

## 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, Ara-kawa 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／プラゼ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, Ara-kawa 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 population 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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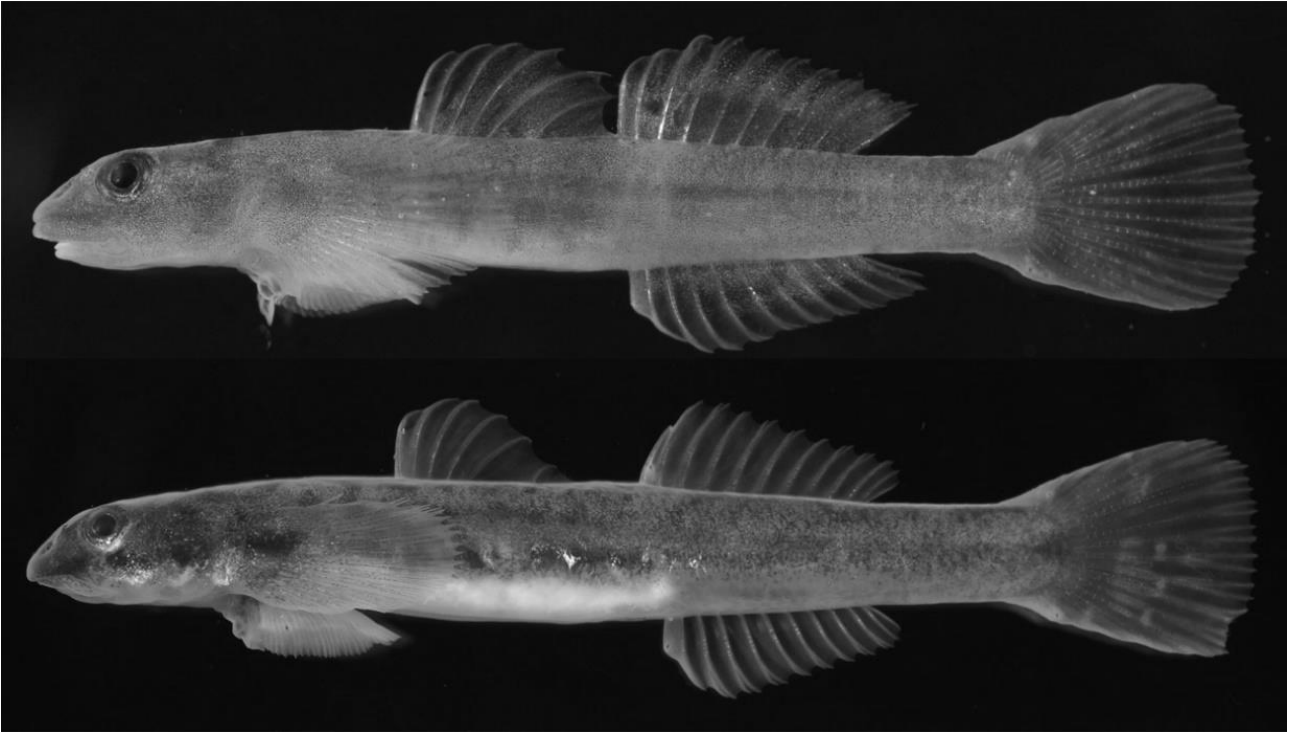


Figure 1. *Lentipes armatus*, immediately after fixation (upper: ZUMT 67467, male, 23.3 mm SL; lower: ZUMT 67798, female, 31.8 mm SL). Photos by D. Oyama.



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.

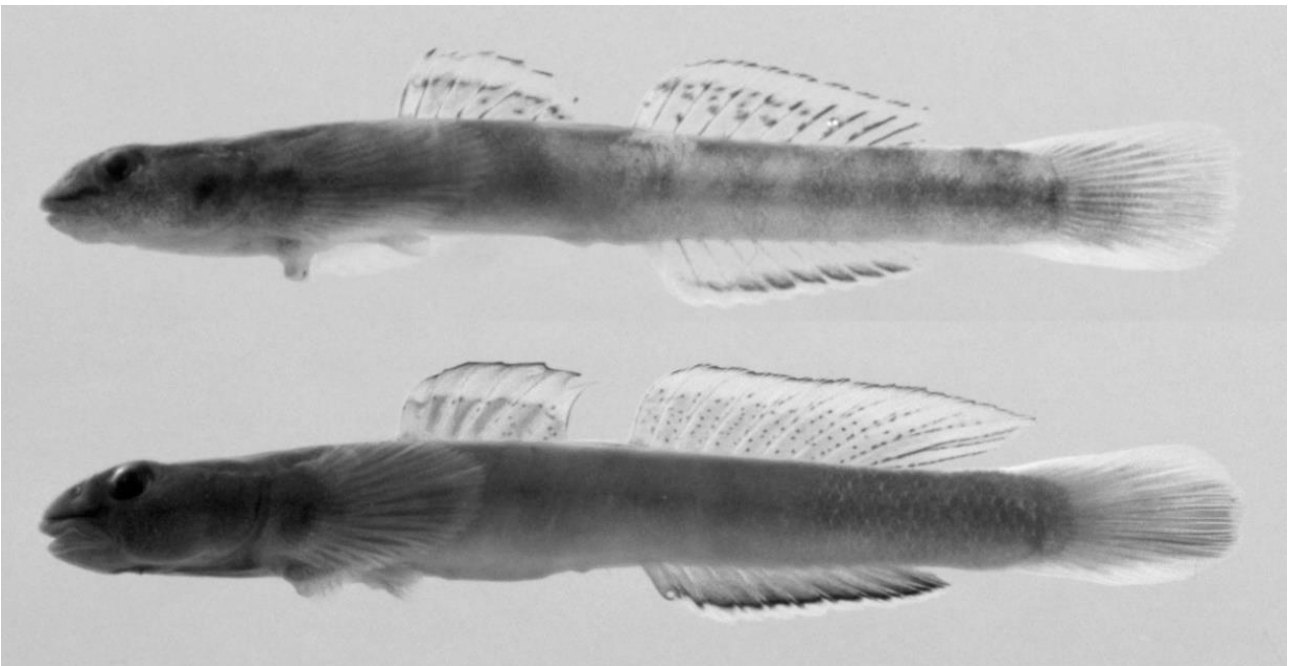


Figure 6. *Smilosicyopus leprurus*, immediately after fixation (upper: ZUMT 60610, male, 30.4 mm SL; lower: ZUMT 60611, female, 31.6 mm SL). Photos by M. Aizawa.



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.