

# 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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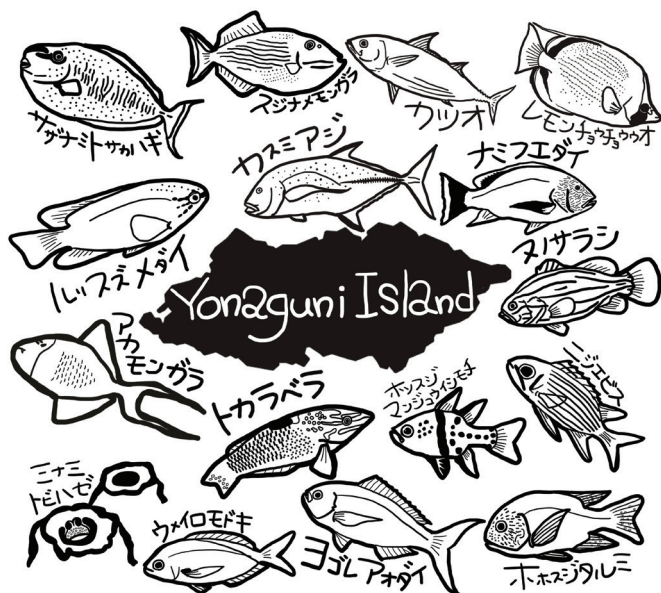
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## &lt;Contents&gt;

Introduction.....	1	Family Bramidae シマガツオ科.....	39
Materials and methods.....	2	Family Lutjanidae フェダイ科.....	39
Checklist		Family Caesionidae タカサゴ科.....	43
Family Hemiscylliidae テンジクザメ科.....	4	Family Gerreidae クロサギ科.....	44
Family Rhincodontidae ジンベエザメ科.....	4	Family Haemulidae イサキ科.....	44
Family Lamnidae ネズミザメ科.....	4	Family Nemipteridae イトヨリダイ科.....	45
Family Carcharhinidae メジロザメ科.....	4	Family Sparidae タイ科.....	46
Family Sphyrnidae シュモクザメ科.....	5	Family Lethrinidae フェエキダイ科.....	46
Family Pristiophoridae ノコギリザメ科.....	5	Family Mullidae ヒメジ科.....	48
Family Dasyatidae アカエイ科.....	5	Family Pempheridae ハタンボ科.....	50
Family Myliobatidae トビエイ科.....	5	Family Monodactylidae ヒメツバメウオ科.....	51
Family Albulidae ソトイワシ科.....	6	Family Kyphosidae イスズミ科.....	51
Family Megalopidae イセゴイ科.....	6	Family Chaetodontidae チョウチョウウオ科.....	52
Family Anguillidae ウナギ科.....	6	Family Pomacanthidae キンチャクダイ科.....	59
Family Muraenidae ウツボ科.....	6	Family Pentacerotidae カワビシヤ科.....	61
Family Synbranchidae ホラアナゴ科.....	9	Family Teraponidae シマイサキ科.....	61
Family Ophichthidae ウミヘビ科.....	9	Family Kuhliidae ユゴイ科.....	61
Family Congridae アナゴ科.....	9	Family Oplegnathidae イシダイ科.....	62
Family Clupeidae ニシン科.....	10	Family Cirrhitidae ゴンベ科.....	63
Family Engraulidae カタクチイワシ科.....	10	Family Cichlidae カワスズメ科.....	64
Family Chanidae サバヒー科.....	10	Family Pomacentridae スズメダイ科.....	64
Family Cyprinidae コイ科.....	10	Family Polynemidae ツバメコノシロ科.....	72
Family Cobitidae ドジョウ科.....	11	Family Labridae ベラ科.....	72
Family Aulopidae ヒメ科.....	11	Family Scaridae ブダイ科.....	80
Family Synodontidae エソ科.....	11	Family Pinguipedidae トラギス科.....	82
Family Polymixiidae ギンメダイ科.....	12	Family Tripterygiidae ヘビギンボ科.....	83
Family Antennariidae カエルアンコウ科.....	12	Family Trichonotidae ベラギンボ科.....	84
Family Chaunacidae フサアンコウ科.....	12	Family Blenniidae イソギンボ科.....	84
Family Mugilidae ボラ科.....	12	Family Callionymidae ネズツボ科.....	86
Family Atherionidae ムギイワシ科.....	14	Family Eleotridae カワアナゴ科.....	87
Family Exocoetidae トビウオ科.....	14	Family Gobiidae ハゼ科.....	88
Family Hemiramphidae サヨリ科.....	14	Family Ptereleotridae クロユリハゼ科.....	96
Family Belonidae ダツ科.....	14	Family Ephippidae マンジュウダイ科.....	97
Family Poeciliidae カダヤシ科.....	15	Family Scatophagidae クロホシマンジュウダイ科.....	98
Family Holocentridae イットウダイ科.....	15	Family Siganidae アイゴ科.....	98
Family Pegasidae ウミテング科.....	18	Family Zanclidae ツノダシ科.....	99
Family Solenostomidae カミノソリウオ科.....	18	Family Acanthuridae ニザダイ科.....	99
Family Syngnathidae ヨウジウオ科.....	18	Family Sphyrnaeidae カマス科.....	105
Family Aulostomidae ヘラヤガラ科.....	19	Family Gempylidae モンガラカワハギ科.....	106
Family Fistulariidae ヤガラ科.....	19	Family Scombridae サバ科.....	106
Family Centriscidae ヘコアユ科.....	19	Family Istiophoridae マカジキ科.....	107
Family Scorpaenidae フサカサゴ科.....	20	Family Nomeidae エボシダイ科.....	107
Family Tetrarogidae ハオコゼ科.....	23	Family Ariommatidae オオメメダイ科.....	108
Family Synanceiidae オニオコゼ科.....	23	Family Caproidae ヒシダイ科.....	108
Family Platycephalidae コチ科.....	23	Family Bothidae ダルマガレイ科.....	108
Family Ambassidae タカサゴイシモチ科.....	24	Family Soleidae ササウシノシタ科.....	108
Family Serranidae ハタ科.....	25	Family Balistidae モンガラカワハギ科.....	109
Family Pseudochromidae メギス科.....	30	Family Monacanthidae カワハギ科.....	113
Family Plesiopidae タナバタウオ科.....	31	Family Ostraciidae ハコフグ科.....	113
Family Opistognathidae アゴアマダイ科.....	31	Family Triodontidae ウチワフグ科.....	113
Family Priacanthidae キントキダイ科.....	31	Family Tetraodontidae フグ科.....	114
Family Apogonidae テンジクダイ科.....	31	Family Diodontidae ハリセンボン科.....	115
Family Malacanthidae キツネアマダイ科.....	35	Discussion.....	116
Family Coryphaenidae シイラ科.....	36	Acknowledgments.....	118
Family Rachycentridae スギ科.....	36	References.....	118
Family Echeineidae コバンザメ科.....	36		
Family Carangidae アジ科.....	36		



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**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 21<sup>st</sup>-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 km<sup>2</sup> 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

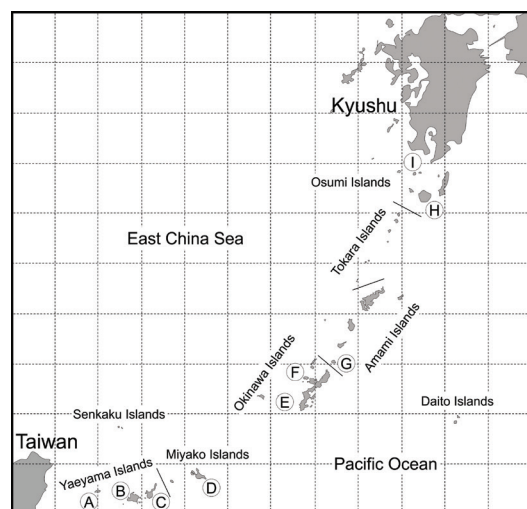


Fig. 2. Map of Ryukyu Archipelago and adjacent islands, Japan. Characters in the map show major islands mentioned in the text: A, Yonaguni-jima island; B, Iriomote-jima island; C, Ishigaki-jima island; D, Miyako group; E, Tokashiki-jima island; F, Ie-jima island; G, Yoron-jima island; H, Yakushima island;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

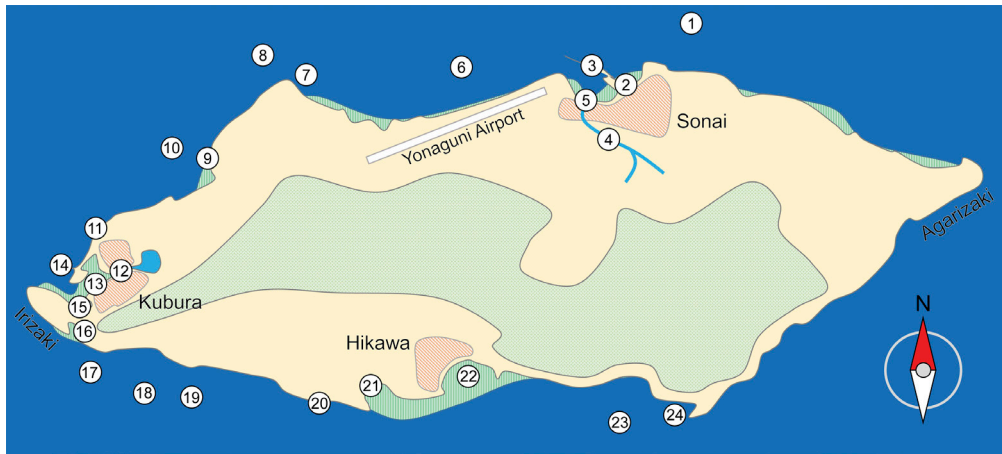


Fig. 3. Map of Yonaguni-jima island. Numbers in the map show major collection localities at ichthyofaunal expedition. Name, lat/long, depth, and collection methods in each localities are shown at Table 1. Yellow, land; dark green check, forest; orange stripe, town area; light green stripe, in-reef habitat.

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)

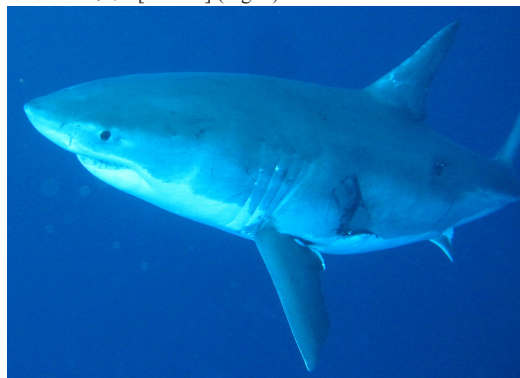


Fig. 6. *Carcharodon carcharias* ホホジロザメ (Diving Service MARLIN).

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)

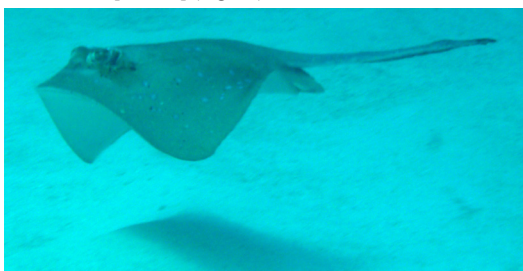


Fig. 10. *Neotrygon kuhlii* ヤッコエイ (Diving Service MARLIN).

*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)

ハナヒラウツボ [Marine] (Fig. 18)



Fig. 18. *Gymnothorax chlorostigma* ハナヒラウツボ (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)

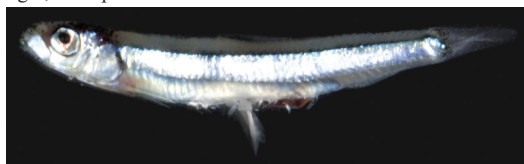
ミズン [Marine; brackish] (Fig. 31)

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 *Misgrnus 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.

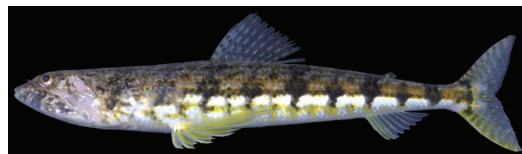


Fig. 37. *Synodus dermatogenys* ミナミアカエソ (KAUM-I. 78309, 118.3 mm SL).

*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)

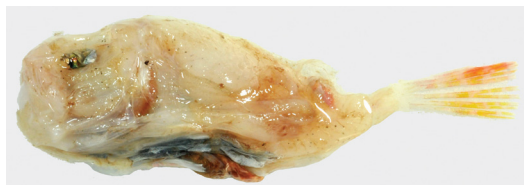
Fig. 40. *Antennarius maculatus* クマドリカエルアンコウ (Diving Service MARLIN).

## 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)

みぶた

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.

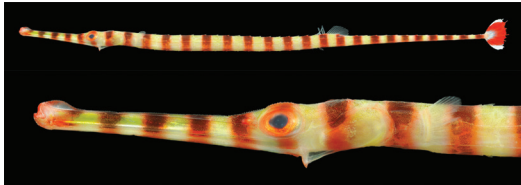


Fig. 74. *Doryrhamphus (Dunckerocampus) naia* カスミオイランヨウジ (KAUM-I. 78538, 90.6 mm SL).

*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.

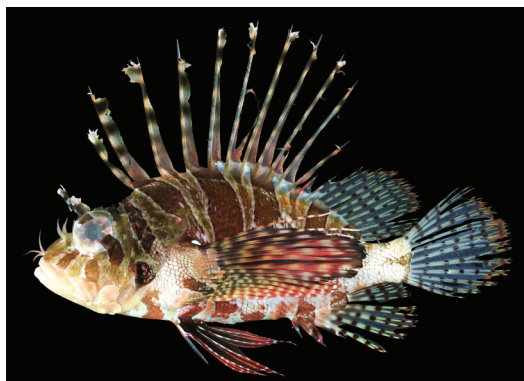


Fig. 82. *Dendrochirus zebra* キリンミノ (upper: KAUM-I. 80364, 116.0 mm SL; lower: MUFS 47035, 115.0 mm SL).

*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.

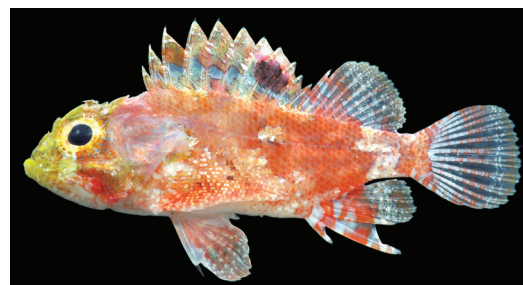


Fig. 83. *Parascorpaena mcadamsi* トゲイッテンフサカサゴ (KAUM-I. 78540, 49.0 mm SL).

*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)  
あばいゆ・はにあば

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.

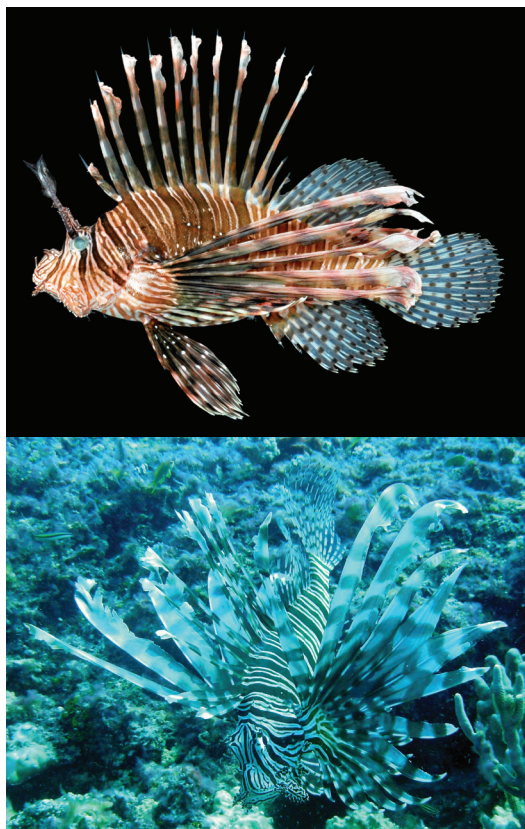


Fig. 86. *Pterois volitans* ハナミノカサゴ (upper: FRLM 51590, 150.8 mm SL; lower: Diving Service MARLIN)

*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.

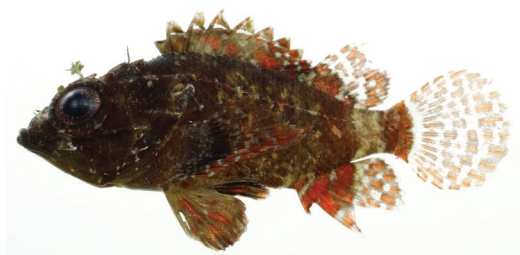


Fig. 87. *Scorpaenodes guamensis* グアムカサゴ (upper: KAUM-I. 78505, 40.1 mm SL; lower: KAUM-I. 78473, 19.2 mm SL).

*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).

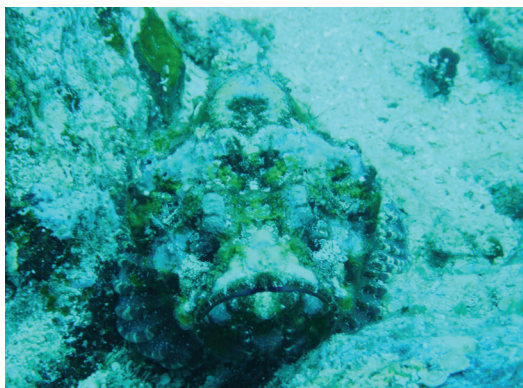


Fig. 90. *Scorpaenopsis diabolus* ニライカサゴ (Diving Service MARLIN).

*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.

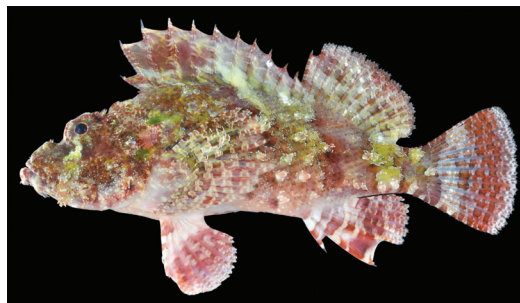


Fig. 93. *Scorpaenopsis possi* ミミトゲオニカサゴ (FRLM 51447, 102.4 mm SL).

*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.

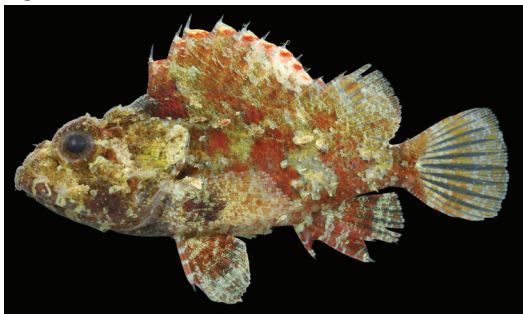


Fig. 96. *Sebastapistes strongia* マダラフサカサゴ (KAUM-I. 78503, 44.4 mm SL).

*Taenianotus triacanthus* Lacepède, 1802

ハダカハオコゼ [Marine] (Fig. 97)

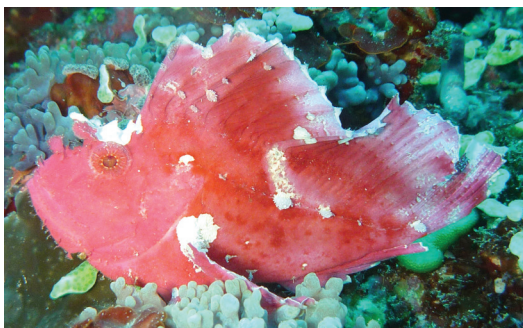


Fig. 97. *Taenianotus triacanthus* ハダカハオコゼ (Diving Service MARLIN).

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.

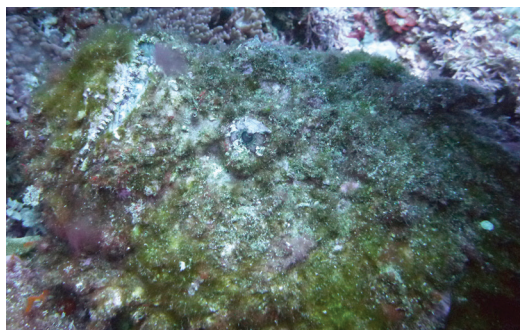
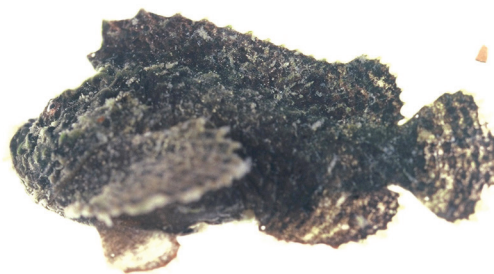


Fig. 99. *Synanceia verrucosa* オニダルマオコゼ (upper: HMNH-P7190, 22.7 mm SL; lower: Diving Service MARLIN).

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.

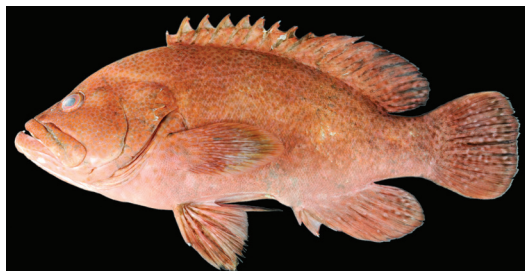


Fig. 107. *Cephalopholis sonnerati* アザハタ (MUFS 47005, 258.0 mm SL).

*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.

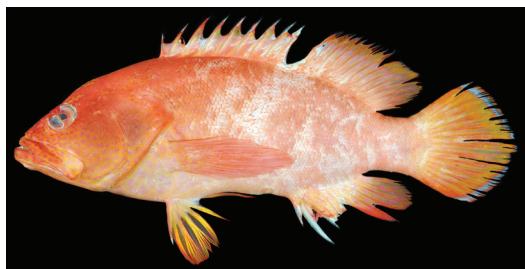


Fig. 108. *Cephalopholis spiloparaea* アカハナ (KAUM-I. 80385, 154.5 mm SL).

*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.



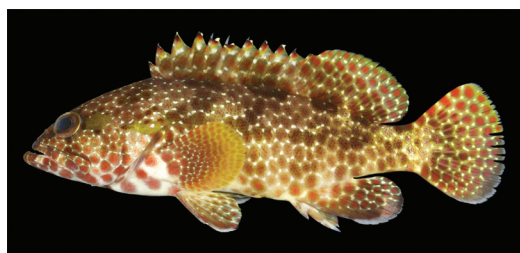
Fig. 109. *Cephalopholis urodeta* ニジハタ (upper: KAUM-I. 80455, 119.5 mm SL; middle: MUFS 46897, 158.0 mm SL; lower: Umabana, K. Koeda).



*Epinephelus bruneus* Bloch, 1793

クエ [Marine] (Fig. 110)

Fujimoto (1972).

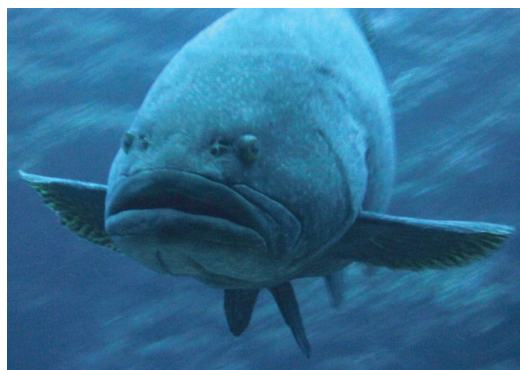
Fig. 110. *Epinephelus bruneus* クエ (fish landing port at Yonaguni-jima island, K. Koeda).Fig. 112. *Epinephelus hexagonatus* イシガキハタ (KAUM-I. 78377, 128.4 mm SL).*Epinephelus fasciatus* (Forsskål, 1775)

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.

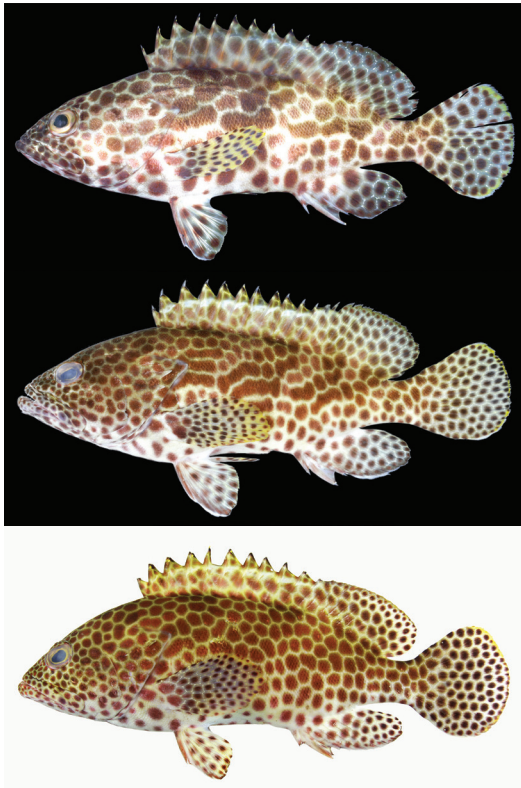


Fig. 116. *Epinephelus merra* カンモンハタ (upper: KAUM-I. 78305, 127.9 mm SL; middle: MUFS 47034, 182.0 mm SL; lower: KAUM-I. 80279, 177.9 mm SL).

*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.

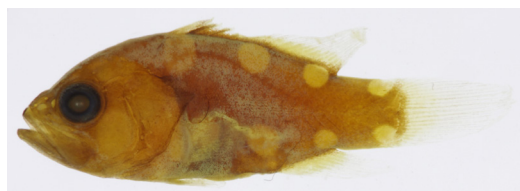


Fig. 124. *Pogonoperca punctata* アゴハタ (HMNH-P116, 11.8 mm SL, preserved specimen).

***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)

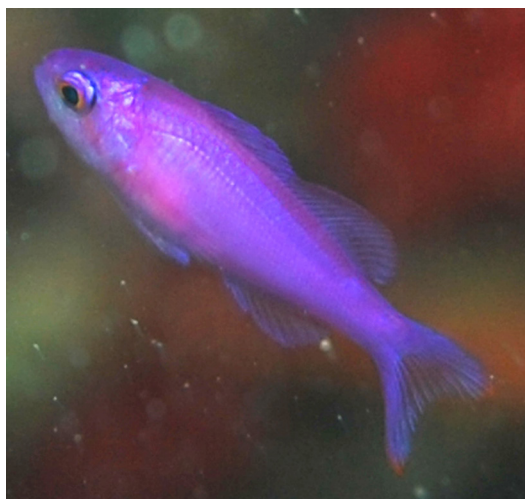


Fig. 126. *Pseudanthias pascalus* ハナゴイ (Umabana, K. Koeda).

*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 albimarginata* 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 albimarginata* 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 51432, 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

*Hoplostiltilus starcki* Randall and Dooley, 1974

サンゴアマダイ属の一種 [Marine] (Fig. 159)



Fig. 159. *Hoplostiltilus 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.

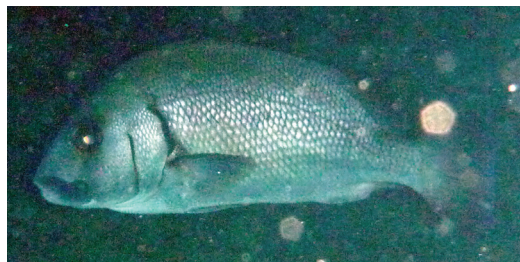
Fig. 199. *Gerres oyena* ミナミクロサギ (FRLM 51549, 49.4 mm SL).

## 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)

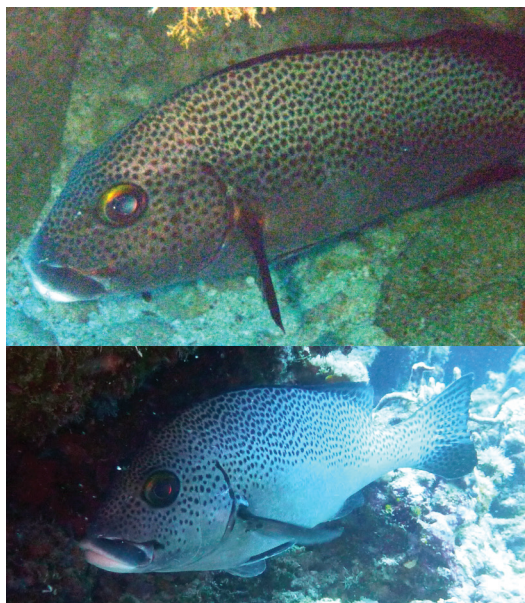


Fig. 203. *Plectorhinchus picus* アジアコシヨウダイ (Diving Service MARLIN).

*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.

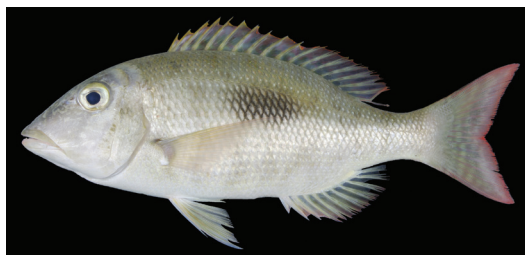


Fig. 212. *Lethrinus harak* マトフエフキ (KAUM-I. 78285, 198.5 mm SL).

*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 PEMIPHERIDAE

ハタンボ科

かたちら

*Parapriacanthus ransonneti* Steindachner, 1870

キンメモドキ [Marine] (Fig. 223)

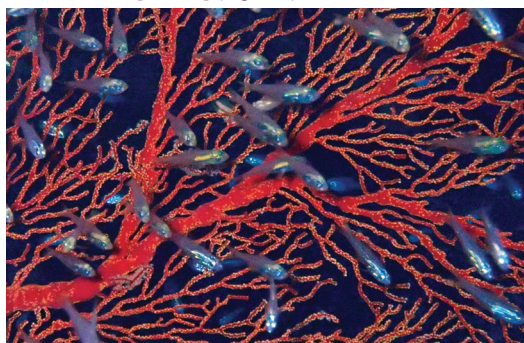


Fig. 223. *Parapriacanthus ransonneti* キンメモドキ (Diving Service MARLIN).

*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.

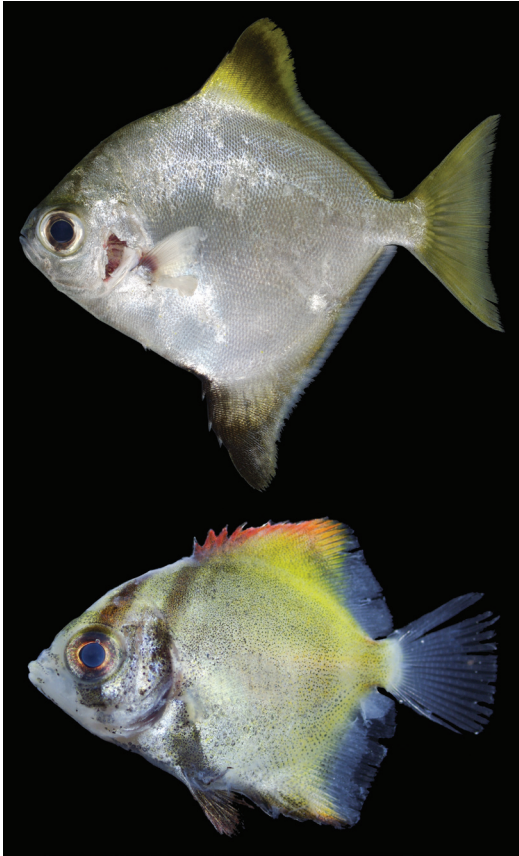


Fig. 227. *Monodactylus argenteus* ヒメツバメウオ (upper: KAUM-I. 78250, 142.6 mm SL; lower: KAUM-I. 78429, 13.0 mm SL).

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.

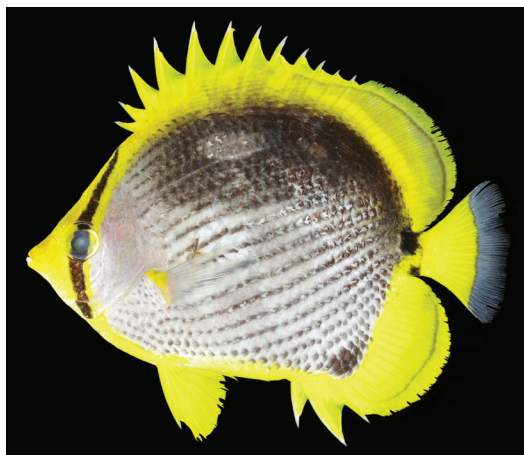


Fig. 240. *Chaetodon melannotus* アケボノチョウチョウウオ (upper: KAUM-I. 80260, 113.9 mm SL; lower: Diving Service MARLIN).

*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* シチセンチョウウオ (KAUM-I. 78326, 82.6 mm SL).

*Chaetodon quadrimaculatus* Gray, 1831

シテンチョウウオ [Marine] (Fig. 245)

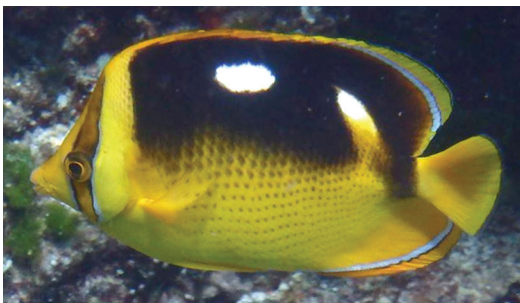


Fig. 245. *Chaetodon quadrimaculatus* シテンチョウウオ (Diving Service MARLIN).

*Chaetodon rafflesii* Anonymous [Bennett], 1830

アミチョウウオ [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

スダレチヨウチヨウウオ [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* スダレチヨウチヨウウオ (upper: FRLM 50698, 131.9 mm SL; lower: KAUM-I. 78494, 23.4 mm SL).

*Chaetodon unimaculatus* Bloch, 1787

イッテンチヨウチヨウウオ [Marine] (Fig. 252)

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



Fig. 252. *Chaetodon unimaculatus* イッテンチヨウチヨウウオ (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.

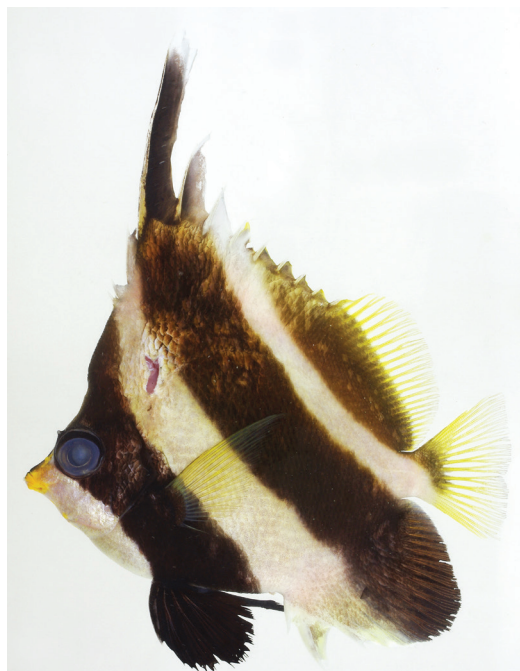


Fig. 258. *Heniochus chrysostomus* ミナミハタタテダイ (KAUM-I. 79747, 112.6 mm SL).

*Heniochus singularius* 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.

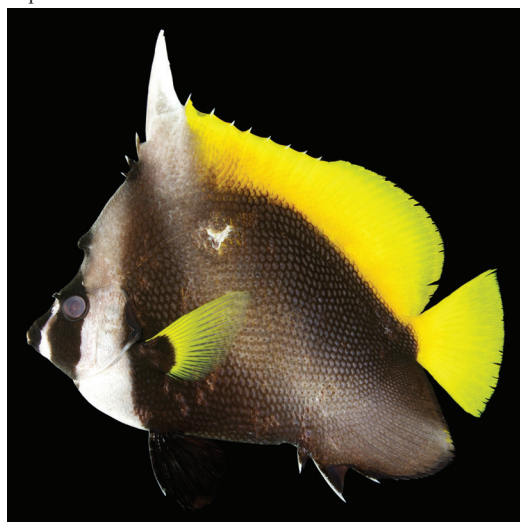


Fig. 259. *Heniochus singularius* シマハタタテダイ (KAUM-I. 80234, 181.9 mm SL).

*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.