魚類の十新種. 動物学雑誌, 27 (325): 565–568. [Tanaka, S. 1915. Ten new species of Japanese fishes. Zoological Magazine Tokyo, 27 (325): 565–568. (In Japanese)]

Holotype (lost): ZUMT 6569, Nagasaki Market, Nagasaki Pref., Japan; collected by Ichiro Kaneko（長崎県長崎市場，金子一狼採集）

Remarks: There is no holotype designation in the original description. ZUMT 6569 is the only specimen whose scientific name and collection data match the records in the ZUMT specimen ledger, and is the holotype in the holotype (ICZN Art. 73.1.2). No specimen was found at this time, and it was determined that it was lost.

原記載にはホロタイプの指定がない。ZUMT 6569 は ZUMT 標本台帳の記録から学名と採集データが一致する唯一の標本であり、ホロタイプである（ICZN Art. 73.1.2）。現時点では標本は特定されておらず、紛失したと判断した。

Current status: Synonym of *Asterorhombus intermedius* (Bleeker, 1865) セイテンビラメ

Amaoka, K. 1969. Studies on the sinistral flounders found in the waters around Japan — taxonomy, anatomy and phylogeny —. Journal of the Shimonoseki University of Fisheries, 18 (2): 65–340.

尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016.

Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]

Amaoka, K. and Ho, H.-C. 2019. The left-eye flounder family Bothidae (order Pleuronectiformes) of Taiwan.

Zootaxa, 4702 (1): 155–215.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

大橋祐太・本村浩之. 2011. 大隅諸島以北の鹿児島県におけるカレイ目魚類相. Nature of Kagoshima, 37: 71–118. [Ohashi, Y. and Motomura, H. 2011. Pleuronectiform fishes of northern Kagoshima Prefecture, Japan. Nature of Kagoshima, 37: 71–118. (In Japanese)]

***Platophrys kiensis* Tanaka, 1918** キシュウダルマ

Original description: Tanaka (1918): 225.

田中茂穂. 1918. 日本産魚類の十二新種. 動物学雑誌, 30 (356): 223–227. [Tanaka, S. 1918. Twelve new species of Japanese fishes. Zoological Magazine Tokyo, 30 (356): 223–227. (In Japanese)]

Holotype (available): ZUMT 8313, Tanabe, Wakayama Pref., Japan; collected by N. Ui [紀伊國田邊（和歌山県田辺市），宇井縫蔵採集]

Remarks: There is no type designation in the original description. ZUMT 8313 is the only specimen whose scientific name and collection data match from the records in the ZUMT specimen ledger. ZUMT 8313 is the holotype (ICZN Art. 73.1.2). This specimen has two cloth tags with the registration number "8313" and "Sketch No. 401".

原記載にはタイプの指定がない。ZUMT 6569 は ZUMT 標本台帳の記録から学名と採集データが一致する唯一の標本である。ZUMT 8313 はホロタイプである（ICZN Art. 73.1.2）。この標本に登録番号の「8313」と「写生番号 401 号」と書かれた 2 つの布タグが付いている。

Current status: Valid as *Parabothus kiensis* (Tanaka, 1918) キシュウダルマガレイ

Amaoka, K. 1969. Studies on the sinistral flounders found in the waters around Japan — taxonomy, anatomy and phylogeny —. Journal of the Shimonoseki University of Fisheries, 18 (2): 65–340.

尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016.

Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]

Amaoka, K. and Ho, H.-C. 2019. The lefteye flounder family Bothidae (order Pleuronectiformes) of Taiwan. Zootaxa, 4702 (1): 155–215.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

岡村 収（編）. 1985. 沖縄舟状海盆及び周辺海域の魚類II. 日本水産資源保護協会, 東京. 417–781 pp. [Okamura, O. (Ed). 1985. Fishes of the Okinawa Trough and the adjacent waters II. Japan Fisheries Resource Conservation Association, Tokyo. 417–781 pp. (In Japanese and English; various authors)]

大橋祐太・本村浩之. 2011. 大隅諸島以北の鹿児島県におけるカレイ目魚類相. Nature of Kagoshima, 37: 71–118. [Ohashi, Y. and Motomura, H. 2011. Pleuronectiform fishes of northern Kagoshima Prefecture, Japan. Nature of Kagoshima, 37: 71–118. (In Japanese)]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

玉井隆章・荒尾一樹. 2021. 愛知県一色漁港に水揚げされた魚類（第 4 報）. 豊橋市自然史博物館研究報告, 31: 45–55. [Tamai, T. and Arao, K. 2021. Landing Fishes on Isshiki Fishing Port, Aichi Prefecture (part IV). Sci. Rep. Toyohashi Mus. Nat. Hist., No. 31, 45–55. (In Japanese)]

Voronina, E. P. and Causse, R. 2014. New record of the bothid flounder *Parabothus taiwanensis* (Bothidae, Pleuronectiformes) from the southern Pacific Ocean (Vanuatu Archipelago) with description of a new diagnostic character. Cybium, 38 (2): 149–152.

***Scaeops kanekonis* Tanaka, 1918** カネコダルマ

Original description: Tanaka (1918): 226.

田中茂穂. 1918. 日本産魚類の十二新種. 動物学雑誌, 30 (356): 223–227. [Tanaka, S. 1918. Twelve new species of Japanese fishes. Zoological Magazine Tokyo, 30 (356): 223–227. (In Japanese)]

Holotype (available): ZUMT 8314, Nagasaki Market, Nagasaki Pref., Japan; collected by I. Kaneko（長崎県長

崎市場, 金子一狼採集)

Remarks: There is no holotype designation in the original description. ZUMT 8314 is the only specimen whose scientific name and collection data match from the records in the ZUMT specimen ledger. ZUMT 8314 is holotype (ICZN Art. 73.1.2). This specimen has two cloth tags with the registration number "8314" and "Sketch No. 199".

原記載にはホロタイプの指定がない。ZUMT 8314 は ZUMT 標本台帳の記録から学名と採集データが一致する唯一の標本である。ZUMT 8314 はホロタイプである (ICZN Art. 73.1.2)。この標本に登録番号の「8314」と「写生番号 199 号」と書かれた 2 つの布タグが付いている。

Current status: Synonym of *Crossorhombus azureus* (Alcock, 1889) カネコダルマガレイ

尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016.

Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]

Amaoka, K. and Ho, H.-C. 2019. The lefteye flounder family Bothidae (order Pleuronectiformes) of Taiwan. Zootaxa, 4702 (1): 155–215.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

大橋祐太・本村浩之. 2011. 大隅諸島以北の鹿児島県におけるカレイ目魚類相. Nature of Kagoshima, 37: 71–118. [Ohashi, Y. and Motomura, H. 2011. Pleuronectiform fishes of northern Kagoshima Prefecture, Japan. Nature of Kagoshima, 37: 71–118. (In Japanese)]

Scaeops ui Tanaka, 1918 ウイダルマ

Original description: Tanaka (1918): 226.

田中茂穂. 1918. 日本産魚類の十二新種. 動物学雑誌, 30 (356): 223–227. [Tanaka, S. 1918. Twelve new species of Japanese fishes. Zoological Magazine Tokyo, 30 (356): 223–227. (In Japanese)]

Holotype (available): ZUMT 8315, Tanabe, Wakayama Pref., Japan; collected by N. Ui [紀伊國田邊 (和歌山県田辺市) 宇井縫蔵採集]

Remarks: There is no type designation in the original description. ZUMT 8315 is the only specimen whose scientific name and collection data match from the records in the ZUMT specimen ledger. ZUMT 8315 is the holotype (ICZN Art. 73.1.2). This specimen has two cloth tags with the registration number "8315" and "Sketch No. 400".

原記載にはタイプの指定がない。ZUMT 8315 は ZUMT 標本台帳の記録から学名と採集データが一致する唯一の標本である。ZUMT 8315 はホロタイプである (ICZN Art. 73.1.2)。この標本に登録番号の「8315」と「写生番号 400 号」と書かれた 2 つの布タグが付いている。

Current status: Synonym of *Crossorhombus kobensis* (Jordan & Starks, 1906) コウベダルマガレイ

Amaoka, K. 1969. Studies on the sinistral flounders found in the waters around Japan — taxonomy, anatomy and phylogeny —. Journal of the Shimonoseki University of Fisheries, 18 (2): 65–340.

尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016.

Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]

Amaoka, K. and Ho, H.-C. 2019. The lefteye flounder family Bothidae (order Pleuronectiformes) of Taiwan. Zootaxa, 4702 (1): 155–215.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出

- 版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- 中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- 岡村 収 (編). 1985. 沖縄舟状海盆及び周辺海域の魚類II. 日本水産資源保護協会, 東京. 417–781 pp. [Okamura, O. (Ed). 1985. Fishes of the Okinawa Trough and the adjacent waters II. Japan Fisheries Resource Conservation Association, Tokyo. 417–781 pp. (In Japanese and English; various authors)]
- 大橋祐太・本村浩之. 2011. 大隅諸島以北の鹿児島県におけるカレイ目魚類相. Nature of Kagoshima, 37: 71–118. [Ohashi, Y. and Motomura, H. 2011. Pleuronectiform fishes of northern Kagoshima Prefecture, Japan. Nature of Kagoshima, 37: 71–118. (In Japanese with English abstract)]
- 山田梅芳・田川 勝・岸田周三・本城康至. 1986. 東シナ海・黄海のさかな. 西海区水産研究所, 長崎. xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

Scidorhombus pallidus Tanaka, 1915 ウスガレイ

Original description: Tanaka (1915): 567.

田中茂穂. 1915. 日本産魚類の十新種. 動物学雑誌, 27 (325): 565–568. [Tanaka, S. 1915. Ten new species of Japanese fishes. Zoological Magazine Tokyo, 27 (325): 565–568. (In Japanese)]

Syntypes (lost): ZUMT 6569–ZUMT 6572 (4), Nagasaki Market, Nagasaki Pref., Japan; Sept. 1915; collected by Ichiro Kaneko (長崎県長崎市, 大正 4 年 9 月, 金子一狼採集)

Remarks: There is no type designation in the original description. From the ZUMT specimen ledger, there were records of four specimens, ZUMT 6570–ZUMT 6573, whose scientific names and collection data match. These specimens are syntypes (ICZN Art. 72.1.1, 73.2). The writing of ZUMT 6573 was "D. 93, A. ~~75~~ 74, Scales in eye side rather weakly. Scales 42 in a long series. Scales and blind side cycloid". The content of this writing was consistent with the original description, except for the anal fin rays. No specimen was found at this time, and it was determined that it was lost.

原記載にはタイプの指定がない. ZUMT 標本台帳から学名と収集データが一致する 4 標本 ZUMT 6570–ZUMT 6573 の記録があった. これらの標本はシタイプである (ICZN Art. 72.1.1, 73.2). ZUMT 6573 の書き込みは「D. 93, A. ~~75~~ 74, Scales in eye side rather weakly. Scales 42 in a long series. Scales an blind side cycloid」とあった. この書き込みの内容は, 臀鰭軟条以外, 原記載に一致した. 残念ながら, 現時点では標本は特定されておらず, 紛失したと判断した.

Current status: Synonym of *Arnoglossus tenuis* Günther, 1880 ナガダルマガレイ

Amaoka, K. 1969. Studies on the sinistral flounders found in the waters around Japan — taxonomy, anatomy and phylogeny —. Journal of the Shimonoseki University of Fisheries, 18 (2): 65–340.

尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016.

Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

大橋祐太・本村浩之. 2011. 大隅諸島以北の鹿児島県におけるカレイ目魚類相. Nature of Kagoshima, 37: 71–118. [Ohashi, Y. and Motomura, H. 2011. Pleuronectiform fishes of northern Kagoshima Prefecture, Japan. Nature of Kagoshima, 37: 71–118. (In Japanese with English abstract)]

Pleuronectidae カレイ科
Microstomus kitaharae Jordan & Starks, 1904

Original description: Jordan and Starks (1904): 625, pl. 7, fig. 2.

Jordan, D. S. and Starks, E. C. 1904. List of fishes dredged by the steamer Albatross off the coast of Japan in the summer of 1900, with descriptions of new species and a review of the Japanese Macrouridae. Bulletin of the U. S. Fish Commission 22 [1902]: 577–630, pls. 1–8.

Paratypes (available in poor condition): ZUMT 5599 (3), Tokyo Market, Tokyo, Japan; collected by D. S. Jordan (東京都東京市場, D. S. Jordan 採集)

Remarks: In ZUMT 5599 of the ZUMT specimen ledger, there was a description of "*Glyptocephalus kitaharae*, Jordan" and "Several, Cotype, from Tokyo market". In the original description of the scientific name written in the ledger, there was a description "Others were collected by Jordan and Snyder in the market at Tokyo, several of which were incorporated as cotypes in the Imperial University at Tokyo". These specimens are paratypes (ICZN Art. 72.4.1.1, 72.4.6).

ZUMT 標本台帳の ZUMT 5599 に「*Glyptocephalus kitaharae*, Jordan」, 「Several, Cotype, from Tokyo market」の記述があった。台帳に書き込まれた学名の原記載 (Jordan and Starks, 1904: p. 626) には「Others were collected by Jordan and Snyder in the market at Tokyo, several of which were deposited as cotypes in the Imperial University at Tokyo」と記載されており、これらの標本はパラタイプである (ICZN Art. 72.4.1.1, 72.4.6)。

Current status: Valid as *Tanakius kitaharae* (Jordan & Starks, 1904) ヤナギムシガレイ

尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016.

Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

大橋祐太・本村浩之. 2011. 大隅諸島以北の鹿児島県におけるカレイ目魚類相. Nature of Kagoshima, 37: 71–118. [Ohashi, Y. and Motomura, H. 2011. Pleuronectiform fishes of northern Kagoshima Prefecture, Japan. Nature of Kagoshima, 37: 71–118. (In Japanese)]

岡村 収・尼岡邦夫・三谷文夫 (編). 1982. 九州一パラオ海嶺ならびに土佐湾の魚類. 日本水産資源保護協会, 東京, 436 pp. [Okamura, O., Amaoka, K. and Mitani, F. (eds). 1982. Fishes of the Kyushu–Palau Ridge and Tosa Bay. The intensive research of unexploited fishery resources on continental slopes. Japan Fisheries Resource Conservation Association, Tokyo. 435 pp. (In Japanese and English; various authors)]

岡村 収 (編). 1985. 沖縄舟状海盆及び周辺海域の魚類II. 日本水産資源保護協会, 東京. 417–781 pp. [Okamura, O. (Ed). 1985. Fishes of the Okinawa Trough and the adjacent waters II. Japan Fisheries Resource Conservation Association, Tokyo. 417–781 pp. (In Japanese and English; various authors)]

山田梅芳・田川 勝・岸田周三・本城康至. 1986. 東シナ海・黄海のさかな. 西海区水産研究所, 長崎. xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

Pluviopsetta taniguchii Tanaka, 1916 セグロ

Original description: Tanaka (1916): 142.

田中茂穂. 1916. 日本産魚類の三新種. 動物学雑誌, 28 (330): 141–144. [Tanaka, S. 1916. Three new species of Japanese fishes. Zoological Magazine Tokyo, 28 (330): 141–144. (In Japanese)]

Holotype (available): ZUMT 7077, Obama, Fukui Pref., Japan; around 3 Mar. 1916; collected by Naotaro Taniguchi [若州小濱（福井県小浜市），大正5年3月3日頃，谷口直太郎採集]

Remarks: There is no type designation in the original description. ZUMT 7077 is the only specimen whose scientific name and collection data match from the records in the ZUMT specimen ledger. ZUMT 7077 is the holotype (ICZN Art. 73.1.2). This specimen has two cloth tags with the registration number "7077" and "Sketch No. 318".

原記載にはタイプの指定がない。ZUMT 7077 は ZUMT 標本台帳の記録から学名と採集データが一致する唯一の標本である。ZUMT 7077 はホロタイプである（ICZN Art. 73.1.2）。この標本には登録番号の「7077」と「写生番号 318 号」と書かれた 2 つの布タグが付いていた。

Current status: Synonym of *Pseudopleuronectes yokohamae* (Günther, 1877) マコガレイ

尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016.

Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]

Evseenko, S. A. 2004. Family Pleuronectidae Cuvier 1816 — righteye flounders. California Academy of Sciences Annotated Checklists of Fishes, 37: 1–37.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

大橋祐太・本村浩之. 2011. 大隅諸島以北の鹿児島県におけるカレイ目魚類相. Nature of Kagoshima, 37: 71–118. [Ohashi, Y. and Motomura, H. 2011. Pleuronectiform fishes of northern Kagoshima Prefecture, Japan. Nature of Kagoshima, 37: 71–118. (In Japanese)]

山田梅芳・田川 勝・岸田周三・本城康至. 1986. 東シナ海・黄海のさかな. 西海区水産研究所, 長崎. xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

Reinhardtius oleosus Tanaka, 1918 フユガレイ

Original description: Tanaka (1918): 226.

田中茂穂. 1918. 日本産魚類の十二新種. 動物学雑誌, 30 (356): 223–227. [Tanaka, S. 1918. Twelve new species of Japanese fishes. Zoological Magazine Tokyo, 30 (356): 223–227. (In Japanese)]

Holotype (lost): ZUMT uncatalogued, Tokyo Market, Tokyo, Japan (Iwaki, Fukushima Pref.?) [東京都東京市場（福島県いわき市？）]

Remarks: There is no type designation in the original description. There is no record of the corresponding specimen in the ZUMT specimen ledger, and there is no specimen that matches the description in the ZUMT collection.

原記載にはタイプの指定がない。ZUMT 標本台帳に該当する標本の記録がなく、ZUMT コレクションにも記載に一致する標本がない。

Current status: Synonym of *Reinhardtius hippoglossoides* (Walbaum, 1792) アブラガレイ

Amaoka, K. 1969. Studies on the sinistral flounders found in the waters around Japan — taxonomy, anatomy and phylogeny —. Journal of the Shimonoseki University of Fisheries, 18 (2): 65–340.

尼岡邦夫・仲谷一宏・矢部 衛. 2011. 北海道の全魚類図鑑. 北海道新聞社, 札幌. 482 pp. [Amaoka, K., Nakaya, K. and Yabe, M. 1995. Fishes of Hokkaido. The Hokkaido Shimbun Press, Sapporo. 482 pp. (In Japanese)]

- 尼岡邦夫. 2016. 日本産ヒラメ・カレイ類. 東海大学出版部, 秦野. 236 pp. [Amaoka, K. 2016. Flatfishes of Japan. Tokai University Press, Hadano. 236 pp. (In Japanese)]
- Evseenko, S. A. 2004. Family Pleuronectidae Cuvier 1816 - righteye flounders. California Academy of Sciences Annotated Checklists of Fishes, 37: 1–37.
- 益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- 中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Soleidae ササウシノシタ科
Aseraggodes orientalis Randall & Senou, 2007

Original description: Randall and Senou (2007): 307, fig. 5
Randall, J. E. and Senou, H. 2007. Two new soles of the genus *Aseraggodes* (Pleuronectiformes: Soleidae) from Taiwan and Japan. Zoological Studies, 46 (3): 303–310.

Holotype (available): ZUMT 59828, between Shirahama and Kinohana, east of Kashiwa-jima, Kochi Pref., Japan; 6 June 1992; sand, 3 m depth; hand net; collected by Akihisa Iwata (高知県柏島東方, 平成4年6月6日, 岩田明久採集)

Paratype (available): ZUMT 59827 (1), off Aka-tōdai, Kashiwa-jima, Kochi Pref., Japan; 13 Aug. 1991; 2–23 m depth; hand net; collected by Akihisa Iwata (高知県柏島, 平成3年8月13日, 岩田明久採集)

Remarks: The original description written the type locality as “Kashima-jima”, but is miss-spelling of “Kashiwa-jima” (This list has been corrected).

原記載にタイプ産地として示された“Kashima-jima”は“Kashiwa-jima [柏島]”の誤記である。(このリストは訂正済み)

Current status: Valid as *Aseraggodes orientalis* Randall & Senou, 2007 トウヨウウシノシタ
Randall, J. E., Bogorodsky, S. V. and Mal, A. O. 2013. Four new soles (Pleuronectiformes: Soleidae) of the genus *Aseraggodes* from the western Indian Ocean. Journal of the Ocean Science Foundation, 8: 1–17.
中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Tetraodontiformes フグ目
Balistoidei モンガラカワハギ亜目
Balistidae モンガラカワハギ科
Balistes vidua kamoharai Abe, 1958 イレズミモンガラ

Original description: Abe (1958): 178.
Abe, T. 1958. Two new subspecies of fishes from the path of the "Kuro-Shiwo". Records of Oceanographic Works in Japan, Special., 2: 175–180.

Syntype (available): ZUMT 23700(1), Wakayama Pref., Kii Peninsula, Japan (和歌山県 紀伊半島)
Syntype (available): ZUMT 42402(1), Shimoda City, Shizuoka Pref. Japan (静岡県下田市)
Syntype (available): ZUMT 44407(1), unknown

Current status: Synonym of *Melichthys vidua* (Richardson, 1845) クロモンガラ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）．1984．日本産魚類大図鑑．東海大学出版会，東京．xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次・町田吉彦・山岡耕作・西田清徳（編）．2001．以布利 黒潮の魚．大阪海遊館，大阪．300 pp. [Nakabo, T., Machida, Y., Yamaoka, K. and Nishida, K. (eds). 2001. Fishes of the Kuroshio Current, Japan. Osaka Aquarium KAIYUKAN, Osaka. 300 pp. (In Japanese and English)]

中坊徹次（編）．2013．日本産魚類検索全種の同定 I－III，第三版．東海大学出版会，秦野．2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I-III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. Annotated checklist of fishes of the family Balistidae. International Journal of Zoological Investigations, 7 (2): 647–672.

Randall, J. E. and Klausewitz, W. 1973. A review of the triggerfish genus *Melichthys*, with description of a new species from the Indian Ocean. Senckenbergiana Biologica, 54 (1/3): 57–69.

Pachynathus nigromarginatus Tanaka, 1908

Original description: Tanaka (1908): 39, pl. 1 (fig. 4).

Tanaka, S. 1908. Notes on some Japanese fishes, with descriptions of fourteen new species. Journal of the College of Science. Imperial University, Tokyo 23 (7): 1–54, pls. 1–4.

Holotype (lost): ZUMT 958, off Misaki (Sagami Bay), Kanagawa Pref., Japan; 1905（神奈川県三崎 相模湾，明治 38 年）

Remarks: The original description designated the holotype as ZUMT 958. Since this specimen cannot be confirmed at this time, it was judged to be lost.

原記載はホロタイプを ZUMT 958 に指定した．現時点でこの標本は確認できないため，失われたと判断した．

Current status: Synonym of *Balistoides viridescens* (Bloch & Schneider, 1801) ゴマモンガラ

久新健一郎・尼岡邦夫・仲谷一宏・井田 齊・谷野保夫・千田哲資．1982．南シナ海の魚類．海洋水産資源開発センター，東京．335pp. [Kyushin, K., Amaoka, K., Nakaya, K., Ida, H., Tanino Y. and Senta, T. 1982. Fishes of the South China Sea. Japan Marine Fishery Resource Research Center, Tokyo, 333 pp. (In Japanese and English; various authors)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）．1984．日本産魚類大図鑑．東海大学出版会，東京．xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次（編）．2013．日本産魚類検索全種の同定 I－III，第三版．東海大学出版会，秦野．2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I-III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. Annotated checklist of fishes of the family Balistidae. International Journal of Zoological Investigations, 7 (2): 647–672.

Psomadakis, P., Thein, H., Russell, B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.

Xanthichthys gotonis Tanaka, 1918 ゴトウモンガラ

Original description: Tanaka (1918): 481, pl. 131, fig. 372.

田中茂穂. 1918. 日本産魚類図説, 27: 475–494, pls. 131–135. [Tanaka, S. 1918. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 27: 475–494, pls. 131–135. (In Japanese and English)]

Holotype (lost): ZUMT 7626, Tokyo Market (come from Izu), Tokyo, Japan; May 1917 (東京都東京市場, 大正 6 年 5 月)

Paratypes (lost): ZUMT 7627–ZUMT 7629 (3), same as holotype

Remarks: The original description designated ZUMT 7626 as the holotype. The original description states that "there are many other specimens," and it is clear that multiple specimens were investigated. Holotype records were listed in the ZUMT specimen ledger as "7626–7629" in sequence. ZUMT 7626 is a holotype, and ZUMT 7627 to 7629 are paratypes (ICZN Art. 72.4.5). Unfortunately, the specimen has not been located at this time, and was judged to have been lost.

原記載はホロタイプに ZUMT 7626 を指定した。原記載には「他に多くの標本がある」とあり、複数の標本を調査したことは明らかである。ホロタイプの記録は、ZUMT 標本台帳に「7626–7629」と連番で記述されていた。ZUMT 7626 はホロタイプ、ZUMT 7627–7629 はパラタイプとなる (ICZN Art. 72.4.5)。残念ながら、現時点では標本は特定されておらず、紛失したと判断した。

Current status: Synonym of *Xanthichthys mento* (Jordan & Gilbert, 1882) ナメモンガラ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Parenti, P. 2021. Annotated checklist of fishes of the family Balistidae. International Journal of Zoological Investigations, 7 (2): 647–672.

Randall, J. E., Matsuura, K. and Zama, A. 1978. A revision of the triggerfish genus *Xanthichthys*, with description of a new species. Bulletin of Marine Science, 28 (4): 688–706.

Xanthichthys purus Tanaka, 1918 ナメモンガラ

Original description: Tanaka (1918): 484, pl. 133 (fig. 374).

田中茂穂. 1918. 日本産魚類図説, 27: 475–494, pls. 131–135. [Tanaka, S. 1918. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 27: 475–494, pls. 131–135. (In Japanese and English)]

Holotype (lost): ZUMT 7625, Tokyo Market, Tokyo, Japan. May 1917 (東京都東京市場, 大正 6 年 5 月)

Remarks: The original description designated ZUMT 7625 as the holotype. Since this specimen cannot be found at this time, it was judged to be lost.

原記載はホロタイプに ZUMT 7625 を指定した。現時点でこの標本は確認できないため、失われたと判断した。

Current status: Synonym of *Xanthichthys mento* (Jordan & Gilbert, 1882) ナメモンガラ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
 中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.
 [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
 Parenti, P. 2021. Annotated checklist of fishes of the family Balistidae. International Journal of Zoological Investigations, 7 (2): 647–672.
 Randall, J. E., Matsuura, K. and Zama, A. 1978. A revision of the triggerfish genus *Xanthichthys*, with description of a new species. Bulletin of Marine Science, 28 (4): 688–706.

Monacanthidae カワハギ科

Cantherines nigromaculosus Tanaka, 1912 サラサハギ

Original description: Tanaka (1912): 144, pls. 38 (fig. 145), 39 (fig. 148), 40 (fig. 155).

田中茂穂. 1912. 日本産魚類図説, 8: 129–144, pls. 36–40. [Tanaka, S. 1912. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 8: 129–144, pls. 36–40. (In Japanese and English)]

Holotype (lost): ZUMT 3340, off Misaki (Sagami Bay), Kanagawa Pref., Japan (神奈川県三崎 相模湾)

Remarks: The original description designated ZUMT 3340 as the holotype. Since this specimen cannot be found at this time, it was judged to be lost.

原記載はホロタイプに ZUMT 3340 を指定した。現時点でこの標本は確認できないため、失われたと判断した。

Current status: Synonym of *Thamnaconus hypargyreus* (Cope, 1871) サラサハギ

Dyldin, Yu. V. and Orlov, A. M. 2017. Ichthyofauna of fresh and brackish waters of Sakhalin Island: an annotated list with taxonomic comments: 4. Pholidae–Tetraodontidae families. Journal of Ichthyology, 57 (2): 183–218.

松浦啓一. 1989. サラサハギの学名と和名. 魚類学雑誌, 36 (2): 285–286. (Matsuura, K. 1989. Scientific name and Japanese name of Sarasahagi. Japanese Journal of Ichthyology, 36 (2): 285–286. (In Japanese)]

Matsuura, K. 2014. Taxonomy and systematics of tetraodontiform fishes: a review focusing primarily on progress in the period from 1980 to 2014. Ichthyological Research, 62 (1): 72–113. [First appeared online [1–42], printed version appeared on 24 Jan. 2015.]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp.
 [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

岡村 収（編）. 1985. 沖縄舟状海盆及び周辺海域の魚類II. 日本水産資源保護協会, 東京. 417–781 pp. [Okamura, O. (Ed). 1985. Fishes of the Okinawa Trough and the adjacent waters II. Japan Fisheries Resource Conservation Association, Tokyo. 417–781 pp. (In Japanese and English; various authors)]

山田梅芳・田川 勝・岸田周三・本城康至. 1986. 東シナ海・黄海のさかな. 西海区水産研究所, 長崎. xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

Pseudomonacanthus multilineatus Tanaka, 1918 センウマヅラ

Original description: Tanaka (1918): 478, pl. 132 (fig. 373).

田中茂穂. 1918. 日本産魚類図説, 27: 475–494, pls. 131–135. [Tanaka, S. 1918. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 27: 475–494, pls. 131–135. (In Japanese and English)]

Holotype (lost): ZUMT 8193, Tokyo Market, Tokyo, Japan (東京都東京市場)

Remarks: The original description designated ZUMT 8193 as the holotype. Since this specimen cannot be found at this time, it was judged to be lost.

原記載はホロタイプに ZUMT 8193 を指定した。現時点でこの標本は確認できないため、失われたと判断した。

Current status: Valid as *Thamnaconus multilineatus* (Tanaka, 1918) センウマヅラハギ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

松本達也・前川隆則・本村浩之. 2021. 薩南諸島初記録のカワハギ科ウマヅラハギ属 3 種 (アズキウマヅラハギ・センウマヅラハギ・ゴイシウマヅラハギ), および *Cantherhines* に対する標準和名ハクセイハギ属 (新称) の提唱. Ichthy, Natural History of Fishes of Japan, 12: 12–19. [Matsumoto, T., Maekawa, T. and Motomura, H. 2021. First records of three species of the genus *Thamnaconus*, *T. fijiensis*, *T. multilineatus*, and *T. tessellatus*, from the Satsunan Islands, Japan, and a new standard Japanese name for the genus *Cantherhines* (Tetraodontiformes: Monacanthidae). Ichthy, Natural History of Fishes of Japan, 12: 12–19. (In Japanese with English abstract)]

Motomura, H., Alama, U. B., Muto, N., Babaran, R. P. and Ishikawa, S. (eds). 2017. Commercial and bycatch market fishes of Panay Island, Republic of the Philippines. The Kagoshima University Museum, Kagoshima, University of the Philippines Visayas, Iloilo, and Research Institute for Humanity and Nature, Kyoto, Japan. 1–246.

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Psomadakis, P., Thein, H., Russell B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.

Aracanidae イトマキフグ科
Polyplacapros tyleri Fujii & Uyeno, 1979

Original description: Fujii and Uyeno (1979): 4, figs. 3–6.

Fujii, E. and Uyeno, T. 1979. *Polyplacapros tyleri*, a new genus and species of ostraciid trunkfish from off eastern Australia and Norfolk Ridge. Japanese Journal of Ichthyology, 26 (1): 1–10.

Paratype (lost): ZUMT 54171 (1, ex FSFL ED404, male, 266 mm SL), ZUMT 54172 (1, ex FSFL EB715, female, 278 mm SL, stained in alizarin Red S.), Sea mount off eastern Australia, 33°04.0'S, 156°13.2'E; 132 m depth; 28 Dec. 1975; trawl no. T64

Paratype (lost): ZUMT 54173 (1, ex FSFL ED124, male, 206 mm SL, stained in alizarin Red S.), Sea mount off eastern Australia, 32°28.2' S, 167°28.1' E; 122 m depth; 13 Jan. 1976; trawl no. T 73

Paratype (lost): ZUMT 54174 (1, ex FSFL ED133, male, 167 mm SL), Sea mount off eastern Australia, 32°28.2' S, 167°28.1' E; 122 m depth; 13 Jan. 1976; trawl no. T 73

Paratype (lost): ZUMT 54175 (1, ex FSFL EE454, male, 184 mm SL), Sea mount off eastern Australia, 32°42.6' S, 167°31.7' E; 145 m depth; 21 Dec. 1976; trawl no. T 9

Paratype (lost): ZUMT 54176 (1, ex FSFL EE542, male, 226 mm SL), Sea mount off eastern Australia, 32°32.2' S, 167°31.6' E; 110 m depth; 22 Dec. 1976; trawl no. T13

Remarks: The cloth tags of the ZUMT registration number are kept by themselves and are not attached to the

specimen. These paratypes have not been delivered to ZUMT and their current whereabouts are unknown.

ZUMT の登録番号の布タグが保管されており、標本には付けられていない。これらのパラタイプは、ZUMT に届いておらず、現在の所在は不明。

Current status: Valid as *Polyplacapros tyleri* Fujii & Uyeno, 1979 ナガイトマキフグ

尼岡邦夫・松浦啓一・稲田伊史・武田正倫・畑中 寛・岡田啓介（編）．1990．ニュージーランド海域の水族，深海丸により採集された魚類・頭足類・甲殻類．海洋水産資源開発センター，東京．411 pp. [Amaoka, K., Matsuura, K., Inada, T., Takeda, M., Hatanaka, H. and Okada, K. (Eds). 1990. Fishes collected by the R/V *Shinkai Maru* around New Zealand. Japan Marine Fishery Resource Research Center, Tokyo. 411 pp. (In Japanese and English; various authors)]

Matsuura, K. 2014. Taxonomy and systematics of tetraodontiform fishes: a review focusing primarily on progress in the period from 1980 to 2014. *Ichthyological Research*, 62 (1): 72–113. [First appeared online [1-42], printed version appeared on 24 Jan. 2015.]

Paulin, C. D., Stewart, A. L., Roberts, C. D. and McMillan, P. J. 1989. New Zealand fishes a complete guide. National Museum of New Zealand Miscellaneous Series. 19: i–xiv + 1–279, 8 pls.

Tetraodontidei フグ亜目

Tetraodontidae フグ科

Fugu vermicularis snyderi Abe, 1988 ショウサイフグ

Original description: Abe (1988): 13.

Abe, T. 1988. A new scientific name for a Japanese common tetraodontid fish. *UO* (Japanese Society of Ichthyologists), 38: 13–14.

Holotype (available): ZUMT 7186, Tokyo Market, Tokyo, Japan（東京都東京市場）

Remarks: The holotype of this species was illustrated in Tanaka (1916: 24: 435–438, pl. 120, fig. 347) (as *Sphoeroides vermicularis*).

本種のホロタイプは、田中（1916: 24: 435–438, pl. 120, fig. 347）で図示された標本である（*Sphoeroides vermicularis* として）。

Current status: Valid as *Takifugu snyderi* (Abe, 1988) ショウサイフグ

Dyldin, Yu. V., Matsuura, K. and Makeev, S. S. 2016. Comments on puffers of the genus *Takifugu* from Russian waters with the first record of yellowfin puffer, *Takifugu xanthopterus* (Tetraodontiformes, Tetraodontidae) from Sakhalin Island. *Bulletin of the National Museum of Natural Science, Ser. A., Supplement*, 42 (3): 133–141.

松浦啓一．2017．日本産フグ類図鑑．東海大学出版部，平塚．xiv+127 pp. [Matsuura, K. 2017.

Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]

中坊徹次（編）．2013．日本産魚類検索全種の同定 I–III，第三版．東海大学出版会，秦野．2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

田中茂穂．1916．日本産魚類図説，24: 419–440, pls. 116–120. [Tanaka, S. 1916. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 24: 419–440, pls. 116–120. (In Japanese and English)]

Lagocephalus exilis Tanaka, 1916 クマサカフグ

Original description: Tanaka (1916): 27.

田中茂穂．1916．日本産魚類の四新種．動物学雑誌，28 (327): 26–28. [Tanaka, S. 1916. Four new species

of Japanese fishes. Zoological Magazine Tokyo, 28 (327): 26–28. (In Japanese)]

Holotype (available): ZUMT 6202, Tokyo Market, Tokyo, Japan (東京都東京市場)

Remarks: There is no holotype designation in the original description. ZUMT6202 is the only specimen whose scientific name and collected data match from the records in the ZUMT specimen ledger. This specimen is the holotype (ICZN Art. 72.4.1.1, 73.1.2). Tanaka (1916: 23: 412–414, pl. 112, fig. 335) described and illustrated the holotype of this species ("Kumasakafugu").

原記載にはホロタイプの指定がない。ZUMT6202はZUMT標本台帳の記録と原記載の学名、採集データが一致する唯一の標本である。この標本がホロタイプである(ICZN Art. 72.4.1.1, 73.1.2)。田中(1916: 23: 412–414, pl. 112, fig. 335)は、この種(クマサカフグ)のホロタイプを記載し、図を掲載した。

Current status: Synonym of *Lagocephalus lagocephalus* (Linnaeus, 1758) クマサカフグ

尼岡邦夫・仲谷一宏・矢部 衛. 2011. 北海道の全魚類図鑑. 北海道新聞社, 札幌. 482 pp. [Amaoka, K., Nakaya, K. and Yabe, M. 1995. Fishes of Hokkaido. The Hokkaido Shimbun Press, Sapporo. 482 pp. (In Japanese)]

畑 晴陵・伊東正英・本村浩之. 2016. 鹿児島県から得られたフグ科魚類クマサカフグ *Lagocephalus lagocephalus*. Nature of Kagoshima, 42: 333–338. [Hata, H., Itou, M. and Motomura, H. 2016. First records of *Lagocephalus lagocephalus* (Tetraodontiformes: Tetraodontidae) from Kagoshima Prefecture, southern Japan. Nature of Kagoshima, 42: 333–338. (In Japanese)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫(編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

松浦啓一. 2017. 日本産フグ類図鑑. 東海大学出版部, 平塚. xiv+127 pp. [Matsuura, K. 2017.

Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]

中坊徹次・町田吉彦・山岡耕作・西田清徳(編). 2001. 以布利 黒潮の魚. 大阪海遊館, 大阪. 300 pp. [Nakabo, T., Machida, Y., Yamaoka, K. and Nishida, K. (eds). 2001. Fishes of the Kuroshio Current, Japan. Osaka Aquarium KAIYUKAN, Osaka. 300 pp. (In Japanese and English)]

中坊徹次(編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Psomadakis, P., Thein, H., Russell, B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.

田中茂穂. 1916. 日本産魚類図説, 23: 399–418, pls. 111–115. [Tanaka, S. 1916. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 23: 399–418, pls. 111–115. (In Japanese and English)]

Wu, R.-X., Liu, J. and Ning, P. 2011. A new record species of the head rabbit puffer, *Lagocephalus lagocephalus* (Linnaeus, 1758) from China seas. Acta Zootaxonomica Sinica, 36 (3): 622–626.

Lagocephalus gloveri Abe & Tabeta, 1983

Original description: Abe and Tabeta (1983): 2, pls. 1–3.

Abe, T. and Tabeta, O. 1983. Description of a new swellfish of the genus *Lagocephalus* (Tetraodontidae, Teleostei) from Japanese waters and the East China Sea. UO (Japanese Society of Ichthyologists), 32: 1–8, pls. 1–3.

Holotype (available): ZUMT 54324, Futo, Ito City, Shizuoka Pref., Japan (静岡県伊東市富戸)

Paratype (available): ZUMT 54325 (1), same as holotype

Remarks: The Japanese name "Kurosabafugu" was proposed by Shiomi et al. (1980) based on ZUMT 54311 from the East China Sea (off Fuzhou, China; captured in March 1980).

和名「クロサバフグ」は、塩見・他（1980）により東シナ海産（福州沖，1980年3月採捕）の ZUMT 54311 を基に提唱された。

Current status: Synonym of *Lagocephalus cheesemanii* (Clarke, 1897) クロサバフグ

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）．1984．日本産魚類大図鑑．東海大学出版会，東京．xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

Matsuura, K. and Satoh, T. P. 2016. Redescription of *Lagocephalus cheesemanii* (Clarke 1897), a senior synonym of *Lagocephalus gloveri* Abe and Tabeta 1983, based on morphological and genetic comparisons

(Actinopterygii: Tetraodontiformes: Tetraodontidae). Ichthyological Research, 64 (1): 104–110.

松浦啓一．2017．日本産フグ類図鑑．東海大学出版部，平塚．xiv+127 pp. [Matsuura, K. 2017.

Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]

中坊徹次・町田吉彦・山岡耕作・西田清徳（編）．2001．以布利 黒潮の魚．大阪海遊館，大阪．300 pp. [Nakabo, T., Machida, Y., Yamaoka, K. and Nishida, K. (eds). 2001. Fishes of the Kuroshio Current, Japan.

Osaka Aquarium KAIYUKAN, Osaka. 300 pp. (In Japanese and English)]

中坊徹次（編）．2013．日本産魚類検索全種の同定 I–III，第三版．東海大学出版会，秦野．2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

岡村 収（編）．1985．沖縄舟状海盆及び周辺海域の魚類II．日本水産資源保護協会，東京．417–781 pp. [Okamura, O. (Ed). 1985. Fishes of the Okinawa Trough and the adjacent waters II. Japan Fisheries

Resource Conservation Association, Tokyo. 417–781 pp. (In Japanese and English; various authors)]

Psomadakis, P., Thein, H., Russell, B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.

塩見一雄・山中英明・菊池武昭・河端稔治・阿部宗明・北浜喜一．1980．中国産サンサイフグ（新称）及びクロサバフグ（新称）の毒性について．UO (Japanese Society of Ichthyologists), 31: 21–26, pl. II. (Shiomi, K., Yamanaka, H., Kikuchi, T., Kawabata, T., Abe, T. and Kitahama, K. 1980. On the toxicity of *Fugu flavidus* Li, Wang & Wang and *Lagocephalus lunaris* subsp. UO (Japanese Society of Ichthyologists), 31: 21–26, pl. II. (In Japanese)]

山田梅芳・田川 勝・岸田周三・本城康至．1986．東シナ海・黄海のさかな．西海区水産研究所，長崎．xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

Lagocephalus wheeleri Abe, Tabeta & Kitahama, 1984 シロサバフグ

Original description: Abe, Tabeta and Kitahama (1984): 4, pls. 2–3.

Abe, T., Tabeta, O. and Kitahama, K. 1984. Notes on some swellfishes of the genus *Lagocephalus* (Tetraodontidae, Teleostei) with description of a new species from Japan. UO (Japanese Society of Ichthyologists), 34: 1–10, pls. 1–3.

Holotype (available): ZUMT 54368, off Manazuru (Sagami Bay), Kanagawa Pref., Japan; 29 July 1983; collected by trap-net set（神奈川県真鶴 相模湾，昭和 58 年 7 月 29 日）

Paratype (available): ZUMT 54369 (1), same as holotype

Current status: Synonym of *Lagocephalus spadiceus* (Richardson, 1845) シロサバフグ

- 尼岡邦夫・仲谷一宏・矢部 衛. 2011. 北海道の全魚類図鑑. 北海道新聞社, 札幌. 482 pp. [Amaoka, K., Nakaya, K. and Yabe, M. 1995. Fishes of Hokkaido. The Hokkaido Shimbun Press, Sapporo. 482 pp. (In Japanese)]
- 益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]
- Matsuura, K. 2010. *Lagocephalus wheeleri* Abe, Tabeta & Kitahama, 1984, a junior synonym of *Tetrodon spadiceus* Richardson, 1845 (Actinopterygii, Tetraodontiformes, Tetraodontidae). *Memories of the Natural Museum of Natural Sciences, Tokyo*, 46: 39–46.
- 松浦啓一. 2017. 日本産フグ類図鑑. 東海大学出版部, 平塚. xiv+127 pp. [Matsuura, K. 2017. Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]
- 中坊徹次・町田吉彦・山岡耕作・西田清徳 (編). 2001. 以布利 黒潮の魚. 大阪海遊館, 大阪. 300 pp. [Nakabo, T., Machida, Y., Yamaoka, K. and Nishida, K. eds. 2001. Fishes of the Kuroshio Current, Japan. Osaka Aquarium KAIYUKAN, Osaka. 300 pp. (In Japanese and English)]
- 中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
- Psomadakis, P., Thein, H., Russell, B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.
- 山田梅芳・田川 勝・岸田周三・本城康至. 1986. 東シナ海・黄海のさかな. 西海区水産研究所, 長崎. xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

***Spheroides moriwaki* Tanaka, 1918 コメフグ**

Original description: Tanaka (1918): 99.

田中茂穂. 1918. 日本産魚類の二新種. 動物学雑誌, 30 (353): 99–100. [Tanaka, S. 1918. Two new species of Japanese fishes. *Zoological Magazine Tokyo*, vol. 30 (353): 99–100. (In Japanese)]

Holotype (available): ZUMT 8214, Takashima, Shiribeshi, Hokkaido, Japan; 26 Sept. 1917; donated by I. Moriwaki (北海道後志國高島, 大正 6 年 9 月 26 日, 森脇幾茂寄贈)

Remarks: There is no type designation in the original description. ZUMT 8214 is the only specimen whose scientific name and collected data match from the records in the ZUMT specimen ledger. This specimen is holotype (ICZN Art. 72.4.1.1, 73.1.2).

原記載にタイプの指定がない. ZUMT 8214 は ZUMT 標本台帳の記録から学名と採集データが一致する唯一の標本である. ZUMT 8214 はホロタイプである (ICZN Art. 72.4.1.1, 73.1.2) .

Current status: Synonym of *Takifugu porphyreus* (Temminck & Schlegel, 1850) マフグ

尼岡邦夫・仲谷一宏・矢部 衛. 2011. 北海道の全魚類図鑑. 北海道新聞社, 札幌. 482 pp. [Amaoka, K., Nakaya, K. and Yabe, M. 1995. Fishes of Hokkaido. The Hokkaido Shimbun Press, Sapporo. 482 pp. (In Japanese)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

松原喜代松. 1955. 魚類の形態と検索 II. 石崎書店, 東京. vi + 791–1605 pp. [Matsubara, K. 1955. Fish morphology and hierarchy. Ishizaki-Shoten, Tokyo. Part 2: vi+791–1605 pp. (In Japanese)]

松浦啓一. 2017. 日本産フグ類図鑑. 東海大学出版部, 平塚. xiv+127 pp. [Matsuura, K. 2017.

Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]
 中坊徹次（編）．2013．日本産魚類検索全種の同定 I－III，第三版．東海大学出版会，秦野．2530 pp.
 [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I-III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]
 岡村 収（編）．1985．沖縄舟状海盆及び周辺海域の魚類II．日本水産資源保護協会，東京．417–781 pp. [Okamura, O. (Ed). 1985. Fishes of the Okinawa Trough and the adjacent waters II. Japan Fisheries Resource Conservation Association, Tokyo. 417–781 pp. (In Japanese and English; various authors)]
 山田梅芳・田川 勝・岸田周三・本城康至．1986．東シナ海・黄海のさかな．西海区水産研究所，長崎．xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

***Sphoeroides ocellatus obscurus* Abe, 1949 メフグ**

Original description: Abe (1949): 97, pl. 1, figs. 3–4, pl. 2, fig. 1.

Abe, T. 1949. Taxonomic studies on the puffers (Tetraodontidae, Teleostei) from Japan and adjacent regions — V. Synopsis of the puffers from Japan and adjacent regions. Bulletin of the Biogeographical Society of Japan, 14 (13): 89–140, pls. 1–2.

Holotype (available): ZUMT ABE 8015, central wholesale market of Tokyo (East China Sea or its adjoining waters); 2 June 1949

Paratypes (available): ZUMT 2079, ZUMT 66910(1, ex 2079'), Ichang, China

Paratypes (available): ZUMT 29800–ZUMT 29803(4), Korea

Paratype (lost): ZUMT 29804(1), Korea

Paratype (available): ZUMT ABE 8016 (1, skeleton), same as holotype

Current status: Valid as *Takifugu obscurus* (Abe, 1949) メフグ

中坊徹次（編）．2013．日本産魚類検索全種の同定 I－III，第三版．東海大学出版会，秦野．2530 pp.
 [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I-III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Randall, J. E. and Lim, K. K. P. 2000. A checklist of the fishes of the South China Sea. Raffles Bulletin of Zoology Suppl., 8: 569–667.

***Sphoeroides rubripes chinensis* Abe, 1949 カラス**

Original description: Abe (1949): 105, pl. 2, fig. 2.

Abe, T. 1949. Taxonomic studies on the puffers (Tetraodontidae, Teleostei) from Japan and adjacent regions — V. Synopsis of the puffers from Japan and adjacent regions. Bulletin of the Biogeographical Society of Japan, 14 (13): 89–140, pls. 1–2.

Holotype (available): ZUMT 48280 (previously ABE 7906), central wholesale market of Tokyo (East China Sea or its adjoining waters); 7 Feb. 1948

Paratype (available): ZUMT 6386(1), Nagasaki Market, Nagasaki Pref., Japan（長崎県長崎市場）

Paratype (available): ZUMT ABE 7926'(1), entral wholesale market of Tokyo (East China Sea or its adjoining waters).

Remarks: Registered in ZUMT 48280 in the ZUMT collection. ABE 7906 was re-registered as ZUMT 48280 in the ZUMT collection.

原記載ではホロタイプに ABE 7906 を指定したが，ABE 7906 は，ZUMT コレクションの ZUMT 48280 に再登録されていた。

The following 5 paratypes from the Abe collection are unknown.

以下の阿部コレクションのパラタイプ5標本は所在不明。

ABE 4515(1), Pusan, Korea; ABE 7919(1: skeleton), ABE 8006(1: Skull), ABE 8008(1: Skull), ABE 8009(1: skeleton), central wholesale market of Tokyo (East China Sea or its adjoining waters).

Current status: Valid as *Takifugu chinensis* (Abe, 1949) カラス

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）．1984．日本産魚類大図鑑．東海大学出版会，東京．xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

松浦啓一．2017．日本産フグ類図鑑．東海大学出版部，平塚．xiv+127 pp. [Matsuura, K. 2017.

Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]

中坊徹次（編）．2013．日本産魚類検索全種の同定 I－III，第三版．東海大学出版会，秦野．2530 pp.

[Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I-III, third edition. Tokai University

Press, Hadano. 2530 pp. (In Japanese)]

山田梅芳・田川 勝・岸田周三・本城康至．1986．東シナ海・黄海のさかな．西海区水産研究所，長崎．xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea

and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki, xxvi + 502 pp. (In Japanese)]

Sphoeroides vermicularis radiatus Abe, 1948 ナシフグ

Original description: Abe (1948): 159, fig. 1.

阿部宗明．1948[1947]．ショウサイフグ及びナメラフグに近いフグの一新型 *Sphoeroides vermicularis radiatus* form. nov. に就いて．動物学雑誌，57 (10): 159–161. [Abe, T. 1948[1947]. On a new puffer, *Sphoeroides vermicularis radiatus* form. nov. Zoological Magazine Tokyo, 57 (10): 159–161. (In Japanese)]

Holotype (available): ZUMT 18069, Ariake Sound, Japan (有明湾)

Paratype (available): ZUMT 2554 (1), Nagasaki Pref., Japan; 14 Nov. 1909 (長崎県，明治 42 年 11 月 14 日)

Paratype (available): ZUMT 2704 (1), Nagasaki Pref., Japan; Apr. 1910 (長崎県，明治 43 年 4 月)

Paratypes (available): ZUMT 7238 (1), ZUMT 7239 (1), Nagasaki Pref., Japan; collected by Ichiro Kaneko (長崎県，金子一狼採集)

Paratype (available): ZUMT 13916 (1), Ariake Sound, Japan; 14 Dec. 1924 (有明湾，大正 13 年 12 月 14)

Paratype (available): ZUMT 16434 (1), Kaneura, Okayama Pref., Japan (岡山県金浦)

Paratype (available): ZUMT 17976 (1), ZUMT 18046 (1), Ariake Sound, Japan (有明湾)

Paratype (available): ZUMT 19636 (1), Genkai, Fukuoka Pref., Japan (福岡県玄海)

Paratype (available): ZUMT 44209 (1), South China Sea or Fukuoka Pref., Japan; 31 Oct. 1942 (南シナ海または福岡県，昭和 17 年 10 月 31 日)

Paratypes (available): ZUMT 46043 (7), Ariake Sound, Yanagawa, Fukuoka Pref., Japan; May 1931 (福岡県柳川市 有明湾，昭和 6 年 5 月)

Paratype (available): ZUMT 47626 (1), Misumi, Kumamoto Pref., Japan (熊本県三角)

Paratypes (available): ZUMT 47627 (22), Ariake Sound, Yanagawa, Fukuoka Pref., Japan; Oct. 1931; collected by Ichiro Tomiyama (福岡県柳川市 有明湾，昭和 6 年 10 月，富山一郎採集)

Paratypes (available): ZUMT 47628–ZUMT 47630 (3), Busan, Korea; 22 May 1935

Paratypes (available): ZUMT 47631 (5), ZUMT 47632 (3), ZUMT 47633 (1), Busan, Korea; 1 June 1935

Paratypes (available): ZUMT ABE 4938–ZUMT ABE 4939 (2), Nagasaki Pref., Japan; July–Aug. 1935; collected by Tokiharu Abe (長崎県，昭和 10 年 7–8 月，阿部宗明採集)

Paratypes (lost): ZUMT 47634–ZUMT 47638 (5), Zhoushan Islands, Zhejiang, China; 27 July 1942; collected by Ichiro Tomiyama.

Remarks: The original publication date of the Zoological Journal, Vol. 57, No. 10, in which the original

description appeared, is given as October 1947 on the cover and on the page header of the original description, but is recorded in the National Diet Library records it as May 1, 1948. The publication date was taken from records in the National Diet Library. In the reprint of the original description, the registration number of the holotype of this species is shown as ZUMT18669, which is a typographical error of ZUMT18069.

原記載が掲載された「動物学雑誌, 第 57 巻第 10 号」の発行日は, 表紙と原記載本文のページヘッダーに 1947 年 10 月とあるが, 国立国会図書館の記録では 1948 年 5 月 1 日である. 発行日は国立国会図書館の記録を採用した. 原記載の別刷りでは, 本種のホロタイプの登録番号が ZUMT18669 となっているが ZUMT18069 の誤植である.

以下の阿部コレクションのパラタイプ 4 標本とその他にパラタイプ 5 標本は, 現在の所在は不明である.

There are 4 paratypes in the Abe collection below and 5 other paratypes, the current whereabouts of which are unknown.

ABE 1329 (1, skeleton), Mogi, Nagasaki Pref., Japan; July–Aug. 1935; collected by Tokiharu Abe.

ABE 4271–ABE 4272 (2), Ariake Sound, Yanagawa, Fukuoka Pref., Japan; 28 Dec. 1938; collected by Tokiharu Abe.

ABE 7848 (1, skeleton), Tokyo Market, Tokyo, Japan (from Shimonoseki, Yamaguchi Pref.).

other 5 paratypes: 4 specimens (120–230 mm TL) from Nagasaki, 1 specimen (200 mm TL) from Ariake Sound; 1 specimen (190mm TL) from Yingkow (Liauhoo or Liaoho), in the collection of Dr. Denzaburo. Miyadi.

Current status: Synonym of *Takifugu vermicularis* (Temminck & Schlegel, 1850) ナシフグ

Abe, T. 1948. Notes on some of the commoner puffers from East China Sea and adjoining waters, with description of *Sphoeroides vermicularis radiatus* Abe. Bulletin of the Japanese Society of Scientific Fisheries, 13 (6): 227–231.

Abe, T. 1988. A new scientific name for a Japanese common tetraodontid fish. UO (Japanese Society of Ichthyologists), 38: 13–14.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫 (編). 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

松浦啓一. 2017. 日本産フグ類図鑑. 東海大学出版部, 平塚. xiv+127 pp. [Matsuura, K. 2017. Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]

中坊徹次 (編). 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

山田梅芳・田川 勝・岸田周三・本城康至. 1986. 東シナ海・黄海のさかな. 西海区水産研究所, 長崎. xxvi + 502 pp. [Yamada, U., Tagawa, M., Kishida, S. and Honjo, K. 1986. Fishes of the East China Sea and the Yellow Sea. Seikai Regional Fisheries Research Laboratory, Nagasaki. xxvi + 502 pp. (In Japanese)]

***Stenocephalus elongatus* Harada & Abe, 1994** クロサバモドキ (Figs. 1, 2)

Original description: Harada and Abe (1994): 30, fig. 4.2, 4.4–F.

原田禎顕・阿部宗明. 1994. フグの分類と毒性－国際化時代の魚種検索法と毒性を考える. 恒星社厚生閣, 東京, 130pp. (Harada, Y. and T. Abe. 1994. Taxonomy and toxicity of imported pufferfishes in Japan. Koseisyu Koseikaku, Tokyo, 130pp. [In Japanese])

Holotype (available): ZUMT 62526 (female, skeleton), off Tainan, Taiwan (South China Sea); 27, Mar. 1981

Remarks: This holotype was registered in ZUMT 62526 of the ZUMT collection. The nominal species is in accordance with Articles 11 to 16 of the International Code of Zoological Nomenclature and is therefore deemed to be available name. A photograph of the holotype when fresh is shown in Fig. 1, and its skull in Fig. 2. The skull shape, which is a diagnostic character of this species, is considered to be an exceptional case of skeletal

variation, and the nominal species is judged as a junior synonym of the *Lagocephalus cheesemanii* (Clarke, 1897).

本種のホロタイプは ZUMT コレクションの ZUMT 62526 である。本名義種は、国際動物命名規約条 11～16 の各条項に則し、適格であると認めた。ホロタイプの生鮮時の写真を Fig. 1 に、頭骨を Fig. 2 に掲載する。本種は識別点である頭蓋骨の形状は、骨格変異の例外的な例と考えられクロサバフグ *Lagocephalus cheesemanii* (Clarke, 1897) の新参異名と判断した。

Current status: Synonym of *Lagocephalus cheesemanii* (Clarke, 1897) クロサバフグ

***Tetraodon alboreticulatus* Tanaka, 1908 シロアミフグ**

Original description: Tanaka (1908): 42, pl. 1, fig. 5.

Tanaka, S. 1908. Notes on some Japanese fishes, with descriptions of fourteen new species. Journal of the College of Science. Imperial University, Tokyo 23 (7): 1–54, pls. 1–4.

Holotype (available, dry mount, partially damaged): ZUMT 959, off Misaki (Sagami Bay), Kanagawa Pref., Japan (神奈川県三崎 相模湾)

Remarks: ZUMT 959 was designated as the holotype in the original description. The holotype is partially damaged and in poor condition.

原記載にはホロタイプに ZUMT 959 を指定した。

Current status: Synonym of *Arothron stellatus* (Anonymous, 1798) モヨウフグ

近藤日向子・松浦啓一・須之部友基. 2022. 千葉県館山から採集されたモヨウフグ（フグ目：フグ科）の成熟雌. Japan. Ichthy, Natural History of Fishes of Japan, 18: 34–36. [Kondo, H., Matsuura, K. and Sunobe, T. 2022. Record of matured female of *Arothron stellatus* (Tetraodontiformes: Tetraodontidae) from Tateyama, Chiba Prefecture, Japan. Ichthy, Natural History of Fishes of Japan, 18: 34–36. (In Japanese, English abstract)].

久新健一郎・尼岡邦夫・仲谷一宏・井田斉・谷野保夫・千田哲資. 1982. 南シナ海の魚類. 海洋水産資源開発センター, 東京. 335pp. [Kyushin, K., Amaoka, K., Nakaya, K., Ida, H., Tanino Y. and Senta, T. 1982. Fishes of the South China Sea. Japan Marine Fishery Resource Research Center, Tokyo, 333 pp. (In Japanese and English; various authors)]

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds). 1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

松浦啓一. 2017. 日本産フグ類図鑑. 東海大学出版部, 平塚. xiv+127 pp. [Matsuura, K. 2017.

Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Psomadakis, P., Thein, H., Russell, B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.

田中茂穂. 1914. 日本産魚類図説, 18: 295–318, pls. 86–90. [Tanaka, S. 1914. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 18: 295–318, pls. 86–90. (In Japanese and English)]

Tetraodon sazanami Tanaka, 1916 サザナミフグ

Original description: Tanaka (1916): 384, pl. 105, fig. 324, pl. 110, fig. 333.

田中茂穂. 1916. 日本産魚類図説, 22: 383–398, pls. 106–110. [Tanaka, S. 1916. Figures and descriptions of the fishes of Japan including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea, and Southern Sakhalin, 22: 383–398, pls. 106–110. (In Japanese and English)]

Holotype (available): ZUMT 6745, Tokyo Market (Sagami Bay), Tokyo, Japan [東京市場（相模湾）]

Remarks: There is no type designation in the original description. ZUMT 6745 is the only specimen that matches the scientific name and collected data from the records in the ZUMT specimen ledger, and it is a holotype (ICZN Art. 72.4.1.1, 73.1.2). This specimen has two cloth tags labeled "6475" and "Sketch No. 252".

原記載にはタイプの指定がない。ZUMT 6745 は ZUMT 標本台帳の記録から学名、採集データに一致する唯一の標本であり、ホロタイプである（ICZN Art. 72.4.1.1, 73.1.2）。この標本には「6475」と「写生番号 252 号」と書かれた 2 つの布タグが付いている。

Current status: Synonym of *Arothron hispidus* (Linnaeus, 1758) サザナミフグ

Kottelat, M. 2013. The fishes of the inland waters of Southeast Asia: a catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. Raffles Bulletin of Zoology Supplement, 27: 1–663.

益田 一・尼岡邦夫・荒賀忠一・上野輝彌・吉野哲夫（編）. 1984. 日本産魚類大図鑑. 東海大学出版会, 東京. xx + 448 pp., 370 pls. [Masuda, H., Amaoka, K., Araga, C., Uyeno, T. and Yoshino, T. (eds).

1984. The fishes of the Japanese Archipelago. Tokai University Press, Tokyo. xx + 448 pp., 370 pls.]

松原喜代松. 1955. 魚類の形態と検索 II. 石崎書店, 東京. vi + 791–1605 pp. [Matsubara, K. 1955. Fish morphology and hierarchy. Ishizaki-Shoten, Tokyo. Part 2: vi + 791–1605 pp. (In Japanese)]

松浦啓一. 2017. 日本産フグ類図鑑. 東海大学出版部, 平塚. xiv+127 pp. [Matsuura, K. 2017.

Pufferfishes and their allies of Japan. Tokai University Press, Hiratsuka. xiv+127 pp. (In Japanese)]

中坊徹次（編）. 2013. 日本産魚類検索全種の同定 I–III, 第三版. 東海大学出版会, 秦野. 2530 pp. [Nakabo, T. (ed). 2013. Fishes of Japan with pictorial keys to the species I–III, third edition. Tokai University Press, Hadano. 2530 pp. (In Japanese)]

Randall, J. E., Bogorodsky, S. V. and Rose, J. M. 2012. Color variation of the puffer *Arothron hispidus* (Linnaeus) and comparison with *A. reticularis* (Bloch & Schneider). Aqua, International Journal of Ichthyology, 18 (1): 41–54.

Psomadakis, P., Thein, H., Russell, B. C. and Tun, M. T. 2020. Field identification guide to the living marine resources of Myanmar. FAO species identification guide for fishery purposes. Food and Agriculture Organization of the United Nations, and Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Republic of the Union of Myanmar, Rome. xvii + 694 pp., pls. 1–58.



Figure 1. Fresh specimen of *Stenocephalus elongatus* Harada & Abe, 1994 (Holotype: ZUMT 62526).



Figure 2. Skull of *Stenocephalus elongatus* Harada & Abe, 1994 (Holotype: ZUMT62526).