

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 However, recent molecular analyses (mostly unpublished) have shown that there are additional cryptic species in the family.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

Acknowledgements

We thank staff and volunteers of ZUMT for curatorial assistance. This study was supported in part by JSPS KAKENHI Grant Numbers 20H03311, 21H03651, 23K20304 and 24K02087; the JSPS Core-to-Core CREPSUM JPJSCCB20200009; and the “Establishment of Glocal Research and Education Network in the Amami Islands” project of Kagoshima University adopted by the Ministry of Education, Culture, Sports, Science and Technology, Japan.

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