

Annotated checklist of fishes of Yonaguni-jima island, the westernmost island in Japan

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The Kagoshima University Museum

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Cover image: *Sphyrna lewini*, off Cape Iriazaki, Yonaguni-jima island (photo by T. Uchiyama)
Right image: Cape Iriazaki, Yonaguni-jima island (photo by K. Koeda)

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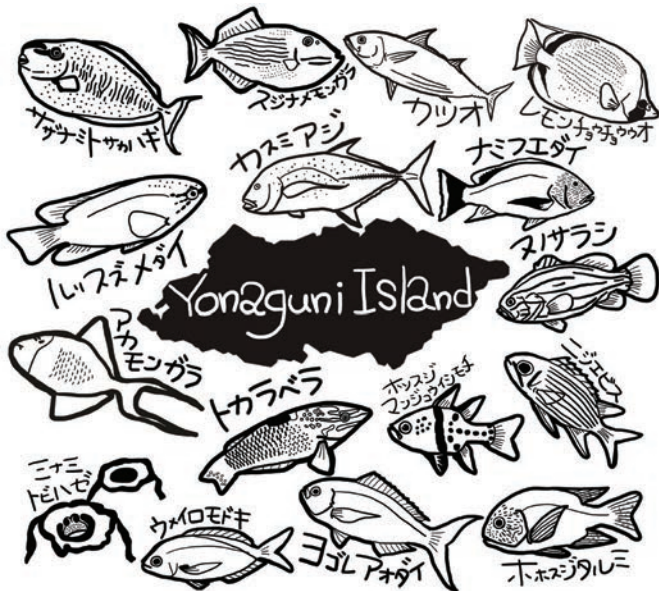
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Keita Koeda^{1*}, Yusuke Hibino², Tomohiro Yoshida¹, Yuki Kimura³, Ryohei Miki⁴, Taiga Kunishima⁵, Daichi Sasaki², Takanao Furukawa⁶, Momoko Sakurai⁵, Keisuke Eguchi¹, Hiromu Suzuki², Tomoki Inaba¹, Takuya Uejo¹, Saki Tanaka³, Misaki Fujisawa³, Hidetoshi Wada⁷, and Teppei Uchiyama⁸

¹The Kagoshima University Museum, 1–21–30 Korimoto, Kagoshima 890–0065, Japan

²Fisheries Research Laboratory, Mie University, 4190–172 Wagu, Shima, Mie 517–0703, Japan

³Laboratory of Biology of Aquatic Resources, Hiroshima University, 1–4–4 Kagamiyama, Higashi-Hiroshima 739–0046, Japan

⁴Nobeoka Marine Science Station, Field Science Center, University of Miyazaki, 376–6 Akamizu, Nobeoka, Miyazaki 889–0517, Japan

⁵Graduate School of Engineering and Science, University of the Ryukyus, 1 Senbaru, Nishihara, Okinawa 903–0213, Japan

⁶Graduate School of Bioresources, Mie University, 1577 Kurima-machiya, Tsu, Mie 514–8507, Japan

⁷Division of Fisheries Sciences, University of Miyazaki, 1–1 Gakuen-kibanadai-nishi, Miyazaki 889–2192, Japan

⁸Diving Service MARLIN, 4652–1, Yonaguni, Yonaguni, Okinawa 907–1801, Japan

*Corresponding author: e-mail: hatampo@gmail.com

Abstract An annotated checklist of fishes of Yonaguni-jima island, Okinawa Prefecture, southern Japan, was compiled mainly from a field survey which was carried out at September 2015 by the authors belonging to five universities, as well as from results from two previous small-scale surveys. Additionally, all registered specimens previously recorded from Yonaguni-jima island were re-examined as much as possible. A total of 603 fish species (104 families) are listed based on the collected specimens during our expedition, museum specimens, literatures and underwater photographs. Each species in the list is stated with citations of literature, registration numbers, sizes, localities around the island, collection methods, collected dates, nomenclatural and taxonomic remarks, and color photographs if available. 334 species (39 families) represent the first reliable records from Yonaguni-jima island on the basis of the collected specimens. The zoogeographical implications of Yonaguni-jima island ichthyofauna are discussed.

Key words: ichthyofauna, Okinawa, Yaeyama Islands, Ryukyu Archipelago, new record, Kuroshio Current.

Introduction

In 1927, Drs. David S. Jordan and Shigeo Tanaka reported four freshwater fish species, *Carassius* sp., *Chanos chanos* (Forsskål, 1775), *Eleotris fusca* (Bloch and Schneider, 1801), and *Kuhlia rupestris* (Lacepède, 1802), from Yonaguni-jima island on the basis of specimens obtained by Mr. H. Kuroiwa (Jordan and Tanaka, 1927). These represent the oldest available fish specimens collected from Yonaguni-jima island. After Jordan and Tanaka (1927), several pieces of literature reported the same four species and *Misgurnus anguillicaudatus* (Cantor, 1842) without deposited specimens (Okinawa Prefecture Experimental Fisheries Station, 1934; Ogawa, 1937; Aoyagi, 1948; Shibata, 1964; Gushiken, 1972; Nakamura, 1974).

No comprehensive reports on fishes from Yonaguni-jima island were published until the 21st-century. Yoshigou (2000) is the first report that focused on the freshwater and brackish ichthyofauna of this island. 63 species of 26 families were reported based on specimens collected in three days in August 1999 by the author. These specimens are currently deposited at Hiwa Museum for Natural History (HMNH). Subsequently, Yoshigou et al. (2001) and Yoshigou and Nakamura (2003) provided the specimen list of HMNH, and the specimens of 35 additional species collected at the tide pools of Yonaguni-jima island were included in this list. However, no comprehensive reports including marine water fishes from Yonaguni-jima island have been published up to the present date, and no integrated surveys have been conducted on or around the island.

To clarify the importance and interesting zoogeographical

features of Yonaguni-jima island, all authors of this study to the exception of the last author T. Uchiyama (who provided a number of underwater photographs) conducted a large-scale expedition at Yonaguni-jima island in 17–26 September 2015 (Fig. 1). In the main survey and two additional small-scale surveys, one by K. Koeda (23–25 July 2013) and one by D. Sasaki (10–16 March 2015), 1,120 specimens of 399 species (211 genera, 72 families) of marine, brackish and freshwater fishes were collected, with 334 representing the first records from the island based on the collected specimens.

This paper provides a list of 603 species of marine, brackish and freshwater fishes (306 genera and 104 families) occurring around Yonaguni-jima island on the basis of collected specimens along with color photographs where available, museum specimens, published literatures, and underwater photographs. Specimens collected from Yonaguni-jima island deposited at HMNH and National Museum of Nature and Science, Tsukuba (NSMT) were re-identified during this study. Finally, the zoogeographical implications of Yonaguni-jima island ichthyofauna are discussed.

Yonaguni-jima island

Yonaguni-jima island is located at 24°27'N, 122°57'E (Fig. 2A), ca. 70 km and ca. 120 km west from Iriomote-jima (Fig. 2B) and Ishigaki-jima (Fig. 2C) islands, respectively. This small island belongs to the Yaeyama Islands, and is the westernmost island in Japan. The distance between Yonaguni-jima island and Taiwan is only ca. 110 km, and the mountains of



Fig. 1. Photographs from ichthyofaunal expedition in Yonaguni-jima island. A and B, SCUBA Diving; C, line-fishing from coast; D, line-fishing from boat; E, hand net at intertidal zone; F, hand nets at freshwater river; G, cast net at mangroves estuary; H, gill net at brackish water.

Taiwan are sometimes visible from westernmost Cape Irizaki on Yonaguni-jima island. The shape of island is elliptical, with an area of ca. 28 km² and 28 km of coastline (Fujimoto, 1972). Most of the coast-line of the island consists of sheer rocky cliffs. Thus, in-reef environments such as shallow waters, coral reefs, and sandy beaches are extremely limited (Fig. 3). Hikawa Bay on the southern side of the island (Fig. 3, number 23; Table 1) is the only large in-reef environment of the island. Two fishing ports, Kubura and Sonai, located on the north coast, compose inner bay environments with muddy bottoms. Two small rivers, the Tabaru and Kubura rivers, run into the north coast. Tabaru River starts from a spring, ca. 1.5 km upstream from the mouth, and consists of ca. 600 m of freshwater and mangroves estuary (Yoshigou, 2000). Kubura River starts from a brackish lake, Kubura-mit, which is located ca. 300 m from the mouth of the river. Although such monotonous environments in coastal areas of an island generally result in a decrease in fish species diversity, Yonaguni-jima island has a relatively high diversity as the island faces the warm and strong Kuroshio Current, which brings tropical fishes from the south.

The Kuroshio Current flows from east of the Philippines to the Pacific coast of southern Japan, via the channel between Taiwan and Yonaguni-jima island [Fig. 1 in Motomura et al. (2010)]. Yonaguni-jima island is sometimes surrounded by the Kuroshio Current, and thus the current of the sea can become furiously strong, and the sea conditions around the island are often unsettled. For this reason, Yonaguni-jima island was called “Donan” in traditional Okinawan dialect, which means “difficult to pass to the island”.

Materials and methods

Fishes were collected by using SCUBA diving or snorkeling with hand nets and spears, line-fishing from coast or boats, and gill nets, cast nets, fishing lights, and tube traps in shallow waters. Only a handful of specimens were purchased at the fish landing port at Yonaguni-jima island. Curatorial procedures for collected specimens followed Motomura and Ishikawa (2013).

The systematic arrangement of families generally follows Nelson (2006). Scientific names and taxonomical attributions generally follow Nakabo (2013) with some modifications by recent published or unpublished taxonomic studies. Authorship and published year follow Eschmeyer et al. (2016). Species in families are arranged in alphabetical order by species name. Standard Japanese names generally follow Nakabo (2013), and are arranged in Japanese “katakana”. Local names in Yonaguni-jima island generally follow Ikema (2003), and are arranged in Japanese “hiragana” if available. Each species record in the list was compiled from voucher specimens and literature sources. Each voucher specimen in the list includes registration number, number of specimens registered if more than one, standard length [abbreviated as SL; total length (TL) are used in the order *Anguilliformes*], sex, locality on Yonaguni-jima island (Fig. 3, Table 1), collection method, and collection date. The list of specimens used in previous

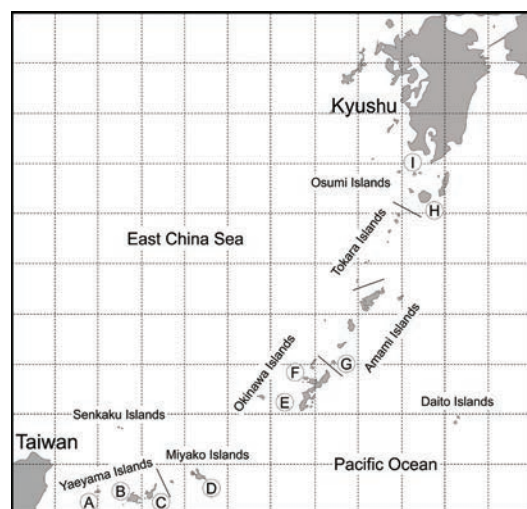


Fig. 2. Map of Ryukyu Archipelago and adjacent islands, Japan. Characters in the map show major islands mentioned in the text; A, Yonaguni-jima island; B, Iriomote-jima island; C, Ishigaki-jima island; D, Miyako group; E, Tokashiki-jima island; F, Ie-jima island; G, Yoron-jima island; H, Yakushima island; I, Iou-jima and Take-shima islands.



Fig. 3. Map of Yonaguni-jima island. Numbers in the map show major collection localities at ichthyofaunal expedition. Name, lat/long, depth, and collection methods in each localities are shown at Table 1. Yellow, land; dark green check, forest; orange stripe, town area; light green stripe, in-reef habitat.

Table 1. Name of point, lat/long, maximum depth, and collection methods at major collection localities at ichthyofaunal expedition in Yonaguni-jima island. Map numbers correspond with the numbers on Fig. 3.

Map no.	Point	Latitude	Longitude	Environment	Max. depth	Methods
1	Off Sonai	24°26'07"N	123°00'25"E	Marine	55 m	Lf
2	Sonai channel	24°28'18"N	123°00'08"E	Marine	5 m	Sd, Hn, Lf, Gn
3	Sonai Fishing Port	24°28'18"N	123°00'08"E	Marine	10 m	Lf, Cn, Fl, Tt
4	Tabaru River	24°27'39"N	123°00'17"E	Brackish, freshwater	1 m	Hn, Cn
5	Mouth of Tabaru River	24°28'11"N	122°59'57"E	Brackish, freshwater	1 m	Hn, Cn, Gn
6	Off Yonaguni Airport	24°28'32"N	122°59'22"E	Marine	55 m	Lf
7	Umabana	24°28'21"N	122°57'49"E	Marine	26 m	Sd, Lf
8	Off Northern Pasture	24°28'26"N	122°57'36"E	Marine	55 m	Lf
9	Danno Beach	24°27'55"N	122°57'16"E	Marine	5 m	Sd, Hn
10	Danno-dropoff	24°27'56"N	122°57'04"E	Marine	42 m	Sd, Lf
11	Kubura-bari	24°28'26"N	123°00'16"E	Marine	10 m	Lf
12	Mouth of Kubura River	24°27'06"N	122°56'35"E	Brackish, freshwater	1 m	Hn, Cn, Gn
13	Kubura Fishing Port	24°27'05"N	122°56'34"E	Marine	3 m	Sd, Hn, Lf, Cn, Gn, Fl, Tt
14	Levee at Kubura	24°27'09"N	122°56'12"E	Marine	10 m	Lf
15	Na-ma Beach	24°26'52"N	122°56'23"E	Marine	1 m	Cn
16	Kubura Hinan Port	24°26'44"N	122°56'20"E	Marine	3 m	Lf, Tt
17	Off Kubura Hinan Port	24°26'35"N	122°56'22"E	Marine	30 m	Sd, Lf
18	Anchor's graves	24°26'29"N	122°56'51"E	Marine	28 m	Sd, Lf
19	Rakuda Rock	24°26'27"N	122°57'02"E	Marine	30 m	Sd, Lf
20	Southern Pasture	24°26'14"N	122°58'17"E	Marine	10 m	Hn, Lf
21	Kataburu Beach	24°26'18"N	122°58'28"E	Marine	10 m	Hn, Lf
22	Hikawa	24°26'28"N	122°59'06"E	Marine	4 m	Sd, Hn, Cn
23	Off Hikawa	24°26'00"N	123°00'25"E	Marine	50 m	Lf
24	Arakawa Bay	24°26'15"N	123°00'33"E	Marine	12 m	Sd, Lf

Sd, SCUBA diving; Hn, hand net; Lf, line fishing; Cn, cast net; Gn, gill net; Fl, fishing light; Tt, tube trap.

literatures (Yoshigou, 2000; Yoshigou et al., 2001; Yoshigou and Nakamura, 2003) were re-identified in this study, and information on SL and locality of the re-examined specimens are provided.

Specimens collected during the main survey at Yonaguni-jima island in 2015 and two previous small surveys by authors are deposited at the following institutions: Fisheries Research Laboratory, Mie University (FRLM); the Kagoshima University Museum (KAUM); Division of Fisheries Sciences, Faculty of Agriculture, University of Miyazaki, Miyazaki Uni-

versity (MUFS); Department of Marine Sciences, University of the Ryukyus (URM: currently deposited at the Okinawa Churashima Foundation).

Checklist

ORDER ORECTOLOBIFORMES

テンジクザメ目

FAMILY HEMISCYLLIIDAE

テンジクザメ科

Chiloscyllium punctatum Müller and Henle, 1838

イヌザメ [Marine] (Fig. 4)



Fig. 4. *Chiloscyllium punctatum* イヌザメ (Diving Service MARLIN).

FAMILY RHINCODONTIDAE

ジンベエザメ科

Rhincodon typus Smith, 1828

ジンベエザメ [Marine] (Fig. 5)

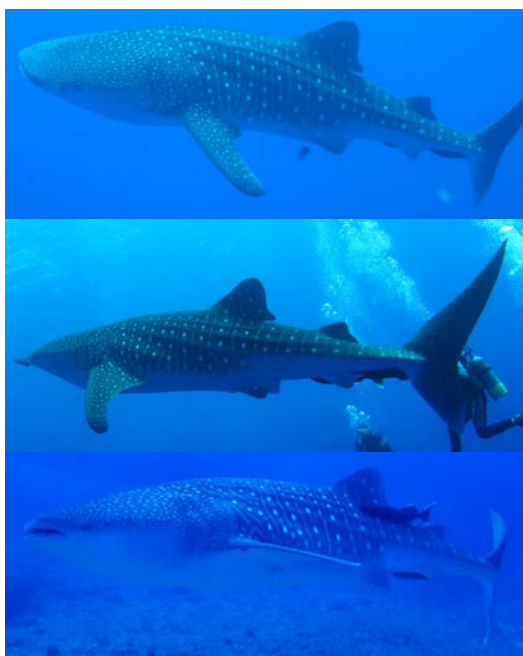


Fig. 5. *Rhincodon typus* ジンベエザメ (Diving Service MARLIN).

ORDER LAMNIFORMES

ネズミザメ目

FAMILY LAMNIDAE

ネズミザメ科

Carcharodon carcharias (Linnaeus, 1758)

ホホジロザメ [Marine] (Fig. 6)



Fig. 6. *Carcharodon carcharias* ホホジロザメ (Diving Service MARLIN).

ORDER CARCHARHINIFORMES

メジロザメ目

FAMILY CARCHARHINIDAE

メジロザメ科

Carcharhinus brevipinna (Müller and Henle, 1839)

ハナザメ [Marine] (Fig. 7)



Fig. 7. *Carcharhinus brevipinna* ハナザメ (Diving Service MARLIN).

Carcharhinus falciformis (Bibron, 1839)

クロトガリザメ [Marine]

Shimose et al. (2008): stomach content of *Istiompax indica*.

Triaenodon obesus (Rüppell, 1837)

ネムリブカ [Marine] (Fig. 8)



Fig. 8. *Triaenodon obesus* ネムリブカ (Diving Service MARLIN).

FAMILY SPHYRNIDAE

シュモクザメ科

Sphyrna lewini (Griffith and Smith, 1834)

アカシュモクザメ [Marine] (Fig. 9)

かしさば

Ikema (2003).



Fig. 9. *Sphyrna lewini* アカシュモクザメ (Diving Service MARLIN).

ORDER PRISTIOPHORIFORMES

ノコギリザメ目

FAMILY PRISTIOPHORIDAE

ノコギリザメ科

Pristiophorus japonicus Günther, 1870

ノコギリザメ [Marine]

Okada and Isa (1959).

ORDER MYLIOBATIFORMES

トビエイ目

FAMILY DASYATIDAE

アカエイ科

Neotrygon kuhlii (Müller and Henle, 1841)

ヤッコエイ [Marine] (Fig. 10)



Fig. 10. *Neotrygon kuhlii* ヤッコエイ (Diving Service MARLIN).

Taeniurops meyeri (Müller and Henle, 1841)

マダラエイ [Marine] (Fig. 11)



Fig. 11. *Taeniurops meyeri* マダラエイ (Diving Service MARLIN).

FAMILY MYLIOBATIDAE

トビエイ科

Manta birostris (Walbaum, 1792)

オニイトマキエイ [Marine] (Fig. 12)

かまんた

Ikema (2003); Nakabo (2013).



Fig. 12. *Manta birostris* オニイトマキエイ (Diving Service MARLIN).

ORDER ALBULIFORMES

ソトイワシ目

FAMILY ALBULIDAE

ソトイワシ科

***Albula* sp.**

ソトイワシ属の一種 [Marine, brackish, freshwater] (Fig. 13)

FRLM 51436, 53.7 mm SL, Kubura Fishing Port, fishing light, 20 Sept. 2015.

Fig. 13. *Albula* sp. ソトイワシ属の一種 (FRLM 51436, 53.7 mm SL).**FAMILY MEGALOPIDAE**

イセゴイ科

Megalops cyprinoides (Broussonet, 1782)

イセゴイ [Marine, brackish, freshwater]

Yoshigou (2000).

ORDER ANGUILLIFORMES

ウナギ目

FAMILY ANGUILLIDAE

ウナギ科

なだ

Anguilla japonica Temminck and Schlegel, 1846

ニホンウナギ [Marine, brackish, freshwater] (Fig. 14)

Fujimoto (1972); Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P53, 323.2 mm TL, Tabaru River, hand net, 9 Aug. 1999.

Fig. 14. *Anguilla japonica* ニホンウナギ (HMNH-P53, 323.2 mm TL)***Anguilla marmorata*** Quoy and Gaimard, 1824

オオウナギ [Brackish, freshwater] (Fig. 15)

Fujimoto (1972); Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P50, 205.2 mm TL, HMNH-P52, 85.1 mm TL, Tabaru River, hand net, 9 Aug. 1999.

Fig. 15. *Anguilla marmorata* オオウナギ (HMNH-P52, 205.2 mm TL).**FAMILY MURAENIDAE**

ウツボ科

あがうど

Echidna nebulosa (Ahl, 1789)

クモウツボ [Marine] (Fig. 16)

FRLM 51468, 415.0 mm TL, FRLM 52078, 273.5 mm TL, Kubura Hinan Port, tube trap, 21 Sept. 2015; FRLM 51575, 118.8 mm TL, mouth of Tabaru River, hand net, 24 Sept. 2015; KAUM-I. 80382, 319.2 mm TL, Kubura Hinan Port, tube trap, 21 Sept. 2015.

Fig. 16. *Echidna nebulosa* クモウツボ (upper: FRLM 51468, 415.0 mm TL; lower: KAUM-I. 80382, 319.2 mm TL, head).***Gymnomuraena zebra*** (Shaw, 1797)

ゼブラウツボ [Marine]

Ito (2009).

Gymnothorax breedeni (McCosker and Randall, 1977)

ウツボ属の一種 [Marine] (Fig. 17)

Fig. 17. *Gymnothorax breedeni* (Diving Service MARLIN).

Gymnothorax chlorostigma (Kaup, 1856)

ハナビラウツボ [Marine] (Fig. 18)



Fig. 18. *Gymnothorax chlorostigma* ハナビラウツボ (Diving Service MARLIN).

Gymnothorax isingteena (Richardson, 1845)

ニセゴイシウツボ [Marine] (Fig. 20)

Ito (2009).



Fig. 20. *Gymnothorax isingteena* ニセゴイシウツボ (Diving Service MARLIN).

Gymnothorax flavimarginatus (Rüppell, 1830)

ゴマウツボ [Marine] (Fig. 19)

KAUM-I. 78607, 1087.0 mm TL, Kubura Fishing Port, line-fishing, 21 Sept. 2015; NSMT-P 55476, 2 specimens, 217.5–290.5 mm TL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 19. *Gymnothorax flavimarginatus* ゴマウツボ (KAUM-I. 78607, 1087.0 mm TL).

Gymnothorax javanicus (Bleeker, 1859)

ドクウツボ [Marine] (Fig. 21)

FRLM 52029, 892.0 mm TL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 21. *Gymnothorax javanicus* ドクウツボ (FRLM 52029, 892.0 mm TL).

Gymnothorax intesi (Fourmanoir and Rivaton, 1979)

ミナミミヅレウツボ [Marine]

NSMT-P 71449, 618.0 mm TL, southeast of Yonaguni-jima island, 13 July 2005; NSMT-P 76158, 558.0 mm TL, southeast of Yonaguni-jima island, 3 July 2006.

Gymnothorax pictus (Ahl, 1789)

アセウツボ [Marine]

Ito (2009).

Gymnothorax pseudothyrsoides (Bleeker, 1853)

アミメウツボ [Marine] (Fig. 22)

KAUM-I. 80218, 825.0 mm TL, Kubura Fishing Port, tube trap, 17 Sept. 2015.



Fig. 22. *Gymnothorax pseudothyrsoides* アミメウツボ (KAUM-I. 80218, 825.0 mm TL).

Gymnothorax richardsonii (Bleeker, 1852)
モバウツボ [Marine; brackish] (Fig. 23)

FRLM 51574, 409.0 mm TL, mouth of Kubura River, hand net, 23 Sept. 2015; FRLM 51968, 344.0 mm TL, FRLM 51969, 303.6 mm TL, FRLM 51970, 277.5 mm TL, FRLM 51971, 339.0 mm TL, Kubura Fishing Port, tube trap, 19 Sept. 2015; KAUM-I. 78310, 295.7 mm TL, KAUM-I. 80257, 238.6 mm TL, Kubura Fishing Port, tube trap, 17 Sept. 2015; MUFS 46879, 331.0 mm TL, Kubura Fishing Port, tube trap, 16 Sept. 2015.



Fig. 23. *Gymnothorax richardsonii* モバウツボ (upper: FRLM 51968, 344.0 mm TL; lower: KAUM-I. 80257, 238.6 mm TL).

Gymnothorax thyrsoides (Richardson, 1845)

サビウツボ [Marine] (Fig. 24)

FRLM 50705, 477.2 mm TL, Kubura Fishing Port, line-fishing, 13 Mar. 2015; FRLM 52077, 294.5 mm TL, Kubura Hinan Port, tube trap, 21 Sept. 2015; KAUM-I. 80381, 459.3 mm TL, Kubura Hinan Port, tube trap, 21 Sept. 2015; NSMT-P 55475, 3 specimens, 127.3–274.8 mm TL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 24. *Gymnothorax thyrsoides* サビウツボ (KAUM-I. 80381, 459.3 mm TL).

Gymnothorax undulatus (Lacepède, 1803)

ナミウツボ [Marine] (Fig. 25)

FRLM 51573, 826.0 mm TL, Kubura Fishing Port, line-fishing, 25 Sept. 2015.



Fig. 25. *Gymnothorax undulatus* ナミウツボ (FRLM 51573, 826.0 mm TL).

Gymnothorax zonipectis Seale, 1906

ヒレオビウツボ [Marine] (Fig. 26)



Fig. 26. *Gymnothorax zonipectis* ヒレオビウツボ (Diving Service MARLIN).

Rhinomuraena quaesita Garman, 1888

ハナヒゲウツボ [Marine] (Fig. 27)



Fig. 27. *Rhinomuraena quaesita* ハナヒゲウツボ (Diving Service MARLIN).

Uropterygius micropterus (Bleeker, 1852)

アミキカイウツボ [Marine; brackish] (Fig. 28)

FRLM 51579, 151.7 mm TL, mouth of Tabaru River, hand net, 24 Sept. 2015.



Fig. 28. *Uropterygius micropterus* アミキカイウツボ (FRLM 51579, 151.7 mm TL).

FAMILY SYNAPHOBRANCHIDAE

ホラアナゴ科

Dysomma anguillare Barnard, 1923

アサバホラアナゴ [Marine] (Fig. 29)

FRLM 50529, 106.5 mm TL, northwest of Yonaguni-jima island, stomach content of *Pristipomoides argyrogrammicus* (FRLM 50748), 16 Mar. 2015.



Fig. 29. *Dysomma anguillare* アサバホラアナゴ (FRLM 50529, 106.5 mm TL, preserved specimen).

FAMILY OPHICHTHIDAE

ウミヘビ科

Muraenichthys schultzei Bleeker, 1857

ミナミミズアナゴ [Marine]

NSMT-P 55494, 89.7 mm TL, Agarizaki, hand net, 28 Mar. 1997.

Myrichthys maculosus (Cuvier, 1816)

モヨウモンガラドオシ [Marine]

NSMT-P 68223, 267.0 mm TL, Yonaguni-jima island, 5 July 2004.

FAMILY CONGRIDAE

アナゴ科

Conger cinereus Rüppell, 1830

キリアナゴ [Marine]

URM-P 1536, Sonai Fishing Port, 27 Oct. 1959.

Heteroconger hassi (Klausewitz and Eibl-Eibesfeldt, 1959)

チンアナゴ [Marine] (Fig. 30)



Fig. 30. *Heteroconger hassi* チンアナゴ (Diving Service MARLIN).



ORDER CLUPEIFORMES

ニシン目

FAMILY CLUPEIDAE

ニシン科

Herklotsichthys quadrimaculatus (Rüppell, 1837)

ミズン [Marine; brackish] (Fig. 31)

FRLM 51444, 99.6 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; FRLM 51561, 108.0 mm SL, Kubura Fishing Port, spear, 24 Sept. 2015; FRLM 51982, 104.4 mm SL, FRLM 51983, 105.0 mm SL, FRLM 51984, 108.2 mm SL, FRLM 51985, 110.2 mm SL, FRLM 51986, 105.1 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015.

Fig. 31. *Herklotsichthys quadrimaculatus* ミズン (FRLM 51444, 99.6 mm SL).*Spratelloides atrofasciatus* Schultz, 1943

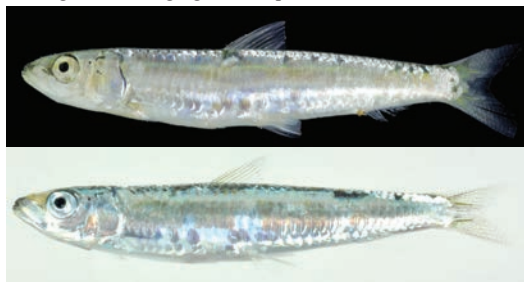
リュウキュウキビナゴ [Marine] (Fig. 32)

FRLM 51532, 21.8 mm SL, Sonai Fishing Port, fishing light, 24 Sept. 2015.

Fig. 32. *Spratelloides atrofasciatus* リュウキュウキビナゴ (FRLM 51532, 21.8 mm SL).*Spratelloides delicatulus* (Bennett, 1832)

ミナミキビナゴ [Marine] (Fig. 33)

FRLM 51505, 41.8 mm SL, Kubura Fishing Port, fishing light, 20 Sept. 2015; KAUM-I. 78452, 43.1 mm SL, Kubura Fishing Port, fishing light, 20 Sept. 2015.

Fig. 33. *Spratelloides delicatulus* ミナミキビナゴ (upper: KAUM-I. 78452, 43.1 mm SL; lower: FRLM 51505, 41.8 mm SL).

FAMILY ENGRAULIDAE

カタクチイワシ科

Engraulis japonicus Temminck and Schlegel, 1846

カタクチイワシ [Marine]

URM-P 42131, off Yonaguni-jima island, 14 Mar. 2004.

ORDER GONORYNCHIFORMES

ネズミギス目

FAMILY CHANIDAE

サバヒー科

Chanos chanos (Forsskål, 1775)

サバヒー [Marine; brackish] (Fig. 34)

はねまつ

Jordan and Tanaka (1927); Okinawa Prefecture Experimental Fisheries Station (1934); Aoyagi (1948); Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51441, 130.5 mm SL, FRLM 51981, 114.8 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; HMNH-P29, 85.2 mm SL, HMNH-P30, 55.3 mm SL, Kubura River, hand net, 8 Aug. 1999.

Fig. 34. *Chanos chanos* サバヒー (FRLM 51441, 130.5 mm SL).**ORDER CYPRINIFORMES**

コイ目

FAMILY CYPRINIDAE

コイ科

Carassius sp.

ギンブナ [Freshwater]

Jordan and Tanaka (1927); Kuroiwa (1927); Okinawa Prefecture Experimental Fisheries Station (1934); Ogawa (1937); Aoyagi (1948); Shibata (1964); Fujimoto (1972); Nakamura (1974); Kouchi (1991).

Remarks. Jordan and Tanaka (1927), Kuroiwa (1927), Okinawa Prefecture Experimental Fisheries Station (1934), and Aoyagi (1948) reported *Carassius auratus* (Linnaeus, 1758) (Japanese name “Funa”) from Yonaguni-jima island. Fujimoto (1972) noted that “Funa” and “Hibuna” (= *C. auratus* or *Carassius* sp.) are occurred in Yonaguni-jima island but he did not identify it as a species level. Kouchi (1991) recorded “Ginbuna” from Yonaguni-jima island. Yoshigou (2000) did not collect *Carassius* sp. but he speculated that *C. auratus* in those reports are misidentification of “Ginbuna” (*Carassius auratus langsdorfii* Temminck and Schlegel, 1846). Takada et al. (2010) analyzed mitochondrial DNA of *Carassius auratus*-complex collected from China, Taiwan, and Japan, and they reported three generic clades were found from Ryukyu Islands including Ishigaki-jima island. Each clade can be considered as a species or subspecies level, but the taxonomic decision has not been concluded. Although Hosoya (2013) applied *Carassius* sp. for “Ginbuna” without detail explanation, we provisionally follow Hosoya (2013) on the scientific name of “Ginbuna” in our species list, and exclude *C. auratus*.

Cyprinus carpio Linnaeus, 1758

コイ [Freshwater]

Fujimoto (1972); Ministry of the Environment (2010b).

FAMILY COBITIDAE

ドジョウ科

Misgurnus anguillicaudatus (Cantor, 1842)

ドジョウ [Freshwater] (Fig. 35)

Gushiken (1972); Nakamura (1974); Yoshigou (2000); Okinawa Prefecture (2005).

FRLM 51537, 37.7 mm SL, male, Yonaguni-jima island (extensive locality not shown for conservation), hand net, 24 Sept. 2015.

Remarks. Although *Misgurnus anguillicaudatus* (Cantor, 1842) was reported by Gushiken (1972) firstly, no additional collected reports have been presented the species has been considered as an extinct species (Ministry of the Environment, 2010b). It was rediscovered in 2007 by Dr. J. Nakajima and his research team (J. Nakajima, pers. comm.). After that the population of *M. anguillicaudatus* has been monitored by them and it is also collected during our survey.



Fig. 35. *Misgurnus anguillicaudatus* ドジョウ (FRLM 51537, 37.7 mm SL).

ORDER AULOPIFOEMES

ヒメ目

FAMILY AULOPIDAE

ヒメ科

Aulopus sp.

ハタタテヒメ [Marine]

NSMT-P 109704, 140.2 mm SL, southeast of Yonaguni-jima island, 1 Aug. 2006.

FAMILY SYNODONTIDAE

エソ科

Saurida gracilis (Quoy and Gaimard, 1824)

マダラエソ [Marine; brackish] (Fig. 36)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51562, 183.5 mm SL, Kubura Fishing Port, spear, 24 Sept. 2015; HMNH-P81, 115.7 mm SL, Kubura River, hand net, 9 Aug. 1999; KAUM-I. 78362, 71.1 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 36. *Saurida gracilis* マダラエソ (upper: FRLM 51562, 183.5 mm SL; lower: KAUM-I. 78362, 71.1 mm SL).

Synodus dermatogenys Fowler, 1912

ミナミアカエソ [Marine; brackish] (Fig. 37)

Yoshigou et al. (2001).

HMNH-P125, 117.4 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78309, 118.3 mm SL, Kataburu Beach, line-fishing, 17 Sept. 2015; NSMT-P 55492, 36.1 mm SL, Agarizaki, 28 Mar. 1997.

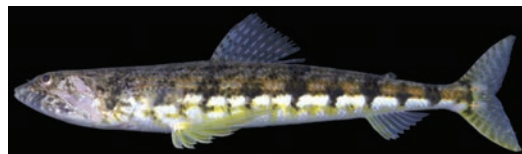


Fig. 37. *Synodus dermatogenys* ミナミアカエソ (KAUM-I. 78309, 118.3 mm SL).

Synodus sp.

アカエソ属の一種 [Marine] (Fig. 38)

FRLM 51535, 33.8 mm SL, Sonai Fishing Port, fishing light, 24 Sept. 2015.



Fig. 38. *Synodus* sp. (FRLM 51535, 33.8 mm SL).

Synodus variegatus (Lacepède, 1803)

ヒトスジエソ [Marine] (Fig. 39)

FRLM 51466, 122.2 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80280, 171.1 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; KAUM-I. 80422, 103.0 mm SL, KAUM-I. 80423, 123.6 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 47022, 192.0 mm SL, MUFS 47023, 113.0 mm SL, Sonai Fishing Port, line-fishing, 23 Sept. 2015.



Fig. 39. *Synodus variegatus* ヒトスジエソ (upper: KAUM-I. 80280, 171.1 mm SL; lower: MUFS 47023, 113.0 mm SL).

ORDER POLYMIXIIFORMES

ギンメダイ目

FAMILY POLYMIXIIDAE

ギンメダイ科

Polymixia berndti Gilbert, 1905

アラメギンメ [Marine]

NSMT-P 71451, 150.0 mm SL, southeast of Yonaguni-jima island, 12 July 2005.

ORDER LOPHIIFORMES

アンコウ目

FAMILY ANTENNARIIDAE

カエルアンコウ科

Antennarius maculatus (Desjardins, 1840)

クマドリカエルアンコウ [Marine] (Fig. 40)

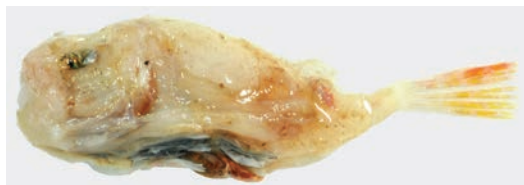
Fig. 40. *Antennarius maculatus* クマドリカエルアンコウ (Diving Service MARLIN).

FAMILY CHAUNACIDAE

フサアンコウ科

Chaunax sp.

フサアンコウ属の一種 [Marine] (Fig. 41)

FRLM 50528, northwest of Yonaguni-jima island, stomach content of *Pontinus macrocephalus* (FRLM 50749), 16 Mar. 2015.Fig. 41. *Chaunax* sp. (FRLM 50528).**ORDER MUGILIFORMES**

ボラ目

FAMILY MUGILIDAE

ボラ科

ぶらいゆ

Chelon macrolepis (Smith, 1846)

コボラ [Marine; brackish] (Fig. 42)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51442, 89.8 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; FRLM 51546, 67.1 mm SL, mouth of Kubura River, cast net, 24 Sept. 2015; FRLM 51978, 81.1 mm SL, Kubura Fishing Port, cast net, 21 Sept. 2015; FRLM 52126, 64.0 mm SL, mouth of Kubura River, cast net, 24 Sept. 2015; HMNH-P31, 47.8 mm SL, Kubura River, hand net, 8 Aug. 1999.

Fig. 42. *Chelon macrolepis* コボラ (FRLM 51442, 89.8 mm SL).*Chelon melinopterus* (Valenciennes, 1836)

ヒルギメナダ [Marine; brackish] (Fig. 43)

FRLM 51545, 77.9 mm SL, mouth of Kubura River, cast net, 24 Sept. 2015.

Fig. 43. *Chelon melinopterus* ヒルギメナダ (FRLM 51545, 77.9 mm SL).*Crenimugil crenilabis* (Forsskål, 1775)

フウライボラ [Marine; brackish] (Fig. 44)

Yoshigou et al. (2001); Ito (2009).

HMNH-P126, 81.9 mm SL, HMNH-P127, 64.1 mm SL, Sonai, hand net, 9 Aug. 1999.

Fig. 44. *Crenimugil crenilabis* フウライボラ (HMNH-P126, 81.9 mm SL, preserved specimen).

Ellochelon vaigiensis (Quoy and Gaimard, 1825)

オニボラ [Marine; brackish] (Fig. 45)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51452, 58.3 mm SL, FRLM 52013, 66.8 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; HMNH-P37, 17.2 mm SL, Kubura River, hand net, 8 Aug. 1999; HMNH-P94, 32.8 mm SL, Tabaru River, hand net, 10 Aug. 1999; HMNH-P129, 29.5 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78443, 21.0 mm SL, Kubura Fishing Port, fishing light, 20 Sept. 2015.



Fig. 45. *Ellochelon vaigiensis* オニボラ (upper: FRLM 51452, 58.3 mm SL; lower: KAUM-I. 78443, 21.0 mm SL).

Moolgarda pedaraki (Valenciennes, 1836)

カマヒレボラ [Marine; brackish] (Fig. 46)

FRLM 51544, 86.2 mm SL, mouth of Kubura River, cast net, 24 Sept. 2015.



Fig. 46. *Moolgarda pedaraki* カマヒレボラ (FRLM 51544, 86.2 mm SL).

Moolgarda seheli (Forsskål, 1775)

タイワンメナダ [Marine; brackish] (Fig. 47)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51445, 45.0 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; FRLM 51979, 47.5 mm SL, Kubura Fishing Port, cast net, 21 Sept. 2015; HMNH-P32, 39.2 mm SL, Kubura River, hand net, 8 Aug. 1999.



Fig. 47. *Moolgarda seheli* タイワンメナダ (FRLM 51445, 45.0 mm SL).

Mugil cephalus cephalus Linnaeus, 1758

ボラ [Marine; brackish; freshwater]

Fujimoto (1972); Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P89, 94.3 mm SL, Tabaru River, hand net, 10 Aug. 1999.

Oedalechilus labiosus (Valenciennes, 1836)

ワニグチボラ [Marine] (Fig. 48)

FRLM 51491, 42.1 mm SL, Sonai Fishing Port, cast net, 22 Sept. 2015; HMNH-P128, 32.7 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78444, 19.9 mm SL, Kubura Fishing Port, fishing light, 20 Sept. 2015.



Fig. 48. *Oedalechilus labiosus* ワニグチボラ (upper: KAUM-I. 78444, 19.9 mm SL; lower: FRLM 51491, 42.1 mm SL).



ORDER ATHERINIFORMES

トウゴロウイワシ目

FAMILY ATHERIONIDAE

ムギイワシ科

Atherion elymus Jordan and Starks, 1901

ムギイワシ [Marine] (Fig. 49)

Yoshigou et al. (2001).

FRLM 51465, 24.7 mm SL, Sonai Fishing Port, hand net, 20 Sept. 2015; HMNH-P119, 31.6 mm SL, Agarizaki, hand net, 9 Aug. 1999.

Fig. 49. *Atherion elymus* ムギイワシ (FRLM 51465, 24.7 mm SL).

ORDER BELONIFORMES

ダツ目

FAMILY EXOCOETIDAE

トビウオ科

とっぴいゆ

Hirundichthys oxycephalus (Bleeker, 1852)

ホソアオトビ [Marine]

URM-P 39583, north of Yonaguni-jima island, 23 Nov. 1998.

FAMILY HEMIRAMPHIDAE

サヨリ科

Hyporhamphus dussumieri (Valenciennes, 1847)

マルサヨリ [Marine] (Fig. 50)

FRLM 51506, 61.9 mm SL, Kubura Fishing Port, fishing light, 20 Sept. 2015.

Fig. 50. *Hyporhamphus dussumieri* マルサヨリ (FRLM 51506, 61.9 mm SL).*Hemiramphus far* (Forsskål, 1775)

ホシザヨリ [Marine]

だる

Ikema (2003).

Zenarchopterus dunckeri Mohr, 1926

コモチサヨリ [Brackish] (Fig. 51)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51513, 56.7 mm SL, Tabaru River, hand net, 23 Sept. 2015; HMNH-P49, 54.4 mm SL, Tabaru River, hand net, 9 Aug. 1999; KAUM-I. 78412, 102.2 mm SL, Tabaru River, hand net, 20 Sept. 2015; KAUM-I. 78430, 73.0 mm SL, KAUM-I. 78456, 23.2 mm SL, Tabaru River, cast net, 20 Sept. 2015.

Fig. 51. *Zenarchopterus dunckeri* コモチサヨリ (KAUM-I. 78412, 102.2 mm SL).

FAMILY BELONIDAE

ダツ科

Platybelone argalus platyura (Bennett, 1832)

ヒメダツ [Marine] (Fig. 52)

NSMT-P 101228, 352.3 mm SL, Kubura Fishing Port, line-fishing, 11 Mar. 2010; FRLM 50706, 302.5 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015; FRLM 51470, 358.5 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015.

Fig. 52. *Platybelone argalus platyura* ヒメダツ (FRLM 51470, 358.5 mm SL).*Strongylura incisa* (Valenciennes, 1846)

リュウキュウダツ [Marine] (Fig. 53)

FRLM 51469, 273.5 mm SL, Kubura Hinan Port, hand net, 21 Sept. 2015.

Fig. 53. *Strongylura incisa* リュウキュウダツ (FRLM 51469, 273.5 mm SL).*Tylosurus crocodilus crocodilus* (Péron and Lesueur, 1821)

オキザヨリ [Marine] (Fig. 54)

FRLM 51437, 256.0 mm SL, Sonai Fishing Port, hand net, 20 Sept. 2015; FRLM 51592, 265.6 mm SL, FRLM 51945, 256.5 mm SL, Sonai Fishing Port, hand net, 19 Sept. 2015; MUFS 46950, 86.0 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.

Fig. 54. *Tylosurus crocodilus crocodilus* オキザヨリ (FRLM 51437, 256.0 mm SL).

ORDER CYPRINODONTIFORMES

カダヤシ目

FAMILY POECILIIDAE

カダヤシ科

Gambusia affinis (Baird and Girard, 1853)

カダヤシ [Freshwater] (Fig. 55)

Fujimoto (1972); Takahara et al. (1997); Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P28, 20.0 mm SL, Tabaru River, hand net, 8 Aug. 1999; KAUM-I. 78431, 19.5 mm SL, KAUM-I. 78432, 15.1 mm SL, Tabaru River, hand net, 20 Sept. 2015.

Remarks. Fujimoto (1972) reported “Medaka” [= *Oryzias latipes* (Temminck and Schlegel, 1846)] from Yonaguni-jima island without specimens or photos. However, no later publications mentioned about his report (e.g., Senou, 2013). Nonetheless, this species known as not be distributed in the Yaeyama Islands (Kuroiwa, 1927; Senou, 2013), and can consider that was misidentification of *Gambusia affinis* which is also collected during our survey. From 1924, the species was widely introduced to Yaeyama Islands to exterminate malarial mosquito (Takahara et al., 1997). It was firstly introduced to Yonaguni-jima island in 1934 at first from Ishigaki-jima island (Takahara et al., 1997). Therefore, it is considered that it is widely and numerous distributed in Yonaguni-jima island when the survey by Fujimoto (1972). *Gambusia affinis* is sometime confused with *Oryzias* spp. because of the similar size and the body shape (Saitoh and Uchiyama, 2015). Consequently, we exclude it from our list.



Fig. 55. *Gambusia affinis* カダヤシ (KAUM-I. 78431, 19.5 mm SL).

ORDER BERYCIFORMES

キンメダイ目

FAMILY HOLOCENTRIDAE

イトウダイ科

Myripristis adusta Bleeker, 1853

ツマグロマツカサ [Marine] (Fig. 56)

Eguchi and Motomura (2016).

URM-P 48354, 149.8 mm SL, Kubura Fishing Port, line-fishing, 25 July 2013.



Fig. 56. *Myripristis adusta* ツマグロマツカサ (URM-P 48354, 149.8 mm SL).

Myripristis berndti Jordan and Evermann, 1903

アカマツカサ [Marine] (Fig. 57)

Tatsuma (1999); Eguchi and Motomura (2016).

FRLM 51453, 166.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 51493, 208.8 mm SL, mouth of Tabaru River, gill net, 23 Sept. 2015; FRLM 52065, 161.8 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78301, 80.1 mm SL, KAUM-I. 78302, 79.5 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015; KAUM-I. 78373, 162.3 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015; MUFS 46880, 113.0 mm SL, Kubura Fishing Port, line-fishing, 17 Sept. 2015; MUFS 46934, 178.0 mm SL, Sonai Fishing Port, line-fishing, 18 Sept. 2015; URM-P 48351, 142.1 mm SL, Kubura Fishing Port, line-fishing, 24 July 2013.



Fig. 57. *Myripristis berndti* アカマツカサ (upper: KAUM-I. 78373, 162.3 mm SL; lower: MUFS 46880, 113.0 mm SL).

Myripristis hexagona (Lacepède, 1802)

マルマツカサ [Marine] (Fig. 58)

FRLM 51433, 37.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 58. *Myripristis hexagona* マルマツカサ (FRLM 51433, 37.0 mm SL).

Myripristis kuntee Valenciennes, 1831

クロオビマツカサ [Marine] (Fig. 59)

Tatsuma (1999); Eguchi and Motomura (2016).

MUFS 46929, 95.0 mm SL, Sonai Fishing Port, line-fishing, 18 Sept. 2015.



Fig. 59. *Myripristis kuntee* クロオビマツカサ (MUFS 46929, 95.0 mm SL, preserved specimen).

Myripristis murdjan (Forsskål, 1775)

ヨゴレマツカサ [Marine] (Fig. 60)

Eguchi and Motomura (2016).

KAUM-I. 80283, 117.6 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 60. *Myripristis murdjan* ヨゴレマツカサ (KAUM-I. 80283, 117.6 mm SL).

Myripristis violacea Bleeker, 1851

セグロマツカサ [Marine] (Fig. 61)

Eguchi and Motomura (2016).

FRLM 52063, 93.7 mm SL, FRLM 52064, 105.6 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; URM-P 48350, 150.4 mm SL, URM-P 48352, 82.9 mm SL, URM-P 48353, 93.5 mm SL, Kubura Fishing Port, line-fishing, 24 July 2013.



Fig. 61. *Myripristis violacea* セグロマツカサ (URM-P 48350, 150.4 mm SL).

Myripristis vittata Valenciennes, 1831

ベニマツカサ [Marine]

Tatsuma (1999); Nakabo (2013).

Myripristis sp. 1

アカマツカサ属の一種 [Marine] (Fig. 62)

KAUM-I. 78554, 44.4 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 62. *Myripristis* sp. 1 (KAUM-I. 78554, 44.4 mm SL).

Myripristis sp. 2

アカマツカサ属の一種 [Marine] (Fig. 63)

KAUM-I. 80463, 98.3 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 63. *Myripristis* sp. 2 (KAUM-I. 80463, 98.3 mm SL).

Neoniphon aurolineatus (Liénard, 1839)

ホホベニイトウダイ [Marine]

Tatsuma (1999); Eguchi and Motomura (2016).

Neoniphon opercularis (Valenciennes, 1831)

ヒレグロイトウダイ [Marine] (Fig. 64)

Nakabo (2013); Eguchi and Motomura (2016).

KAUM-I. 78327, 164.0 mm SL, Anchor's graves, spear, 17 Sept. 2015; KAUM-I. 80272, 197.1 mm SL, Sonai Channel, hand net, 21 Sept. 2015; MUFS 46940, 180.0 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 64. *Neoniphon opercularis* ヒレグロイトウダイ (upper: KAUM-I. 80272, 197.1 mm SL; lower: Underwater Ruin, K. Koeda).

Neoniphon sammara Forsskål, 1775

ウケグチイトウダイ [Marine] (Fig. 65)

Eguchi and Motomura (2016).

KAUM-I. 80275, 113.2 mm SL, Sonai Channel, hand net, 21 Sept. 2015; NSMT-P 101119, 115.7 mm SL, Sonai Channel, hand net, 10 Mar. 2010.



Fig. 65. *Neoniphon sammara* ウケグチイトウダイ (KAUM-I. 80275, 113.2 mm SL).

Sargocentron diadema (Lacepède, 1802)

ニジエビス [Marine] (Fig. 66)

Eguchi and Motomura (2016).

FRLM 52016, 92.3 mm SL, FRLM 52017, 89.9 mm SL, FRLM 52018, 80.2 mm SL, FRLM 52019, 53.7 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78349, 94.3 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015; URM-P 48355, 104.8 mm SL, URM-P 48356, 104.4 mm SL, Kubura Fishing Port, line-fishing, 25 July 2013.



Fig. 66. *Sargocentron diadema* ニジエビス (KAUM-I. 78349, 94.3 mm SL).

Sargocentron ensiferum (Jordan and Evermann, 1903)

ハナエビス [Marine]

Tatsuma (1999); Eguchi and Motomura (2016).

Sargocentron ittodai (Jordan and Fowler, 1902)

テリエビス [Marine] (Fig. 67)

Eguchi and Motomura (2016).

FRLM 50704, 107.6 mm SL, FRLM 50712, 70.4 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015; FRLM 51948, 91.7 mm SL, FRLM 51949, 96.4 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; FRLM 52022, 90.1 mm SL, FRLM 52023, 93.8 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; FRLM 52072, 126.2 mm SL, FRLM 52073, 90.1 mm SL, FRLM 52074, 89.3 mm SL, FRLM 52075, 90.6 mm SL, FRLM 52076, 86.5 mm SL, FRLM 52080, 85.5 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78644, 118.3 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015; KAUM-I. 80388, 122.8 mm SL, KAUM-I. 80389, 114.0 mm SL, Umabana, hand net, 22 Sept. 2015; MUFS 46881, 112.0 mm SL, Kubura Fishing Port, line-fishing, 17 Sept. 2015.



Fig. 67. *Sargocentron ittodai* テリエビス (KAUM-I. 80389, 114.0 mm SL).

Sargocentron punctatissimum (Cuvier, 1829)

ホシエビス [Marine]

Eguchi and Motomura (2016).

NSMT-P 55455, 12 specimens, 73.3–109.9 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Sargocentron spiniferum (Forsskål, 1775)

トガリエビス [Marine] (Fig. 68)

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Ikema (2003); Ito (2009); Nakabo (2013).



Fig. 68. *Sargocentron spiniferum* トガリエビス (fish landing port at Yonaguni-jima island, K. Koeda).

Sargocentron tiere (Cuvier, 1829)

アオスジエビス [Marine] (Fig. 69)

Eguchi and Motomura (2016).

KAUM-I. 78372, 180.3 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015.



Fig. 69. *Sargocentron tiere* アオスジエビス (KAUM-I. 78372, 180.3 mm SL).



ORDER GASTEROSTEIFORMES

トゲウオ目

FAMILY PEGASIDAE

ウミテング科

Eurypegasmus draconis (Linnaeus, 1766)

ウミテング [Marine] (Fig. 70)



Fig. 70. *Eurypegasmus draconis* ウミテング (Diving Service MARLIN).

FAMILY SOLENOSTOMIDAE

カミソリウオ科

Solenostomus cyanopterus Bleeker, 1854

カミソリウオ [Marine] (Fig. 71)



Fig. 71. *Solenostomus cyanopterus* カミソリウオ (Diving Service MARLIN).

Solenostomus paradoxus (Pallas, 1770)

ニシキフウライウオ [Marine] (Fig. 72)



Fig. 72. *Solenostomus paradoxus* ニシキフウライウオ (Diving Service MARLIN).

FAMILY SYNGNATHIDAE

ヨウジウオ科

Corythoichthys haematopterus (Bleeker, 1851)

イシヨウジ [Marine] (Fig. 73)

KAUM-I. 78406, 115.2 m SL, Sonai Channel, hand net, 20 Sept. 2015.

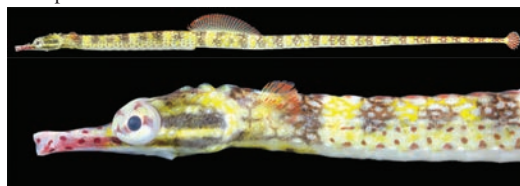


Fig. 73. *Corythoichthys haematopterus* イシヨウジ (KAUM-I. 78406, 115.2 mm SL).

Doryrhamphus (Dunckerocampus) naia Allen and Kuitert, 2004
カスミオイランヨウジ [Marine] (Fig. 74)

KAUM-I. 78538, 90.6 mm SL, Umabana, hand net, 22 Sept. 2015.

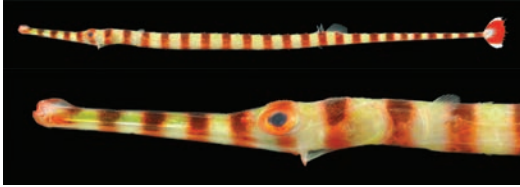


Fig. 74. *Doryrhamphus (Dunckerocampus) naia* カスミオイランヨウジ (KAUM-I. 78538, 90.6 mm SL).

Microphis (Oostethus) brachyurus brachyurus (Bleeker, 1854)
テングヨウジ [Brackish; freshwater] (Fig. 75)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P48, 103.2 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 75. *Microphis (Oostethus) brachyurus brachyurus* テングヨウジ (HMNH-P48, 103.2 mm SL, preserved specimen).

Phoxocampus belcheri (Kaup, 1856)
ボウヨウジ [Marine] (Fig. 76)

Yoshigou et al. (2001).

HMNH-P122, 41.8 mm SL, Agarizaki, hand net, 9 Aug. 1999.



Fig. 76. *Phoxocampus belcheri* ボウヨウジ (HMNH-P122, 41.8 mm SL).

Trachyrhamphus bicoarctatus (Bleeker, 1857)
ワカヨウジ [Marine] (Fig. 77)



Fig. 77. *Trachyrhamphus bicoarctatus* ワカヨウジ (Diving Service MARLIN).

FAMILY AULOSTOMIDAE

ヘラヤガラ科

Aulostomus chinensis (Linnaeus, 1766)

ヘラヤガラ [Marine] (Fig. 78)

FRLM 52105, 652.5 mm SL, Kubura Fishing Port, spear, 24 Sept. 2015.



Fig. 78. *Aulostomus chinensis* ヘラヤガラ (FRLM 52105, 652.5 mm SL).

FAMILY FISTULARIIDAE

ヤガラ科

Fistularia commersonii Rüppell, 1838

アオヤガラ [Marine] (Fig. 79)

FRLM 51536, 152.8 mm SL, Sonai Fishing Port, fishing light, 24 Sept. 2015; MUFS 46937, 927.0 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 79. *Fistularia commersonii* アオヤガラ (MUFS 46937, 927.0 mm SL).

FAMILY CENTRISCIDAE

ヘコアユ科

Aeoliscus strigatus (Günther, 1861)

ヘコアユ [Marine] (Fig. 80)

KAUM-I. 78258, 140.9 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.



Fig. 80. *Aeoliscus strigatus* ヘコアユ (KAUM-I. 78258, 140.9 mm SL).

ORDER SCORPAENIFORMES

カサゴ目

FAMILY SCORPAENIDAE

フサカサゴ科

Caracanthus maculatus (Gray, 1831)

ダンゴオコゼ [Marine] (Fig. 81)

Fig. 81. *Caracanthus maculatus* ダンゴオコゼ (Diving Service MARLIN).*Dendrochirus zebra* (Cuvier, 1829)

キリンミノ [Marine] (Fig. 82)

FRLM 51591, 130.7 mm SL, Kubura Fishing Port, hand net, 20 Sept. 2015; KAUM-I. 78487, 25.8 mm SL, Sonai Channel, hand net, 21 Sept. 2015; KAUM-I. 80364, 116.0 mm SL, Sonai Channel, gill net, 20 Sept. 2015; MUFS 47035, 115.0 mm SL, Kubura Fishing Port, line-fishing, 25 Sept. 2015.

Fig. 82. *Dendrochirus zebra* キリンミノ (upper: KAUM-I. 80364, 116.0 mm SL; lower: MUFS 47035, 115.0 mm SL).*Parascorpaena mcadamsi* (Fowler, 1938)

トゲイッテンフサカサゴ [Marine] (Fig. 83)

KAUM-I. 78540, 49.0 mm SL, Umabana, hand net, 22 Sept. 2015.

Fig. 83. *Parascorpaena mcadamsi* トゲイッテンフサカサゴ (KAUM-I. 78540, 49.0 mm SL).*Pontinus macrocephalus* (Sauvage, 1882)

ヒオドシ [Marine] (Fig. 84)

FRLM 50749, 208.2 mm SL, northwest of Yonaguni-jima island, line-fishing, 16 Mar. 2015.

Fig. 84. *Pontinus macrocephalus* ヒオドシ (FRLM 50749, 208.2 mm SL).*Pterois antennata* (Bloch, 1787)

ネットイミノカサゴ [Marine] (Fig. 85)

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Fig. 85. *Pterois antennata* ネットイミノカサゴ (Umabana, K. Koeda)*Pterois radiata* Cuvier, 1829

キミオコゼ [Marine]

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NSMT-P 55493, 109.8 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Pterois volitans (Linnaeus, 1758)
ハナミノカサゴ [Marine] (Fig. 86)
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FRLM 51590, 150.8 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015; FRLM 51946, 138.4 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78482, 41.6 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

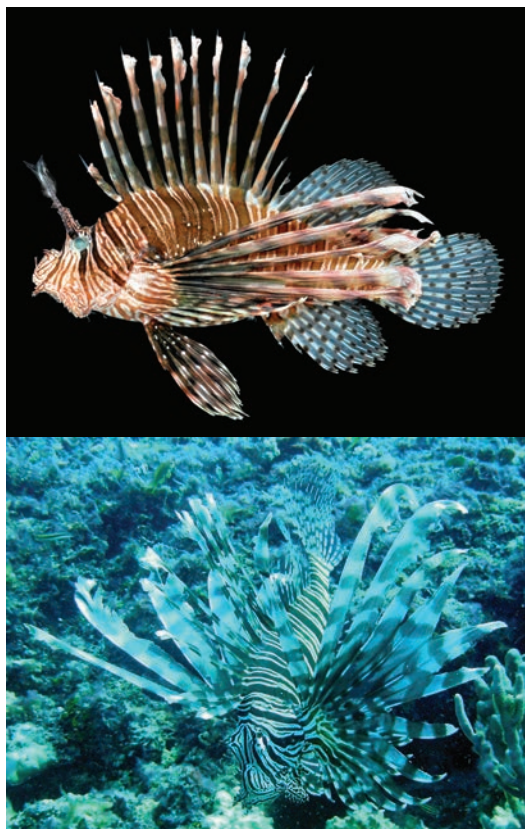


Fig. 86. *Pterois volitans* ハナミノカサゴ (upper: FRLM 51590, 150.8 mm SL; lower: Diving Service MARLIN)

Scorpaena onaria Jordan and Snyder, 1900
フサカサゴ [Marine]
NSMT-P 76155, 165.5 mm SL, southeast of Yonaguni-jima island, 1 Aug. 2006.

Scorpaenodes guamensis Quoy and Gaimard, 1824
グアムカサゴ [Marine] (Fig. 87)
Yoshigou et al. (2001).
FRLM 51424, 58.0 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; HMNH-P96, 94.8 mm SL, Kubura River, hand net, 10 Aug. 1999; HMNH-P130, 22.4 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78473, 19.2 mm SL, Sonai Channel, hand net, 21 Sept. 2015; KAUM-I. 78504, 40.3 mm SL, KAUM-I. 78505, 40.1 mm SL, Hikawa, hand net, 21 Sept. 2015.

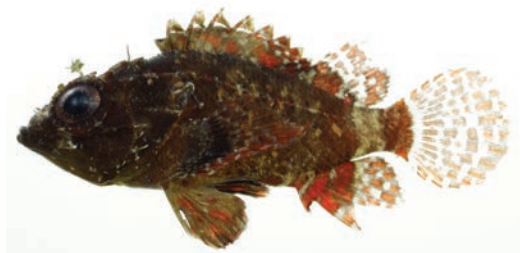


Fig. 87. *Scorpaenodes guamensis* グアムカサゴ (upper: KAUM-I. 78505, 40.1 mm SL; lower: KAUM-I. 78473, 19.2 mm SL).

Scorpaenodes parvipinnis (Garrett, 1864)
ヒメサンゴカサゴ [Marine] (Fig. 88)
KAUM-I. 78548, 27.5 mm SL, Danno-dropoff, hand net, 22 Sept. 2015.



Fig. 88. *Scorpaenodes parvipinnis* ヒメサンゴカサゴ (KAUM-I. 78548, 27.5 mm SL).

Scorpaenodes varipinnis Smith, 1957
セボシイソカサゴ [Marine] (Fig. 89)
HMNH-P783, 8.3 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78360, 42.7 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 89. *Scorpaenodes varipinnis* セボシイソカサゴ (KAUM-I. 78360, 42.7 mm SL).

Scorpaenopsis diabolus (Cuvier, 1829)

ニライカサゴ [Marine] (Fig. 90)

Ito (2009).

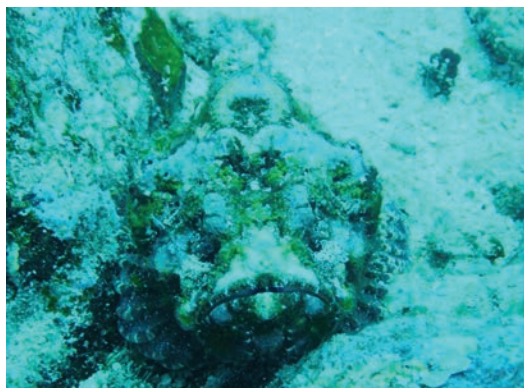


Fig. 90. *Scorpaenopsis diabolus* ニライカサゴ (Diving Service MARLIN).

Scorpaenopsis neglecta Heckel, 1839

サツマカサゴ [Marine] (Fig. 91)

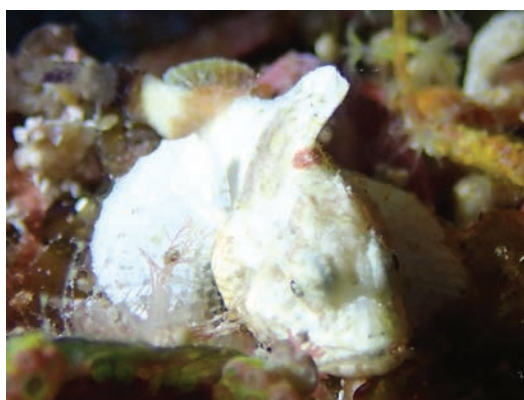


Fig. 91. *Scorpaenopsis neglecta* サツマカサゴ (Diving Service MARLIN).

Scorpaenopsis papuensis (Cuvier, 1829)

ウルマカサゴ [Marine] (Fig. 92)



Fig. 92. *Scorpaenopsis papuensis* ウルマカサゴ (Diving Service MARLIN).

Scorpaenopsis possi Randall and Eschmeyer, 2001

ミミトゲオニカサゴ [Marine] (Fig. 93)

FRLM 51447, 102.4 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015.

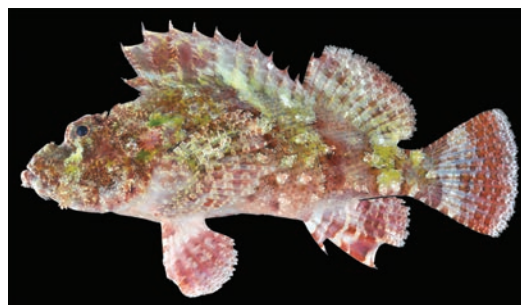


Fig. 93. *Scorpaenopsis possi* ミミトゲオニカサゴ (FRLM 51447, 102.4 mm SL).

Sebastapistes cyanostigma (Bleeker, 1856)

カスリフサカサゴ [Marine] (Fig. 94)

KAUM-I. 78545, 40.6 mm SL, Danno-dropoff, hand net, 22 Sept. 2015; KAUM-I. 78576, 54.6 mm SL, Danno Beach, hand net, 23 Sept. 2015.



Fig. 94. *Sebastapistes cyanostigma* カスリフサカサゴ (KAUM-I. 78545, 40.6 mm SL).

Sebastapistes fowleri (Pietschmann, 1934)

ブチフサカサゴ [Marine] (Fig. 95)

KAUM-I. 78523, 23.0 mm SL, Danno-dropoff, hand net, 22 Sept. 2015.



Fig. 95. *Sebastapistes fowleri* ブチフサカサゴ (KAUM-I. 78523, 23.0 mm SL).

Sebastapistes strongia (Cuvier, 1829)

マダラフサカサゴ [Marine] (Fig. 96)

KAUM-I. 78503, 44.4 mm SL, Hikawa, hand net, 21 Sept. 2015.

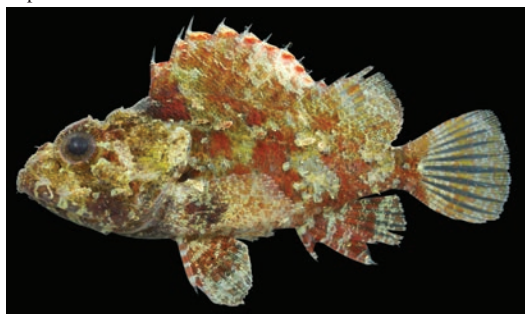


Fig. 96. *Sebastapistes strongia* マダラフサカサゴ (KAUM-I. 78503, 44.4 mm SL).

Taenianotus triacanthus Lacepède, 1802

ハダカハオコゼ [Marine] (Fig. 97)



Fig. 97. *Taenianotus triacanthus* ハダカハオコゼ (Diving Service MARLIN).

FAMILY TETRAROGIDAE

ハオコゼ科

Ablabys taenianotus (Cuvier, 1829)

ツマジロオコゼ [Marine] (Fig. 98)



Fig. 98. *Ablabys taenianotus* ツマジロオコゼ (Diving Service MARLIN).

FAMILY SYNANCEIIDAE

オニオコゼ科

いちあば

Synanceia verrucosa Bloch and Schneider, 1801

オニダルマオコゼ [Marine] (Fig. 99)

HMNH-P7190, 22.7 mm SL, Sonai, hand net, 9 Aug. 1999.

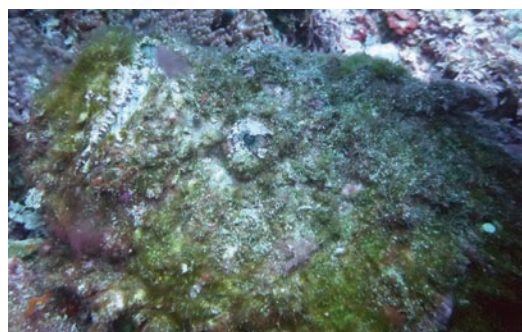
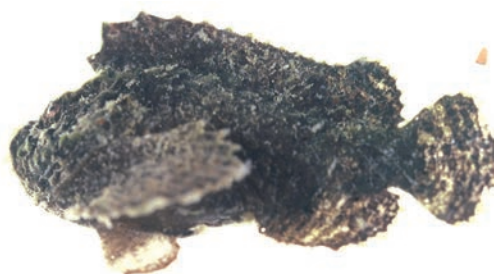


Fig. 99. *Synanceia verrucosa* オニダルマオコゼ (upper: HMNH-P7190, 22.7 mm SL; lower: Diving Service MARLIN).

FAMILY PLATYCEPHALIDAE

コチ科

Sunagocia arenicola (Schultz, 1966)

スナゴチ [Marine] (Fig. 100)

KAUM-I. 78557, 63.3 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 100. *Sunagocia arenicola* スナゴチ (KAUM-I. 78557, 63.3 mm SL).

Thysanophrys chiltonae Schultz, 1966

クロシマゴチ [Marine] (Fig. 101)

KAUM-I. 78481, 28.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



Fig. 101. *Thysanophrys chiltonae* クロシマゴチ (KAUM-I. 78481, 28.0 mm SL).

ORDER PERCIFORMES

スズキ目

FAMILY AMBASSIDAE

タカサゴイシモチ科

Ambassis buruensis Bleeker, 1856トゲナガタカサゴイシモチ [Brackish; freshwater] (Fig. 102)
Yoshigou (2000).

FRLM 51547, 48.5 mm SL, FRLM 52111, 47.1 mm SL, mouth of Kubura River, cast net, 24 Sept. 2015; HMNH-P 4542, 54.8 mm SL, HMNH-P4543, 45.4 mm SL, Tabaru River, hand net, 9 Aug. 1999; KAUM-I. 78422, 64.0 mm SL, Tabaru River, hand net, 20 Sept. 2015; KAUM-I. 78424, 69.1 mm SL, Tabaru River, cast net, 20 Sept. 2015.



Fig. 102. *Ambassis buruensis* トゲナガタカサゴイシモチ (KAUM-I. 78424, 69.1 mm SL).

Ambassis interrupta Bleeker, 1853

ナンヨウタカサゴイシモチ [Brackish; freshwater] (Fig. 103)

Yoshigou (2000); Yoshigou and Nakamura (2003).

HMNH-P4538, 65.7 mm SL, Tabaru River, hand net, 10 Aug. 1999; HMNH-P4539, 69.3 mm SL, Tabaru River, hand net, 8 Aug. 1999; HMNH-P4540, 78.8 mm SL, HMNH-P 4541, 41.1 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 103. *Ambassis interrupta* ナンヨウタカサゴイシモチ (HMNH-P4539, 69.3 mm SL).

Ambassis miops Günther, 1872

セスジタカサゴイシモチ [Brackish; freshwater] (Fig. 104)

Yoshigou (2000); Yoshigou and Nakamura (2003).

FRLM 51548, 46.0 mm SL, FRLM 52109, 47.1 mm SL, mouth of Kubura River, cast net, 24 Sept. 2015; HMNH-P 4544, 62.0 mm SL, HMNH-P4545, 60.7 mm SL, Tabaru River, hand net, 8 Aug. 1999.



Fig. 104. *Ambassis miops* セスジタカサゴイシモチ (FRLM 51548, 46.0 mm SL).

Ambassis urotaenia Bleeker, 1852

タカサゴイシモチ [Brackish; freshwater] (Fig. 105)

Yoshigou (2000); Yoshigou and Nakamura (2003).

HMNH-P4546, 47.9 mm SL, HMNH-P4547, 44.6 mm SL, mouth of Kubura River, cast net, 8 Aug. 1999; HMNH-P 4548, 47.8 mm SL, HMNH-P4549, 45.3 mm SL, HMNH-P 4550, 45.1 mm SL, Kubura River, hand net, 8 Aug. 1999; FRLM 52112, 44.6 mm SL, FRLM 52113, 42.7 mm SL, Kubura River, hand net, 24 Sept. 2015; KAUM-I. 78414, 60.7 mm SL, KAUM-I. 78415, 49.0 mm SL, KAUM-I. 78417, 58.5 mm SL, KAUM-I. 78418, 61.1 mm SL, KAUM-I. 78419, 59.9 mm SL, KAUM-I. 78420, 67.9 mm SL, KAUM-I. 78421, 64.7 mm SL, KAUM-I. 78423, 39.0 mm SL, Tabaru River, hand net, 20 Sept. 2015; KAUM-I. 78416, 55.7 mm SL, Tabaru River, gill net, 20 Sept. 2015; KAUM-I. 78425, 69.4 mm SL, KAUM-I. 78426, 64.5 mm SL, KAUM-I. 78427, 41.0 mm SL, KAUM-I. 78428, 40.3 mm SL, KAUM-I. 78457, 56.1 mm SL, KAUM-I. 78458, 51.4 mm SL, KAUM-I. 78459, 53.5 mm SL, Tabaru River, cast net, 20 Sept. 2015.



Fig. 105. *Ambassis urotaenia* タカサゴイシモチ (KAUM-I. 78414, 60.7 mm SL).

FAMILY SERRANIDAE

ハタ科

にーばい

Cephalopholis argus Schneider, 1801

アオノメハタ [Marine] (Fig. 106)

MUFS 46906, 209.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; NSMT-P 55464, 57.1 mm SL, Agarizaki, hand net, 28 Mar. 1997; NSMT-P 101125, 223.0 mm SL, Hikawa, 11 Mar. 2010.



Fig. 106. *Cephalopholis argus* アオノメハタ (MUFS 46906, 209.0 mm SL).

Cephalopholis sonnerati (Valenciennes, 1828)

アザハタ [Marine] (Fig. 107)

MUFS 47005, 258.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 107. *Cephalopholis sonnerati* アザハタ (MUFS 47005, 258.0 mm SL).

Cephalopholis spiloparaea (Valenciennes, 1828)

アカハナ [Marine] (Fig. 108)

FRLM 51458, 113.7 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80385, 154.5 mm SL, Umabana, line-fishing, 22 Sept. 2015.



Fig. 108. *Cephalopholis spiloparaea* アカハナ (KAUM-I. 80385, 154.5 mm SL).

Cephalopholis urodeta (Forster, 1801)

ニジハタ [Marine] (Fig. 109)

FRLM 52093, 118.4 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 78646, 173.4 mm SL, KAUM-I. 78647, 169.8 mm SL, KAUM-I. 78648, 147.2 mm SL, KAUM-I. 80221, 155.0 mm SL, Arakawa Bay, line-fishing, 18 Sept. 2015; KAUM-I. 80395, 150.5 mm SL, KAUM-I. 80420, 118.2 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80455, 119.5 mm SL, north of Yonaguni-jima island, line-fishing, 22 Sept. 2015; MUFS 46895, 134.0 mm SL, MUFS 46896, 155.0 mm SL, MUFS 46897, 158.0 mm SL, MUFS 46899, 161.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 46980, 98.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 47013, 114.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015.

Remarks. Caudal fin of *Cephalopholis urodeta* normally rounded, however, upper most caudal-fin ray of MUFS 46897 elongated.

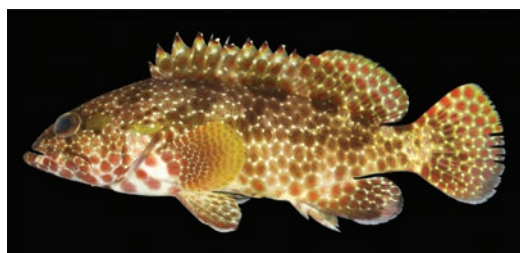


Fig. 109. *Cephalopholis urodeta* ニジハタ (upper: KAUM-I. 80455, 119.5 mm SL; middle: MUFS 46897, 158.0 mm SL; lower: Umabana, K. Koeda).

Epinephelus bruneus Bloch, 1793

クエ [Marine] (Fig. 110)

Fujimoto (1972).

Fig. 110. *Epinephelus bruneus* クエ (fish landing port at Yonaguni-jima island, K. Koeda).Fig. 112. *Epinephelus hexagonatus* イシガキハタ (KAUM-I. 78377, 128.4 mm SL).*Epinephelus fasciatus* (Forsskål, 1775)

アカハタ [Marine] (Fig. 111)

FRLM 52081, 158.2 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79712, 219.7 mm SL, Arakawa Bay, spear, 18 Sept. 2015; KAUM-I. 79740, 214.4 mm SL, off Kubura Hinan Port, spear, 18 Sept. 2015; KAUM-I. 80419, 147.1 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 47036, 202.0 mm SL, levee at Kubura, line-fishing, 25 Sept. 2015.

Fig. 111. *Epinephelus fasciatus* アカハタ (upper: KAUM-I. 79740, 214.4 mm SL; lower: MUFS 47036, 202.0 mm SL).*Epinephelus lanceolatus* (Bloch, 1790)

タマカイ [Marine] (Fig. 113)

Fig. 113. *Epinephelus lanceolatus* タマカイ (Diving Service MARLIN).*Epinephelus maculatus* (Bloch, 1790)

シロブチハタ [Marine] (Fig. 114)

KAUM-I. 78606, 364.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.

Fig. 114. *Epinephelus maculatus* シロブチハタ (upper: KAUM-I. 78606, 364.0 mm SL; lower: Diving Service MARLIN).*Epinephelus hexagonatus* (Forster, 1801)

イシガキハタ [Marine] (Fig. 112)

いちこーばい

FRLM 50747, 105.5 mm SL, Kubura-bari, line-fishing, 14 Mar. 2015; FRLM 51961, 135.7 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; KAUM-I. 78377, 128.4 mm SL, Kubura Hinan Port, hand net, 19 Sept. 2015; NSMT-P 55458, 6 specimens, 116.8–143.7 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Epinephelus melanostigma Schultz, 1953

スミツキハタ [Marine] (Fig. 115)

FRLM 51499, 234.5 mm SL, Sonai Fishing Port, line-fishing, 22 Sept. 2015; KAUM-I. 80226, 220.1 mm SL, Rakuda Rock, spear, 17 Sept. 2015; MUFS 47020, 199.0 mm SL, Kubura-bari, line-fishing, 23 Sept. 2015; NSMT-P 55457, 153.0 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 115. *Epinephelus melanostigma* スミツキハタ (MUFS 47020, 199.0 mm SL).

Epinephelus merra Bloch, 1793

カンモンハタ [Marine] (Fig. 116)

FRLM 52060, 205.0 mm SL, FRLM 52061, 167.0 mm SL, Hikawa, line-fishing, 24 Sept. 2015; KAUM-I. 78305, 127.9 mm SL, Kataburu Beach, line-fishing, 17 Sept. 2015; KAUM-I. 80279, 177.9 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; MUFS 47034, 182.0 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015.

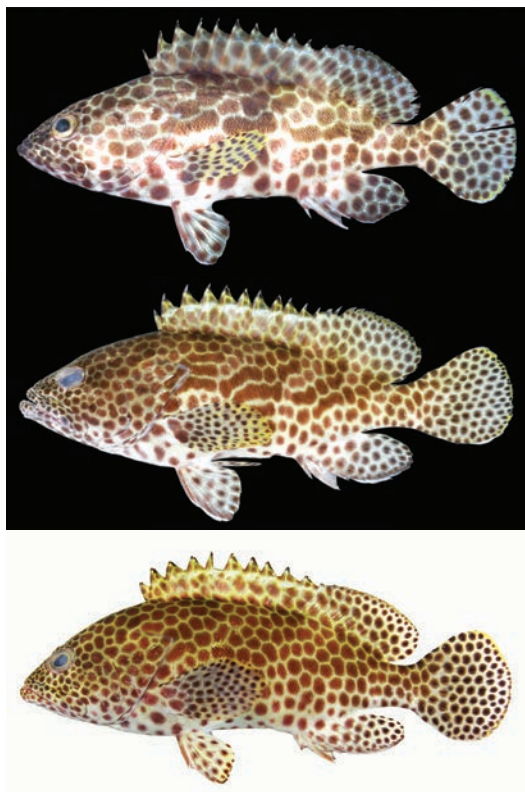


Fig. 116. *Epinephelus merra* カンモンハタ (upper: KAUM-I. 78305, 127.9 mm SL; middle: MUFS 47034, 182.0 mm SL; lower: KAUM-I. 80279, 177.9 mm SL).

Epinephelus octofasciatus (Griffin, 1926)

マハタモドキ [Marine] (Fig. 117)



Fig. 117. *Epinephelus octofasciatus* マハタモドキ (fish landing port at Yonaguni-jima island, K. Koeda).

Epinephelus polyphkadion (Bleeker, 1849)

マダラハタ [Marine] (Fig. 118)



Fig. 118. *Epinephelus polyphkadion* マダラハタ (Diving Service MARLIN).

Epinephelus septemfasciatus (Thunberg, 1793)

マハタ [Marine] (Fig. 119)



Fig. 119. *Epinephelus septemfasciatus* マハタ (fish landing port at Yonaguni-jima island, K. Koeda).

Epinephelus tauvina (Forsskål, 1775)

ヒトミハタ [Marine] (Fig. 120)

FRLM 51954, 245.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; NSMT-P 55459, 103.6 mm SL, Agarizaki, hand net, 28 Mar. 1997.

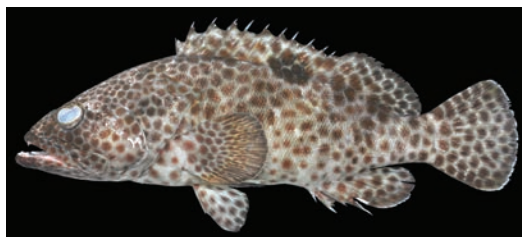


Fig. 120. *Epinephelus tauvina* ヒトミハタ (FRLM 51954, 245.5 mm SL).

Grammistes sexlineatus (Thunberg, 1792)

ヌノサラシ [Marine] (Fig. 121)

Yoshigou et al. (2001).

HMNH-P115, 32.2 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 78378, 89.3 mm SL, off Kubura Hinan Port, line-fishing, 19 Sept. 2015; KAUM-I. 78578, 12.9 mm SL, Danno Beach, hand net, 23 Sept. 2015; NSMT-P 55481, 3 specimens, 21.9–26.0 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 121. *Grammistes sexlineatus* ヌノサラシ (upper: KAUM-I. 78378, 89.3 mm SL; lower: KAUM-I. 78578, 12.9 mm SL).

Liopropoma latifasciatum (Tanaka, 1922)

ツルグエ [Marine]

Ito (2009).

Plectranthias kamii Randall, 1980

イズハナダイ [Marine]

Yoshino (1972); Nakabo (2013).

Plectranthias longimanus (Weber, 1913)

チビハナダイ [Marine] (Fig. 122)

KAUM-I. 78365, 23.5 mm SL, KAUM-I. 78366, 26.6 mm SL, KAUM-I. 78367, 22.1 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015; KAUM-I. 78531, 21.4 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 122. *Plectranthias longimanus* チビハナダイ (KAUM-I. 78365, 23.5 mm SL).

Plectropomus laevis (Lacepède, 1801)

コクハンアラ [Marine] (Fig. 123)



Fig. 123. *Plectropomus laevis* コクハンアラ (Diving Service MARLIN).

Pogonoperca punctata (Valenciennes, 1830)

アゴハタ [Marine] (Fig. 124)

Yoshigou et al. (2001).

HMNH-P116, 11.8 mm SL, Agarizaki, hand net, 9 Aug. 1999.

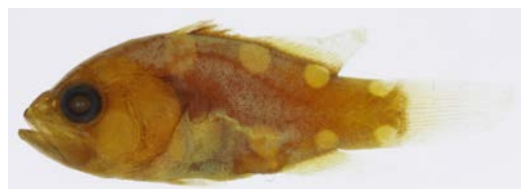


Fig. 124. *Pogonoperca punctata* アゴハタ (HMNH-P116, 11.8 mm SL, preserved specimen).

Pseudanthias dispar (Herre, 1955)

アカネハナゴイ [Marine] (Fig. 125)

FRLM 51478, 20.9 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78337, 48.2 mm SL, KAUM-I. 78338, 44.7 mm SL, KAUM-I. 78339, 31.3 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015; KAUM-I. 78542, 21.5 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 125. *Pseudanthias dispar* アカネハナゴイ (upper: KAUM-I. 78338, 44.7 mm SL; lower: Umabana, K. Koeda).

Pseudanthias pascalus (Jordan and Tanaka, 1927)

ハナゴイ [Marine] (Fig. 126)

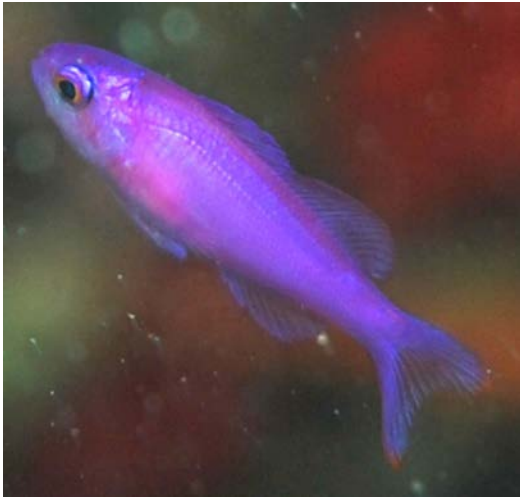


Fig. 126. *Pseudanthias pascalus* ハナゴイ (Umabana, K. Koeda).

Pseudanthias squamipinnis (Peters, 1855)

キンギョハナダイ [Marine] (Fig. 127)

FRLM 51473, 46.5 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78335, 20.4 mm SL, KAUM-I. 78336, 41.8 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 127. *Pseudanthias squamipinnis* キンギョハナダイ (KAUM-I. 78336, 41.8 mm SL).

Pseudogramma polyacantha (Bleeker, 1856)

トゲメギス [Marine] (Fig. 128)

KAUM-I. 78321, 37.2 mm SL, Rakuda Rock, hand net, 17 Sept. 2015; KAUM-I. 78347, 35.7 mm SL, KAUM-I. 78348, 26.5 mm SL, KAUM-I. 78357, 31.2 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 128. *Pseudogramma polyacantha* トゲメギス (KAUM-I. 78347, 35.7 mm SL).

Serranocirrhites latus Watanabe, 1949

ハナゴンベ [Marine] (Fig. 129)

KAUM-I. 78311, 67.7 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 129. *Serranocirrhites latus* ハナゴンベ (KAUM-I. 78311, 67.7 mm SL).

Variola albigarginata Baissac, 1953

オジロバラハタ [Marine] (Fig. 130)

あがにーばい

FRLM 52010, 208.0 mm SL, FRLM 52085, 161.6 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79748, 216.8 mm SL, Yonaguni-jima island, line-fishing, 18 Sept. 2015; KAUM-I. 80421, 155.1 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 46976, 164.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 130. *Variola albigarginata* オジロバラハタ (KAUM-I. 79748, 216.8 mm SL).

Variola louti (Forsskål, 1775)

バラハタ [Marine] (Fig. 131)

あがにーばい

FRLM 52087, 149.4 mm SL, FRLM 52096, 163.3 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 78603, 278.2 mm SL, Kubura Fishing Port, line-fishing, 21 Sept. 2015; MUFS 46905, 228.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015.



Fig. 131. *Variola louti* バラハタ (KAUM-I. 78603, 278.2 mm SL).

FAMILY PSEUDOCROMIDAE

メギス科

Amsichthys knighti (Allen, 1987)

オオメタナバタメギス [Marine] (Fig. 132)

KAUM-I. 78526, 19.7 mm SL, Danno-dropoff, hand net, 22 Sept. 2015.

Fig. 132. *Amsichthys knighti* オオメタナバタメギス (KAUM-I. 78526, 19.7 mm SL).*Cypho zaps* Gill, 2004

ドナンメギス [Marine] (Fig. 133)

Gill (2004); Yoshida et al. (in press).

KAUM-I. 78334, 35.6 mm SL, male, Rakuda Rock, hand net, 17 Sept. 2015; KAUM-I. 78364, 38.2 mm SL, male, off Kubura Hinan Port, hand net, 18 Sept. 2015; KAUM-I. 78543, 31.6 mm SL, male, Umabana, hand net, 22 Sept. 2015.

Remarks. The species was reported by Yoshida et al. (in press) as the first Japanese record on the basis of collected specimens on the present expedition.

Fig. 133. *Cypho zaps* ドナンメギス (upper: KAUM-I. 78334, 35.6 mm SL; middle: KAUM-I. 78364, 38.2 mm SL; lower: Diving Service MARLIN).*Labracinus cyclophthalmus* (Müller and Troschel, 1849)

メギス [Marine] (Fig. 134)

FRLM 51525, 131.4 mm SL, Hikawa, line-fishing, 23 Sept. 2015; FRLM 51570, 86.6 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; FRLM 51576, 97.0 mm SL, FRLM 51577, 87.1 mm SL, FRLM 51578, 106.9 mm SL, Hikawa, line-fishing, 23 Sept. 2015; FRLM 52024, 68.6 mm SL, FRLM 52025, 45.5 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78281, 105.0 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015; KAUM-I. 78577, 76.0 mm SL, Hikawa, hand net, 20 Sept. 2015; KAUM-I. 80269, 104.2 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; MUFS 46886, 83.0 mm SL, Kubura Fishing Port, line-fishing, 17 Sept. 2015; MUFS 46916, 93.0 mm SL, MUFS 46917, 106.0 mm SL, MUFS 46922, 115.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015; NSMT-P 55461, 3 specimens, 66.2–93.1 mm SL, Agarizaki, hand net, 28 Mar. 1997; NSMT-P 101233, 85.9 mm SL, Kubura Hinan Port, line-fishing, 16 Mar. 2010.

Fig. 134. *Labracinus cyclophthalmus* メギス (upper: KAUM-I. 78577, 76.0 mm SL; lower: KAUM-I. 78281, 105.0 mm SL).*Pseudochromis cyanotaenia* Bleeker, 1857

リュウキュウニセスズメ [Marine] (Fig. 135)

Yoshigou et al. (2001).

HMNH-P117, 21.3 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 78294, 34.8 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.

Fig. 135. *Pseudochromis cyanotaenia* リュウキュウニセスズメ (KAUM-I. 78294, 34.8 mm SL).

Pseudochromis luteus Aoyagi, 1943
コガネニセスズメ [Marine] (Fig. 136)



Fig. 136. *Pseudochromis luteus* コガネニセスズメ (Diving Service MARLIN).

FAMILY PLESIOPIDAE

タナバタウオ科

Acanthoplesiops psilogaster Hardy, 1985

フチドリタナバタウオ [Marine]

NSMT-P 77369, 6.4 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Plesiops coeruleolineatus Rüppell, 1835

タナバタウオ [Marine] (Fig. 137)

KAUM-I. 78463, 26.1 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



Fig. 137. *Plesiops coeruleolineatus* タナバタウオ (KAUM-I. 78463, 26.1 mm SL).

Plesiops verecundus Mooi, 1995

アマミタナバタウオ [Marine]

NSMT-P 55489, 40.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.

FAMILY OPISTOGNATHIDAE

アゴアマダイ科

Opistognathus variabilis Smith-Vaniz, 2009

シシダマオオクチアマダイ [Marine] (Fig. 138)

Hibino et al. (2016).

FRLM 51432, 103.2 mm SL, male, Sonai Fishing Port, line-fishing, 20 Sept. 2015.

Remarks. The species was reported by Hibino et al. (2016) as the first Japanese record on the basis of the collected specimen by the present expedition.



Fig. 138. *Opistognathus variabilis* シシダマオオクチアマダイ (FRLM 514322, 103.2 mm SL).

FAMILY PRIACANTHIDAE

キントキダイ科

Heteropriacanthus cruentatus (Lacepède, 1801)

ゴマヒレキントキ [Marine] (Fig. 139)

FRLM 50711, 116.9 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015.



Fig. 139. *Heteropriacanthus cruentatus* ゴマヒレキントキ (FRLM 50711, 116.9 mm SL).

Priacanthus hamrur (Forsskål, 1775)

ホウセキキントキ [Marine] (Fig. 140)

Ito (2009).

KAUM-I. 80210, 231.0 mm SL, Arakawa Bay, spear, 18 Sept. 2015; MUFS 46890, 225.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015.



Fig. 140. *Priacanthus hamrur* ホウセキキントキ (MUFS 46890, 225.0 mm SL).

FAMILY APOGONIDAE

テンジクダイ科

Apogon sp.

コミナトテンジクダイ属の一種 [Marine] (Fig. 141)

KAUM-I. 78535, 26.7 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 141. *Apogon* sp. (KAUM-I. 78535, 26.7 mm SL).

Apogonichthys ocellatus (Weber, 1913)

マトシボリ [Marine] (Fig. 142)

Yoshigou et al. (2001).

HMNH-P118, 14.8 mm SL, Agarizaki, hand net, 9 Aug. 1999.



Fig. 142. *Apogonichthys ocellatus* マトシボリ (HMNH-P118, 14.8 mm SL, preserved specimen).

Cheilodipterus artus Smith, 1961

カスミヤライイシモチ [Marine] (Fig. 143)

FRLM 50710, 104.4 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015.



Fig. 143. *Cheilodipterus artus* カスミヤライイシモチ (FRLM 50710, 104.4 mm SL).

Cheilodipterus macrodon (Lacepède, 1802)

リュウキュウヤライイシモチ [Marine] (Fig. 144)

FRLM 51438, 132.5 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; KAUM-I. 78552, 97.2 mm SL, Umabana, spear, 22 Sept. 2015.



Fig. 144. *Cheilodipterus macrodon* リュウキュウヤライイシモチ (upper: KAUM-I. 78552, 97.2 mm SL; lower: Umabana, K. Koeda).

Cheilodipterus quinquelineatus Cuvier, 1828

ヤライイシモチ [Marine] (Fig. 145)

FRLM 51423, 91.7 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78259, 44.7 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 78492, 59.6 mm SL, Sonai channel, hand net, 21 Sept. 2015.



Fig. 145. *Cheilodipterus quinquelineatus* ヤライイシモチ (upper: KAUM-I. 78259, 44.7 mm SL; lower: KAUM-I. 78492, 59.6 mm SL).

Fowleria variegata (Valenciennes, 1832)

シボリ [Marine] (Fig. 146)

KAUM-I. 78510, 40.0 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 146. *Fowleria variegata* シボリ (KAUM-I. 78510, 40.0 mm SL).

Nectamia bandanensis (Bleeker, 1854)

バンダイシモチ [Marine] (Fig. 147)

FRLM 51440, 75.5 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 147. *Nectamia bandanensis* バンダイシモチ (FRLM 51440, 75.5 mm SL).

Ostorhinchus angustatus (Smith and Radcliffe, 1911)

ウスジマイシモチ [Marine] (Fig. 148)

KAUM-I. 78340, 58.3 mm SL, KAUM-I. 78341, 50.9 mm SL, KAUM-I. 78342, 44.3 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015; KAUM-I. 78547, 39.6 mm SL, Danno-dropoff, hand net, 22 Sept. 2015; KAUM-I. 80387, 42.5 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 148. *Ostorhinchus angustatus* ウスジマイシモチ (upper: KAUM-I. 78341, 50.9 mm SL; lower: KAUM-I. 78340, 58.3 mm SL).

Ostorhinchus apogonides (Bleeker, 1856)

アオハナテンジクダイ [Marine]

Ito (2009).

Ostorhinchus cookii (Macleay, 1881)

スジイシモチ [Marine] (Fig. 149)

Yoshigou et al. (2001).

HMNH-P131, 46.8 mm SL, Sonai, hand net, 9 Aug. 1999.



Fig. 149. *Ostorhinchus cookii* スジイシモチ (HMNH-P131, 46.8 mm SL, preserved specimen).

Ostorhinchus ishigakiensis (Ida and Moyer, 1974)

ミヤコイシモチ [Marine; brackish] (Fig. 150)

FRLM 51521, 22.6 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; FRLM 52145, 26.0 mm SL, FRLM 52146, 26.8 mm SL, Kubura Fishing Port, hand net, 24 Sept. 2015; KAUM-I. 78282, 30.2 mm SL, KAUM-I. 78283, 35.0 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 78511, 38.6 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 150. *Ostorhinchus ishigakiensis* ミヤコイシモチ (upper: KAUM-I. 78282, 30.2 mm SL; lower: KAUM-I. 78283, 35.0 mm SL).

Ostorhinchus nigrofasciatus (Lachner, 1953)

ミナミフトスジイシモチ [Marine] (Fig. 151)

Ito (2009).

FRLM 50725, 62.9 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51422, 68.7 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78534, 46.0 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 80238, 67.7 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 151. *Ostorhinchus nigrofasciatus* ミナミフトスジイシモチ (KAUM-I. 78534, 46.0 mm SL).

Ostorhinchus novemfasciatus (Cuvier, 1828)

タスジイシモチ [Marine] (Fig. 152)

Yoshigou et al. (2001); Ito (2009).

HMNH-P114, 3 specimens, 22.1–33.0 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 78284, 43.0 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 78483, 42.2 mm SL, KAUM-I. 78484, 34.5 mm SL, KAUM-I. 78485, 22.2 mm SL, Sonai channel, hand net, 21 Sept. 2015; KAUM-I. 78499, 49.2 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 152. *Ostorhinchus novemfasciatus* タスジイシモチ (upper: KAUM-I. 78284, 43.0 mm SL; lower: KAUM-I. 78483, 42.2 mm SL).

Ostorhinchus taeniophorus (Regan, 1908)
ミスジテンジクダイ [Marine] (Fig. 153)

FRLM 51528, 47.4 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; NSMT-P 55460, 9 specimens, 51.9–74.7 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 153. *Ostorhinchus taeniophorus* ミスジテンジクダイ (FRLM 51528, 47.4 mm SL).

Pristiapogon exostigma (Jordan and Starks, 1906)
ユカタイシモチ [Marine] (Fig. 154)

FRLM 50709, 92.0 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015; FRLM 50768, 95.6 mm SL, Sonai Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51439, 88.5 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; KAUM-I. 80239, 92.2 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 154. *Pristiapogon exostigma* ユカタイシモチ (KAUM-I. 80239, 92.2 mm SL).

Pristiapogon fraenatus (Valenciennes, 1832)

ヒトスジイシモチ [Marine]

Ito (2009).

Pristiapogon kallopterus (Bleeker, 1856)

カスライシモチ [Marine] (Fig. 155)

FRLM 50708, 90.8 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015; FRLM 52055, 114.6 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78304, 83.7 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015; KAUM-I. 78491, 98.4 mm SL, Sonai channel, hand net, 21 Sept. 2015; KAUM-I. 78527, 32.7 mm SL, KAUM-I. 78528, 27.1 mm SL, KAUM-I. 80458, 91.1 mm SL, KAUM-I. 80459, 95.0 mm SL, KAUM-I. 80460, 98.1 mm SL, KAUM-I. 80461, 101.9 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 80235, 105.9 mm SL, KAUM-I. 80236, 71.2 mm SL, KAUM-I. 80237, 89.4 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 155. *Pristiapogon kallopterus* カスライシモチ (upper: FRLM 50708, 90.8 mm SL; lower: KAUM-I. 78527, 32.7 mm SL).

Pristicon trimaculatus (Cuvier, 1828)

ミスジアカヒレイシモチ [Marine] (Fig. 156)

KAUM-I. 78303, 112.0 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015.



Fig. 156. *Pristicon trimaculatus* ミスジアカヒレイシモチ (KAUM-I. 78303, 112.0 mm SL).

Sphaeramia orbicularis (Cuvier, 1828)

ホソスジマンジュウイシモチ [Marine] (Fig. 157)

KAUM-I. 78288, 43.0 mm SL, KAUM-I. 78289, 45.9 mm SL, KAUM-I. 78290, 29.8 mm SL, KAUM-I. 78291, 25.4 mm SL, KAUM-I. 78292, 26.4 mm SL, KAUM-I. 78295, 26.9 mm SL, KAUM-I. 78296, 27.0 mm SL, KAUM-I. 78297, 28.4 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.



Fig. 157. *Sphaeramia orbicularis* ホソスジマンジュウイシモチ (upper: KAUM-I. 78288, 43.0 mm SL; lower: KAUM-I. 78292, 26.4 mm SL).

Yarica hyalosoma (Bleeker, 1852)

カガミテンジクダイ [Brackish] (Fig. 158)

Yoshigou (2000); Yoshigou et al. (2001); Ministry of the Environment (2010a).

HMNH-P104, 83.3 mm SL, Tabaru River, hand net, 10 Aug. 1999.



Fig. 158. *Yarica hyalosoma* カガミテンジクダイ (HMNH-P104, 83.3 mm SL).

FAMILY MALACANTHIDAE

キツネアマダイ科

Hoplolatilus starcki Randall and Dooley, 1974

サンゴアマダイ属の一種 [Marine] (Fig. 159)



Fig. 159. *Hoplolatilus starcki* (off Kubura, Diving Service MARLIN).

Malacanthus brevirostris Guichenot, 1848

ヤセアマダイ [Marine] (Fig. 160)

Ito (2009).

FRLM 52082, 180.5 mm SL, FRLM 52104, 150.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 78470, 168.5 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80383, 191.2 mm SL, KAUM-I. 80384, 184.9 mm SL, Umabana, line-fishing, 22 Sept. 2015; KAUM-I. 80451, 170.9 mm SL, KAUM-I. 80452, 183.3 mm SL, KAUM-I. 80453, 175.0 mm SL, KAUM-I. 80454, 152.2 mm SL, north of Yonaguni-jima island, 22 Sept. 2015; KAUM-I. 80486, 171.1 mm SL, KAUM-I. 80487, 159.2 mm SL, off Sonai, line-fishing, 22 Sept. 2015; KAUM-I. 80491, 151.0 mm SL, north of Yonaguni-jima island, 22 Sept. 2015; MUFS 46979, 174.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 160. *Malacanthus brevirostris* ヤセアマダイ (upper to lower: FRLM 52082, 180.5 mm SL; KAUM-I. 78470, 168.5 mm SL; KAUM-I. 80384, 184.9 mm SL; MUFS 46979, 174.0 mm SL).

FAMILY CORYPHAENIDAE

シイラ科

Coryphaena hippurus Linnaeus, 1758

シイラ [Marine] (Fig. 161)

Ito (2009).

KAUM-I. 78609, 566.5 mm SL, Yonaguni-jima island (purchased at Kubura Fish Landing Port), line-fishing, 23 Sept. 2015.

Fig. 161. *Coryphaena hippurus* シイラ (KAUM-I. 78609, 566.5 mm SL).

FAMILY RACHYCENTRIDAE

スギ科

Rachycentron canadum (Linnaeus, 1766)

スギ [Marine]

Ito (2009).

FAMILY ECHENEIDAE

コバンザメ科

Remora osteochir (Cuvier, 1829)

ヒシコバン [Marine]

URM-P 42214, off Yonaguni-jima island.

Remora remora (Linnaeus, 1758)

ナガコバン [Marine]

NSMT-P 101229, 30.0 mm SL, off Irizaki, collected from body of *Istiophorus platypterus*, 17 Mar. 2010.

Remora sp.

ナガコバン属の一種 [Marine]

URM-P 42130, off Yonaguni-jima island.

FAMILY CARANGIDAE

アジ科

Alectis ciliaris (Bloch, 1787)

イトヒキアジ [Marine] (Fig. 162)

Fig. 162. *Alectis ciliaris* イトヒキアジ (Diving Service MARLIN).*Carangoides orthogrammus* (Jordan and Gilbert, 1882)

ナンヨウカイワリ [Marine] (Fig. 163)

FRLM 51494, 216.0 mm SL, mouth of Tabaru River, gill net, 23 Sept. 2015; FRLM 52015, 210.5 mm SL, Kubura Hinan Port, 20 Sept. 2015; KAUM-I. 80483, 244.7 mm SL, off Sonai, line-fishing, 22 Sept. 2015.

Fig. 163. *Carangoides orthogrammus* ナンヨウカイワリ (upper: FRLM 51494, 216.0 mm SL; lower: KAUM-I. 80483, 244.7 mm SL).*Carangoides plagiotaenia* Bleeker, 1857

インドカイワリ [Marine]

Ito (2009).

Caranx ignobilis (Forsskål, 1775)

ロウニンアジ [Marine; brackish] (Fig. 164)

ガーらいゆ

FRLM 52100, 404.4 mm SL, Sonai Fishing Port, line-fishing, 21 Sept. 2015.

Fig. 164. *Caranx ignobilis* ロウニンアジ (upper: FRLM 52100, 404.4 mm SL; lower: Diving Service MARLIN).

Caranx lugubris Poey, 1860

カッポレ [Marine] (Fig. 165)

がーらいゆ



Fig. 165. *Caranx lugubris* カッポレ (Diving Service MARLIN).

Caranx melampygus Cuvier, 1833

カスマアジ [Marine; brackish] (Fig. 166)

がーらいゆ

FRLM 51467, 100.5 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; HMNH-P97, 134.8 mm SL, Kuburamit, hand net, 10 Aug. 1999; KAUM-I. 78352, 289.1 mm SL, Arakawa Bay, line-fishing, 18 Sept. 2015; MUFS 47019, 288.0 mm SL, Kubura-bari, line-fishing, 23 Sept. 2015; NSMT-P 101247, 422.4 mm SL, Danno Beach, 19 Mar. 2010.



Fig. 166. *Caranx melampygus* カスマアジ (upper: KAUM-I. 78352, 289.1 mm SL; middle: MUFS 47019, 288.0 mm SL; lower: Diving Service MARLIN).

Caranx papuensis Alleyne and Macleay, 1877

オニヒラアジ [Marine; brackish] (Fig. 167)

がーらいゆ

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P75, 55.7 mm SL, HMNH-P98, 46.8 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 167. *Caranx papuensis* オニヒラアジ (HMNH-P98, 46.8 mm SL).

Caranx sexfasciatus Quoy and Gaimard, 1825

ギンガメアジ [Marine; brackish] (Fig. 168)

がーらいゆ

Yoshigou (2000).

FRLM 52079, 300.6 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 168. *Caranx sexfasciatus* ギンガメアジ (upper: FRLM 52079, 300.6 mm SL; middle: Diving Service MARLIN; lower: K. Koeda).

Elagatis bipinnulata (Quoy and Gaimard, 1825)

ツムブリ [Marine] (Fig. 169)

ながいゆ

FRLM 52108, 554.0 mm SL, Yonaguni-jima island (purchased at Kubura Fish Landing Port), line-fishing, 25 Sept. 2015; KAUM-I. 79710, 660.4 mm SL, south of Yonaguni-jima island, line-fishing, 18 Sept. 2015.



Fig. 169. *Elagatis bipinnulata* ツムブリ (upper: KAUM-I. 79710, 660.4 mm SL; lower: Diving Service MARLIN).

Naucrates ductor (Linnaeus, 1758)

ブリモドキ [Marine] (Fig. 170)



Fig. 170. *Naucrates ductor* ブリモドキ (Diving Service MARLIN).

Scomberoides lysan (Forsskål, 1775)

イケカツオ [Marine]

Ito (2009).

Selar crumenophthalmus (Bloch, 1793)

メアジ [Marine] (Fig. 171)

FRLM 51500, 109.0 mm SL, off Kubura Fishing Port (24°27'25"N, 122°56'17"E), hand, 22 Sept. 2015; NSMT-P 101118, 163.7 mm SL, Kubura Fishing Port, 10 Mar. 2010.



Fig. 171. *Selar crumenophthalmus* メアジ (FRLM 51500, 109.0 mm SL).

Seriola dumerili (Risso, 1810)

カンパチ [Marine] (Fig. 172)



Fig. 172. *Seriola dumerili* カンパチ (fish landing port at Yonaguni-jima island, K. Koeda).

Trachinotus baillonii (Lacepède, 1801)

コバンアジ [Marine; brackish] (Fig. 173)

FRLM 51485, 46.0 mm SL, Sonai Fishing Port, cast net, 22 Sept. 2015.



Fig. 173. *Trachinotus baillonii* コバンアジ (FRLM 51485, 46.0 mm SL).

Trachinotus blochii (Lacepède, 1801)

マルコバン [Marine; brackish] (Fig. 174)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P88, 78.9 mm SL, Tabaru River, hand net, 10 Aug. 1999; HMNH-P106, 5 specimens, 45.9–54.8 mm SL, Hikawa, hand net, 9 Aug. 1999.



Fig. 174. *Trachinotus blochii* マルコバン (HMNH-P88, 78.9 mm SL, preserved specimen).

FAMILY BRAMIDAE

シマガツオ科

Eumegistus illustris Jordan and Jordan, 1922

チカメエチオピア [Marine] (Fig. 175)

FRLM 50769, 477.0 mm SL, north of Yonaguni-jima island, line-fishing, 16 Mar. 2015.



Fig. 175. *Eumegistus illustris* チカメエチオピア (FRLM 50769, 477.0 mm SL).

FAMILY LUTJANIDAE

フエダイ科

Aphareus furca (Lacepède, 1801)

イシフエダイ [Marine] (Fig. 176)

KAUM-I. 78314, 218.0 mm SL, off Hinan Port, line-fishing, 17 Sept. 2015; MUFS 46903, 230.0 mm SL, MUFS 46904, 270.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015.

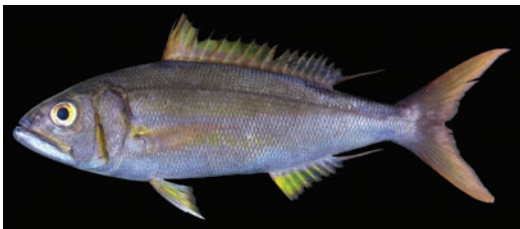


Fig. 176. *Aphareus furca* イシフエダイ (KAUM-I. 78314, 218.0 mm SL).

Aprion virescens Valenciennes, 1830

アオチビキ [Marine] (Fig. 177)

KAUM-I. 80276, 224.6 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; MUFS 46938, 310.0 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 177. *Aprion virescens* アオチビキ (MUFS 46938, 310.0 mm SL).

Etelis coruscans Valenciennes, 1862

ハマダイ [Marine]

あがいゆ

Fujimoto (1972); Ikema (2003); Fukuda and Ebisawa (2001).

Lutjanus argentimaculatus (Forsskål, 1775)

ゴマフエダイ [Marine; brackish] (Fig. 178)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P71, 33.3 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 178. *Lutjanus argentimaculatus* ゴマフエダイ (HMNH-P71, 33.3 mm SL, preserved specimen).

Lutjanus bohar (Forsskål, 1775)

バラフエダイ [Marine] (Fig. 179)

あがな

Ikema (2003).

FRLM 51502, 176.4 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015; KAUM-I. 78604, 308.7 mm SL, Kubura Fishing Port, line-fishing, 21 Sept. 2015; MUFS 46902, 184.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 47003, 138.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 179. *Lutjanus bohar* バラフエダイ (upper: KAUM-I. 78604, 308.7 mm SL; lower: MUFS 47003, 138.0 mm SL).

Lutjanus decussatus (Cuvier, 1828)

アミメフエダイ [Marine] (Fig. 180)

MUFS 46951, 95.0 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.

Fig. 180. *Lutjanus decussatus* アミメフエダイ (MUFS 46951, 95.0 mm SL).*Lutjanus fulviflamma* (Forsskål, 1775)

ニセクロホシフエダイ [Marine; brackish] (Fig. 181)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P78, 46.4 mm SL, Kubura River, hand net, 9 Aug. 1999; MUFS 47028, 69.0 mm SL, mouth of Kubura River, line-fishing, 24 Sept. 2015.

Fig. 181. *Lutjanus fulviflamma* ニセクロホシフエダイ (MUFS 47028, 69.0 mm SL).*Lutjanus fulvus* (Forster, 1801)

オキフエダイ [Marine; brackish] (Fig. 182)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 50713, 190.5 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015; HMNH-P70, 25.7 mm SL, HMNH-P74, 55.3 mm SL, HMNH-P77, 63.6 mm SL, Tabaru River, hand net, 9 Aug. 1999; KAUM-I. 78264, 41.4 mm SL, KAUM-I. 78265, 25.2 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 78496, 48.2 mm SL, Hikawa, hand net, 21 Sept. 2015; MUFS 46878, 91.0 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015; MUFS 46918, 99.0 mm SL, MUFS 46919, 61.0 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015; MUFS 46962, 146.0 mm SL, Kataburu Beach, line-fishing, 20 Sept. 2015; NSMT-P 101120, 132.0 mm SL, NSMT-P 101121, 127.6 mm SL, Kubura Fishing Port, 10 Mar. 2010.

Fig. 182. *Lutjanus fulvus* オキフエダイ (upper: KAUM-I. 78264, 41.4 mm SL; lower: MUFS 46878, 91.0 mm SL).*Lutjanus gibbus* (Forsskål, 1775)

ヒメフエダイ [Marine] (Fig. 183)

FRLM 50714, 143.0 mm SL, Kubura Fishing Port, line-fishing, 13 Mar. 2015; FRLM 50731, 109.7 mm SL, FRLM 50732, 100.6 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51950, 152.0 mm SL, FRLM 51951, 163.2 mm SL, FRLM 51997, 85.9 mm SL, FRLM 51998, 57.7 mm SL, FRLM 51999, 90.7 mm SL, FRLM 52000, 84.3 mm SL, FRLM 52001, 83.5 mm SL, FRLM 52002, 89.4 mm SL, FRLM 52003, 88.3 mm SL, FRLM 52004, 57.8 mm SL, FRLM 52005, 88.5 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; FRLM 52026, 85.4 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; FRLM 52027, 74.2+ mm SL, Kubura Fishing Port, line-fishing, damaged, 19 Sept. 2015; KAUM-I. 78293, 32.4 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 78307, 155.8 mm SL, Kataburu Beach, line-fishing, 17 Sept. 2015; MUFS 46882, 94.0 mm SL, MUFS 46885, 89.0 mm SL, Kubura Fishing Port, line-fishing, 17 Sept. 2015; MUFS 46928, 92.0 mm SL, Sonai Fishing Port, line-fishing, 18 Sept. 2015.





Fig. 183. *Lutjanidae gibbus* ヒメフエダイ (upper: FRLM 50714, 143.0 mm SL; middle: MUFS 46885, 89.0 mm SL; lower: KAUM-I. 78293, 32.4 mm SL).

Lutjanus kasmira (Forsskål, 1775)
 ヨスジフエダイ [Marine] (Fig. 184)
 Ito (2009).

FRLM 50727, 130.2 mm SL, FRLM 50733, 106.9 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 50766, 136.3 mm SL, Sonai Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51947, 106.6 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; FRLM 52028, 72.2 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 80240, 63.1 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; KAUM-I. 80466, 209.5 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015; MUFS 46927, 105.0 mm SL, Sonai Fishing Port, line-fishing, 18 Sept. 2015; MUFS 47001, 122.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 184. *Lutjanus kasmira* ヨスジフエダイ (upper: FRLM 51947, 106.6 mm SL; lower: MUFS 47001, 122.0 mm SL).

Lutjanus monostigma (Cuvier, 1828)
 イッテンフエダイ [Marine; brackish] (Fig. 185)
 Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51455, 173.0 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; HMNH-P79, 57.8 mm SL, Kubura River, hand net, 9 Aug. 1999.



Fig. 185. *Lutjanus monostigma* イッテンフエダイ (FRLM 51455, 173.0 mm SL).

Lutjanus rivulatus (Cuvier, 1828)
 ナミフエダイ [Marine] (Fig. 186)
 つばき

FRLM 52101, 423.0 mm SL, Kubura Fishing Port, line-fishing, 21 Sept. 2015.



Fig. 186. *Lutjanus rivulatus* ナミフエダイ (FRLM 52101, 423.0 mm SL).

Macolor macularis Fowler, 1931

ホホスジタルミ [Marine] (Fig. 187)

MUFS 46939, 168.0 mm SL, Kubura Hinan Port, line-fishing, 19 Sept. 2015.



Fig. 187. *Macolor macularis* ホホスジタルミ (upper: MUFS 46939, 168.0 mm SL; lower: Diving Service MARLIN).

Macolor niger (Forsskål, 1775)

マダラタルミ [Marine] (Fig. 188)

KAUM-I. 78464, 29.6 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



Fig. 188. *Macolor niger* マダラタルミ (KAUM-I. 78464, 29.6 mm SL).

Paracaesio caerulea (Katayama, 1934)

アオダイ [Marine] (Fig. 189)

Fukuda and Ebisawa (2001).

MUFS 47037, 316.0 mm SL, Yonaguni-jima island (purchased at Kubura Fish Landing Port), Sept. 2015.



Fig. 189. *Paracaesio caerulea* アオダイ (MUFS 47037, 316.0 mm SL).

Paracaesio sordida Abe and Shinohara, 1962

ヨゴレアオダイ [Marine] (Fig. 190)

KAUM-I. 78558, 279.4 mm SL, off Yonaguni Airport, line-fishing, 22 Sept. 2015.



Fig. 190. *Paracaesio sordida* ヨゴレアオダイ (upper: KAUM-I. 78558, 279.4 mm SL; lower: Diving Service MARLIN).

Pristipomoides argyrogrammicus (Valenciennes, 1832)

ハナフエダイ [Marine] (Fig. 191)

FRLM 50748, 184.5 mm SL, northwest of Yonaguni-jima island, line-fishing, 16 Mar. 2015.



Fig. 191. *Pristipomoides argyrogrammicus* ハナフエダイ (FRLM 50748, 184.5 mm SL).

Pristipomoides filamentosus (Valenciennes, 1830)

オオヒメ [Marine] (Fig. 192)

Fukuda and Ebisawa (2001).

MUFS 47039, 365.0 mm SL, MUFS 47040, 315.0 mm SL, Yonaguni-jima island (purchased at Kubura Fish Landing Port), Sept. 2015.



Fig. 192. *Pristipomoides filamentosus* オオヒメ (MUFS 47040, 315.0 mm SL).

Pristipomoides flavipinnis Shinohara, 1963

キンメヒメダイ [Marine] (Fig. 193)

MUFS 47038, 395.0 mm SL, Yonaguni-jima island (purchased at Kubura Fish Landing Port), Sept. 2015.



Fig. 193. *Pristipomoides flavipinnis* キンメヒメダイ (MUFS 47038, 395.0 mm SL).

Pristipomoides sieboldii (Bleeker, 1855)

ヒメダイ [Marine] (Fig. 194)

Fukuda and Ebisawa (2001).

FRLM 51564, 207.8 mm SL, Yonaguni-jima island (purchased at Kubura Fish Landing Port), line-fishing, 25 Sept. 2015.



Fig. 194. *Pristipomoides sieboldii* ヒメダイ (FRLM 51564, 207.8 mm SL).

FAMILY CAESIONIDAE

タカサゴ科

Caesio teres Seale, 1906

ウメイロモドキ [Marine] (Fig. 195)

FRLM 52058, 210.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015; KAUM-I. 78490, 258.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80488, 227.4 mm SL, north of Yonaguni-jima island, line-fishing, 22 Sept. 2015; MUFS 46981, 257.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 47014, 241.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 195. *Caesio teres* ウメイロモドキ (KAUM-I. 78490, 258.8 mm SL).

Pterocaesio marri Schultz, 1953

ニセタカサゴ [Marine] (Fig. 196)

ぐるくん

KAUM-I. 78488, 248.4 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 46977, 200.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 196. *Pterocaesio marri* ニセタカサゴ (KAUM-I. 78488, 248.4 mm SL).

Pterocaesio tile (Cuvier, 1830)

クマササハナムロ [Marine] (Fig. 197)

ぐるくん

FRLM 51501, 213.0 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 80457, 222.7 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; MUFS 47004, 210.0 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015.



Fig. 197. *Pterocaesio tile* クマササハナムロ (KAUM-I. 80457, 222.7 mm SL).

FAMILY GERREIDAE

クロサギ科

Gerres filamentosus Cuvier, 1829

イトヒキサギ [Marine; brackish] (Fig. 198)

MUFS 46960, 191.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.

Fig. 198. *Gerres filamentosus* イトヒキサギ (MUFS 46960, 191.0 mm SL).*Gerres longirostris* (Lacepède, 1801)

ツツパリサギ [Marine; brackish]

URM-P 34392, Tabaru River, 5 Aug. 1995.

Gerres oblongus Cuvier, 1830

ナガサギ [Marine; brackish]

URM-P 34393, Tabaru River, 5 Aug. 1995.

Gerres oyena (Forsskål, 1775)

ミナミクロサギ [Marine; brackish] (Fig. 199)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51549, 49.4 mm SL, mouth of Kubura River, cast net, 24 Sept. 2015; HMNH-P33, 73.3 mm SL, HMNH-P34, 62.0 mm SL, HMNH-P35, 42.8 mm SL, Kubura River, hand net, 8 Aug. 1999; HMNH-P76, 76.5 mm SL, Kubura River, hand net, 9 Aug. 1999; HMNH-P84, 66.2 mm SL, HMNH-P85, 64.3 mm SL, HMNH-P86, 60.6 mm SL, HMNH-P87, 69.7 mm SL, Tabaru River, hand net, 10 Aug. 1999.

Fig. 199. *Gerres oyena* ミナミクロサギ (FRLM 51549, 49.4 mm SL).

FAMILY HAEMULIDAE

イサキ科

Plectorhinchus gibbosus (Lacepède, 1802)

クロコシヨウダイ [Marine; brackish] (Fig. 200)

Fig. 200. *Plectorhinchus gibbosus* クロコシヨウダイ (Diving Service MARLIN).*Plectorhinchus lessonii* (Cuvier, 1830)

ヒレグロコシヨウダイ [Marine] (Fig. 201)

KAUM-I. 79713, 273.4 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

Fig. 201. *Plectorhinchus lessonii* ヒレグロコシヨウダイ (upper: KAUM-I. 79713, 273.4 mm SL; lower: Diving Service MARLIN).*Plectorhinchus lineatus* (Linnaeus, 1758)

アヤコシヨウダイ [Marine] (Fig. 202)

Fig. 202. *Plectorhinchus lineatus* アヤコシヨウダイ (Diving Service MARLIN).

Plectorhinchus picus (Cuvier, 1828)

アジアコシヨウダイ [Marine] (Fig. 203)



Fig. 203. *Plectorhinchus picus* アジアコシヨウダイ (Diving Service MARLIN).

Plectorhinchus vittatus (Linnaeus, 1758)

ムスジコシヨウダイ [Marine] (Fig. 204)

Ito (2009).

MUFS 46887, Rakuda Rock, spear, 17 Sept. 2015; KAUM-I. 80227, 216.1 mm SL, Rakuda Rock, spear, 17 Sept. 2015.



Fig. 204. *Plectorhinchus vittatus* ムスジコシヨウダイ (KAUM-I. 80227, 216.1 mm SL).

FAMILY NEMIPTERIDAE

イトヨリダイ科

Pentapodus aureofasciatus Russell, 2001

ヤクシマキツネウオ [Marine] (Fig. 205)

FRLM 51975, 116.5 mm SL, FRLM 51976, 137.5 mm SL, FRLM 52103, 138.0 mm SL, off Hikawa, line-fishing, 132.0 mm SL, 21 Sept. 2015; MUFS 46986, 129.0 mm SL, MUFS 46987, 121.0 mm SL, MUFS 46988, 138.0 mm SL, MUFS 46989, 143.0 mm SL, MUFS 46990, 131.0 mm SL, MUFS 46991, MUFS 46992, 132.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 205. *Pentapodus aureofasciatus* ヤクシマキツネウオ (upper: FRLM 51975, 116.5 mm SL; lower: MUFS 46988, 138.0 mm SL).

Scolopsis bilineata (Bloch, 1793)

フタスジタマガシラ [Marine] (Fig. 206)

KAUM-I. 80391, 125.5 mm SL, Umabana, spear, 22 Sept. 2015; MUFS 47002, 144.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015; NSMT-P 101126, 153.7 mm SL, Danno Beach, 20 Mar. 2010.



Fig. 206. *Scolopsis bilineata* フタスジタマガシラ (MUFS 47002, 144.0 mm SL).

Scolopsis lineata Quoy and Gaimard, 1824

ヨコシマタマガシラ [Marine] (Fig. 207)

Yoshigou et al. (2001); Ito (2009).

HMNH-P138, 33.8 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 80350, 112.3 mm SL, Sonai Channel, spear, 21 Sept. 2015.



Fig. 207. *Scolopsis lineata* ヨコシマタマガシラ (KAUM-I. 80350, 112.3 mm SL).

FAMILY SPARIDAE

タイ科

Acanthopagrus sp.

クロダイ属の一種 [Marine; brackish]

くるといゆ

Ikema (2003).

FAMILY LETHRINIDAE

フエフキダイ科

Gnathodentex aureolineatus (Lacepède, 1802)

ノコギリダイ [Marine] (Fig. 208)

あがむてい

Ikema (2003); Ito (2009).

FRLM 50730, 100.7 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 50767, 118.7 mm SL, Sonai Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51503, 189.5 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015; FRLM 52066, 149.8 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78489, 189.2 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 78645, 180.4 mm SL, Arakawa Bay, line-fishing, 18 Sept. 2015; KAUM-I. 80241, 144.2 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; KAUM-I. 80263, 168.7 mm SL, Anchor's graves, spear, 17 Sept. 2015; MUFS 46900, 183.0 mm SL, MUFS 46901, 189.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 46933, 95.0 mm SL, Sonai Fishing Port, line-fishing, 18 Sept. 2015; MUFS 47009, 194.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015; URM-P 48359, 137.6 mm SL, Kubura Fishing Port, line-fishing, 23 July 2013.



Fig. 208. *Gnathodentex aureolineatus* ノコギリダイ (upper: URM-P 48359, 137.6 mm SL; middle: MUFS 47009, 194.0 mm SL; lower: Diving Service MARLIN).

Gymnocranius euanus (Günther, 1879)

シロダイ [Marine] (Fig. 209)

しろいゆ

FRLM 52011, 135.4 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80465, 268.8 mm SL, north of Yonaguni-jima island, line-fishing, 22 Sept. 2015; MUFS 46915, 301.5 mm SL, Yonaguni-jima island, line-fishing, 18 Sept. 2015; MUFS 46971, 253.4 mm SL, MUFS 46972, 240.8 mm SL, MUFS 46973, 319.7 mm SL, MUFS 46974, 225.4 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 209. *Gymnocranius euanus* シロダイ (upper: KAUM-I. 80465, 268.8 mm SL; lower: FRLM 52011, 135.4 mm SL).

Gymnocranius sp.

メイチダイ属の一種 [Marine] (Fig. 210)

MUFS 47335, 221.8 mm SL, off cape Umabana, Yonaguni-jima island, line-fishing, 22 Sept. 2015.



Fig. 210. *Gymnocranius* sp. (MUFS 47335, 221.8 mm SL).

Lethrinus amboinensis Bleeker 1854

ヨコシマフエフキ [Marine] (Fig. 211)

KAUM-I. 80207, 173.5 mm SL, west of Yonaguni-jima island, line-fishing, 18 Sept. 2015.



Fig. 211. *Lethrinus amboinensis* ヨコシマフエフキ (KAUM-I. 80207, 173.5 mm SL).

Lethrinus harak (Forsskål, 1775)

マトフエフキ [Marine; brackish] (Fig. 212)

KAUM-I. 78285, 198.5 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015.



Fig. 212. *Lethrinus harak* マトフエフキ (KAUM-I. 78285, 198.5 mm SL).

Lethrinus microdon Valenciennes, 1830

オオフエフキ [Marine] (Fig. 213)

FRLM 51427, 204.2 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 213. *Lethrinus microdon* オオフエフキ (FRLM 51427, 204.2 mm SL).

Lethrinus olivaceus Valenciennes, 1830

キツネフエフキ [Marine]

うむな・むるみ

Ikema (2003).

Lethrinus ornatus Valenciennes, 1830

ハナフエフキ [Marine]

むるみ

Ikema (2003).

Lethrinus rubrioperculatus Sato, 1978

ホオアカクチビ [Marine] (Fig. 214)

FRLM 51973, 146.9 mm SL, FRLM 52097, 204.6 mm SL, FRLM 52102, 146.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79716, 240.2 mm SL, Yonaguni-jima island, line-fishing, 18 Sept. 2015; KAUM-I. 80207, 173.5 mm SL, off Hikawa, line-fishing, 18 Sept. 2015; KAUM-I. 80392, 258.1 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80484, 239.0 mm SL, KAUM-I. 80485, 205.4 mm SL, off Sonai, line-fishing, 22 Sept. 2015; MUFS 46963, MUFS 46964, 236.0 mm SL, MUFS 46965, 186.0 mm SL, MUFS 46966, 272.0 mm SL, MUFS 46967, 185.0 mm SL, MUFS 46968, MUFS 46969, 269.0 mm SL, MUFS 46970, MUFS 46975, 172.0 mm SL, MUFS 46982, 165.0 mm SL, MUFS 46983, 167.0 mm SL, MUFS 46984, 153.0 mm SL, MUFS 46985, 185.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 46997, 253.0 mm SL, MUFS 46998, 249.0 mm SL, MUFS 47006, MUFS 47007, 254.0 mm SL, MUFS 47008, 279.0 mm SL, MUFS 47010, 170.0 mm SL, MUFS 47011, 157.0 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 214. *Lethrinus rubrioperculatus* ホオアカクチビ (upper: KAUM-I. 80484, 239.0 mm SL; lower: MUFS 46983, 167.0 mm SL).

Lethrinus xanthochilus Klunzinger, 1870

ムネアカクチビ [Marine] (Fig. 215)

MUFS 46961, 121.0 mm SL, levee at Kubura, line-fishing, 20 Sept. 2015.



Fig. 215. *Lethrinus xanthochilus* ムネアカクチビ (MUFS 46961, 121.0 mm SL).

Monotaxis grandoculis (Forsskål, 1775)

ヨコシマクロダイ [Marine] (Fig. 216)

たるみ

FRLM 50755, 96.1 mm SL, Sonai Fishing Port, line-fishing, 14 Mar. 2015; FRLM 51496, 291.0 mm SL, Sonai Fishing Port, line-fishing, 22 Sept. 2015; MUFS 46995, 290.0 mm SL, Sonai Fishing Port, line-fishing, 22 Sept. 2015.



Fig. 216. *Monotaxis grandoculis* ヨコシマクロダイ (upper: MUFS 46995, 290.0 mm SL; lower: FRLM 50755, 96.1 mm SL).

FAMILY MULLIDAE

ヒメジ科

Mulloidichthys flavolineatus flavolineatus (Lacepède, 1801)

モンツキアカヒメジ [Marine; brackish] (Fig. 217)

Yoshigou et al. (2001).

FRLM 51498, 209.0 mm SL, Sonai Fishing Port, line-fishing, 22 Sept. 2015; FRLM 52054, 169.7 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; HMNH-P82, 76.6 mm SL, HMNH-P83, 75.1 mm SL, Tabaru River, hand net, 10 Aug. 1999; KAUM-I. 78402, 129.4 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46959, 134.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.



Fig. 217. *Mulloidichthys flavolineatus flavolineatus* モンツキアカヒメジ (upper: KAUM-I. 78402, 129.4 mm SL; lower: MUFS 46959, 134.0 mm SL).

Mulloidichthys pflugeri (Steindachner, 1900)

リュウキュウアカヒメジ [Marine] (Fig. 218)

Koeda et al. (in press).

MUFS 47000, 187.0 mm SL, Umabana, line-fishing, 22 Sept. 2015.



Fig. 218. *Mulloidichthys pflugeri* リュウキュウアカヒメジ [MUFS 47000, 187.0 mm SL (upper: fresh specimen; lower: live specimen)].



Mulloidichthys vanicolensis (Valenciennes, 1831)

アカヒメジ [Marine] (Fig. 219)

Yoshigou et al. (2001).

FRLM 50738, 159.3 mm SL, FRLM 50739, 159.2 mm SL, Sonai Fishing Port, line-fishing, 15 Mar. 2015; FRLM 51497, 205.0 mm SL, Sonai Fishing Port, line-fishing, 22 Sept. 2015; FRLM 51588, 131.4 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; FRLM 51960, 195.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; HMNH-P124, 109.7 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 80222, 163.5 mm SL, Arakawa Bay, spear, 18 Sept. 2015; MUFS 46958, 162.0 mm SL, levee at Kubura, line-fishing, 20 Sept. 2015.



Fig. 219. *Mulloidichthys vanicolensis* アカヒメジ (upper: KAUM-I. 80222, 163.5 mm SL; lower: MUFS 46958, 162.0 mm SL).

Parupeneus barberinus (Lacepède, 1801)

オオスジヒメジ [Marine]

んまぶる

Ikema (2003).

Parupeneus ciliatus (Lacepède, 1802)

ホウライヒメジ [Marine] (Fig. 220)



Fig. 220. *Parupeneus ciliatus* ホウライヒメジ (Diving Service MARLIN).

Parupeneus multifasciatus (Quoy and Gaimard, 1825)

オジサン [Marine] (Fig. 221)

FRLM 50724, 125.7 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51962, 129.8 mm SL, off Northern Pasture, line-fishing, 22 Sept. 2015; FRLM 51963, 112.5 mm SL, off Northern Pasture, line-fishing, 23 Sept. 2015; FRLM 51964, 156.3 mm SL, off Northern Pasture, line-fishing, 24 Sept. 2015; FRLM 51965, 154.5 mm SL, off Northern Pasture, line-fishing, 25 Sept. 2015; FRLM 51966, 153.0 mm SL, off Northern Pasture, line-fishing, 26 Sept. 2015; FRLM 51987, 166.6 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 79736, 164.4 mm SL, KAUM-I. 79737, 99.1 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; KAUM-I. 80219, 133.5 mm SL, Arakawa Bay, line-fishing, 18 Sept. 2015; KAUM-I. 80228, 161.0 mm SL, Yonaguni-jima island, line-fishing, 17 Sept. 2015; KAUM-I. 80393, 113.7 mm SL, KAUM-I. 80424, 150.7 mm SL, KAUM-I. 80426, 93.1 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80490, 148.0 mm SL, off Yonaguni Airport, line-fishing, 22 Sept. 2015; MUFS 46884, 115.0 mm SL, Kubura Fishing Port, line-fishing, 17 Sept. 2015; MUFS 46913, 141.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; NSMT-P 101230, 133.4 mm SL, Kubura Hinan Port, 16 Mar. 2010.



Fig. 221. *Parupeneus multifasciatus* オジサン (upper: KAUM-I. 80228, 161.0 mm SL; lower: KAUM-I. 79737, 99.1 mm SL).

Parupeneus pleurostigma (Bennett, 1831)

リュウキュウヒメジ [Marine] (Fig. 222)

FRLM 51460, 124.1 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 222. *Parupeneus pleurostigma* リュウキュウヒメジ (FRLM 51460, 124.1 mm SL).

FAMILY PEMPHERIDAE

ハタンボ科

かたちら

Parapriacanthus ransonneti Steindachner, 1870

キンメモドキ [Marine] (Fig. 223)

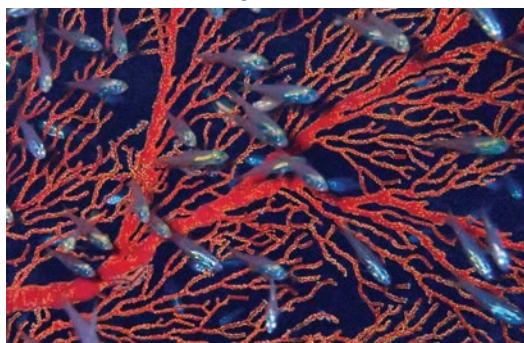


Fig. 223. *Parapriacanthus ransonneti* キンメモドキ (Diving Service MARLIN).

Pempheris adusta Bleeker, 1877

リュウキュウハタンボ [Marine] (Fig. 224)

FRLM 51543, 111.5 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78465, 130.3 mm SL, Sonai Channel, spear, 21 Sept. 2015; URM-P 47552, 127.2 mm SL, Sonai Fishing Port, line-fishing, 23 July 2013; URM-P 47553, 124.6 mm SL, URM-P 47554, 97.4 mm SL, URM-P 47555, 128.0 mm SL, URM-P 47556, 121.4 mm SL, URM-P 47557, 125.4 mm SL, URM-P 47558, 129.3 mm SL, URM-P 47559, 107.2 mm SL, URM-P 47560, 121.9 mm SL, URM-P 47561, 130.9 mm SL, URM-P 47562, 123.3 mm SL, URM-P 47563, 132.8 mm SL, URM-P 47564, 122.0 mm SL, URM-P 47565, 117.6 mm SL, Kubura Fishing Port, line-fishing, 23 July 2013; URM-P 47566, 129.0 mm SL, URM-P 47567, 123.0 mm SL, URM-P 47568, 116.5 mm SL, Kubura Fishing Port, line-fishing, 24 July 2013.



Fig. 224. *Pempheris adusta* リュウキュウハタンボ (upper: FRLM 51543, 111.5 mm SL; lower: URM-P 47554, 97.4 mm SL).

Pempheris oualensis Cuvier, 1831

ユメハタンボ [Marine] (Fig. 225)

KAUM-I. 78328, 171.8 mm SL, KAUM-I. 78329, 148.9 mm SL, male, Rakuda Rock, spear, 17 Sept. 2015; KAUM-I. 78354, 154.9 mm SL, female, KAUM-I. 78355, 168.1 mm SL, female, Arakawa Bay, spear, 18 Sept. 2015; KAUM-I. 78550, 186.1 mm SL, Umabana, spear, 22 Sept. 2015; URM-P 47551, 169.1 mm SL, Kubura Fishing Port, line-fishing, 23 July 2013.

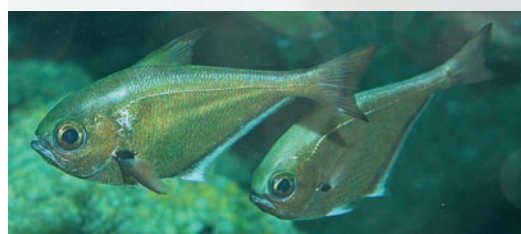


Fig. 225. *Pempheris oualensis* ユメハタンボ (upper: URM-P 47551, 169.1 mm SL; middle: KAUM-I. 78328, 171.8 mm SL; lower: K. Koeda).

Pempheris vanicolensis Cuvier, 1831

キビレハタンボ [Marine] (Fig. 226)

URM-P 47569, 139.0 mm SL, Kubura Fishing Port, line-fishing, 24 July 2013.



Fig. 226. *Pempheris vanicolensis* キビレハタンボ (URM-P 47569, 139.0 mm SL).

FAMILY MONODACTYLIDAE

ヒメツバメウオ科

Monodactylus argenteus (Linnaeus, 1758)

ヒメツバメウオ [Marine; brackish] (Fig. 227)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P23, 69.3 mm SL, Tabaru River, hand net, 8 Aug. 1999; KAUM-I. 78250, 142.6 mm SL, KAUM-I. 78251, 146.3 mm SL, KAUM-I. 78263, 151.0 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 78429, 13.0 mm SL, Tabaru River, cast net, 20 Sept. 2015.



Fig. 227. *Monodactylus argenteus* ヒメツバメウオ (upper: KAUM-I. 78250, 142.6 mm SL; lower: KAUM-I. 78429, 13.0 mm SL).

FAMILY KYPHOSIDAE

イスズミ科

Kyphosus cinerascens (Forskål, 1775)

テンジクイサキ [Marine; brackish] (Fig. 228)

FRLM 50707, 124.3 mm SL, Kubura Fishing Port, hand net, 13 Mar. 2015; FRLM 51558, 187.5 mm SL, Hikawa, line-fishing, 24 Sept. 2015; FRLM 51589, 135.0 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; FRLM 51958, 222.0 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; HMNH-P 80, 140.5 mm SL, 9 Aug. 1999, Kubura River, hand net; KAUM-I. 78252, 226.2 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 80365, 157.4 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.



Fig. 228. *Kyphosus cinerascens* テンジクイサキ (KAUM-I. 80365, 157.4 mm SL).

Kyphosus pacificus Sakai and Nakabo, 2004

ミナミイスズミ [Marine] (Fig. 229)

FRLM 51429, 152.9 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 80468, 229.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015; MUFS 46921, 226.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015.



Fig. 229. *Kyphosus pacificus* ミナミイスズミ (upper: KAUM-I. 80468, 229.0 mm SL; lower: FRLM 51429, 152.9 mm SL).

Kyphosus vaigiensis (Quoy and Gaimard, 1825)

イスズミ [Marine] (Fig. 230)

FRLM 50757, 286.0 mm SL, FRLM 50758, 243.3 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; KAUM-I. 78608, 209.6 mm SL, Yonaguni-jima island, line-fishing, 18 Sept. 2015.



Fig. 230. *Kyphosus vaigiensis* イスズミ (upper: FRLM 50757, 286.0 mm SL; lower: KAUM-I. 78608, 209.6 mm SL).

FAMILY CHAETODONTIDAE

チョウチョウウオ科

かびつつあ・はびるいゆ

Chaetodon argentatus Smith and Radcliffe, 1911

カガミチョウチョウウオ [Marine] (Fig. 231)

KAUM-I. 78325, 81.1 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 231. *Chaetodon argentatus* カガミチョウチョウウオ (KAUM-I. 78325, 81.1 mm SL).

Chaetodon auriga Forsskål, 1775

トゲチョウチョウウオ [Marine; brackish] (Fig. 232)

FRLM 50721, 151.2 mm SL, Kubura Fishing Port, hand net, 12 Mar. 2015; FRLM 51567, 143.2 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 80278, 124.3 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; URM-P 48357, 134.2 mm SL, Kubura Fishing Port, line-fishing, 23 July 2013.



Fig. 232. *Chaetodon auriga* トゲチョウチョウウオ (FRLM 50721, 151.2 mm SL).

Chaetodon auripes Jordan and Snyder, 1901

チョウチョウウオ [Marine; brackish] (Fig. 233)

Ito (2009).

FRLM 50697, 125.4 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 50722, 124.6 mm SL, Kubura Fishing Port, hand net, 12 Mar. 2015; FRLM 51566, 140.1 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78260, 132.6 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 80362, 132.1 mm SL, Sonai Channel, gill net, 20 Sept. 2015.



Fig. 233. *Chaetodon auripes* チョウチョウウオ (KAUM-I. 80362, 132.1 mm SL).

Chaetodon bennetti Cuvier, 1831

ウミヅキチョウチョウウオ [Marine] (Fig. 234)

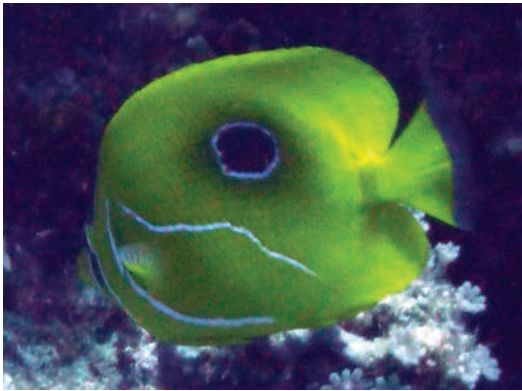


Fig. 234. *Chaetodon bennetti* ウミヅキチョウチョウウオ (Diving Service MARLIN).

Chaetodon citrinellus Cuvier, 1831

ゴマチョウチョウウオ [Marine] (Fig. 235)

Ito (2009).

KAUM-I. 78495, 36.1 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 235. *Chaetodon citrinellus* ゴマチョウチョウウオ (KAUM-I. 78495, 36.1 mm SL).

Chaetodon ephippium Cuvier, 1831

セグロチョウチョウウオ [Marine] (Fig. 236)

KAUM-I. 78497, 90.3 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 236. *Chaetodon ephippium* セグロチョウチョウウオ (KAUM-I. 78497, 90.3 mm SL).

Chaetodon lineolatus Cuvier, 1831

ニセフウライチョウチョウウオ [Marine] (Fig. 237)

KAUM-I. 80464, 205.1 mm SL, Umabana, spear, 22 Sept. 2015.



Fig. 237. *Chaetodon lineolatus* ニセフウライチョウチョウウオ (KAUM-I. 80464, 205.1 mm SL).

Chaetodon lunula (Lacepède, 1802)

チョウハン [Marine; brackish] (Fig. 238)

Yoshigou et al. (2001).

HMNH-P136, 25.6 mm SL, Sonai, hand net, 9 Aug. 1999; FRLM 51980, 85.5 mm SL, Hikawa, spear, 21 Sept. 2015.



Fig. 238. *Chaetodon lunula* チョウハン (FRLM 51980, 85.5 mm SL).

Chaetodon lunulatus Quoy and Gaimard, 1825

ミスジチョウチョウウオ [Marine] (Fig. 239)

KAUM-I. 78471, 22.9 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



Fig. 239. *Chaetodon lunulatus* ミスジチョウチョウウオ (KAUM-I. 78471, 22.9 mm SL).

Chaetodon melannotus Bloch and Schneider, 1801

アケボノチョウチョウウオ [Marine] (Fig. 240)

KAUM-I. 80260, 113.9 mm SL, Anchor's graves, spear, 17 Sept. 2015.

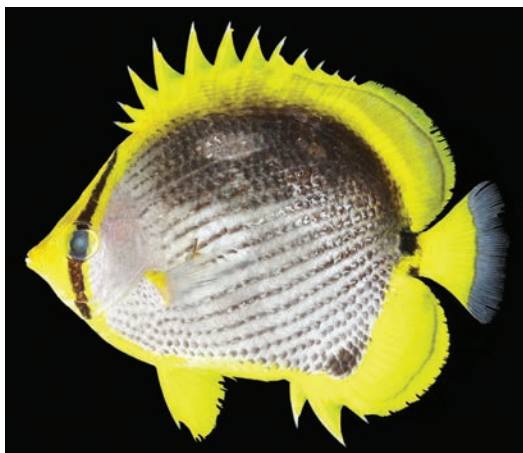


Fig. 240. *Chaetodon melannotus* アケボノチョウチョウウオ (upper: KAUM-I. 80260, 113.9 mm SL; lower: Diving Service MARLIN).

Chaetodon meyeri Bloch and Schneider, 1801

オウギチョウチョウウオ [Marine] (Fig. 241)



Fig. 241. *Chaetodon meyeri* オウギチョウチョウウオ (Diving Service MARLIN).

Chaetodon ornatissimus Cuvier, 1831

ハナグロチョウチョウウオ [Marine] (Fig. 242)

KAUM-I. 79745, 140.3 mm SL, Rakuda Rock, spear, 17 Sept. 2015.

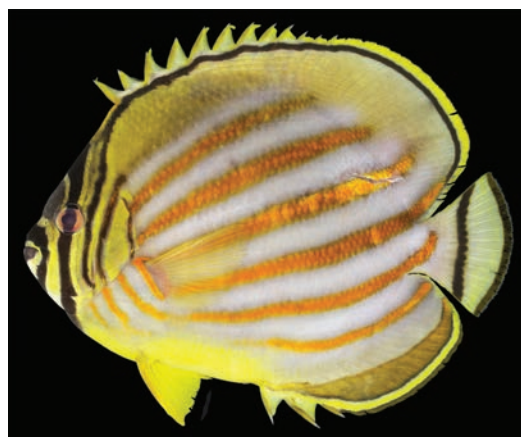


Fig. 242. *Chaetodon ornatissimus* ハナグロチョウチョウウオ (KAUM-I. 79745, 140.3 mm SL).

Chaetodon ornatissimus × *C. reticulatus*

ハナグロチョウチョウウオ × ハクテンカタギ [Marine] (Fig. 243)

Remarks. The individual has intermediate color pattern of *Chaetodon ornatissimus* and *C. reticulatus*, and formed a pair with *C. reticulatus*.



Fig. 243. *Chaetodon ornatissimus* × *C. reticulatus* ハナグロチョウチョウウオ × ハクテンカタギ (Diving Service MARLIN).

Chaetodon punctatofasciatus Cuvier, 1831

シチセンチョウチョウオ [Marine] (Fig. 244)

KAUM-I. 78326, 82.6 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 244. *Chaetodon punctatofasciatus* シチセンチョウチョウオ (KAUM-I. 78326, 82.6 mm SL).

Chaetodon quadrimaculatus Gray, 1831

シテンチョウチョウオ [Marine] (Fig. 245)

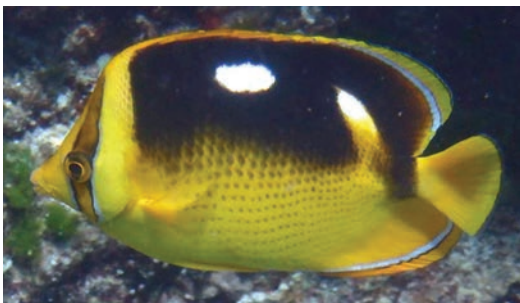


Fig. 245. *Chaetodon quadrimaculatus* シテンチョウチョウオ (Diving Service MARLIN).

Chaetodon rafflesii Anonymous [Bennett], 1830

アミチョウチョウオ [Marine] (Fig. 246)

URM-P 48358, 127.9 mm SL, Kubura Fishing Port, line-fishing, 23 July 2013.



Fig. 246. *Chaetodon rafflesii* アミチョウチョウオ (URM-P 48358, 127.9 mm SL).

Chaetodon reticulatus Cuvier, 1831

ハクテンカタギ [Marine] (Fig. 247)

Ito (2009).

KAUM-I. 80259, 103.4 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 247. *Chaetodon reticulatus* ハクテンカタギ (upper: KAUM-I. 80259, 103.4 mm SL; lower: Diving Service MARLIN).

Chaetodon semeion Bleeker, 1855

レモンチョウチョウオ [Marine] (Fig. 248)

KAUM-I. 78353, 164.9 mm SL, Arakawa Bay, spear, 18 Sept. 2015.



Fig. 248. *Chaetodon semeion* レモンチョウチョウオ (KAUM-I. 78353, 164.9 mm SL).

Chaetodon speculum Cuvier, 1831

トノサマダイ [Marine] (Fig. 249)

KAUM-I. 80462, 109.3 mm SL, Umabana, spear, 22 Sept. 2015.



Fig. 249. *Chaetodon speculum* トノサマダイ (KAUM-I. 80462, 109.3 mm SL).

Chaetodon trifascialis Quoy and Gaimard, 1825

ヤリカタギ [Marine] (Fig. 250)



Fig. 250. *Chaetodon trifascialis* ヤリカタギ (M. Sakurai).

Chaetodon ulietensis Cuvier, 1831

スタレチョウチョウオ [Marine] (Fig. 251)

FRLM 50698, 131.9 mm SL, FRLM 50699, 121.5 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; KAUM-I. 78494, 23.4 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 251. *Chaetodon ulietensis* スタレチョウチョウオ (upper: FRLM 50698, 131.9 mm SL; lower: KAUM-I. 78494, 23.4 mm SL).

Chaetodon unimaculatus Bloch, 1787

イッテンチョウチョウオ [Marine] (Fig. 252)

MUFS 46888, 142.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015.



Fig. 252. *Chaetodon unimaculatus* イッテンチョウチョウオ (MUFS 46888, 142.0 mm SL).

Chaetodon vagabundus Linnaeus, 1758

フウライチョウチョウウオ [Marine] (Fig. 253)

FRLM 51552, 35.6 mm SL, Kubura Fishing Port, hand net, 24 Sept. 2015; KAUM-I. 78253, 99.8 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015.



Fig. 253. *Chaetodon vagabundus* フウライチョウチョウウオ (KAUM-I. 78253, 99.8 mm SL).

Forcipiger flavissimus Jordan and McGregor, 1898

フエヤッコダイ [Marine] (Fig. 254)

KAUM-I. 78574, 136.0 mm SL, Danno Beach, spear, 23 Sept. 2015.



Fig. 254. *Forcipiger flavissimus* フエヤッコダイ (KAUM-I. 78574, 136.0 mm SL).

Forcipiger longirostris (Broussonet, 1782)

オオフエヤッコダイ [Marine] (Fig. 255)



Fig. 255. *Forcipiger longirostris* オオフエヤッコダイ (Diving Service MARLIN).

Hemitaurichthys polylepis (Bleeker, 1857)

カスミチョウチョウウオ [Marine] (Fig. 256)

KAUM-I. 78315, 111.7 mm SL, KAUM-I. 80261, 113.0 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 256. *Hemitaurichthys polylepis* カスミチョウチョウウオ (upper: KAUM-I. 78315, 111.7 mm SL; lower: KAUM-I. 80261, 113.0 mm SL).



Heniochus acuminatus (Linnaeus, 1758)

ハタタテダイ [Marine] (Fig. 257)

FRLM 52032, 131.6 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 78261, 122.0 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; NSMT-P 101234, 147.6 mm SL, Danno Beach, 19 Mar. 2010.



Fig. 257. *Heniochus acuminatus* ハタタテダイ (upper: KAUM-I. 78261, 122.0 mm SL; lower: Diving Service MARLIN).

Heniochus chrysostomus Cuvier, 1831

ミナミハタタテダイ [Marine] (Fig. 258)

KAUM-I. 79747, 112.6 mm SL, KAUM-I. 80229, 105.5 mm SL, Rakuda Rock, spear, 17 Sept. 2015; MUFS 46892, 109.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015.



Fig. 258. *Heniochus chrysostomus* ミナミハタタテダイ (KAUM-I. 79747, 112.6 mm SL).

Heniochus singularis Smith and Radcliffe, 1911

シマハタタテダイ [Marine] (Fig. 259)

KAUM-I. 80234, 181.9 mm SL, Rakuda Rock, spear, 17 Sept. 2015.

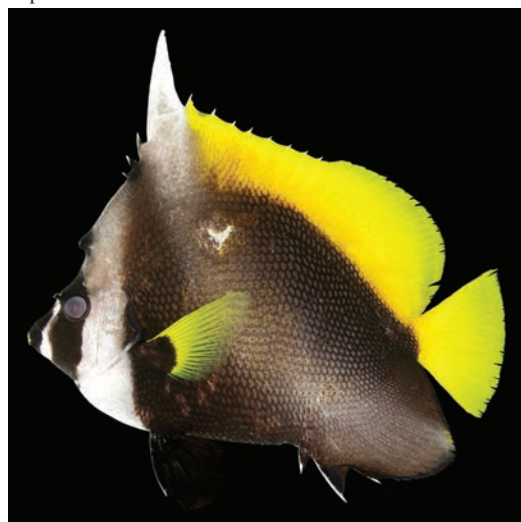


Fig. 259. *Heniochus singularis* シマハタタテダイ (KAUM-I. 80234, 181.9 mm SL).

Heniochus varius (Cuvier, 1829)

ツノハタタテダイ [Marine]

NSMT-P 101235, 141.6 mm SL, Danno Beach, 19 Mar. 2010.

FAMILY POMACANTHIDAE

キンチャクダイ科

Apolemichthys trimaculatus (Cuvier, 1831)

シテンヤッコ [Marine] (Fig. 260)

KAUM-I. 79735, 117.5 mm SL, off Kubura Hinan Port, spear, 18 Sept. 2015; MUFS 46907, 138.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; NSMT-P 101239, 103.6 mm SL, Danno Beach, 19 Mar. 2010.



Fig. 260. *Apolemichthys trimaculatus* シテンヤッコ (upper: KAUM-I. 79735, 117.5 mm SL; middle: MUFS 46907, 138.0 mm SL; lower: Diving Service MARLIN).

Centropyge ferrugata Randall and Burgess, 1972

アカハラヤッコ [Marine] (Fig. 261)

KAUM-I. 78320, 43.1 mm SL, Rakuda Rock, hand net, 17 Sept. 2015; KAUM-I. 78346, 58.0 mm SL, KAUM-I. 78358, 25.1 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 261. *Centropyge ferrugata* アカハラヤッコ (upper: KAUM-I. 78346, 58.0 mm SL; lower: KAUM-I. 78358, 25.1 mm SL).

Centropyge heraldi Woods and Schultz, 1953

ヘラルドコガネヤッコ [Marine] (Fig. 262)

Ito (2009).

KAUM-I. 78343, 70.0 mm SL, KAUM-I. 78344, 64.2 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 262. *Centropyge heraldi* ヘラルドコガネヤッコ (KAUM-I. 78343, 70.0 mm SL).

Centropyge vrolikii (Bleeker, 1853)

ナメラヤッコ [Marine] (Fig. 263)

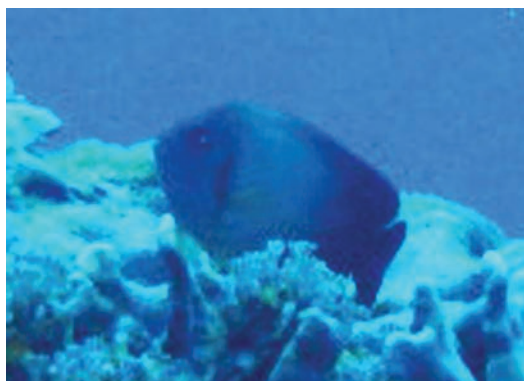


Fig. 263. *Centropyge vrolikii* ナメラヤッコ (Diving Service MARLIN).

Pomacanthus imperator (Bloch, 1787)

タテジマキンチャクダイ [Marine] (Fig. 264)

KAUM-I. 78468, 23.1 mm SL, Sonai Channel, hand net, 21 Sept. 2015; KAUM-I. 79714, 212.9 mm SL, off Kubura Hinan Port, spear, 18 Sept. 2015; NSMT-P 101236, 173.1 mm SL, Danno Beach, 19 Mar. 2010.



Fig. 264. *Pomacanthus imperator* タテジマキンチャクダイ (upper: KAUM-I. 79714, 212.9 mm SL; lower: KAUM-I. 78468, 23.1 mm SL).

Pomacanthus semicirculatus (Cuvier, 1831)

サザナミヤッコ [Marine] (Fig. 265)

Yoshigou et al. (2001).

HMNH-P135, 33.3 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 80233, 130.5 mm SL, Rakuda Rock, spear, 17 Sept. 2015; NSMT-P 55482, 36.8 mm SL, Agarizaki, 28 Mar. 1997.



Fig. 265. *Pomacanthus semicirculatus* サザナミヤッコ (KAUM-I. 80233, 130.5 mm SL).

Pomacanthus sexstriatus (Cuvier, 1831)

ロクセンヤッコ [Marine] (Fig. 266)

Ito (2009).



Fig. 266. *Pomacanthus sexstriatus* ロクセンヤッコ (Diving Service MARLIN).

Pomacanthus xanthometopon (Bleeker, 1853)

アデヤッコ [Marine]

Ito (2009).

Pygoplites diacanthus (Boddaert, 1772)

ニシキヤッコ [Marine] (Fig. 267)

KAUM-I. 79744, 111.6 mm SL, Rakuda Rock, spear, 17 Sept. 2015; MUFS 46891, 108.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015.



Fig. 267. *Pygoplites diacanthus* ニシキヤッコ (upper: KAUM-I. 79744, 111.6 mm SL; lower: MUFS 46891, 108.0 mm SL).

FAMILY PENTACEROTIDAE

カワビシヤ科

Pentaceros japonicus Steindachner, 1883

ツボダイ [Marine]

NSMT-P 76169, 130.0 mm SL, southeast of Yonaguni-jima island, stomach content, 1 Aug. 2006.

FAMILY TERAPONIDAE

シマイサキ科

Terapon jarbua (Forsskål, 1775)

コトヒキ [Marine; brackish] (Fig. 268)

もんたな

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51446, 84.2 mm SL, FRLM 52012, 60.0 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; HMNH-P91, 43.8 mm SL, Tabaru River, hand net, 10 Aug. 1999; MUFS 47025, 105.0 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015.



Fig. 268. *Terapon jarbua* コトヒキ (upper: FRLM 51446, 84.2 mm SL; lower: MUFS 47025, 105.0 mm SL).

FAMILY KUHLIIDAE

ユゴイ科

Kuhlia marginata (Cuvier, 1829)

ユゴイ [Brackish; freshwater] (Fig. 269)

Fujimoto (1972); Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51487, 95.5 mm SL, Tabaru River, cast net, 20 Sept. 2015; HMNH-P90, 2 specimens, 23.5–47.1 mm SL, Tabaru River, hand net, 10 Aug. 1999; KAUM-I. 78407, 57.5 mm SL, Tabaru River, cast net, 20 Sept. 2015.



Fig. 269. *Kuhlia marginata* ユゴイ (KAUM-I. 78407, 57.5 mm SL).

Kuhlia mugil (Forster, 1801)

ギンユゴイ [Marine] (Fig. 270)

FRLM 51571, 184.3 mm SL, FRLM 51572, 186.0 mm SL, FRLM 52068, 178.7 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78381, 21.5 mm SL, KAUM-I. 78382, 18.8 mm SL, Southern Pasture, hand net, 19 Sept. 2015; MUFS 46944, 32.8 mm SL, Danno Beach, hand net, 19 Sept. 2015; URM-P 48360, 169.2 mm SL, Kubura Fishing Port, line-fishing, 23 July 2013.



Fig. 270. *Kuhlia mugil* ギンユゴイ (upper: URM-P 48360, 169.2 mm SL; middle: KAUM-I. 78381, 21.5 mm SL; lower: MUFS 46944, 32.8 mm SL).

Kuhlia rupestris (Lacepède, 1802)

オオクチュゴイ [Brackish; freshwater] (Fig. 271)

Jordan and Tanaka (1927); Kuroiwa (1927); Okinawa Prefecture Experimental Fisheries Station (1934); Ogawa (1937); Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51563, 205.8 mm SL, Tabaru River, line-fishing, 25 Sept. 2015; FRLM 52062, 225.0 mm SL, Tabaru River, line-fishing, 24 Sept. 2015; HMNH-P24, 60.3 mm SL, Tabaru River, hand net, 8 Aug. 1999; KAUM-I. 78442, 129.0 mm SL, mouth of Tabaru River, line-fishing, 20 Sept. 2015; KAUM-I. 80282, 145.3 mm SL, Tabaru River, line-fishing, 20 Sept. 2015; KAUM-I. 80448, 197.9 mm SL, Tabaru River, gill net, 22 Sept. 2015.



Fig. 271. *Kuhlia rupestris* オオクチュゴイ (upper: FRLM 51563, 205.8 mm SL; middle: KAUM-I. 78442, 129.0 mm SL; lower: KAUM-I. 80282, 145.3 mm SL).

FAMILY OPLEGNATHIDAE

イシダイ科

Oplegnathus punctatus (Temminck and Schlegel, 1844)

イシガキダイ [Marine] (Fig. 272)



Fig. 272. *Oplegnathus punctatus* イシガキダイ (Diving Service MARLIN).

FAMILY CIRRHITIDAE

ゴンベ科

Amblycirrhitus bimaculata (Jenkins, 1903)

フタホシゴンベ [Marine] (Fig. 273)

KAUM-I. 78544, 55.4 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 273. *Amblycirrhitus bimaculata* フタホシゴンベ (KAUM-I. 78544, 55.4 mm SL).

Amblycirrhitus unimaculata (Kamohara, 1957)

クロホシゴンベ [Marine]

Nakabo (2013).

Cirrhitichthys aprinus (Cuvier, 1829)

ミナミゴンベ [Marine] (Fig. 274)

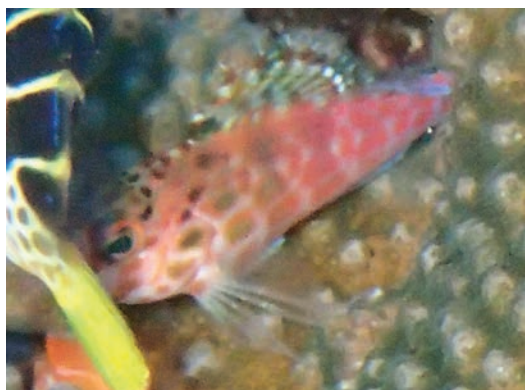


Fig. 274. *Cirrhitichthys aprinus* ミナミゴンベ (Diving Service MARLIN).

Cirrhitichthys falco Randall, 1963

サラサゴンベ [Marine] (Fig. 275)

Ito (2009).

KAUM-I. 78363, 55.9 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 275. *Cirrhitichthys falco* サラサゴンベ (KAUM-I. 78363, 55.9 mm SL).

Cirrhitus pinnulatus (Forster, 1801)

イソゴンベ [Marine] (Fig. 276)

FRLM 50746, 157.2 mm SL, Kubura-bari, line-fishing, 14 Mar. 2015; FRLM 51450, 107.3 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; KAUM-I. 80355, 125.1 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; MUFS 47021, 95.0 mm SL, Kubura-bari, line-fishing, 23 Sept. 2015; NSMT-P 55456, 111.4 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 276. *Cirrhitus pinnulatus* イソゴンベ (upper: KAUM-I. 80355, 125.1 mm SL; lower: MUFS 47021, 95.0 mm SL).

Neocirrhites armatus Castelnau, 1873

ベニゴンベ [Marine] (Fig. 277)

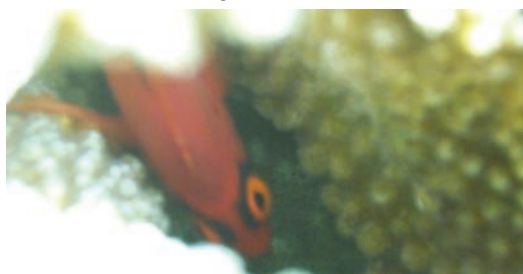


Fig. 277. *Neocirrhites armatus* ベニゴンベ (Diving Service MARLIN).

Oxycirrhites typus Bleeker, 1857

クダゴンベ [Marine] (Fig. 278)



Fig. 278. *Oxycirrhites typus* クダゴンベ (Umabana, K. Koeda).

Paracirrhites arcatus (Cuvier, 1829)

メガネゴンベ [Marine] (Fig. 279)

FRLM 51476, 39.3 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78345, 47.9 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 279. *Paracirrhites arcatus* メガネゴンベ (upper: KAUM-I. 78345, 47.9 mm SL; lower: Diving Service MARLIN).

Paracirrhites forsteri (Schneider, 1801)

ホシゴンベ [Marine] (Fig. 280)

FRLM 51449, 84.9 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 51474, 63.6 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78316, 105.3 mm SL, Anchor's graves, spear, 17 Sept. 2015; KAUM-I. 80358, 107.4 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; MUFS 46996, 83.0 mm SL, Sonai Fishing Port, line-fishing, 22 Sept. 2015.



Fig. 280. *Paracirrhites forsteri* ホシゴンベ (upper: FRLM 51449, 84.9 mm SL; lower: KAUM-I. 78316, 105.3 mm SL).

FAMILY CICHLIDAE

カワズメ科

Oreochromis niloticus (Linnaeus, 1758)

ナイルティラピア [Brackish; freshwater] (Fig. 281)

Yokogawa (2000); Yoshigou (2000); Yoshigou et al. (2001); Ministry of the Environment (2010b); Ishikawa et al. (2013); Nakabo (2013).

KAUM-I. 80277, 232.0 mm SL, Tabaru River, line-fishing, 20 Sept. 2015.



Fig. 281. *Oreochromis niloticus* ナイルティラピア (KAUM-I. 80277, 232.0 mm SL).

FAMILY POMACENTRIDAE

ズメダイ科

ひっくい

Abudefduf notatus (Day, 1870)

イソズメダイ [Marine]

NSMT-P 55479, Agarizaki, hand net, 49.4 mm SL, 28 Mar. 1997.

Abudefduf septemfasciatus (Cuvier, 1830)

シチセンスズメダイ [Marine] (Fig. 282)

FRLM 52059, 123.2 mm SL, Hikawa, line-fishing, 24 Sept. 2015; FRLM 52067, 152.0 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; HMNH-P 132, 38.5 mm SL, Sonai, hand net, 9 Aug. 1999.



Fig. 282. *Abudefduf septemfasciatus* シチセンスズメダイ (FRLM 52059, 123.2 mm SL).

Abudefduf sexfasciatus (Lacepède, 1801)

ロクセンスズメダイ [Marine] (Fig. 283)

FRLM 51512, 59.1 mm SL, Kubura Fishing Port, line-fishing, 23 Sept. 2015.



Fig. 283. *Abudefduf sexfasciatus* ロクセンスズメダイ (FRLM 51512, 59.1 mm SL).

Abudefduf sordidus (Forsskål, 1775)

シマスズメダイ [Marine] (Fig. 284)

Yoshigou et al. (2001).

FRLM 50736, 143.8 mm SL, FRLM 50737, 128.1 mm SL, Sonai Fishing Port, line-fishing, 15 Mar. 2015; HMNH-P133, 28.1 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 80271, 145.8 mm SL, Sonai Channel, spear, 21 Sept. 2015; NSMT-P 55480, 2 specimens, 39.5–49.9 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 284. *Abudefduf sordidus* シマスズメダイ (KAUM-I. 80271, 145.8 mm SL).

Abudefduf vaigiensis (Quoy and Gaimard, 1825)

オヤビッチャ [Marine] (Fig. 285)

FRLM 51952, 139.3 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 51953, 139.8 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 52033, 134.9 mm SL, FRLM 52034, 127.6 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 80354, 123.2 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; NSMT-P 55478, 7 specimens, 32.9–60.0 mm SL, Agarizaki, hand net, 28 Mar. 1997.

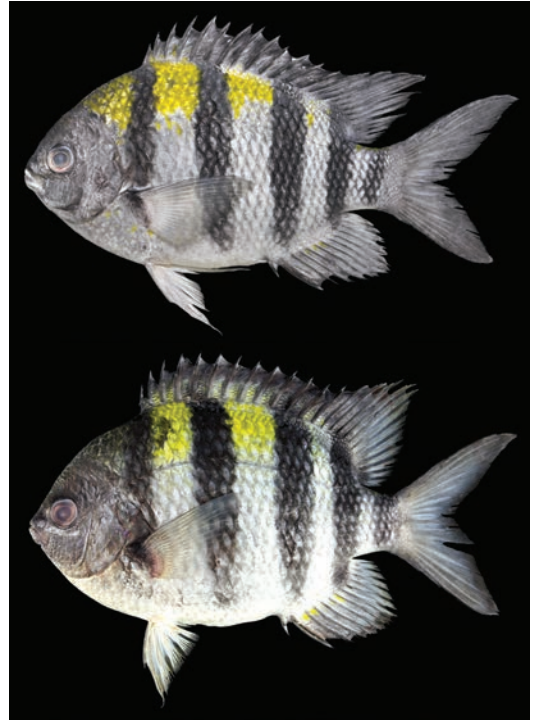


Fig. 285. *Abudefduf vaigiensis* オヤビッチャ (upper: FRLM 51952, 139.3 mm SL; lower: KAUM-I. 80354, 123.2 mm).

Amblyglyphidodon curacao (Bloch, 1787)

クラカオスズメダイ [Marine] (Fig. 286)

KAUM-I. 80353, 94.7 mm SL, Sonai Channel, spear, 21 Sept. 2015.



Fig. 286. *Amblyglyphidodon curacao* クラカオスズメダイ (KAUM-I. 80353, 94.7 mm SL).

Amphiprion clarkii (Bennett, 1830)

クマノミ [Marine] (Fig. 287)

FRLM 52086, 84.8 mm SL, FRLM 52094, 90.4 mm SL, male, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 78351, 73.2 mm SL, male, off Kubura Hinan Port, hand net, 18 Sept. 2015; MUFS 47012, 92.0 mm SL, female, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 287. *Amphiprion clarkii* クマノミ (KAUM-I. 78351, 73.2 mm SL).

Amphiprion frenatus Brevoort, 1856

ハマクマノミ [Marine] (Fig. 288)

FRLM 50734, 39.9 mm SL, FRLM 50735, 30.6 mm SL, Sonai Fishing Port, hand net, 15 Mar. 2015; FRLM 51559, 93.2 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78330, 72.4 mm SL, Rakuda Rock, hand net, 17 Sept. 2015.



Fig. 288. *Amphiprion frenatus* ハマクマノミ (upper: FRLM 51559, 93.2 mm SL; lower: KAUM-I. 78330, 72.4 mm SL).

Amphiprion ocellaris Cuvier, 1830

カクレクマノミ [Marine] (Fig. 289)

KAUM-I. 78267, 57.8 mm SL, KAUM-I. 78268, 29.3 mm SL, KAUM-I. 78269, 39.4 mm SL, KAUM-I. 78270, 22.4 mm SL, KAUM-I. 78271, 25.0 mm SL, KAUM-I. 78272, 15.6 mm SL, KAUM-I. 78273, 12.0 mm SL (seven specimens collected from a single symbiotic anemone), Kubura Fishing Port, hand net, 16 Sept. 2015.



Fig. 289. *Amphiprion ocellaris* カクレクマノミ (upper: KAUM-I. 78267, 57.8 mm SL; middle: KAUM-I. 78268, 29.3 mm SL; lower: KAUM-I. 78273, 12.0 mm SL).

Amphiprion perideraion Bleeker, 1855

ハナビラクマノミ [Marine] (Fig. 290)

KAUM-I. 78546, 36.2 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 290. *Amphiprion perideraion* ハナビラクマノミ (KAUM-I. 78546, 36.2 mm SL).

Chromis acares Randall and Swerdloff, 1973

コビトスズメダイ [Marine] (Fig. 291)

KAUM-I. 78350, 31.2 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.



Fig. 291. *Chromis acares* コビトスズメダイ (KAUM-I. 78350, 31.2 mm SL).

Chromis atripes Fowler and Bean, 1928

ヒレグロスズメダイ [Marine] (Fig. 292)

KAUM-I. 78324, 46.3 mm SL, Rakuda Rock, hand net, 17 Sept. 2015.



Fig. 292. *Chromis atripes* ヒレグロスズメダイ (KAUM-I. 78324, 46.3 mm SL).

Chromis margaritifer Fowler, 1946

シコクスズメダイ [Marine] (Fig. 293)

KAUM-I. 78317, 53.6 mm SL, KAUM-I. 78318, 16.2 mm SL, KAUM-I. 78319, 17.6 mm SL, Rakuda Rock, hand net, 17 Sept. 2015.



Fig. 293. *Chromis margaritifer* シコクスズメダイ (KAUM-I. 78317, 53.6 mm SL).

Chromis ovatiformes Fowler, 1946

マルスズメダイ [Marine] (Fig. 294)

KAUM-I. 78322, 58.6 mm SL, Rakuda Rock, hand net, 17 Sept. 2015.



Fig. 294. *Chromis ovatiformes* マルスズメダイ (KAUM-I. 78322, 58.6 mm SL).

Chromis vanderbilti (Fowler, 1941)

ヒメスズメダイ [Marine] (Fig. 295)

KAUM-I. 78323, 18.6 mm SL, Rakuda Rock, hand net, 17 Sept. 2015; KAUM-I. 78524, 35.2 mm SL, Danno-dropoff, hand net, 22 Sept. 2015; KAUM-I. 78536, 29.4 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 295. *Chromis vanderbilti* ヒメスズメダイ (upper: KAUM-I. 78536, 29.4 mm SL; lower: KAUM-I. 78323, 18.6 mm SL).

Chromis yamakawai Iwatsubo and Motomura, 2013

キホシスズメダイ [Marine] (Fig. 296)



Fig. 296. *Chromis yamakawai* キホシスズメダイ (Diving Service MARLIN).

Chrysiptera biocellata (Quoy and Gaimard, 1825)

スジブチスズメダイ [Marine] (Fig. 297)

Ito (2009).

MUFS 47026, 84.0 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015.



Fig. 297. *Chrysiptera biocellata* スジブチスズメダイ (MUFS 47026, 84.0 mm SL).

Chrysiptera brownriggi (Bennett, 1828)

ミヤコキセンスズメダイ [Marine] (Fig. 298)

KAUM-I. 78575, 31.9 mm SL, Danno Beach, hand net, 23 Sept. 2015.



Fig. 298. *Chrysiptera brownriggi* ミヤコキセンスズメダイ (KAUM-I. 78575, 31.9 mm SL).

Chrysiptera cyanea (Quoy and Gaimard, 1825)

ルリスズメダイ [Marine] (Fig. 299)

KAUM-I. 78466, 43.4 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



Fig. 299. *Chrysiptera cyanea* ルリスズメダイ (upper: KAUM-I. 78466, 43.4 mm SL; lower: Diving Service MARLIN)

Chrysiptera glauca (Cuvier, 1830)

ネズズメダイ [Marine]

NSMT-P 55485, 7 specimens, 33.9–50.9 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Chrysiptera rex (Snyder, 1909)

レモンスズメダイ [Marine]

NSMT-P 55484, 51.8 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Chrysiptera unimaculata (Cuvier, 1830)

イチモンスズメダイ [Marine; brackish] (Fig. 300)

MUFS 47027, 71.0 mm SL, mouth of Kubura River, line-fishing, 24 Sept. 2015.



Fig. 300. *Chrysiptera unimaculata* イチモンスズメダイ (MUFS 47027, 71.0 mm SL).



Dascyllus aruanus (Linnaeus, 1758)

ミスジリュウキュウスズメダイ [Marine] (Fig. 301)

KAUM-I. 78476, 31.4 mm SL, KAUM-I. 78477, 28.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



Fig. 301. *Dascyllus aruanus* ミスジリュウキュウスズメダイ (upper: KAUM-I. 79476, 31.4 mm SL; lower: Diving Service MARLIN)

Dascyllus reticulatus (Richardson, 1846)

フタスジリュウキュウスズメダイ [Marine] (Fig. 302)

KAUM-I. 78478, 17.4 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



Fig. 302. *Dascyllus reticulatus* フタスジリュウキュウスズメダイ (KAUM-I. 78478, 17.4 mm SL).

Dascyllus trimaculatus (Rüppell, 1829)

ミツボシクロズメダイ [Marine] (Fig. 303)

FRLM 51988, 98.5 mm SL, FRLM 51992, 59.5 mm SL, FRLM 51993, 80.9 mm SL, FRLM 51994, 85.1 mm SL, FRLM 51995, 56.9 mm SL, FRLM 51996, 92.8 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; FRLM 52049, 74.7 mm SL, FRLM 52050, 59.5 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; FRLM 52069, 92.3 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78274, 26.7 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 78277, 103.5 mm SL, KAUM-I. 78278, 94.9 mm SL, KAUM-I. 78279, 93.5 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015.



Fig. 303. *Dascyllus trimaculatus* ミツボシクロズメダイ (upper: KAUM-I. 78277, 103.5 mm SL; middle: KAUM-I. 78274, 26.7 mm SL; lower: piebald individual, Diving Service MARLIN).

Dischistodus prosopotaenia (Bleeker, 1852)

ダンダラスズメダイ [Marine]

Ito (2009).

Neoglyphidodon melas (Valenciennes, 1830)

クロスズメダイ [Marine] (Fig. 304)

KAUM-I. 78517, 14.3 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 304. *Neoglyphidodon melas* クロスズメダイ (KAUM-I. 78517, 14.3 mm SL).

Plectroglyphidodon imparipennis (Vaillant and Sauvage, 1875)

イワサキズメダイ [Marine] (Fig. 305)

KAUM-I. 78521, 35.2 mm SL, KAUM-I. 78522, 33.6 mm SL, Umabana, hand net, 22 Sept. 2015; NSMT-P 55483, 2 specimens, 30.9–34.4 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 305. *Plectroglyphidodon imparipennis* イワサキズメダイ (KAUM-I. 78521, 35.2 mm SL).

Plectroglyphidodon lacrymatus (Quoy and Gaimard, 1825)

ルリホシズメダイ [Marine] (Fig. 306)

FRLM 51425, 79.6 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 306. *Plectroglyphidodon lacrymatus* ルリホシズメダイ (FRLM 51425, 79.6 mm SL).

Plectroglyphidodon leucozonus (Bleeker, 1859)

ハクセンスズメダイ [Marine]

NSMT-P 55486, 8 specimens, 23.7–48.2 mm SL, Agarizaki, hand net, 28 Mar. 1997; NSMT-P 55491, 52.5 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Pomacentrus amboinensis Bleeker, 1868

ニセネッタイズメダイ [Marine] (Fig. 307)

FRLM 50728, 88.5 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51428, 89.6 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78356, 81.7 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015.



Fig. 307. *Pomacentrus amboinensis* ニセネッタイズメダイ (KAUM-I. 78356, 81.7 mm SL).

Pomacentrus coelestis Jordan and Starks, 1901

ソラスズメダイ [Marine] (Fig. 308)



Fig. 308. *Pomacentrus coelestis* ソラスズメダイ (Diving Service MARLIN).

Pomacentrus philippinus Evermann and Seale, 1907

フィリピンズズメダイ [Marine] (Fig. 309)

Ito (2009).

FRLM 50696, 73.3 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 51431, 77.2 mm SL, FRLM 52006, 81.8 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; FRLM 51486, 86.2 mm SL, Sonai Fishing Port, cast net, 22 Sept. 2015.



Fig. 309. *Pomacentrus philippinus* フィリピンズズメダイ (FRLM 50696, 73.3 mm SL).

***Pomacentrus* sp. 1**

ミナミイソズメダイ [Marine] (Fig. 310)

Ito (2009).

FRLM 52020, 68.7 mm SL, FRLM 52021, 76.7 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; FRLM 52051, 75.7 mm SL, FRLM 52052, 76.4 mm SL, FRLM 52053, 65.4 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015.



Fig. 310. *Pomacentrus* sp. 1 ミナミイソズメダイ (FRLM 52020, 68.7 mm SL).

***Pomacentrus* sp. 2**

ソラスズメダイ属の一種 [Marine] (Fig. 311)

KAUM-I. 78559, 67.8 mm SL, off Hikawa, line-fishing, 22 Sept. 2015.



Fig. 311. *Pomacentrus* sp. 2 (KAUM-I. 78559, 67.8 mm SL).

Stegastes altus (Okada and Ikeda, 1937)

セダカズメダイ [Marine]

NSMT-P 55488, Agarizaki, 28 Mar. 1997.

Stegastes fasciolatus (Ogilby, 1889)

フチドリズメダイ [Marine] (Fig. 312)

FRLM 51482, 83.3 mm SL, Southern Pasture, line-fishing, 22 Sept. 2015; KAUM-I. 78560, 60.7 mm SL, off Hikawa, line-fishing, 22 Sept. 2015.



Fig. 312. *Stegastes fasciolatus* フチドリズメダイ (upper: FRLM 51482, 83.3 mm SL; lower: KAUM-I. 78560, 60.7 mm SL).

Stegastes nigricans (Lacepède, 1802)

クロソラスズメダイ [Marine] (Fig. 313)

Ito (2009).

FRLM 51541, 108.9 mm SL, FRLM 52047, 108.8 mm SL, FRLM 52048, 112.3 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78257, 102.6 mm SL, KAUM-I. 78262, 114.0 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 78506, 17.4 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 313. *Stegastes nigricans* クロソラスズメダイ (upper: FRLM 51541, 108.9 mm SL; middle: KAUM-I. 78257, 102.6 mm SL; lower: KAUM-I. 78506, 17.4 mm SL).

Stegastes punctatus (Quoy and Gaimard, 1825)

ハナナガスズメダイ [Marine; brackish] (Fig. 314)

FRLM 51426, 91.5 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; FRLM 51523, 77.2 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; FRLM 51533, 9.7 mm SL, Sonai Fishing Port, fishing light, 24 Sept. 2015; FRLM 51534, 2 specimens, 8.9–9.2 mm SL, Sonai Fishing Port, fishing light, 24 Sept. 2015; FRLM 51553, 20.0 mm SL, Kubura Fishing Port, hand net, 24 Sept. 2015.



Fig. 314. *Stegastes punctatus* ハナナガスズメダイ (FRLM 51426, 91.5 mm SL).

FAMILY POLYNEMIDAE

ツバメコノシロ科

Polynemidae sp.

ツバメコノシロ科の一種 [Marine; brackish]

はにまち

Ikema (2003).

FAMILY LABRIDAE

ベラ科

くつつあび

Anampses caeruleopunctatus Rüppell, 1829

ブチススキベラ [Marine] (Fig. 315)

KAUM-I. 80223, 208.5 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

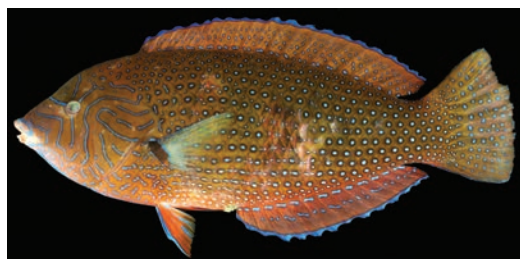


Fig. 315. *Anampses caeruleopunctatus* ブチススキベラ (KAUM-I. 80223, 208.5 mm SL).

Anampses twistii Bleeker, 1856
ホシススキベラ [Marine] (Fig. 316)

FRLM 50702, 135.0 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015.



Fig. 316. *Anampses twistii* ホシススキベラ (FRLM 50702, 135.0 mm SL).

Bodianus axillaris (Bennett, 1832)
スミツキベラ [Marine] (Fig. 317)



Fig. 317. *Bodianus axillaris* スミツキベラ (Umabana, K. Koeda).

Bodianus bilunulatus (Lacepède, 1801)
キツネベラ [Marine] (Fig. 318)

FRLM 51456, 148.6 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80418, 182.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 318. *Bodianus bilunulatus* キツネベラ (FRLM 51456, 148.6 mm SL).

Bodianus dictynna Gomon, 2006
モンツキベラ [Marine] (Fig. 319)

KAUM-I. 78551, 138.0 mm SL, Umabana, spear, 22 Sept. 2015.



Fig. 319. *Bodianus dictynna* モンツキベラ (KAUM-I. 78551, 138.0 mm SL).

Bodianus perditio (Quoy and Gaimard, 1834)
タキベラ [Marine] (Fig. 320)

FRLM 51457, 202.5 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80397, 378.9 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 320. *Bodianus perditio* タキベラ (FRLM 51457, 202.5 mm SL).

Cheilinus chlorourus (Bloch, 1791)
アカテンモチノウオ [Marine] (Fig. 321)

KAUM-I. 78514, 28.3 mm SL, Hikawa, hand net, 21 Sept. 2015; KAUM-I. 80281, 113.5 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015.

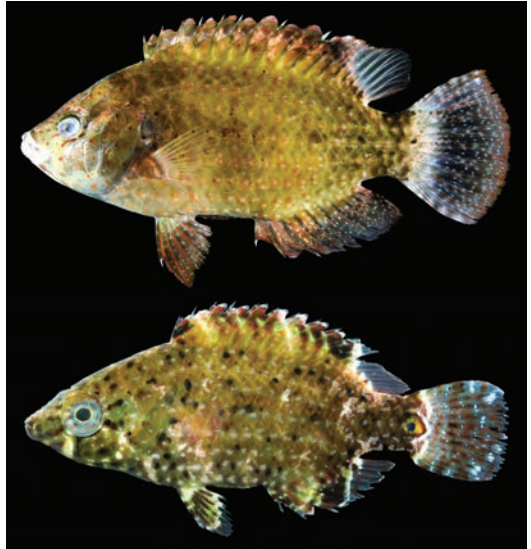


Fig. 321. *Cheilinus chlorourus* アカテンモチノウオ (upper: KAUM-I. 80281, 113.5 mm SL; lower: KAUM-I. 78514, 28.3 mm SL).

Cheilinus trilobatus Lacepède, 1801
ミツバモチノウオ [Marine] (Fig. 322)

FRLM 51568, 162.2 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015.



Fig. 322. *Cheilinus trilobatus* ミツバモチノウオ (FRLM 51568, 162.2 mm SL).

Cheilinus undulatus Rüppell, 1835

メガネモチノウオ [Marine] (Fig. 323)

Fig. 323. *Cheilinus undulatus* メガネモチノウオ (Underwater Ruin, K. Koeda).*Cheilio inermis* (Forsskål, 1775)

カマスベラ [Marine; brackish] (Fig. 324)

KAUM-I. 78509, 38.4 mm SL, Hikawa, hand net, 21 Sept. 2015.

Fig. 324. *Cheilio inermis* カマスベラ (KAUM-I. 78509, 38.4 mm SL).*Choerodon jordani* (Snyder, 1908)

クラカケベラ [Marine] (Fig. 325)

FRLM 51459, 130.7 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.

Fig. 325. *Choerodon jordani* クラカケベラ (FRLM 51459, 130.7 mm SL).*Cirrhilabrus cyanopleura* (Bleeker, 1851)

クロヘリイトヒキベラ [Marine] (Fig. 326)

Fig. 326. *Cirrhilabrus cyanopleura* クロヘリイトヒキベラ (Diving Service MARLIN).*Coris aygula* Lacepède, 1801

カンムリベラ [Marine] (Fig. 327)

Yoshigou et al. (2001).

FRLM 50762, 232.5 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 52041, 206.5 mm SL, FRLM 52042, 265.0 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; HMNH-P 112, 41.8 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 78605, 234.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.

Fig. 327. *Coris aygula* カンムリベラ (FRLM 50762, 232.5 mm SL).*Coris batuensis* (Bleeker, 1856)

シチセンムスメベラ [Marine] (Fig. 328)

Yoshigou et al. (2001).

HMNH-P111, 24.2 mm SL, Agarizaki, hand net, 9 Aug. 1999.

Fig. 328. *Coris batuensis* シチセンムスメベラ (HMNH-P111, 24.2 mm SL, preserved specimen).*Coris dorsomacula* Fowler, 1908

スジベラ [Marine] (Fig. 329)

FRLM 51461, 114.1 mm SL, FRLM 51462, 103.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80456, 86.7 mm SL, KAUM-I. 80492, 112.1 mm SL, KAUM-I. 80493, 112.1 mm SL, north of Yonaguni-jima island, line-fishing, 22 Sept. 2015.

Fig. 329. *Coris dorsomacula* スジベラ (upper: KAUM-I. 80456, 86.7 mm SL; lower: KAUM-I. 80493, 112.1 mm SL).

Epibulus insidiator (Pallas, 1770)

ギチペラ [Marine] (Fig. 330)

Ito (2009).

FRLM 51569, 164.8 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78275, 159.9 mm SL, KAUM-I. 78276, 134.8 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015; KAUM-I. 78312, 192.2 mm SL, KAUM-I. 78313, 242.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015; KAUM-I. 78507, 21.4 mm SL, KAUM-I. 78508, 10.2 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 330. *Epibulus insidiator* ギチペラ (upper to lower: FRLM 51569, 164.8 mm SL; KAUM-I. 78313, 242.0 mm SL; KAUM-I. 78312, 192.2 mm SL; KAUM-I. 78507, 21.4 mm SL).

Halichoeres hortulanus (Lacepède, 1801)

トカラペラ [Marine] (Fig. 331)

FRLM 50751, 225.0 mm SL, Sonai Fishing Port, line-fishing, 14 Mar. 2015; HMNH-P110, 26.6 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 78368, 12.0 mm SL, Arakawa Bay, hand net, 18 Sept. 2015; NSMT-P 55470, 65.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.

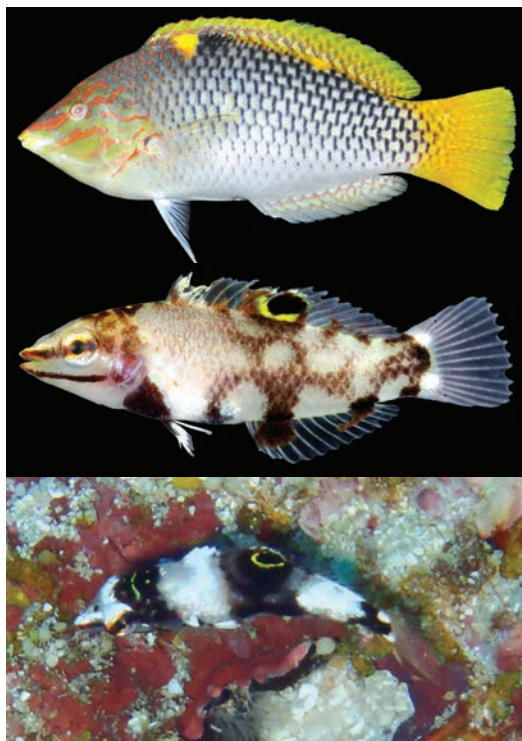


Fig. 331. *Halichoeres hortulanus* トカラペラ (upper: FRLM 50751, 225.0 mm SL, inverted; middle: KAUM-I. 78368, 12.0 mm SL; lower: Diving Service MARLIN).

Halichoeres margaritaceus (Valenciennes, 1839)

アカニジペラ [Marine]

NSMT-P 55469, 19.6 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Halichoeres marginatus Rüppell, 1835

カノコペラ [Marine] (Fig. 332)

Yoshigou et al. (2001).

FRLM 51560, 128.9 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78254, 170.8 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; NSMT-P 55471, 76.3 mm SL, Agarizaki, hand net, 28 Mar. 1997.

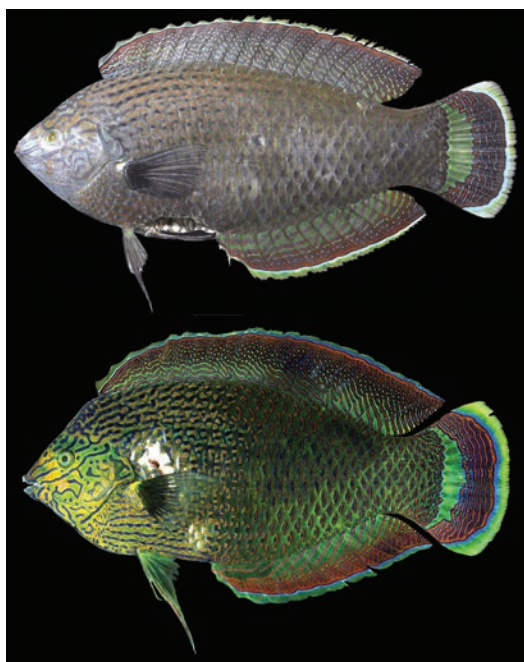


Fig. 332. *Halichoeres marginatus* カノコベラ (upper: FRLM 51560, 128.9 mm SL; lower: KAUM-I. 78254, 170.8 mm SL).

Halichoeres melanochir Fowler and Bean, 1928

ムナテンベラ [Marine] (Fig. 333)

FRLM 50740, 170.1 mm SL, Sonai Fishing Port, line-fishing, 15 Mar. 2015.



Fig. 333. *Halichoeres melanochir* ムナテンベラ (FRLM 50740, 170.1 mm SL).

Halichoeres nebulosus (Valenciennes, 1839)

イナズマベラ [Marine]

URM-P 34364, Danno Beach, 2 Aug. 1995.

Halichoeres orientalis Randall, 1999

ツキベラ [Marine]

Ito (2009).

Halichoeres prosopion (Bleeker, 1853)

ムナテンベラダマシ [Marine]

Ito (2009).

Halichoeres richmondi Fowler and Bean, 1928

ゴシキキュウセン [Marine]

Ito (2009).

Halichoeres trimaculatus (Quoy and Gaimard, 1834)

ミツボシキュウセン [Marine] (Fig. 334)

Ito (2009).

KAUM-I. 80352, 127.5 mm SL, Sonai Channel, spear, 21 Sept. 2015.



Fig. 334. *Halichoeres trimaculatus* ミツボシキュウセン (KAUM-I. 80352, 127.5 mm SL).

Hemigymnus fasciatus (Bloch, 1792)

シマタレクチベラ [Marine] (Fig. 335)

KAUM-I. 78556, 115.0 mm SL, Umabana, hand net, 22 Sept. 2015.

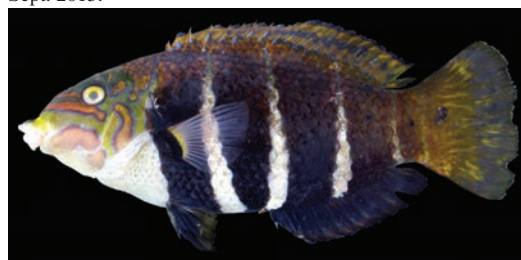


Fig. 335. *Hemigymnus fasciatus* シマタレクチベラ (KAUM-I. 78556, 115.0 mm SL).

Hemigymnus melapterus (Bloch, 1791)

タレクチベラ [Marine] (Fig. 336)

KAUM-I. 78469, 44.2 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

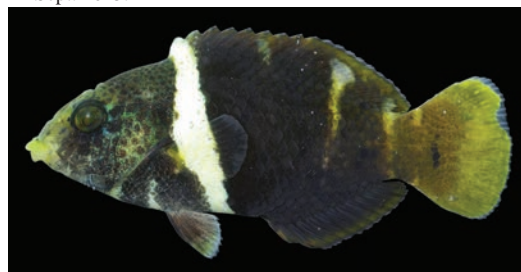


Fig. 336. *Hemigymnus melapterus* タレクチベラ (KAUM-I. 78469, 44.2 mm SL).

Hologymnosus doliatus (Lacepède, 1801)

シロタスキベラ [Marine] (Fig. 337)

FRLM 50743, 226.5 mm SL, Sonai Fishing Port, line-fishing, 15 Mar. 2015.



Fig. 337. *Hologymnosus doliatus* シロタスキベラ (FRLM 50743, 226.5 mm SL).

Iniistius celebicus (Bleeker, 1856)

ホウキボシテンス [Marine] (Fig. 338)



Fig. 338. *Iniistius celebicus* ホウキボシテンス (Diving Service MARLIN).

Iniistius pavo (Valenciennes, 1840)

ホシテンス [Marine] (Fig. 339)



Fig. 339. *Iniistius pavo* ホシテンス (Diving Service MARLIN).

Labroides dimidiatus (Valenciennes, 1839)

ホンソメワケベラ [Marine] (Fig. 340)

KAUM-I. 78332, 23.0 mm SL, Anchor's graves, hand net, 17 Sept. 2015; KAUM-I. 78479, 21.7 mm SL, KAUM-I. 78480, 24.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015; NSMT-P 55473, 41.3 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 340. *Labroides dimidiatus* ホンソメワケベラ (upper: KAUM-I. 78480, 24.0 mm SL; lower: KAUM-I. 78332, 23.0 mm SL).

Novaculichthys taeniourus (Lacepède, 1801)

オビテンスモドキ [Marine] (Fig. 341)

KAUM-I. 78369, 12.8 mm SL, Arakawa Bay, hand net, 18 Sept. 2015.



Fig. 341. *Novaculichthys taeniourus* オビテンスモドキ (KAUM-I. 78369, 12.8 mm SL).

Oxycheilinus orientalis (Günther, 1862)

カタグロホホスジモチノウオ [Marine] (Fig. 342)

FRLM 51464, 106.2 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 342. *Oxycheilinus orientalis* カタグロホホスジモチノウオ (FRLM 51464, 106.2 mm SL).

Oxycheilinus unifasciatus (Streets, 1877)

ヒトスジモチノウオ [Marine] (Fig. 343)

FRLM 50744, 176.9 mm SL, Sonai Fishing Port, line-fishing, 15 Mar. 2015; KAUM-I. 79741, 183.5 mm SL, KAUM-I. 80232, 183.2 mm SL, Rakuda Rock, line-fishing, 17 Sept. 2015; KAUM-I. 80231, 162.4 mm SL, Arakawa Bay, line-fishing, 17 Sept. 2015; KAUM-I. 80478, 148.2 mm SL, Danno Beach, spear, 23 Sept. 2015; MUFS 46894, 155.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 46978, 196.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; NSMT-P 101127, 132.6 mm SL, Danno Beach, 20 Mar. 2010.

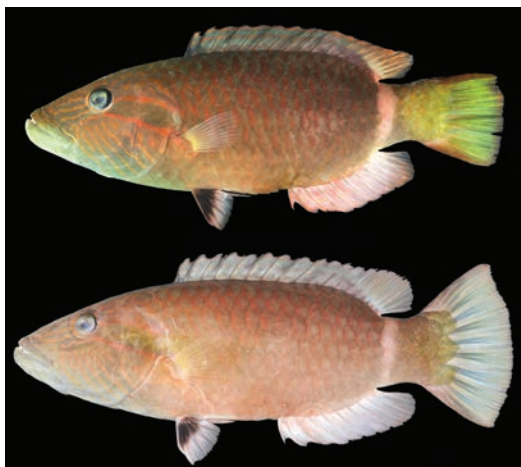


Fig. 343. *Oxycheilinus unifasciatus* ヒトスジモチノウオ (upper: KAUM-I. 80232, 183.2 mm SL; lower: MUFS 46978, 196.0 mm SL).

Pseudocheilinus hexataenia (Bleeker, 1857)

ニセモチノウオ [Marine] (Fig. 344)

KAUM-I. 78462, 37.1 mm SL, KAUM-I. 78486, 15.4 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

Fig. 344. *Pseudocheilinus hexataenia* ニセモチノウオ (KAUM-I. 78462, 37.1 mm SL).*Stethojulis bandanensis* (Bleeker, 1851)

アカオビベラ [Marine] (Fig. 345)

FRLM 51540, 12.0 mm SL, Kubura Fishing Port, hand net, 24 Sept. 2015.

Fig. 345. *Stethojulis bandanensis* アカオビベラ (FRLM 51540, 12.0 mm SL).*Stethojulis strigiventer* (Bennett, 1833)

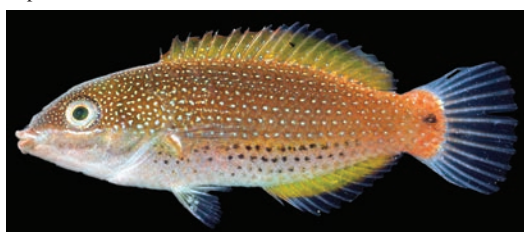
ハラスジベラ [Marine]

NSMT-P 55467, 23.9 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Stethojulis trilineata (Bloch and Schneider, 1801)

オニベラ [Marine] (Fig. 346)

KAUM-I. 78398, 26.4 mm SL, Hikawa, hand net, 20 Sept. 2015.

Fig. 346. *Stethojulis trilineata* オニベラ (KAUM-I. 78398, 26.4 mm SL).*Thalassoma amblycephalum* (Bleeker, 1856)

コガシラベラ [Marine] (Fig. 347)

Yoshigou et al. (2001).

FRLM 51463, 80.5 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; HMNH-P107, 23.0 mm SL, Agarizaki, hand net, 9 Aug. 1999; NSMT-P 55474, 32.0 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Fig. 347. *Thalassoma amblycephalum* コガシラベラ (FRLM 51463, 80.5 mm SL).*Thalassoma hardwicke* (Bennett, 1830)

セナスジベラ [Marine] (Fig. 348)

FRLM 50741, 136.7 mm SL, FRLM 50742, 138.6 mm SL, Sonai Fishing Port, line-fishing, 15 Mar. 2015; FRLM 51542, 91.1 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; FRLM 52014, 147.1 mm SL, Kubura Fishing Port, line-fishing, 21 Sept. 2015; NSMT-P 55466, 4 specimens, 50.1–80.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Fig. 348. *Thalassoma hardwicke* セナスジベラ (FRLM 51542, 91.1 mm SL).*Thalassoma jansenii* (Bleeker, 1856)

ヤンセンニシキベラ [Marine] (Fig. 349)

Ito (2009).

FRLM 51448, 119.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015.

Fig. 349. *Thalassoma jansenii* ヤンセンニシキベラ (FRLM 51448, 119.5 mm SL).*Thalassoma lutescens* (Lay and Bennett, 1839)

ヤマブキベラ [Marine] (Fig. 350)

Yoshigou et al. (2001).

FRLM 51989, 149.5 mm SL, FRLM 51990, 87.4 mm SL, Sonai Fishing Port, line-fishing, 21 Sept. 2015; KAUM-I. 78280, 129.3 mm SL, Kubura Fishing Port, line-fishing, 16 Sept. 2015; KAUM-I. 80213, 113.6 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015; KAUM-I. 80489, 131.5 mm SL, north of Yonaguni-jima island, line-fishing, 22 Sept. 2015; MUFS 46893, 123.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 47024, 120.0 mm SL, Sonai Fishing Port, line-fishing, 23 Sept. 2015; NSMT-P 55468, 9 specimens, 16.0–65.9 mm SL, Agarizaki, hand net, 28 Mar. 1997; NSMT-P 101232, 94.6 mm SL, Kubura Hinan Port, hand net, 16 Mar. 2010.

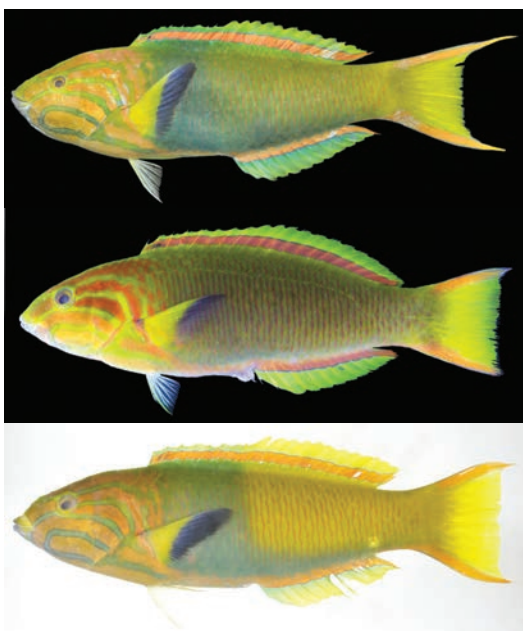


Fig. 350. *Thalassoma lutescens* ヤマブキベラ (upper: FRLM 51989, 149.5 mm SL; middle: KAUM-I. 80213, 113.6 mm SL; lower: MUFS 46893, 123.0 mm SL).

Thalassoma purpureum (Forsskål, 1775)

キヌベラ [Marine] (Fig. 351)

Yoshigou et al. (2001).

FRLM 50763, 196.0 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 51955, 138.0 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 52044, 134.6 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; FRLM 52083, 203.0 mm SL, Kubura Fishing Port, line-fishing, 21 Sept. 2015; KAUM-I. 78384, 29.0 mm SL, Southern Pasture, hand net, 19 Sept. 2015.



Fig. 351. *Thalassoma purpureum* キヌベラ (upper: FRLM 52083, 203.0 mm SL; lower: KAUM-I. 78384, 29.0 mm SL).

Thalassoma quinquevittatum (Lay and Bennett, 1839)

ハコベラ [Marine] (Fig. 352)

FRLM 51539, 18.3 mm SL, Kubura Fishing Port, hand net, 24 Sept. 2015; FRLM 52038, 104.8 mm SL, FRLM 52039, 100.6 mm SL, FRLM 52040, 97.3 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; FRLM 52070, 97.0 mm SL, FRLM 52071, 109.9 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 80212, 118.5 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015; KAUM-I. 80356, 98.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; MUFS 46920, 101.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015.



Fig. 352. *Thalassoma quinquevittatum* ハコベラ (KAUM-I. 80212, 118.5 mm SL).

Thalassoma trilobatum (Lacepède, 1801)

リュウグウベラ [Marine] (Fig. 353)

FRLM 51956, 194.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 52037, 180.5 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 80359, 198.1 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; KAUM-I. 80450, 192.2 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015.

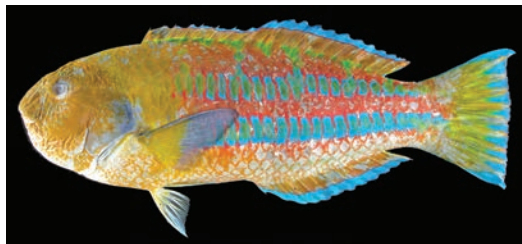


Fig. 353. *Thalassoma trilobatum* リュウグウベラ (KAUM-I. 80450, 192.2 mm SL).

***Thalassoma* sp.**

ニシキベラ属の一種 [Marine]

NSMT-P 55472, 17 specimens, 13.6–42.8 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Wetmorella nigropinnata (Seale, 1901)

ハシナガベラ [Marine] (Fig. 354)

KAUM-I. 78333, 47.7 mm SL, Rakuda Rock, hand net, 17 Sept. 2015.



Fig. 354. *Wetmorella nigropinnata* ハシナガベラ (KAUM-I. 78333, 47.7 mm SL).

FAMILY SCARIDAE

ブダイ科

Bolbometopon muricatum (Valenciennes, 1840)

カンムリブダイ [Marine] (Fig. 355)

Ito (2009).

Fig. 355. *Bolbometopon muricatum* カンムリブダイ (Diving Service MARLIN).***Calotomus carolinus*** (Valenciennes, 1840)

タイワンブダイ [Marine] (Fig. 356)

MUFS 46923, 195.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015.

Fig. 356. *Calotomus carolinus* タイワンブダイ (MUFS 46923, 195.0 mm SL).***Cetoscarus bicolor*** (Rüppell, 1829)

イロブダイ [Marine] (Fig. 357)

Senou et al. (1997): piebald individual.

KAUM-I. 78460, 47.5 mm SL, KAUM-I. 78461, 12.9 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

Fig. 357. *Cetoscarus bicolor* イロブダイ (upper: KAUM-I. 78460, 47.5 mm SL; middle: KAUM-I. 78461, 12.9 mm SL; lower: Diving Service MARLIN).***Chlorurus bowersi*** (Snyder, 1909)

オオモンハゲブダイ [Marine] (Fig. 358)

KAUM-I. 78331, 200.9 mm SL, Rakuda Rock, spear, 17 Sept. 2015.

Fig. 358. *Chlorurus bowersi* オオモンハゲブダイ (KAUM-I. 78331, 200.9 mm SL).***Chlorurus microrhinos*** (Bleeker, 1854)

ナンヨウブダイ [Marine]

Ito (2009).

Scarus dimidiatus Bleeker, 1859

カワリブダイ [Marine]

Ito (2009).

Scarus festivus Valenciennes, 1840

ツキノワブダイ [Marine] (Fig. 359)

KAUM-I. 80475, 282.0 mm SL, Danno Beach, spear, 23 Sept. 2015.



Fig. 359. *Scarus festivus* ツキノワブダイ (KAUM-I. 80475, 282.0 mm SL).

Scarus forsteni (Bleeker, 1861)

イチモンジブダイ [Marine] (Fig. 360)

Ito (2009).

FRLM 50745, 205.6 mm SL, Kubura-bari, line-fishing, 14 Mar. 2015; FRLM 52098, 207.7 mm SL, Southern Pasture, line-fishing, 21 Sept. 2015; KAUM-I. 80267, 214.7 mm SL, Anchor's graves, spear, 17 Sept. 2015; KAUM-I. 80476, 266.0 mm SL, KAUM-I. 80477, 214.5 mm SL, Danno Beach, spear, 23 Sept. 2015.



Fig. 360. *Scarus forsteni* イチモンジブダイ (upper: KAUM-I. 80476, 266.0 mm SL; middle: KAUM-I. 80267, 214.7 mm SL; lower: KAUM-I. 80477, 214.5 mm SL).

Scarus niger Forsskål, 1775

ブチブダイ [Marine] (Fig. 361)

FRLM 50752, 255.5 mm SL, Sonai Fishing Port, line-fishing, 14 Mar. 2015.



Fig. 361. *Scarus niger* ブチブダイ (FRLM 50752, 255.5 mm SL).

Scarus psittacus Forsskål, 1775

オウムブダイ [Marine] (Fig. 362)

FRLM 50695, 138.4 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 50723, 139.1 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51551, 42.9 mm SL, Kubura Fishing Port, hand net, 24 Sept. 2015; FRLM 51556, 145.0 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; FRLM 52009, 140.8 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015; MUFS 46935, 147.0 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 362. *Scarus psittacus* オウムブダイ (upper: FRLM 50695, 138.4 mm SL; lower: MUFS 46935: 147.0 mm SL).

Scarus rubroviolaceus Bleeker, 1847

ナガブダイ [Marine] (Fig. 363)

KAUM-I. 78371, 11.8 mm SL, Arakawa Bay, hand net, 18 Sept. 2015.



Fig. 363. *Scarus rubroviolaceus* ナガブダイ (KAUM-I. 78371, 11.8 mm SL).

Scarus schlegeli (Bleeker, 1861)

オビブダイ [Marine] (Fig. 364)

Yoshigou et al. (2001).

FRLM 50753, 235.5 mm SL, Sonai Fishing Port, line-fishing, 14 Mar. 2015; HMNH-P113, 33.4 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 78395, 33.7 mm SL, KAUM-I. 78396, 27.4 mm SL, KAUM-I. 78397, 15.3 mm SL, Hikawa, hand net, 20 Sept. 2015; KAUM-I. 78513, 38.7 mm SL, Hikawa, hand net, 21 Sept. 2015; KAUM-I. 80270, 198.5 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; MUFS 46924, 182.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015.



Fig. 364. *Scarus schlegeli* オビブダイ (upper: KAUM-I. 80270, 198.5 mm SL; lower: KAUM-I. 78396, 27.4 mm SL).

Scarus xanthopleura Bleeker, 1853

アカブダイ [Marine] (Fig. 365)

あがいらぶた

Ikema (2003).



Fig. 365. *Scarus xanthopleura* アカブダイ (Diving Service MARLIN).

Scaridae sp.

ブダイ科の一種 [Marine] (Fig. 366)

KAUM-I. 78300, 12.2 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 78512, 27.4 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 366. Scaridae sp. (KAUM-I. 78512, 27.4 mm SL).

FAMILY PINGUIPEDIDAE

トラギス科

Parapercis cylindrica (Bloch, 1792)

ダンダラトラギス [Marine] (Fig. 367)

KAUM-I. 78561, 81.6 mm SL, KAUM-I. 78562, 64.1 mm SL, off Hikawa, line-fishing, 22 Sept. 2015.



Fig. 367. *Parapercis cylindrica* ダンダラトラギス (upper: KAUM-I. 78561, 81.6 mm SL; lower: Diving Service MARLIN).

Parapercis millepunctata (Günther, 1860)

ワスケトラギス [Marine] (Fig. 368)

Ito (2009).

KAUM-I. 78380, 88.4 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; NSMT-P 101231, 112.7 mm SL, Kubura Hinan Port, line-fishing, 16 Mar. 2010.



Fig. 368. *Parapercis millepunctata* ワスケトラギス (KAUM-I. 78380, 88.4 mm SL).

Parapercis pacifica Imamura and Yoshino, 2007

オグロトラギス [Marine] (Fig. 369)

FRLM 50726, 128.4 mm SL, male, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51565, 161.5 mm SL, male, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78306, 176.4 mm SL, Kataburu Beach, line-fishing, 17 Sept. 2015; KAUM-I. 78379, 169.5 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78441, 163.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.

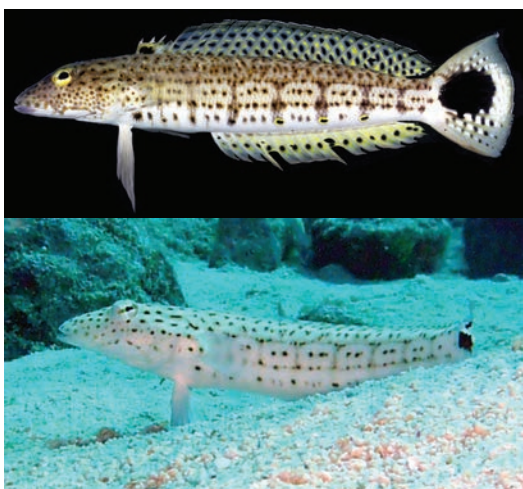


Fig. 369. *Parapercis pacifica* オグロトラギス (upper: KAUM-I. 78441, 163.0 mm SL; lower: Diving Service MARLIN).

Parapercis tetracantha (Lacepède, 1801)

マダラトラギス [Marine] (Fig. 370)

FRLM 51480, 151.0 mm SL, male, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 370. *Parapercis tetracantha* マダラトラギス (FRLM 51480, 151.0 mm SL).

FAMILY TRIPTERYGIIDAE

ヘビギンボ科

Enneapterygius philippinus (Peters, 1869)

クサギンボ [Marine]

URM-P 28692, Hikawa, 10 Oct. 1992.

Enneapterygius rhabdotus Fricke, 1994

クレナイヘビギンボ [Marine] (Fig. 371)

Yoshigou and Yoshino (2002); Yoshigou and Nakamura (2002); Nakabo (2013).

HMNH-P3077, 16.1 mm SL, HMNH-P3078, 17.2 mm SL, Agarizaki, hand net, 9 Aug. 1999; NSMT-P 106821, 5 specimens, 13.6–21.0 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 371. *Enneapterygius rhabdotus* クレナイヘビギンボ (HMNH-P3077, 16.1 mm SL, preserved specimen).

Enneapterygius tutuilae Jordan and Seale, 1906

セグロヘビギンボ [Marine] (Fig. 372)

FRLM 51522, 17.3 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; KAUM-I. 78361, 17.5 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015; KAUM-I. 78549, 13.4 mm SL, Umabana, hand net, 22 Sept. 2015.

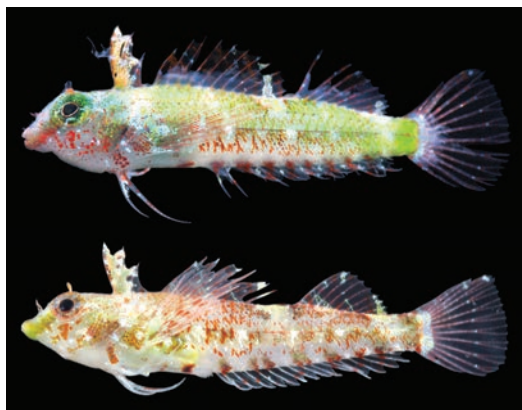


Fig. 372. *Enneapterygius tutuilae* セグロヘビギンボ (upper: KAUM-I. 78549, 13.4 mm SL; lower: KAUM-I. 78361, 17.5 mm SL).

***Enneapterygius* sp.**

ヘビギンボ属の一種 [Marine] (Fig. 373)

KAUM-I. 78532, 19.2 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 373. *Enneapterygius* sp. (KAUM-I. 78532, 19.2 mm SL).

Helcogramma fuscipectoris (Fowler, 1946)

クロマスキ [Marine] (Fig. 374)

Yoshigou et al. (2001).

HMNH-P1996, 6 specimens, 12.2–21.8 mm SL, Agarizaki, hand net, 9 Aug. 1999.



Fig. 374. *Helcogramma fuscipectoris* クロマスキ (HMNH-P1996, 21.8 mm SL, preserved specimen).

Helcogramma hudsoni (Jordan and Seale, 1906)

ナナメヘビギンボ [Marine] (Fig. 375)

Yoshigou and Nakamura (2003).

HMNH-P7189, 2 specimens, 29.7–31.8 mm SL, Agarizaki, hand net, 9 Aug. 1999.



Fig. 375. *Helcogramma hudsoni* ナナメヘビギンボ (HMNH-P7189, 31.8 mm SL, preserved specimen).

Helcogramma inclinata (Fowler, 1946)

アヤヘビギンボ [Marine] (Fig. 376)

KAUM-I. 78370, 19.4 mm SL, Arakawa Bay, hand net, 18 Sept. 2015.

Fig. 376. *Helcogramma inclinata* アヤヘビギンボ (KAUM-I. 78370, 19.4 mm SL).*Helcogramma striata* Hansen, 1986

タテジマヘビギンボ [Marine] (Fig. 377)

KAUM-I. 78537, 19.1 mm SL, Umabana, hand net, 22 Sept. 2015.

Fig. 377. *Helcogramma striata* タテジマヘビギンボ (KAUM-I. 78537, 19.1 mm SL).

FAMILY TRICHONOTIDAE

ベラギンボ科

Trichonotus sp.

ベラギンボ属の一種 [Marine] (Fig. 378)

Fig. 378. *Trichonotus* sp. (Diving Service MARLIN).

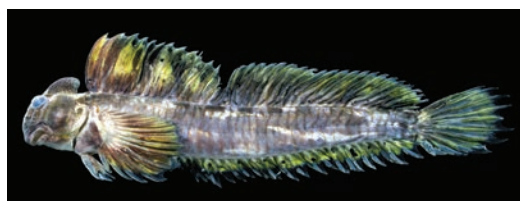
FAMILY BLENNIIDAE

イソギンボ科

Alticus saliens (Forster, 1788)

タマカエルウオ [Marine] (Fig. 379)

KAUM-I. 78520, 63.0 mm SL, Sonai Fishing Port, hand net, 21 Sept. 2015.

Fig. 379. *Alticus saliens* タマカエルウオ (KAUM-I. 78520, 63.0 mm SL).*Andamia tetradactylus* (Bleeker, 1858)

ヨダレカケ [Marine] (Fig. 380)

FRLM 51434, 82.7 mm SL, FRLM 51435, 83.2 mm SL, Kubura Hinan Port, hand net, 20 Sept. 2015; KAUM-I. 78519, 85.4 mm SL, Sonai Fishing Port, hand net, 21 Sept. 2015; MUFS 47015, 87.0 mm SL, MUFS 47016, 37.0 mm SL, MUFS 47017, 31.0 mm SL, MUFS 47018, 28.0 mm SL, Sonai Fishing Port, hand net, 22 Sept. 2015.

Fig. 380. *Andamia tetradactylus* ヨダレカケ (KAUM-I. 78519, 85.4 mm SL).*Blenniella interrupta* (Bleeker, 1857)

ジュズダマギンボ [Marine]

Yoshigou and Yoshino (2002); Nakabo (2013).

Cirripectes castaneus (Valenciennes, 1836)

タテガミカエルウオ [Marine] (Fig. 381)

KAUM-I. 78555, 21.1 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78571, 51.1 mm SL, Danno Beach, hand net, 23 Sept. 2015; MUFS 47029, 51.0 mm SL, Danno Beach, hand net, 24 Sept. 2015.

Fig. 381. *Cirripectes castaneus* タテガミカエルウオ (upper: KAUM-I. 78571, 51.1 mm SL; lower: KAUM-I. 78555, 21.1 mm SL).

Cirripectes sp.

タテガミカエルウオ属の一種 [Marine] (Fig. 382)

KAUM-I. 78541, 35.9 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 382. *Cirripectes* sp. (KAUM-I. 78541, 35.9 mm SL).

Ecsenius lineatus Klausowitz, 1962

ヒトスジギンポ [Marine] (Fig. 383)

KAUM-I. 78570, 45.0 mm SL, Danno Beach, hand net, 23 Sept. 2015.



Fig. 383. *Ecsenius lineatus* ヒトスジギンポ (KAUM-I. 78570, 45.0 mm SL).

Ecsenius oculus Springer, 1971

ゴイシギンポ [Marine] (Fig. 384)

KAUM-I. 78569, 26.7 mm SL, Danno Beach, hand net, 23 Sept. 2015.



Fig. 384. *Ecsenius oculus* ゴイシギンポ (KAUM-I. 78569, 26.7 mm SL).

Entomacrodus niuafoouensis (Fowler, 1932)

ケシヨウギンポ [Marine] (Fig. 385)

FRLM 51483, 92.1 mm SL, FRLM 51488, 72.6 mm SL, FRLM 51489, 56.7 mm SL, Southern Pasture, hand net, 22 Sept. 2015; KAUM-I. 78518, 90.6 mm SL, Southern Pasture, hand net, 21 Sept. 2015.

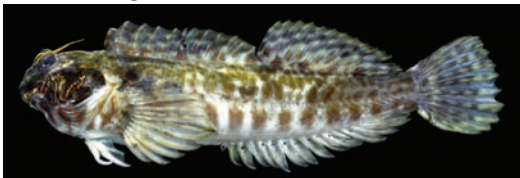


Fig. 385. *Entomacrodus niuafoouensis* ケシヨウギンポ (upper: KAUM-I. 78518, 90.6 mm SL; lower: FRLM 51483, 92.1 mm SL).

Glyptoparus delicatulus Smith, 1959

ヤイトギンポ [Marine] (Fig. 386)

MUFS 46883, 35.0 mm SL, Kataburu Beach, hand net, 17 Sept. 2015; MUFS 46932, 27.8 mm SL, Kataburu Beach, hand net, 18 Sept. 2015.



Fig. 386. *Glyptoparus delicatulus* ヤイトギンポ (MUFS 46932, 27.8 mm SL).

Istiblennius edentulus (Forster and Schneider, 1801)

ニセカエルウオ [Marine] (Fig. 387)

Yoshigou et al. (2001).

HMNH-P120, 76.3 mm SL, Agarizaki, hand net, 9 Aug. 1999; HMNH-P134, 76.6 mm SL, HMNH-P782, 52.1 mm SL, Sonai, hand net, 9 Aug. 1999; NSMT-P 94374, 5 specimens, 63.1–96.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 387. *Istiblennius edentulus* ニセカエルウオ (HMNH-P782, 52.1 mm SL, preserved specimen).

Meiacanthus grammistes (Valenciennes, 1836)

ヒゲニジギンポ [Marine]

Ito (2009).

Nannosalarias nativitatis (Regan, 1909)

ヒナギンポ [Marine] (Fig. 388)

MUFS 46941, 29.9 mm SL, MUFS 46942, 28.0 mm SL, Danno Beach, hand net, 19 Sept. 2015; MUFS 46943, Danno Beach, hand net, 19 Sept. 2015; MUFS 47030, 32.0 mm SL, MUFS 47031, MUFS 47032, 38.0 mm SL, Danno Beach, hand net, 24 Sept. 2015.

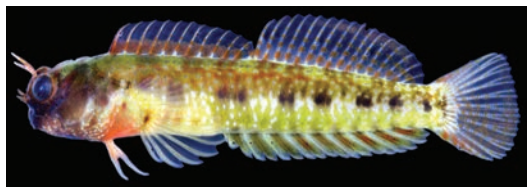


Fig. 388. *Nannosalarias nativitatis* ヒナギンポ (MUFS 46942, 28.0 mm SL).

Plagiotremus rhinorhynchos (Bleeker, 1852)

ミナミギンポ [Marine] (Fig. 389)

Fig. 389. *Plagiotremus rhinorhynchos* ミナミギンポ (Diving Service MARLIN).*Praealticus bilineatus* (Peters, 1868)

タマギンポ [Marine] (Fig. 390)

KAUM-I. 78383, 24.0 mm SL, Southern Pasture, hand net, 19 Sept. 2015; MUFS 46947, 35.0 mm SL, Danno Beach, hand net, 19 Sept. 2015; MUFS 47033, 33.0 mm SL, Yonaguni-jima island, hand net, 24 Sept. 2015; NSMT-P 94376, 3 specimens, 43.2–52.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Fig. 390. *Praealticus striatus* タマギンポ (KAUM-I. 78383, 24.0 mm SL).*Praealticus striatus* (Bath, 1992)

カブキギンポ [Marine] (Fig. 391)

FRLM 51484, 52.0 mm SL, FRLM 51490, 50.2 mm SL, Southern Pasture, hand net, 22 Sept. 2015; KAUM-I. 78385, 61.5 mm SL, male, KAUM-I. 78386, 50.6 mm SL, female, Southern Pasture, hand net, 19 Sept. 2015; MUFS 46946, 54.7 mm SL, male, Danno Beach, hand net, 19 Sept. 2015.

Fig. 391. *Praealticus tanegasimae* タネギンポ (upper: MUFS 46946, 54.7 mm SL; lower: KAUM-I. 78386, 50.6 mm SL).*Rhabdoblennius nitidus* (Günther, 1861)

ロウソクギンポ [Marine] (Fig. 392)

MUFS 46931, 43.8 mm SL, Kataburu Beach, hand net, 18 Sept. 2015; MUFS 46945, 40.1 mm SL, Danno Beach, hand net, 19 Sept. 2015.

Fig. 392. *Rhabdoblennius nitidus* ロウソクギンポ (MUFS 46931, 43.8 mm SL).

FAMILY CALLIONYMIDAE

ネズッポ科

Neosynchiropus moyeri (Zaiser and Fricke, 1985)

ミヤケテグリ [Marine] (Fig. 393)

Fig. 393. *Neosynchiropus moyeri* ミヤケテグリ (Diving Service MARLIN).

FAMILY ELEOTRIDAE

カワアナゴ科

Eleotris acanthopoma Bleeker, 1853

チチブモドキ [Brackish; freshwater] (Fig. 394)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51514, 27.9 mm SL, FRLM 51515, 50.4 mm SL, Tabaru River, hand net, 23 Sept. 2015; FRLM 51527, 50.0 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P45, 62.4 mm SL, HMNH-P46, 69.0 mm SL, Tabaru River, hand net, 9 Aug. 1999; HMNH-P102, 33.6 mm SL, HMNH-P103, 80.8 mm SL, HMNH-P105, 41.5 mm SL, Kubura River, hand net, 10 Aug. 1999; KAUM-I. 78413, 45.3 mm SL, KAUM-I. 78454, 48.5 mm SL, KAUM-I. 78455, 30.7 mm SL, Tabaru River, hand net, 20 Sept. 2015.



Fig. 394. *Eleotris acanthopoma* チチブモドキ (upper: KAUM-I. 78413, 45.3 mm SL; lower: HMNH-P45, 62.4 mm SL).

Eleotris fusca (Bloch and Schneider, 1801)

テンジクカワアナゴ [Freshwater] (Fig. 395)

どろ

Jordan and Tanaka (1927); Kuroiwa (1927); Okinawa Prefecture Experimental Fisheries Station (1934); Ogawa (1937); Hayashi (1995); Yoshigou (2000); Yoshigou et al. (2001); Konishi (2011)

FRLM 51529, 72.7 mm SL, FRLM 51530, 52.2 mm SL, Tabaru River, hand net, 24 Sept. 2015; HMNH-P47, 53.0 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 395. *Eleotris fusca* テンジクカワアナゴ (FRLM 51529, 72.7 mm SL).

Ophieleotris sp. 1

タメトモハゼ [Brackish; freshwater]

Yoshigou (2000); Japan Wild Life Research Center (2002); Ministry of the Environment (2003); Okinawa Prefecture (2005); Ministry of the Environment (2010b); Nakabo (2013).

Ophieleotris sp. 2

ゴシキタメトモハゼ [Brackish; freshwater]

Ministry of the Environment (2010a).

Ophiocara porocephala (Valenciennes, 1837)

ホシマダラハゼ [Brackish; freshwater] (Fig. 396)

Yoshigou (2000); Yoshigou et al. (2001); Japan Wild Life Research Center (2002); Senou et al. (2004); Ministry of the Environment (2010a); Ministry of the Environment (2010b).

FRLM 51507, 23.1 mm SL, Tabaru River, hand net, 20 Sept. 2015; HMNH-P54, 81.1 mm SL, Tabaru River, hand net, 9 Aug. 1999; KAUM-I. 78451, 28.3 mm SL, Tabaru River, gill net, 20 Sept. 2015; KAUM-I. 78453, 10.9 mm SL, Tabaru River, hand net, 20 Sept. 2015.



Fig. 396. *Ophiocara porocephala* ホシマダラハゼ (upper: HMNH-P54, 81.1 mm SL; lower: FRLM 51507, 23.1 mm SL).



FAMILY GOBIIDAE

ハゼ科

Acentrogobius janthinopterus (Bleeker, 1853)

カスミハゼ [Brackish] (Fig. 397)

Yoshigou (2000); Yoshigou et al. (2001); Nakabo (2013).

HMNH-P56, 40.6 mm SL, HMNH-P63, 38.7 mm SL, HMNH-P64, 16.4 mm SL, Tabaru River, hand net, 9 Aug. 1999; HMNH-P95, 23.4 mm SL, Tabaru River, hand net, 10 Aug. 1999.

Fig. 397. *Acentrogobius janthinopterus* カスミハゼ (HMNH-P56, 40.6 mm SL).*Amblyeleotris guttata* (Fowler, 1938)

ヤマブキハゼ [Marine] (Fig. 398)

Fig. 398. *Amblyeleotris guttata* ヤマブキハゼ (Diving Service MARLIN).*Amblyeleotris wheeleri* (Polunin and Lubbock, 1977)

クビアカハゼ [Marine] (Fig. 399)

Fig. 399. *Amblyeleotris wheeleri* クビアカハゼ (Diving Service MARLIN).*Amblygobius hectori* (Smith, 1957)

キンセンハゼ [Marine]

Ito (2009).

Amblygobius nocturnus (Herre, 1945)

ホホベニサラサハゼ [Marine] (Fig. 400)

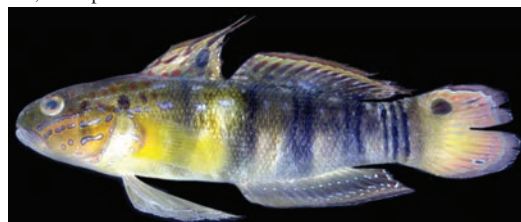
FRLM 51479, 20.7 mm SL, Hikawa, hand net, 22 Sept. 2015; KAUM-I. 78565, 18.3 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

Fig. 400. *Amblygobius nocturnus* ホホベニサラサハゼ (upper: FRLM 51479, 20.7 mm SL; lower: KAUM-I. 78565, 18.3 mm SL).*Amblygobius phalaena* (Valenciennes, 1837)

サラサハゼ [Marine] (Fig. 401)

Ito (2009).

FRLM 51554, 64.4 mm SL, male, FRLM 51555, 76.5 mm SL, male, Kubura Fishing Port, hand net, 24 Sept. 2015; KAUM-I. 78255, 83.0 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 78498, 88.3 mm SL, Hikawa, hand net, 21 Sept. 2015.

Fig. 401. *Amblygobius phalaena* サラサハゼ (upper: KAUM-I. 78498, 88.3 mm SL; middle: FRLM 51555, 76.5 mm SL; lower: KAUM-I. 78255, 83.0 mm SL).

Asterropteryx semipunctata Rüppell, 1830

ホシハゼ [Marine; brackish] (Fig. 402)

KAUM-I. 78399, 29.6 mm SL, Hikawa, hand net, 20 Sept. 2015; KAUM-I. 78515, 21.3 mm SL, Hikawa, hand net, 21 Sept. 2015.

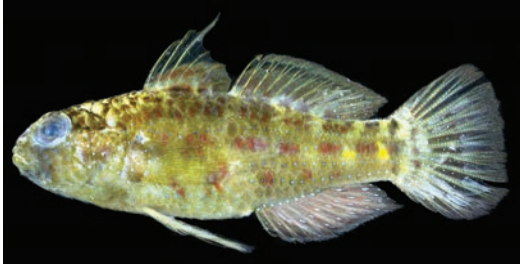


Fig. 402. *Asterropteryx semipunctata* ホシハゼ (KAUM-I. 78399, 29.6 mm SL).

Awaous ocellaris (Broussonet, 1782)

ミナミハゼ [Brackish; freshwater] (Fig. 403)

Yoshigou (2000); Yoshigou et al. (2001); Nakabo (2013).

HMNH-P38, 74.0 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 403. *Awaous ocellaris* ミナミハゼ (HMNH-P38, 74.0 mm SL).

Bathygobius coalitus (Bennett, 1832)

クロヤハズハゼ [Marine; brackish] (Fig. 404)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51510, 48.0 mm SL, Tabaru River, hand net, 23 Sept. 2015; FRLM 51516, 48.6 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P101, 2 specimens, 35.5–41.5 mm SL, Kubura River, hand net, 10 Aug. 1999; HMNH-P250, 60.5 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78393, 13.9 mm SL, KAUM-I. 78394, 12.2 mm SL, Southern Pasture, hand net, 19 Sept. 2015; KAUM-I. 78400, 43.2 mm SL, Hikawa, hand net, 20 Sept. 2015.



Fig. 404. *Bathygobius coalitus* クロヤハズハゼ (KAUM-I. 78400, 43.2 mm SL).

Bathygobius cyclopterus (Valenciennes, 1837)

ヤハズハゼ [Marine; brackish] (Fig. 405)

Yoshigou et al. (2001).

HMNH-P251, 2 specimens, 21.4–26.6 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78434, 20.4 mm SL, Tabaru River, hand net, 20 Sept. 2015; KAUM-I. 78439, 18.1 mm SL, mouth of Tabaru River, hand net, 20 Sept. 2015.



Fig. 405. *Bathygobius cyclopterus* ヤハズハゼ (KAUM-I. 78439, 18.1 mm SL).

Bathygobius fuscus (Rüppell, 1830)

クモハゼ [Marine; brackish] (Fig. 406)

FRLM 51508, 25.7 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; KAUM-I. 78566, 33.8 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

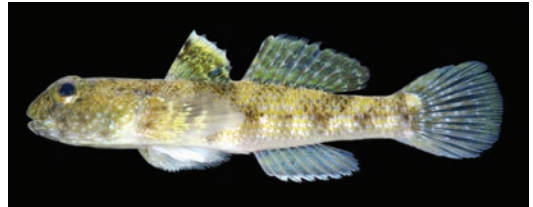


Fig. 406. *Bathygobius fuscus* クモハゼ (KAUM-I. 78566, 33.8 mm SL).

Bathygobius sp.

クモハゼ属の一種 [Brackish]

KAUM-I. 78435, 16.3 mm SL, KAUM-I. 78436, 15.8 mm SL, KAUM-I. 78437, 16.1 mm SL, Tabaru River, hand net, 20 Sept. 2015.

Callogobius tanegasimae (Snyder, 1908)

タネハゼ [Marine; brackish] (Fig. 407)

Yoshigou (2000); Yoshigou et al. (2001); Senou et al. (2004).

HMNH-P67, 22.9 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 407. *Callogobius tanegasimae* タネハゼ (HMNH-P67, 22.9 mm SL).

Callogobius sp.

オキナワハゼ属の一種 [Marine] (Fig. 408)

KAUM-I. 78359, 15.0 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.

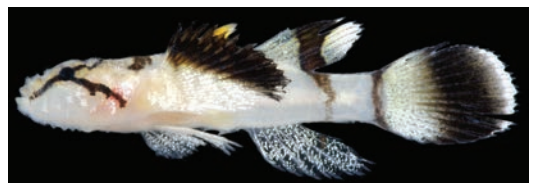


Fig. 408. *Callogobius* sp. (KAUM-I. 78359, 15.0 mm SL).

Cryptocentroides insignis (Seale, 1910)

ハスジマハゼ [Marine; brackish] (Fig. 409)

Yoshigou (2000); Yoshigou et al. (2001); Senou et al. (2004); Nakabo (2013).

HMNH-P100, 35.4 mm SL, male, Kubura River, hand net, 10 Aug. 1999.

Fig. 409. *Cryptocentroides insignis* ハスジマハゼ (HMNH-P100, 35.4 mm SL).*Cryptocentrus caeruleomaculatus* (Herre, 1933)

タカノハハゼ [Marine; brackish] (Fig. 410)

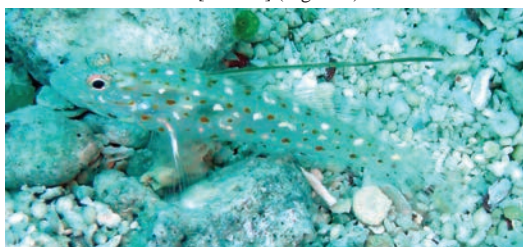
FRLM 51519, 27.3 mm SL, Tabaru River, hand net, 23 Sept. 2015; FRLM 51520, 7.6 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015.

Fig. 410. *Cryptocentrus caeruleomaculatus* タカノハハゼ (FRLM 51519, 27.3 mm SL).*Cryptocentrus nigrocellatus* (Yanagisawa, 1978)

クロホシハゼ [Marine] (Fig. 411)

Fig. 411. *Cryptocentrus nigrocellatus* クロホシハゼ (Diving Service MARLIN).*Ctenogobiops tangaroai* Lubbock and Polunin, 1977

ハタタテシノビハゼ [Marine] (Fig. 412)

Fig. 412. *Ctenogobiops tangaroai* ハタタテシノビハゼ (Diving Service MARLIN).*Eviota abax* (Jordan and Snyder, 1901)

イソハゼ [Marine] (Fig. 413)

KAUM-I. 78563, 16.2 mm SL, KAUM-I. 78564, 13.9 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

Fig. 413. *Eviota abax* イソハゼ (upper: KAUM-I. 78563, 16.2 mm SL; lower: KAUM-I. 78564, 13.9 mm SL).*Eviota korechika* Shibukawa and Suzuki, 2005

シボリイソハゼ [Marine] (Fig. 414)

KAUM-I. 78529, 13.3 mm SL, Umabana, hand net, 22 Sept. 2015.

Fig. 414. *Eviota korechika* シボリイソハゼ (KAUM-I. 78529, 13.3 mm SL).*Eviota prasites* Jordan and Seale, 1906

アオイソハゼ [Marine] (Fig. 415)

KAUM-I. 78493, 19.5 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

Fig. 415. *Eviota prasites* アオイソハゼ (KAUM-I. 78493, 19.5 mm SL).*Eviota saipanensis* Fowler, 1945

ムスジイソハゼ [Marine] (Fig. 416)

KAUM-I. 78390, 18.6 mm SL, KAUM-I. 78391, 16.0 mm SL, KAUM-I. 78392, 13.8 mm SL, Southern Pasture, hand net, 19 Sept. 2015.



Fig. 416. *Eviota saipanensis* ムスジイソハゼ (upper: KAUM-I. 78391, 16.0 mm SL; lower: KAUM-I. 78390, 18.6 mm SL).

***Eviota* sp.**

イソハゼ属の一種 [Marine] (Fig. 417)

Yoshigou et al. (2001).

HMNH-P249, Agarizaki, hand net, 9 Aug. 1999.



Fig. 417. *Eviota* sp. (HMNH-P249, preserved specimen).

***Exyrias bellissimus* (Smith, 1959)**

オバケインコハゼ [Marine; brackish] (Fig. 418)

KAUM-I. 78256, 89.8 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 78516, 53.1 mm SL, Hikawa, hand net, 21 Sept. 2015.

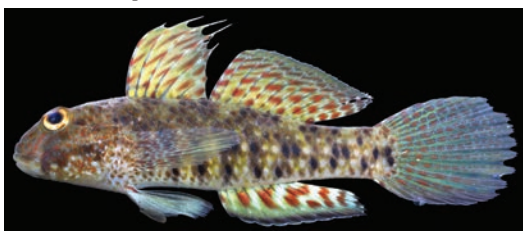


Fig. 418. *Exyrias bellissimus* オバケインコハゼ (KAUM-I. 78516, 53.1 mm SL).

***Exyrias puntang* (Bleeker, 1851)**

インコハゼ [Marine; brackish] (Fig. 419)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51443, 59.9 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; HMNH-P55, 32.3 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 419. *Exyrias puntang* インコハゼ (FRLM 51443, 59.9 mm SL).

***Favonigobius reichei* (Bleeker, 1854)**

ミナミヒメハゼ [Brackish] (Fig. 420)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51550, 36.8 mm SL, mouth of Kubura River, hand net, 24 Sept. 2015; HMNH-P93, 47.1 mm SL, male, Tabaru River, hand net, 10 Aug. 1999; KAUM-I. 78433, 38.7 mm SL, Tabaru River, hand net, 20 Sept. 2015.

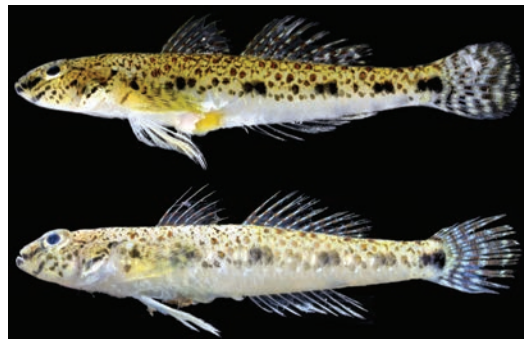


Fig. 420. *Favonigobius reichei* ミナミヒメハゼ (upper: FRLM 51550, 36.8 mm SL; lower: KAUM-I. 78433, 38.7 mm SL).

***Favonigobius* sp.**

ヒメハゼ属の一種 [Brackish] (Fig. 421)

HMNH-P69, 6 specimens, 17.9–19.4 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 421. *Favonigobius* sp. (HMNH-P69, 19.4 mm SL).

***Fusigobius inframaculatus* (Randall, 1994)**

ハタタテサンカクハゼ [Marine] (Fig. 422)

KAUM-I. 78472, 37.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



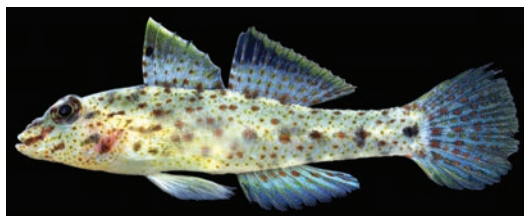
Fig. 422. *Fusigobius inframaculatus* ハタタテサンカクハゼ (KAUM-I. 78472, 37.0 mm SL).

Fusigobius neophytus (Günther, 1877)

サンカクハゼ [Marine] (Fig. 423)

Ito (2009).

KAUM-I. 78401, 41.2 mm SL, Hikawa, hand net, 20 Sept. 2015; KAUM-I. 78475, 33.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015

Fig. 423. *Fusigobius neophytus* サンカクハゼ (KAUM-I. 78475, 33.0 mm SL).***Glossogobius biocellatus*** (Valenciennes, 1837)

ヒトミハゼ [Brackish] (Fig. 424)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 50756, 51.0 mm SL, Tabaru River, hand net, 14 Mar. 2015; HMNH-P57, 45.0 mm SL, HMNH-P62, 25.1 mm SL, Tabaru River, hand net, 9 Aug. 1999.

Fig. 424. *Glossogobius biocellatus* ヒトミハゼ (FRLM 50756, 51.0 mm SL).***Glossogobius celebius*** (Valenciennes, 1837)

イワハゼ [Freshwater] (Fig. 425)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P39, 69.8 mm SL, Tabaru River, hand net, 9 Aug. 1999.

Fig. 425. *Glossogobius celebius* イワハゼ (HMNH-P39, 69.8 mm SL).***Gnatholepis cauerensis*** (Bleeker, 1853)

カタボシオオモンハゼ [Marine] (Fig. 426)

FRLM 51477, 37.9 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78474, 26.1 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

Fig. 426. *Gnatholepis cauerensis* カタボシオオモンハゼ (KAUM-I. 78474, 26.1 mm SL).***Istigobius decoratus*** (Herre, 1927)

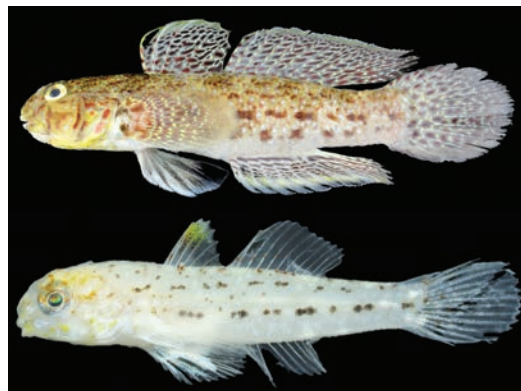
ホシカザリハゼ [Marine; brackish] (Fig. 427)

Fig. 427. *Istigobius decoratus* ホシカザリハゼ (Diving Service MARLIN).***Istigobius ornatus*** (Rüppell, 1830)

カザリハゼ [Marine; brackish] (Fig. 428)

Yoshigou et al. (2001).

FRLM 51517, 68.1 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P99, 40.7 mm SL, Kubura River, hand net, 10 Aug. 1999; KAUM-I. 78568, 19.3 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

Fig. 428. *Istigobius ornatus* カザリハゼ (upper: FRLM 51517, 68.1 mm SL; lower: KAUM-I. 78568, 19.3 mm SL).***Kelloggella cardinalis*** Jordan and Seale, 1906

アカヒレハダカハゼ [Marine] (Fig. 429)

KAUM-I. 78374, 26.0 mm SL, KAUM-I. 78375, 21.2 mm SL, KAUM-I. 78376, 23.4 mm SL, KAUM-I. 78389, 18.9 mm SL, Southern Pasture, hand net, 19 Sept. 2015.

Fig. 429. *Kelloggella cardinalis* アカヒレハダカハゼ (upper: KAUM-I. 78389, 18.9 mm SL; lower: KAUM-I. 78374, 26.0 mm SL).

Lotilia klausewitzi Shibukawa, Suzuki and Senou, 2012
オドリハゼ [Marine] (Fig. 430)



Fig. 430. *Lotilia klausewitzi* オドリハゼ (Diving Service MARLIN).

Macrodontogobius wilburi Herre, 1936
マダラハゼ [Marine] (Fig. 431)

KAUM-I. 78287, 39.5 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.

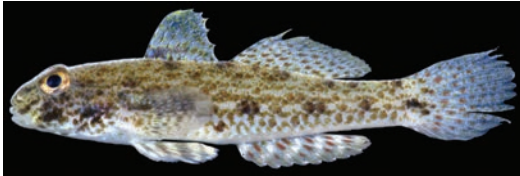


Fig. 431. *Macrodontogobius wilburi* マダラハゼ (KAUM-I. 78287, 39.5 mm SL).

Mugilogobius cavifrons (Weber, 1909)
ホホグロハゼ [Brackish] (Fig. 432)

Yoshigou (2000); Yoshigou et al. (2001); Senou et al. (2004); Ministry of the Environment (2010a); Nakabo (2013).

FRLM 51504, 18.6 mm SL, mouth of Kubura River, hand, 23 Sept. 2015; FRLM 51511, 21.6 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P36, 2 specimens, 21.3–30.2 mm SL, Kubura River, hand net, 8 Aug. 1999.



Fig. 432. *Mugilogobius cavifrons* ホホグロハゼ (upper: FRLM 51511, 21.6 mm SL; lower: HMNH-P36, 30.2 mm SL).

Oligolepis acutipennis (Valenciennes, 1837)
ノボリハゼ [Brackish] (Fig. 433)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P59, 46.2 mm SL, HMNH-P65, 32.1 mm SL, HMNH-P66, 17.5 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 433. *Oligolepis acutipennis* ノボリハゼ (HMNH-P59, 46.2 mm SL).

Oligolepis stomias (Smith, 1941)

クチサケハゼ [Brackish] (Fig. 434)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P60, 32.8 mm SL, Tabaru River, hand net, 9 Aug. 1999.

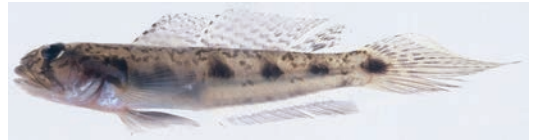


Fig. 434. *Oligolepis stomias* クチサケハゼ (HMNH-P60, 32.8 mm SL).

Oplopomus oplopomus (Valenciennes, 1837)

ケシヨウハゼ [Marine] (Fig. 435)

FRLM 51518, 16.4 mm SL, Hikawa, hand net, 23 Sept. 2015.



Fig. 435. *Oplopomus oplopomus* ケシヨウハゼ (FRLM 51518, 16.4 mm SL).

Oxyurichthys visayanus Herre, 1927

ミナミサルハゼ [Brackish] (Fig. 436)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P58, 49.7 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 436. *Oxyurichthys visayanus* ミナミサルハゼ (HMNH-P58, 49.7 mm SL).

Palutrus meteori (Klausewitz and Zander, 1967)

ヒメクモハゼ [Brackish] (Fig. 437)

KAUM-I. 78438, 18.1 mm SL, mouth of Tabaru River, hand net, 20 Sept. 2015.



Fig. 437. *Palutrus meteori* ヒメクモハゼ (KAUM-I. 78438, 18.1 mm SL).

Pandaka trimaculata Akihito and Meguro, 1975

ミツボシゴマハゼ [Brackish] (Fig. 438)

Yoshigou (2000); Yoshigou et al. (2001); Nakabo (2013).

HMNH-P68, 11.1 mm SL, Tabaru River, hand net, 9 Aug. 1999; KAUM-I. 78445, 11.7 mm SL, KAUM-I. 78446, 12.1 mm SL, KAUM-I. 78447, 13.4 mm SL, KAUM-I. 78448, 10.7 mm SL, KAUM-I. 78449, 12.6 mm SL, KAUM-I. 78450, 12.4 mm SL, Tabaru River, hand net, 20 Sept. 2015.



Fig. 438. *Pandaka trimaculata* ミツボシゴマハゼ (upper: KAUM-I. 78445, 11.7 mm SL; lower: KAUM-I. 78449, 12.6 mm SL).

Periophthalmus argentilineatus Valenciennes, 1837

ミナミトビハゼ [Marine; brackish] (Fig. 439)

Yoshigou (2000); Yoshigou et al. (2001).

FRLM 51526, 89.7 mm SL, Tabaru River, hand net, 23 Sept. 2015; HMNH-P61, 2 specimens, 18.5–32.8 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 439. *Periophthalmus argentilineatus* ミナミトビハゼ (FRLM 51526, 89.7 mm SL).

***Priolepis cincta*** (Regan, 1908)

ベンケイハゼ [Marine] (Fig. 440)

KAUM-I. 78533, 22.4 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 440. *Priolepis cincta* ベンケイハゼ (KAUM-I. 78533, 22.4 mm SL).

Priolepis latifascima Winterbottom and Burrige, 1993

フトスジイレズミハゼ [Marine] (Fig. 441)

KAUM-I. 78539, 13.1 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 441. *Priolepis latifascima* フトスジイレズミハゼ (KAUM-I. 78539, 13.1 mm SL).

***Pseudogobius* sp.**

コクチスナゴハゼ [Brackish] (Fig. 442)

FRLM 51509, 34.3 mm SL, male, Tabaru River, hand net, 23 Sept. 2015.



Fig. 442. *Pseudogobius* sp. コクチスナゴハゼ (FRLM 51509, 34.3 mm SL).

Rhinogobius giurinus (Rutter, 1897)

ゴクラクハゼ [Brackish; freshwater]

Okada and Isa (1959).

Rhinogobius nagoyae Jordan and Seale, 1906

シマヨシノボリ [Brackish; freshwater]

Yoshigou (2000).

Sicyopterus lagocephalus (Pallas, 1770)

ルリボウズハゼ [Freshwater] (Fig. 443)

Yoshigou (2000).

HMNH-P40, 47.2 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 443. *Sicyopterus lagocephalus* ルリボウズハゼ (HMNH-P40, 47.2 mm SL).

Sicyopus leprurus (Sakai and Nakamura, 1979)

カエルハゼ [Freshwater] (Fig. 444)

Yoshigou (2000); Yoshigou et al. (2001); Ministry of the Environment (2003); Senou et al. (2004); Okinawa Prefecture (2005); Nakabo (2013).

HMNH-P42, 34.6 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 444. *Sicyopus leprurus* カエルハゼ (HMNH-P42, 34.6 mm SL).

Stenogobius sp.

タネカワハゼ [Brackish] (Fig. 445)

Yoshigou et al. (2001).

HMNH-P25, 65.1 mm SL, HMNH-P26, 59.3 mm SL, Tabaru River, hand net, 8 Aug. 1999; HMNH-P43, 88.7 mm SL, HMNH-P44, 78.3 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 445. *Stenogobius* sp. タネカワハゼ (HMNH-P25, 65.1 mm SL).

Stiphodon percnopterygionus Watson and Chen, 1998

ナンヨウボウズハゼ [Freshwater] (Fig. 446)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P27, 25.7 mm SL, male, HMNH-P41, 2 specimens, 25.4–26.5 mm SL, male, Tabaru River, hand net, 8 Aug. 1999; KAUM-I. 78408, 33.4 mm SL, male, KAUM-I. 78409, 25.2 mm SL, male, KAUM-I. 78410, 29.3 mm SL, female, KAUM-I. 78411, 18.1 mm SL, female, Tabaru River, hand net, 20 Sept. 2015.



Fig. 446. *Stiphodon percnopterygionus* ナンヨウボウズハゼ (upper: KAUM-I. 78408, 33.4 mm SL; middle: KAUM-I. 78409, 25.2 mm SL; lower: KAUM-I. 78410, 29.3 mm SL).

Trimma macrophthalmus (Tomiyama, 1936)

オオメハゼ [Marine] (Fig. 447)

KAUM-I. 78525, 17.3 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 447. *Trimma macrophthalmus* オオメハゼ (KAUM-I. 78525, 17.3 mm SL).

Trimma okinawae (Aoyagi, 1949)

オキナワベニハゼ [Marine] (Fig. 448)

KAUM-I. 78530, 20.0 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 448. *Trimma okinawae* オキナワベニハゼ (KAUM-I. 78530, 20.0 mm SL).

Valenciennesa sexguttata (Valenciennes, 1837)

ミズタマハゼ [Marine] (Fig. 449)

FRLM 51492, 36.5 mm SL, Sonai Fishing Port, hand net, 22 Sept. 2015; KAUM-I. 78567, 36.8 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.



Fig. 449. *Valenciennesa sexguttata* ミズタマハゼ (KAUM-I. 78567, 36.8 mm SL).

Valenciennesa strigata (Broussonet, 1782)

アカハチハゼ [Marine] (Fig. 450)

KAUM-I. 78573, 57.6 mm SL, Danno Beach, hand net, 23 Sept. 2015.



Fig. 450. *Valenciennesa strigata* アカハチハゼ (upper: KAUM-I. 78573, 57.6 mm SL; lower: Diving Service MARLIN).

FAMILY PTERELEOTRIDAE

クロユリハゼ科

Nemateleotris decora Randall and Allen, 1973

アケボノハゼ [Marine] (Fig. 451)



Fig. 451. *Nemateleotris decora* アケボノハゼ (Diving Service MARLIN).

Nemateleotris helfrichi Randall and Allen, 1973

シコンハタタテハゼ [Marine] (Fig. 452)

Nakabo (2013).



Fig. 452. *Nemateleotris helfrichi* シコンハタタテハゼ (Diving Service MARLIN).

Nemateleotris magnifica Fowler, 1938

ハタタテハゼ [Marine] (Fig. 453)

KAUM-I. 78572, 45.8 mm SL, Danno Beach, spear, 23 Sept. 2015.



Fig. 453. *Nemateleotris magnifica* ハタタテハゼ (KAUM-I. 78572, 45.8 mm SL).

Ptereleotris evides (Jordan and Hubbs, 1925)

クロユリハゼ [Marine] (Fig. 454)



Fig. 454. *Ptereleotris evides* クロユリハゼ (Diving Service MARLIN).

Ptereleotris heteroptera (Bleeker, 1855)
オグロクロユリハゼ [Marine] (Fig. 455)



Fig. 455. *Ptereleotris heteroptera* オグロクロユリハゼ (Diving Service MARLIN).

Ptereleotris zebra (Fowler, 1938)
ゼブラハゼ [Marine] (Fig. 456)
Nakabo (2013).



Fig. 456. *Ptereleotris zebra* ゼブラハゼ (Diving Service MARLIN).

FAMILY EPHIPPIDAE

マンジュウダイ科

Platax boersii Bleeker, 1853

ミカツキツバメウオ [Marine] (Fig. 457)

Ito (2009).

KAUM-I. 80274, 132.0 mm SL, Sonai Channel, spear, 21
Sept. 2015.



Fig. 457. *Platax boersii* ミカツキツバメウオ (KAUM-I. 80274, 132.0 mm SL).



Platax orbicularis (Forsskål, 1775)

ナンヨウツバメウオ [Marine; brackish] (Fig. 458)

KAUM-I. 78403, 98.2 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46877, 25.3 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.



Fig. 458. *Platax orbicularis* ナンヨウツバメウオ (upper: KAUM-I. 78403, 98.2 mm SL; lower: MUFS 46877, 25.3 mm SL).

FAMILY SCATOPHAGIDAE

クロホシマンジュウダイ科

Scatophagus argus (Linnaeus, 1766)

クロホシマンジュウダイ [Marine; brackish] (Fig. 459)

Yoshigou (2000).

FRLM 51538, 8.0 mm SL, mouth of Kubura River, hand net, 24 Sept. 2015.



Fig. 459. *Scatophagus argus* クロホシマンジュウダイ (FRLM 51538, 8.0 mm SL).

FAMILY SIGANIDAE

アイゴ科

Siganus argenteus (Quoy and Gaimard, 1825)

ハナアイゴ [Marine] (Fig. 460)

FRLM 52045, 222.5 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 78440, 195.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 460. *Siganus argenteus* ハナアイゴ (KAUM-I. 78440, 195.0 mm SL).

Siganus woodlandi Randall and Kulbicki, 2005

セダカハナアイゴ [Marine]

Ito (2009).

Siganus sp.

アイゴ属の一種 [Marine]

あいぬいゆ

Ikema (2003).

FAMILY ZANCLIDAE

ツノダシ科

Zanclus cornutus (Linnaeus, 1758)

ツノダシ [Marine] (Fig. 461)

FRLM 50720, 90.4 mm SL, Kubura Fishing Port, hand net, 12 Mar. 2015; KAUM-I. 79746, 133.6 mm SL, Rakuda Rock, spear, 17 Sept. 2015; KAUM-I. 80366, 104.1 mm SL, Sonai Channel, gill net, 20 Sept. 2015; NSMT-P 101124, 121.0 mm SL, Hikawa, 11 Mar. 2010.



Fig. 461. *Zanclus cornutus* ツノダシ (upper: KAUM-I. 80366, 104.1 mm SL; lower: M. Sakurai).

FAMILY ACANTHURIDAE

ニザダイ科

Acanthurus bariene Lesson, 1831

カンランハギ [Marine] (Fig. 462)

MUFS 46926, 185.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015.



Fig. 462. *Acanthurus bariene* カンランハギ (MUFS 46926, 185.0 mm SL).

Acanthurus blochii Valenciennes, 1835

オスジクロハギ [Marine] (Fig. 463)

FRLM 52030, 204.0 mm SL, FRLM 52031, 202.5 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 78404, 128.8 mm SL, KAUM-I. 78405, 132.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46954, 295.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.



Fig. 463. *Acanthurus blochii* オスジクロハギ (upper: KAUM-I. 78404, 128.8 mm SL; lower: FRLM 52030, 204.0 mm SL).

Acanthurus dussumieri Valenciennes, 1835

ニセカンランハギ [Marine]

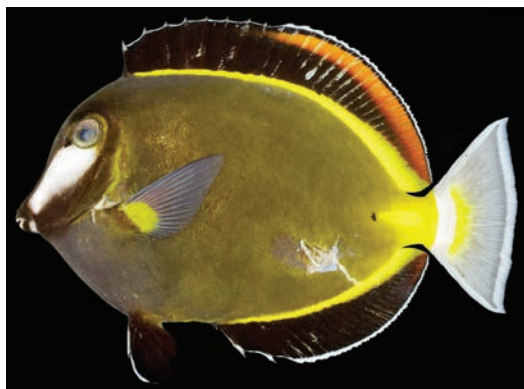
とうがだ

Ikema (2003).

Acanthurus japonicus (Schmidt, 1931)

ナミダクロハギ [Marine] (Fig. 464)

KAUM-I. 80262, 136.5 mm SL, Anchor's graves, spear, 17 Sept. 2015; NSMT-P 101238, 138.5 mm SL, Danno Beach, 19 Mar. 2010.

Fig. 464. *Acanthurus japonicus* ナミダクロハギ (KAUM-I. 80262, 136.5 mm SL).*Acanthurus leucopareius* (Jenkins, 1903)

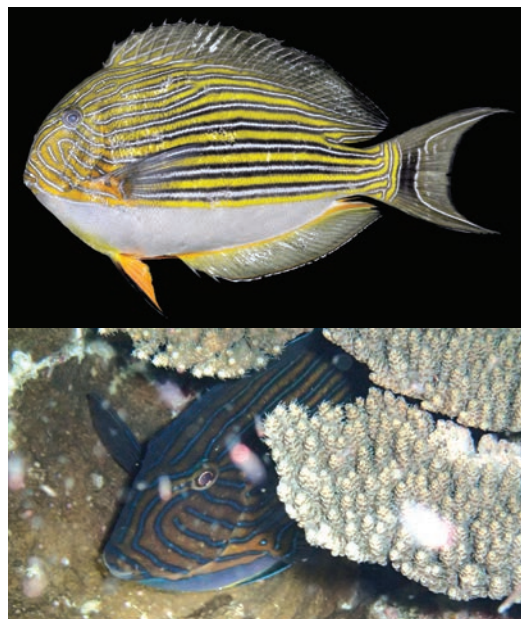
スジクロハギ [Marine] (Fig. 465)

FRLM 52099, 201.8 mm SL, Southern Pasture, line-fishing, 21 Sept. 2015; KAUM-I. 80225, 130.8 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

Fig. 465. *Acanthurus leucopareius* スジクロハギ (upper: FRLM 52099, 201.8 mm SL; lower: KAUM-I. 80225, 130.8 mm SL).*Acanthurus lineatus* (Linnaeus, 1758)

ニジハギ [Marine] (Fig. 466)

FRLM 51585, 126.2 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 80230, 173.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015; NSMT-P 55462, 2 specimens, 80.8–150.2 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Fig. 466. *Acanthurus lineatus* ニジハギ (upper: FRLM 51585, 126.2 mm SL; lower: Diving Service MARLIN).*Acanthurus maculiceps* (Ahl, 1923)

イレズミニザ [Marine] (Fig. 467)

FRLM 51454, 200.8 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015.

Fig. 467. *Acanthurus maculiceps* イレズミニザ (FRLM 51454, 200.8 mm SL).*Acanthurus mata* (Cuvier, 1829)

ヒラニザ [Marine] (Fig. 468)

とうがだ

FRLM 51557, 255.3 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; FRLM 51957, 190.1 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; KAUM-I. 79742, 161.7 mm SL, Rakuda Rock, spear, 17 Sept. 2015.



Fig. 468. *Acanthurus mata* ヒラニザ (upper: FRLM 51957, 190.1 mm SL; lower: Diving Service MARLIN).

Acanthurus nigricans (Linnaeus, 1758)
メガネクロハギ [Marine] (Fig. 469)



Fig. 469. *Acanthurus nigricans* メガネクロハギ (M. Sakurai).

Acanthurus nigricauda Duncker and Mohr, 1929
クロモンツキ [Marine] (Fig. 470)

KAUM-I. 80224, 183.7 mm SL, Arakawa Bay, spear, 18 Sept. 2015; KAUM-I. 80480, 207.6 mm SL, Sonai Channel, gill net, 20 Sept. 2015; MUFS 46955, 210.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.



Fig. 470. *Acanthurus nigricauda* クロモンツキ (KAUM-I. 80480, 207.5 mm SL).

Acanthurus nigrofuscus (Forsskål, 1775)
ナガニザ [Marine] (Fig. 471)

Ito (2009).

FRLM 50700, 122.8 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 52056, 114.7 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 80361, 125.9 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46957, 127.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; NSMT-P 55463, 12 specimens, 66.6–125.5 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 471. *Acanthurus nigrofuscus* ナガニザ (MUFS 46957, 127.0 mm SL).

Acanthurus olivaceus Bloch and Schneider, 1801
モンツキハギ [Marine] (Fig. 472)

Ito (2009).

KAUM-I. 80273, 174.1 mm SL, Sonai Channel, spear, 21 Sept. 2015.



Fig. 472. *Acanthurus olivaceus* モンツキハギ (KAUM-I. 80273, 174.1 mm SL).

Acanthurus pyroferus Kittlitz, 1834

クログチニザ [Marine] (Fig. 473)

MUFS 46936, 121.0 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.

Fig. 473. *Acanthurus pyroferus* クログチニザ (MUFS 46936, 121.0 mm SL).*Acanthurus thompsoni* (Fowler, 1923)

オハグロハギ [Marine] (Fig. 474)

KAUM-I. 80266, 106.6 mm SL, Anchor's graves, spear, 17 Sept. 2015.

Fig. 474. *Acanthurus thompsoni* オハグロハギ (KAUM-I. 80266, 106.6 mm SL).*Acanthurus triostegus* (Linnaeus, 1758)

シマハギ [Marine; brackish] (Fig. 475)

FRLM 51584, 136.0 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 80363, 114.8 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46956, 137.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; NSMT-P 55477, 2 specimens, 19.3–21.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Fig. 475. *Acanthurus triostegus* シマハギ (KAUM-I. 80363, 114.8 mm SL).*Acanthurus xanthopterus* Valenciennes, 1835

クロハギ [Marine; brackish] (Fig. 476)

FRLM 51586, 118.2 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 78299, 25.1 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 80482, 215.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.

Fig. 476. *Acanthurus xanthopterus* クロハギ (upper: KAUM-I. 80482, 215.0 mm SL; middle: KAUM-I. 78299, 25.1 mm SL; lower: Diving Service MARLIN).

Acanthurus sp.

クロハギ属の一種 [Marine; brackish]
Yoshigou (2000).

Ctenochaetus binotatus Randall, 1955

コクテンサザナミハギ [Marine] (Fig. 477)

KAUM-I. 80264, 102.4 mm SL, Anchor's graves, spear,
17 Sept. 2015.



Fig. 477. *Ctenochaetus binotatus* コクテンサザナミハギ (KAUM-I. 80264, 102.4 mm SL).

Ctenochaetus striatus (Quoy and Gaimard, 1825)

サザナミハギ [Marine] (Fig. 478)

FRLM 52057, 106.1 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78286, 33.3 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; MUFS 46889, 125.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015.

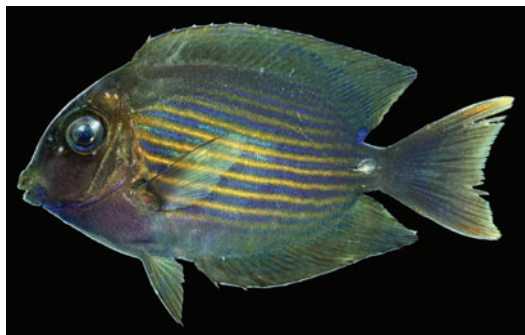


Fig. 478. *Ctenochaetus striatus* サザナミハギ (KAUM-I. 78286, 33.3 mm SL).

Naso hexacanthus (Bleeker, 1855)

テングハギモドキ [Marine] (Fig. 479)

FRLM 50764, 280.0 mm SL, FRLM 50765, 257.3 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 51959, 215.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 52035, 205.8 mm SL, FRLM 52036, 235.7 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 80357, 206.0 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015.



Fig. 479. *Naso hexacanthus* テングハギモドキ (upper: FRLM 50764, 280.0 mm SL; middle: KAUM-I. 80357, 206.0 mm SL; lower: Diving Service MARLIN).

Naso lituratus (Forster, 1801)

ミヤコテングハギ [Marine; brackish] (Fig. 480)

FRLM 51583, 213.5 mm SL, FRLM 51587, 212.0 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 80467, 227.7 mm SL, KAUM-I. 80481, 215.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015; MUFS 46953, 163.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 480. *Naso lituratus* ミヤコテングハギ (KAUM-I. 80467, 227.7 mm SL).

Naso unicornis (Forsskål, 1775)

テングハギ [Marine] (Fig. 481)

Fujimoto (1972).

KAUM-I. 80479, 266.6 mm SL, Sonai Channel, gill net, 20 Sept. 2015.



Fig. 481. *Naso unicornis* テングハギ (KAUM-I. 80479, 266.6 mm SL).

Naso vlamingii (Valenciennes, 1835)

サザナミトサカハギ [Marine] (Fig. 482)

FRLM 50694, 119.1 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 51471, 300.4 mm SL, FRLM 51472, 248.2 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 80449, 261.0 mm SL, male, Kubura-bari, line-fishing, 22 Sept. 2015.



Fig. 482. *Naso vlamingii* サザナミトサカハギ (upper: FRLM: 51471, 300.4 mm SL; middle: KAUM-I. 80449, 261.0 mm SL; lower: FRLM 50694, 119.1 mm SL).

Paracanthurus hepatus (Linnaeus, 1766)

ナンヨウハギ [Marine] (Fig. 483)

FRLM 51495, 187.5 mm SL, Danno-dropoff, spear, 22 Sept. 2015; KAUM-I. 80386, 150.0 mm SL, Umabana, spear, 22 Sept. 2015.



Fig. 483. *Paracanthurus hepatus* ナンヨウハギ (upper: FRLM 51495, 187.5 mm SL; middle: KAUM-I. 80386, 150.0 mm SL; lower: Diving Service MARLIN).

Prionurus scalprum Valenciennes, 1835

ニザダイ [Marine] (Fig. 484)

KAUM-I. 80209, 364.2 mm SL, Arakawa Bay, spear, 18 Sept. 2015.



Fig. 484. *Prionurus scalprum* ニザダイ (KAUM-I. 80209, 364.2 mm SL).

Zebrasoma scopas (Cuvier, 1829)

ゴマハギ [Marine] (Fig. 485)

KAUM-I. 78467, 26.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015; KAUM-I. 80265, 121.0 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 485. *Zebrasoma scopas* ゴマハギ (upper: KAUM-I. 80265, 121.0 mm SL; lower: KAUM-I. 78467, 26.0 mm SL).

Zebrasoma veliferum (Bloch, 1795)

ヒレナガハギ [Marine] (Fig. 486)

KAUM-I. 80268, 173.6 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 486. *Zebrasoma veliferum* ヒレナガハギ (KAUM-I. 80268, 173.6 mm SL).

FAMILY SPHYRAENIDAE

カマス科

かまさ

Sphyraena barracuda (Edwards, 1771)

オニカマス [Marine; brackish] (Fig. 487)

MUFS 46952, 413.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 487. *Sphyraena barracuda* オニカマス (MUFS 46952, 413.0 mm SL).

Sphyraena helleri Jenkins, 1901

ホソカマス [Marine] (Fig. 488)



Fig. 488. *Sphyraena helleri* ホソカマス (Diving Service MARLIN).

Sphyraena putnamae Jordan and Seale, 1905

オオカマス [Marine] (Fig. 489)

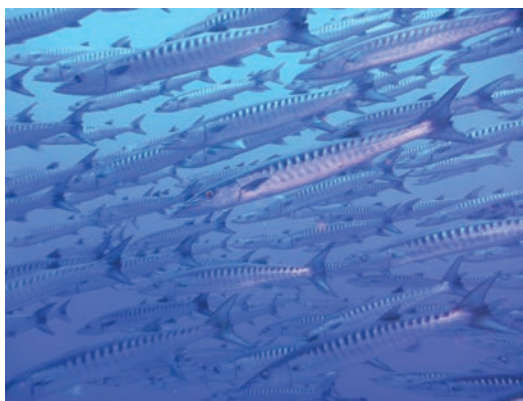


Fig. 489. *Sphyraena putnamae* オオカマス (Diving Service MARLIN).

Sphyraena sp.

カマス属の一種 [Marine] (Fig. 490)



Fig. 490. *Sphyraena* sp. (Diving Service MARLIN).

FAMILY GEMPYLIDAE

クロタチカマス科

Thyrsitoides marleyi Fowler, 1929

ナガタチカマス [Marine] (Fig. 491)



Fig. 491. *Thyrsitoides marleyi* ナガタチカマス (D. Sasaki).

FAMILY SCOMBRIDAE

サバ科

Acanthocybium solandri (Cuvier, 1832)

カマスサワラ [Marine]

さーら

Fujimoto (1972); Ikema (2003).

Gymnosarda unicolor (Rüppell, 1836)

イソマグロ [Marine] (Fig. 492)

とうがぎん

Ito (2009).

KAUM-I. 80425, 525.0 mm SL, Danno-dropoff, line-fishing, 22 Sept. 2015.



Fig. 492. *Gymnosarda unicolor* イソマグロ (upper: KAUM-I. 80425, 525.0 mm SL; middle: Underwater Ruin, Diving Service MARLIN; lower: fish landing port at Yonaguni-jima island, K. Koeda).

Katsuwonus pelamis (Linnaeus, 1758)

カツオ [Marine] (Fig. 493)

KAUM-I. 79749, 349.0 mm SL, south of Yonaguni-jima island, line-fishing, 18 Sept. 2015; NSMT-P 100671, 390.3 mm SL, south of Yonaguni-jima island, line-fishing, 17 Mar. 2010.



Fig. 493. *Katsuwonus pelamis* カツオ (KAUM-I. 79749, 349.0 mm SL).

Scomberomorus commerson (Lacepède, 1800)

ヨコシマサワラ [Marine]

Ito (2009).

Thunnus albacares (Bonnaterre, 1788)

キハダ [Marine] (Fig. 494)

しび

Ikema (2003).

KAUM-I. 79711, 320.4 mm SL, KAUM-I. 79715, 329.3 mm SL, south of Yonaguni-jima island, line-fishing, 18 Sept. 2015; MUFS 46914, 324.0 mm SL, south of Yonaguni-jima island, line-fishing, 18 Sept. 2015.



Fig. 494. *Thunnus albacares* キハダ (upper: KAUM-I. 79711, 320.4 mm SL; lower: KAUM-I. 79715, 329.3 mm SL).

Thunnus obesus (Lowe, 1839)

メバチ [Marine]

しび

Ikema (2003).

Thunnus sp.

マグロ属の一種 [Marine]

だいしび

Ikema (2003).

FAMILY ISTIOPHORIDAE

マカジキ科

Istiompax indica (Cuvier, 1832)

シロカジキ [Marine]

Shimose et al. (2008).

Istiophorus platypterus (Shaw, 1792)

バショウカジキ [Marine] (Fig. 495)

はにあてい



Fig. 495. *Istiophorus platypterus* バショウカジキ (Diving Service MARLIN).

Makaira nigricans Lacepède, 1802

クロカジキ [Marine] (Fig. 496)

あていぬいゆ

Shimose et al. (2006, 2009).



Fig. 496. *Makaira nigricans* クロカジキ (Diving Service MARLIN).

FAMILY NOMEIDAE

エボシダイ科

Psenes arafurensis Günther, 1889

クラゲウオ [Marine] (Fig. 497)



Fig. 497. *Psenes arafurensis* クラゲウオ (Diving Service MARLIN).

Psenes cyanophrys Valenciennes, 1833

スジハナピラウオ [Marine]

URM-P 30224, May 1993.

Psenes pellucidus Lütken, 1880

ハナピラウオ [Marine]

Ito (2009).

FAMILY ARIOMMATIDAE

オオメメダイ科

Ariomma luridum Jordan and Snyder, 1904

オオメメダイ [Marine]

NSMT-P 76148, 214.6 mm SL, southeast of Yonaguni-jima island, 1 Aug. 2006.

FAMILY CAPROIDAE

ヒシダイ科

Antigonia capros Lowe, 1843

ヒシダイ [Marine] (Fig. 498)

FRLM 50750, 141.2 mm SL, west of Yonaguni-jima island, line-fishing, 16 Mar. 2015.



Fig. 498. *Antigonia capros* ヒシダイ (FRLM 50750, 141.2 mm SL).

ORDER PLEURONECTIFORMES

カレイ目

FAMILY BOTHIDAE

ダルマガレイ科

Bothus pantherinus (Rüppell, 1830)

トゲダルマガレイ [Marine; Brackish] (Fig. 499)

Yoshigou et al. (2001).

HMNH-P73, 31.7 mm SL, Tabaru River, hand net, 9 Aug. 1999; FRLM 51531, 30.4 mm SL, Sonai Fishing Port, fishing light, 24 Sept. 2015.

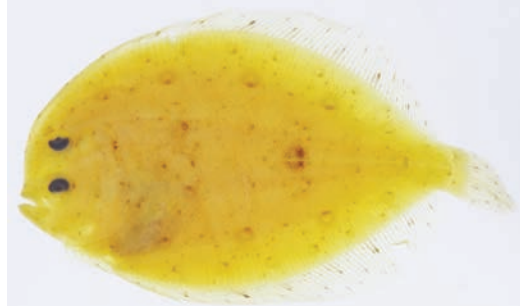


Fig. 499. *Bothus pantherinus* トゲダルマガレイ (upper: FRLM 51531, 30.4 mm SL; middle: HMNH-P73, 31.7 mm SL, preserved specimen; lower: Diving Service MARLIN).



FAMILY SOLEIDAE

ササウシノシタ科

Aseraggodes cheni Randall and Senou, 2007

ムシクイササウシノシタ [Marine] (Fig. 500)

KAUM-I. 80402, 57.9 mm SL, Na-ma Beach, cast net, 22 Sept. 2015.

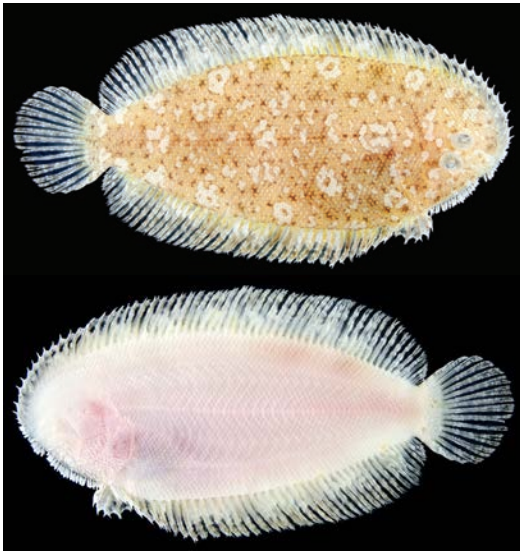


Fig. 500. *Aseraggodes cheni* ムシクイササウシノシタ (KAUM-I. 80402, 57.9 mm SL).

Aseraggodes xenicus (Matsubara and Ochiai, 1963)
オトメウシノシタ [Brackish] (Fig. 501)

Yoshigou (2000); Yoshigou et al. (2001).

HMNH-P72, 59.0 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 501. *Aseraggodes xenicus* オトメウシノシタ (HMNH-P72, 59.0 mm SL).

ORDER TETRAODONTIFORMES

フグ目

FAMILY BALISTIDAE

モンガラカワハギ科

くるび

Balistapus undulatus (Park, 1797)

クマドリ [Marine] (Fig. 502)

FRLM 50761, 134.0 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 51972, 200.1 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; FRLM 52043, 109.0 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; FRLM 52092, 171.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80208, 202.5 mm SL, Yonaguni-jima island, line-fishing, 18 Sept. 2015; KAUM-I. 80394, 139.6 mm SL, female, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 46908, 190.0 mm SL, MUFS 46909, 125.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015.



Fig. 502. *Balistapus undulatus* クマドリ (KAUM-I. 80208, 202.5 mm SL).

Balistoides conspicillum (Bloch and Schneider, 1801)

モンガラカワハギ [Marine] (Fig. 503)

Fujimoto (1972).

FRLM 50759, 204.5 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; KAUM-I. 80220, 217.0 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

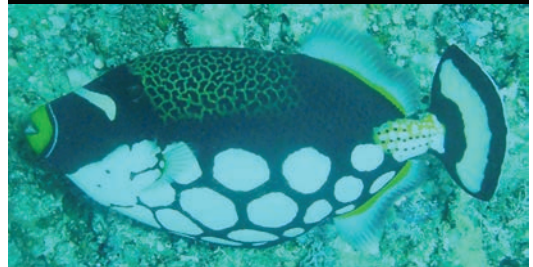


Fig. 503. *Balistoides conspicillum* モンガラカワハギ (upper: KAUM-I. 80220, 217.0 mm SL; lower: Diving Service MARLIN).

Balistoides viridescens (Bloch and Schneider, 1801)

ゴマモンガラ [Marine] (Fig. 504)

Ito (2009).

FRLM 50754, 251.6 mm SL, Sonai Fishing Port, line-fishing, 14 Mar. 2015; KAUM-I. 78501, 41.6 mm SL, Hikawa, hand net, 21 Sept. 2015; KAUM-I. 80396, 303.5 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 504. *Balistoides viridescens* ゴマモンガラ (upper to lower: FRLM 50754, 251.6 mm SL; KAUM-I. 80396, 303.5 mm SL; KAUM-I. 78501, 41.6 mm SL; Diving Service MARLIN).

Canthidermis maculata (Bloch, 1786)

アミモンガラ [Marine]

NSMT-P 76151, 254.2 mm SL, southeast of Yonaguni-jima island, spear, 1 Aug. 2006.

Melichthys vidua (Richardson, 1845)

クロモンガラ [Marine] (Fig. 505)

FRLM 52089, 121.5 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79743, 161.3 mm SL, Rakuda Rock, spear, 17 Sept. 2015; KAUM-I. 80258, 174.9 mm SL, Anchor's graves, spear, 17 Sept. 2015; MUFS 46910, 145.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015.



Fig. 505. *Melichthys vidua* クロモンガラ (KAUM-I. 79743, 161.3 mm SL).

Odonus niger (Rüppell, 1836)

アカモンガラ [Marine] (Fig. 506)

Ito (2009).

FRLM 52090, 160.8 mm SL, FRLM 52095, 118.6 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79734, 161.2 mm SL, KAUM-I. 79738, 162.2 mm SL, off Kubura Hinan Port, spear, 18 Sept. 2015; MUFS 46912, 117.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 46993, 120.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 506. *Odonus niger* アカモンガラ (upper: FRLM 52095, 160.8 mm SL; lower: KAUM-I. 79738, 162.2 mm SL).

Pseudobalistes flavimarginatus (Rüppell, 1829)

キヘリモンガラ [Marine] (Fig. 507)

KAUM-I. 78502, 32.6 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 507. *Pseudobalistes flavimarginatus* キヘリモンガラ (KAUM-I. 78502, 32.6 mm SL).

Pseudobalistes fuscus (Bloch and Schneider, 1801)

イソモンガラ [Marine] (Fig. 508)



Fig. 508. *Pseudobalistes fuscus* イソモンガラ (Underwater Luin, K. Koeda).

Rhinecanthus aculeatus (Linnaeus, 1758)

ムラサメモンガラ [Marine] (Fig. 509)

FRLM 50701, 90.8 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 52046, 119.3 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 80284, 110.0 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; KAUM-I. 80351, 115.0 mm SL, Sonai Channel, spear, 21 Sept. 2015.



Fig. 509. *Rhinecanthus aculeatus* ムラサメモンガラ (upper: FRLM 50701, 90.8 mm SL; middle: KAUM-I. 80284, 110.0 mm SL; lower: Diving Service MARLIN).

Rhinecanthus rectangulus (Bloch and Schneider, 1801)

タスキモンガラ [Marine] (Fig. 510)

FRLM 50760, 136.6 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 51451, 91.2 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; KAUM-I. 78649, 137.5 mm SL, Arakawa Bay, spear, 18 Sept. 2015; NSMT-P 101237, 135.0 mm SL, Danno Beach, 19 Mar. 2010.

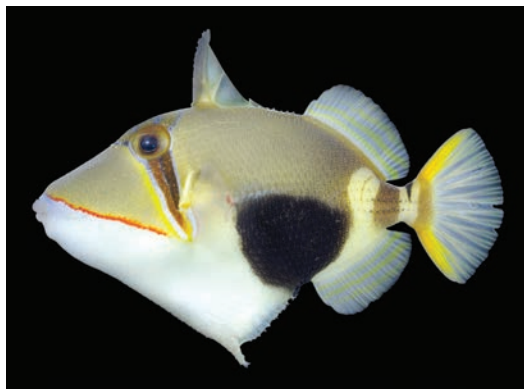


Fig. 510. *Rhinecanthus rectangulus* タスキモンガラ (KAUM-I. 78649, 137.5 mm SL).

Rhinecanthus verrucosus (Linnaeus, 1758)

クラカケモンガラ [Marine] (Fig. 511)

KAUM-I. 78500, 47.8 mm SL, Hikawa, hand net, 21 Sept. 2015.

Fig. 511. *Rhinecanthus verrucosus* クラカケモンガラ (KAUM-I. 78500, 47.8 mm SL).***Sufflamen bursa*** (Bloch and Schneider, 1801)

ムスメハギ [Marine] (Fig. 512)

FRLM 52008, 134.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79739, 100.3 mm SL, off Kubura Hinan Port, spear, 18 Sept. 2015; KAUM-I. 80390, 110.8 mm SL, Umabana, spear, 22 Sept. 2015.

Fig. 512. *Sufflamen bursa* ムスメハギ (KAUM-I. 79739, 100.3 mm SL).***Sufflamen chrysopterum*** (Bloch and Schneider, 1801)

ツマジロモンガラ [Marine] (Fig. 513)

FRLM 50729, 104.0 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 52084, 102.8 mm SL, FRLM 52088, 110.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 78308, 113.0 mm SL, male, Kataburu Beach, line-fishing, 17 Sept. 2015; MUFS 46911, 139.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 46925, 129.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015; MUFS 46994, 109.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.

Fig. 513. *Sufflamen chrysopterum* ツマジロモンガラ (KAUM-I. 78308, 113.0 mm SL).***Sufflamen fraenatum*** (Latreille, 1804)

メガネハギ [Marine] (Fig. 514)

FRLM 52091, 150.3 mm SL, male, off Hikawa, line-fishing, 21 Sept. 2015.

Fig. 514. *Sufflamen fraenatum* メガネハギ (FRLM 52091, 150.3 mm SL).***Xanthichthys auromarginatus*** (Bennett, 1832)

ホシモンガラ [Marine] (Fig. 515)

FRLM 51481, 120.3 mm SL, male, off Northern Pasture, line-fishing, 22 Sept. 2015.

Fig. 515. *Xanthichthys auromarginatus* ホシモンガラ (FRLM 51481, 120.3 mm SL).

Xanthichthys lineopunctatus (Hollard, 1854)

スジナメモンガラ [Marine] (Fig. 516)

FRLM 51974, 141.6 mm SL, FRLM 52007, 146.9 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 516. *Xanthichthys lineopunctatus* スジナメモンガラ (FRLM 51974, 141.6 mm SL).

FAMILY MONACANTHIDAE

カワハギ科

くるび

Paraluteres prionurus (Bleeker, 1851)

ノコギリハギ [Marine] (Fig. 517)

KAUM-I. 78266, 17.9 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.



Fig. 517. *Paraluteres prionurus* ノコギリハギ (upper: KAUM-I. 78266, 17.9 mm SL; lower: Diving Service MARLIN).

FAMILY OSTRACIIDAE

ハコフグ科

Ostracion cubicus Linnaeus, 1758

ミナミハコフグ [Marine] (Fig. 518)

KAUM-I. 80214, 178.0 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015.

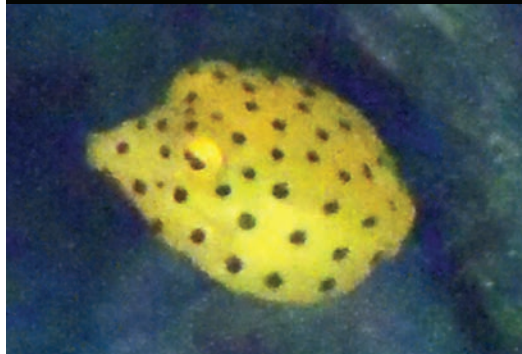


Fig. 518. *Ostracion cubicus* ミナミハコフグ (upper: KAUM-I. 80214, 178.0 mm SL; lower: Diving Service MARLIN).

Ostracion meleagris Shaw, 1796

クロハコフグ [Marine] (Fig. 519)



Fig. 519. *Ostracion meleagris* クロハコフグ (Diving Service MARLIN).

FAMILY TRIODONTIDAE

ウチワフグ科

Triodon macropterus Lesson, 1829

ウチワフグ [Marine]

NSMT-P 78544, 296.8 mm SL, southeast of Yonaguni-jima island, line-fishing, 21 July 2007.

FAMILY TETRAODONTIDAE

フグ科

Arothron caeruleopunctatus Matsuura, 1994

アラレフグ [Marine]

Nakabo (2013).

Arothron hispidus (Linnaeus, 1758)

サザナミフグ [Marine; brackish] (Fig. 520)

KAUM-I. 78298, 62.2 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.

Fig. 520. *Arothron hispidus* サザナミフグ (upper: KAUM-I. 78298, 62.2 mm SL; lower: Diving Service MARLIN).*Arothron nigropunctatus* (Bloch and Schneider, 1801)

コクテンフグ [Marine] (Fig. 521)

Yoshigou et al. (2001).

HMNH-P121, 40.1 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 80519, 175.4 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

Fig. 521. *Arothron nigropunctatus* コクテンフグ (KAUM-I. 80519, 175.4 mm).*Arothron stellatus* (Anonymous, 1798)

モヨウフグ [Marine] (Fig. 522)

Fig. 522. *Arothron stellatus* モヨウフグ (Diving Service MARLIN).*Canthigaster amboinensis* (Bleeker, 1864)

ゴマフキンチャクフグ [Marine]

URM-P 34361, Danno Beach, 2 Aug. 1995.

Canthigaster compressa (Marion de Procé, 1822)

ヒメキンチャクフグ [Marine]

Ito (2009).

Canthigaster janthinoptera (Bleeker, 1855)

シボリキンチャクフグ [Marine] (Fig. 523)

FRLM 51475, 46.3 mm SL, Umabana, hand net, 22 Sept. 2015; HMNH-P139, 51.2 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78553, 45.5 mm SL, Umabana, hand net, 22 Sept. 2015.

Fig. 523. *Canthigaster janthinoptera* シボリキンチャクフグ (KAUM-I. 78553, 45.5 mm SL).*Canthigaster valentini* (Bleeker, 1853)

シマキンチャクフグ [Marine] (Fig. 524)

FRLM 50703, 65.4 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 51430, 78.4 mm SL, FRLM 51991, 93.1 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.

Fig. 524. *Canthigaster valentini* シマキンチャクフグ (upper: FRLM 50703, 65.4 mm SL; lower: Diving Service MARLIN).

Sphoeroides pachygaster (Müller and Troschel, 1848)

ヨリトフグ [Marine]

NSMT-P 71452, 230.1 mm SL, southeast of Yonaguni-jima island, 13 July 2005.

FAMILY DIODONTIDAE

ハリセンボン科

とうとう

Diodon hystrix Linnaeus, 1758

ネズミフグ [Marine] (Fig. 525)

FRLM 51967, 308.4 mm SL, Sonai Fishing Port, hand net, 23 Sept. 2015.

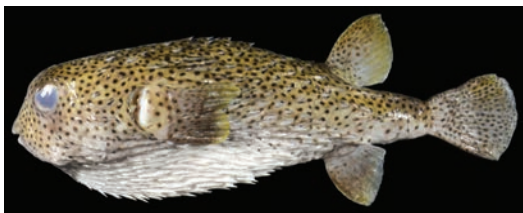


Fig. 525. *Diodon hystrix* ネズミフグ (FRLM 51967, 308.4 mm SL).

Diodon liturosus Shaw, 1804

ヒトヅラハリセンボン [Marine; brackish] (Fig. 526)

FRLM 51977, 203.1 mm SL, mouth of Tabaru River, hand net, 21 Sept. 2015.

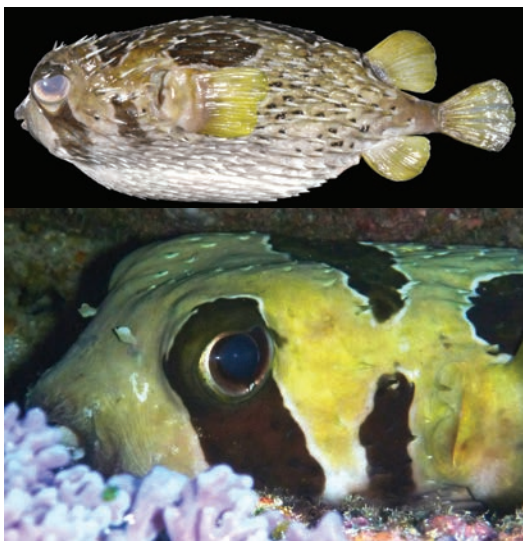


Fig. 526. *Diodon liturosus* ヒトヅラハリセンボン (upper: FRLM 51977, 203.1 mm SL; lower: Diving Service MARLIN).



Discussion

In this study, 603 fish species (306 genera and 104 families) were confirmed to occur around Yonaguni-jima island based on the examination of 1,314 specimens, 146 photographs, and previous literature. 334 species and 78 species are representing the first records from the island based on collected specimens and photographs, respectively. 1,120 specimens of 399 species (211 genera, 72 families) of marine, brackish and freshwater fishes were collected during our expedition at Yonaguni-jima island, with 299 species representing the first records from the island. Two species, *Cypr zaps* (Pseudochromidae) and *Opistognathus variabilis* (Opistognathidae), were collected for the first time from Japanese waters in our expedition. These have been separately reported with morphological descriptions and taxonomic information (Hibino et al., 2016; Yoshida et al., in press).

The most speciose families of fishes in marine, brackish, and freshwater of Yonaguni-jima island are listed in Table 2. Consequently, a total of 94 species of 33 families and 28 species of 12 families were confirmed from brackish and fresh waters of Yonaguni-jima island in the present study, respectively (Table 2). It is dramatically fewer than the adjacent islands [290 in Ishigaki-jima and 493 in Iriomote-jima islands (Yoshigou, 2014)] because of fewer and smaller rivers on Yonaguni-jima island. As stated above, Yoshigou (2000) recorded 63 fresh and brackish waters species (26 families) from Yonaguni-jima island in three days survey including 50 species (22 families) from Tabaru River. However, despite focused effort collecting fresh and brackish water specimens survey in our expedition, only 27 species of 12 families were collected from the Tabaru River. In 1999, the tideland of Tabaru River in the mangrove area had a highly speciose environment with some numerous small gobies, e.g., *Acentrogobius janthinopterus* (Bleeker, 1853) and *Callogobius tanegasimae* (Snyder, 1908) (Mr. H.

Yoshigou, pers. comm.). In contrast, this area was a very poor environment in the present survey in September 2015, and there were few macro-benthos or gobies [*Eleotris acanthopoma* Bleeker, 1853, *Pandaka trimaculata* Akihito and Meguro, 1975, *Periophthalmus argentilineatus* (Bleeker, 1854), and *Pseudogobius* sp.]. The sluice gate of Tabaru River and its mouth area were repaired and modified after the survey in 1999 by Yoshigou (2000). From personal communications with Mr. H. Yoshigou, it is inferred that the salinity level of Tabaru River became extremely much lower than in 1999 due to the repair work. These results indicate environmental deterioration has been occurred in the Tabaru River.

The presence or absence of inshore fishes represents biogeographical features more clearly than the presence or absence of deepwater fishes, which usually have a broader distribution (sometimes even circumglobal). In total, 565 marine fish species of 95 families are recorded from Yonaguni-jima island. The top 15 marine fish families comprise 64% of the total ichthyofauna; in those, Labridae (47 species), Pomacentridae (39 species), and Gobiidae (37 species) are the dominant families, with a total of 123 species representing more than 20% of total ichthyofauna. In the Ryukyu Archipelago, Senou et al. (2006; 2007), Watai et al. (2009), and Motomura et al. (2010) reported ichthyofaunal checklists which mainly focused on marine fishes of the Miyako Group (Fig. 2D), Ie-jima island (Fig. 2F), Tokashiki-jima island (Fig. 2E), and Yaku-shima island (Fig. 2H), respectively, and ranked the most speciose families. Additionally, field guides of Iou-jima and Take-shima islands (Fig. 2I), and Yoron-jima island (Fig. 2G) were published by Motomura et al. (2013) and Motomura and Matsuura (2014), respectively, on the basis of collected specimens and underwater photographs. Although, some reports include freshwater and brackish water fish in their rank, their results are herein compared at Table 3. Our expedition was carried

Table 2. Most speciose 15 families of fishes in marine, brackish, and freshwater of Yonaguni-jima island in the present study.

Rank	All			Marine			Brackish			Freshwater		
	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF
1	Gobiidae	57	9.5	Labridae	46	8.1	Gobiidae	28	29.8	Gobiidae	7	25.0
2	Labridae	46	7.6	Pomacentridae	39	6.9	Mugilidae	7	7.4	Eleotridae	5	17.9
3	Pomacentridae	39	6.5	Gobiidae	38	6.7	Carangidae	6	6.4	Ambassidae	4	14.3
4	Chaetodontidae	29	4.8	Chaetodontidae	29	5.1	Ambassidae	4	4.3	Anguillidae	2	7.1
5	Serranidae	28	4.6	Serranidae	28	5.0	Lutjanidae	4	4.3	Cyprinidae	2	7.1
6	Acanthuridae	26	4.3	Acanthuridae	26	4.6	Eleotridae	4	4.3	Kuhliidae	2	7.1
7	Lutjanidae	20	3.3	Lutjanidae	20	3.5	Acanthuridae	4	4.3	Elopidae	1	3.6
8	Apogonidae	20	3.3	Apogonidae	19	3.4	Gerreidae	4	4.3	Cobitidae	1	3.6
9	Scorpaenidae	19	3.2	Scorpaenidae	19	3.4	Chaetodontidae	3	3.2	Mugilidae	1	3.6
10	Holocentridae	17	2.8	Holocentridae	17	3.0	Anguillidae	2	2.1	Poeiliidae	1	3.6
11	Blenniidae	16	2.7	Blenniidae	16	2.8	Muraenidae	2	2.1	Syngnathidae	1	3.6
12	Balistidae	16	2.7	Balistidae	16	2.8	Aulopidae	2	2.1	Cichlidae	1	3.6
13	Muraenidae	16	2.7	Muraenidae	16	2.8	Apogonidae	2	2.1			
14	Carangidae	15	2.5	Carangidae	15	2.7	Kuhliidae	2	2.1			
15	Scaridae	14	2.3	Scaridae	14	2.5	Pomacentridae	2	2.1			
	Subtotal	378	62.7	Subtotal	358	63.4	Subtotal	76	81.1	Subtotal	28	
	Total	603		Total	565		Total	94		Total	28	

NS, number of species; %TIF, % of total ichthyofauna.

Checklist of fishes of Yonaguni-jima island

Table 3. Most speciose 15 families of fishes of the islands in the Ryukyu Archipelago in the previous studies.

Rank	Miyako Group*			Tokashiki-jima island*			Ie-jima island*		
	Senou et al. (2007)			Watai et al. (2009)			Senou et al. (2006)		
	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF
1	Gobiidae	146	16.9	Pomacentridae	52	12.7	Gobiidae	112	12.6
2	Labridae	97	11.2	Labridae	43	10.5	Labridae	97	10.9
3	Pomacentridae	83	9.6	Gobiidae	39	9.5	Pomacentridae	78	8.8
4	Apogonidae	45	5.2	Blenniidae	31	7.5	Apogonidae	48	5.4
5	Serranidae	34	3.9	Chaetodontidae	22	5.4	Serranidae	45	5.1
6	Chaetodontidae	33	3.8	Apogonidae	20	4.9	Blenniidae	37	4.2
7	Blenniidae	32	3.7	Scorpaenidae	12	2.9	Chaetodontidae	32	3.6
8	Scaridae	26	3.0	Muraenidae	11	2.7	Acanthuridae	27	3.0
9	Acanthuridae	25	2.9	Acanthuridae	11	2.7	Scaridae	25	2.8
10	Syngnathidae	19	2.2	Serranidae	10	2.4	Syngnathidae	21	2.4
11	Pomacanthidae	16	1.9	Holocentridae	9	2.2	Muraenidae	19	2.1
12	Holocentridae	15	1.7	Pomacanthidae	8	1.9	Pomacanthidae	18	2.0
13	Muraenidae	14	1.6	Tripterygiidae	8	1.9	Scorpaenidae	18	2.0
14	Ptereleotridae	14	1.6	Syngnathidae	7	1.7	Holocentridae	17	1.9
15	Scorpaenidae	14	1.6	Balistidae	7	1.7	Carangidae	16	1.8
	Subtotal	613	71.0	Subtotal	290	70.6	Subtotal	610	68.6
	Total	863	100.0	Total	411	100.0	Total	889	100.0

NS, number of species; %TIF, % of total ichthyofauna. *only marine fish species are listed

Table 3. continue.

Rank	Yoron-jima island			Iou-jima and Take-shima islands			Yaku-shima island**		
	Motomura and Matsuura (2014)			Motomura et al. (2013)			Motomura et al. (2010)		
	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF
1	Gobiidae	69	9.9	Labridae	42	10.1	Gobiidae	110	11.6
2	Labridae	56	8.0	Gobiidae	34	8.2	Labridae	98	10.3
3	Pomacentridae	56	8.0	Pomacentridae	29	7.0	Pomacentridae	66	6.9
4	Apogonidae	36	5.2	Serranidae	27	6.5	Apogonidae	45	4.7
5	Blenniidae	29	4.2	Scorpaenidae	26	6.3	Serranidae	43	4.5
6	Serranidae	28	4.0	Apogonidae	26	6.3	Blenniidae	38	4.0
7	Scorpaenidae	21	3.0	Chaetodontidae	18	4.3	Chaetodontidae	34	3.6
8	Chaetodontidae	21	3.0	Blenniidae	16	3.9	Acanthuridae	28	2.9
9	Acanthuridae	21	3.0	Scaridae	13	3.1	Holocentridae	24	2.5
10	Tripterygiidae	18	2.6	Carangidae	12	2.9	Scaridae	24	2.5
11	Carangidae	15	2.2	Holocentridae	10	2.4	Muraenidae	23	2.4
12	Balistidae	15	2.2	Acanthuridae	10	2.4	Lutjanidae	21	2.2
13	Muraenidae	14	2.0	Muraenidae	7	1.7	Scorpaenidae	20	2.1
14	Holocentridae	14	2.0	Lutjanidae	7	1.7	Tripterygiidae	18	1.9
15	Scaridae	14	2.0	Balistidae	7	1.7	Syngnathidae	16	1.7
	Subtotal	427	61.3	Subtotal	284	68.6	Subtotal	608	63.9
	Total	697	100.0	Total	414	100.0	Total	951	100.0

NS, number of species; %TIF, % of total ichthyofauna. **only marine and brackish fish species are listed

out over only 20 days (10 days for main survey at September 2015), and was obviously shorter than the other previous research (Motomura et al, 2010, 2013; Motomura and Matsuura, 2014). However, the number of collected species has no large difference among those reports. The list of marine fishes of Yonaguni-jima island does show some differences from other reports. Gobiidae which was ranked as 1st in most of other islands, are ranked as 3rd, and Labridae and Pomacentridae are 1st and 2nd, respectively. In addition, the percentages of these three families are generally lower than at other islands. Chaetodontidae, Serranidae, and Acanthuridae are ranked 4th to 6th with small differences in Yonaguni-jima island, but those were lower (Chaetodontidae: 5th to 7th; Serranidae: 4th to 10th; Acanthuridae: 7th to 11th) in other islands. Lutjanidae ranked 7th in Yonaguni-jima island, higher

(12th to 18th) than the other islands. Balistidae (11th) is also a higher rank than at the other islands. On the other hand, the ranks of Apogonidae (8th) and Blenniidae (11th) in Yonaguni-jima island are obviously lower than those of the other islands (Apogonidae: 4th to 6th; Blenniidae: 4th to 8th). The present results from Yonaguni-jima island can be characterized by high species diversity in middle-sized swimming taxa (e.g. Chaetodontidae, Acanthuridae, Lutjanidae, and Balistidae), and low species diversity in small-sized benthic taxa (e.g. Gobiidae, Apogonidae and Blenniidae). Based on our results of the unusual species composition, it is speculated that the ichthyofauna of Yonaguni-jima island is influenced by the combination of environmental factors, such as few and small rivers, narrow shallow reef areas with few inner bays, and especially strong water currents surrounding the island.

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Authors at Hikawa Bay (left to right): Tomohiro Yoshida, Keita Koeda, Yuki Kimura, Saki Tanaka, Misaki Fujisawa, Momoko Sakurai (first row), Taiga Kunishima, Keisuke Eguchi, Tomoki Inaba, Yusuke Hibino, Ryohei Miki, Hiromu Suzuki, Takanao Furukawa, Daichi Sasaki (second row), Hidetoshi Wada, Takuya Uejo (upper windows)

