

FAMILY POMACANTHIDAE

キンチャクダイ科

Apolemichthys trimaculatus (Cuvier, 1831)

シテンヤッコ [Marine] (Fig. 260)

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



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

Centropyge ferrugata Randall and Burgess, 1972

アカハラヤッコ [Marine] (Fig. 261)

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



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

Centropyge heraldi Woods and Schultz, 1953

ヘラルドコガネヤッコ [Marine] (Fig. 262)

Ito (2009).

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



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

Centropyge vrolikii (Bleeker, 1853)

ナメラヤッコ [Marine] (Fig. 263)



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

Pomacanthus imperator (Bloch, 1787)

タテジマキンチャクダイ [Marine] (Fig. 264)

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



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

Pomacanthus semicirculatus (Cuvier, 1831)

サザナミヤッコ [Marine] (Fig. 265)

Yoshigou et al. (2001).

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



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

Pomacanthus sexstriatus (Cuvier, 1831)

ロクセンヤッコ [Marine] (Fig. 266)

Ito (2009).



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

Pomacanthus xanthometopon (Bleeker, 1853)

アデヤッコ [Marine]

Ito (2009).

Pygoplites diacanthus (Boddaert, 1772)

ニシキヤッコ [Marine] (Fig. 267)

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



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

FAMILY PENTACEROTIDAE

カワビシヤ科

Pentaceros japonicus Steindachner, 1883

ツボダイ [Marine]

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

FAMILY TERAPONIDAE

シマイサキ科

Terapon jarbua (Forsskål, 1775)

コトヒキ [Marine; brackish] (Fig. 268)

もんたな

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

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



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

FAMILY KUHLIIDAE

ユゴイ科

Kuhlia marginata (Cuvier, 1829)

ユゴイ [Brackish; freshwater] (Fig. 269)

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

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



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

Kuhlia mugil (Forster, 1801)

ギンユゴイ [Marine] (Fig. 270)

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



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

Kuhlia rupestris (Lacepède, 1802)

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

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

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



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

FAMILY OPLEGNATHIDAE

イシダイ科

Oplegnathus punctatus (Temminck and Schlegel, 1844)

イシガキダイ [Marine] (Fig. 272)

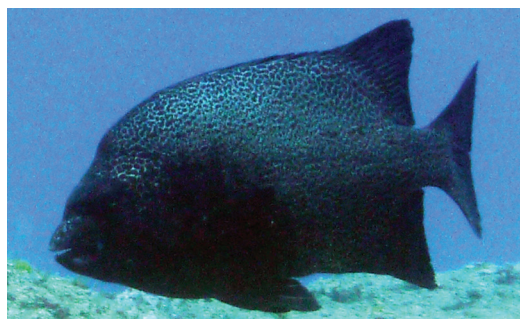


Fig. 272. *Oplegnathus punctatus* イシガキダイ (Diving Service MARLIN).

FAMILY CIRRHITIDAE

ゴンベ科

Amblycirrhitus bimaculatus (Jenkins, 1903)

フタホシゴンベ [Marine] (Fig. 273)

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



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

Amblycirrhitus unimaculatus (Kamohara, 1957)

クロホシゴンベ [Marine]

Nakabo (2013).

Cirrhitichthys aprinus (Cuvier, 1829)

ミナミゴンベ [Marine] (Fig. 274)

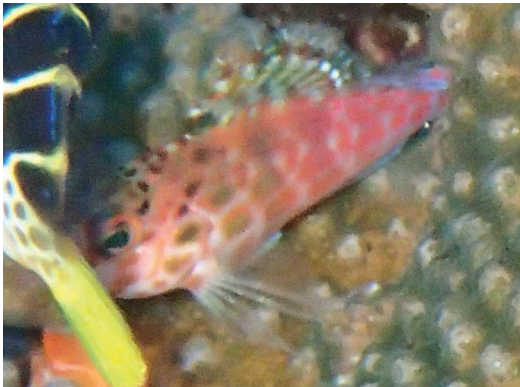


Fig. 274. *Cirrhitichthys aprinus* ミナミゴンベ (Diving Service MARLIN).

Cirrhitichthys falco Randall, 1963

サラサゴンベ [Marine] (Fig. 275)

Ito (2009).

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



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

Cirrhitus pinnulatus (Forster, 1801)

イソゴンベ [Marine] (Fig. 276)

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



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

Neocirrhites armatus Castelnau, 1873

ベニゴンベ [Marine] (Fig. 277)



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

Oxycirrhites typus Bleeker, 1857

クダゴンベ [Marine] (Fig. 278)



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

Paracirrhites arcatus (Cuvier, 1829)

メガネゴンベ [Marine] (Fig. 279)

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



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

Paracirrhites forsteri (Schneider, 1801)

ホシゴンベ [Marine] (Fig. 280)

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



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

FAMILY CICHLIDAE

カワズメ科

Oreochromis niloticus (Linnaeus, 1758)

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

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

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



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

FAMILY POMACENTRIDAE

ズメダイ科

ひってい

Abudefduf notatus (Day, 1870)

イソズメダイ [Marine]

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

Abudefduf septemfasciatus (Cuvier, 1830)

シチセンスズメダイ [Marine] (Fig. 282)

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



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

Abudefduf sexfasciatus (Lacepède, 1801)

ロクセンスズメダイ [Marine] (Fig. 283)

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



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

Abudefduf sordidus (Forsskål, 1775)

シマスズメダイ [Marine] (Fig. 284)

Yoshigou et al. (2001).

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



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

Abudefduf vaigiensis (Quoy and Gaimard, 1825)

オヤビッチャ [Marine] (Fig. 285)

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



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

Amblyglyphidodon curacao (Bloch, 1787)

クラカオスズメダイ [Marine] (Fig. 286)

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



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

Amphiprion clarkii (Bennett, 1830)

クマノミ [Marine] (Fig. 287)

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



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

Amphiprion frenatus Brevoort, 1856

ハマクマノミ [Marine] (Fig. 288)

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



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

Amphiprion ocellaris Cuvier, 1830

カクレクマノミ [Marine] (Fig. 289)

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



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

Amphiprion perideraion Bleeker, 1855

ハナビラクマノミ [Marine] (Fig. 290)

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



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

Chromis acares Randall and Swerdloff, 1973

コビトズメダイ [Marine] (Fig. 291)

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



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

Chromis atripes Fowler and Bean, 1928

ヒレグロスズメダイ [Marine] (Fig. 292)

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



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

Chromis margaritifer Fowler, 1946

シコクスズメダイ [Marine] (Fig. 293)

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



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

Chromis ovatiformes Fowler, 1946

マルズズメダイ [Marine] (Fig. 294)

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



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

Chromis vanderbilti (Fowler, 1941)

ヒメズメダイ [Marine] (Fig. 295)

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



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

Chromis yamakawai Iwatsubo and Motomura, 2013

キホシズメダイ [Marine] (Fig. 296)



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

Chrysiptera biocellata (Quoy and Gaimard, 1825)

スジブチスズメダイ [Marine] (Fig. 297)

Ito (2009).

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



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

Chrysiptera brownriggi (Bennett, 1828)

ミヤコキセンスズメダイ [Marine] (Fig. 298)

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



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

Chrysiptera cyanea (Quoy and Gaimard, 1825)

ルリスズメダイ [Marine] (Fig. 299)

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



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

Chrysiptera glauca (Cuvier, 1830)

ネズズメダイ [Marine]

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

Chrysiptera rex (Snyder, 1909)

レモンズズメダイ [Marine]

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

Chrysiptera unimaculata (Cuvier, 1830)

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

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



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



Dascyllus aruanus (Linnaeus, 1758)

ミスジリュウキュウスズメダイ [Marine] (Fig. 301)

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



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

Dascyllus reticulatus (Richardson, 1846)

フタスジリュウキュウスズメダイ [Marine] (Fig. 302)

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



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

Dascyllus trimaculatus (Rüppell, 1829)

ミツボシクロスズメダイ [Marine] (Fig. 303)

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



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

Dischistodus prosopotaenia (Bleeker, 1852)

ダンダラスズメダイ [Marine]

Ito (2009).

Neoglyphidodon melas (Valenciennes, 1830)

クロスズメダイ [Marine] (Fig. 304)

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



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

Plectroglyphidodon imparipennis (Vaillant and Sauvage, 1875)

イワサキズメダイ [Marine] (Fig. 305)

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



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

Plectroglyphidodon lacrymatus (Quoy and Gaimard, 1825)

ルリホシズメダイ [Marine] (Fig. 306)

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



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

Plectroglyphidodon leucozonus (Bleeker, 1859)

ハクセンスズメダイ [Marine]

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

Pomacentrus amboinensis Bleeker, 1868

ニセネッタイズメダイ [Marine] (Fig. 307)

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



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

Pomacentrus coelestis Jordan and Starks, 1901

ソラスズメダイ [Marine] (Fig. 308)

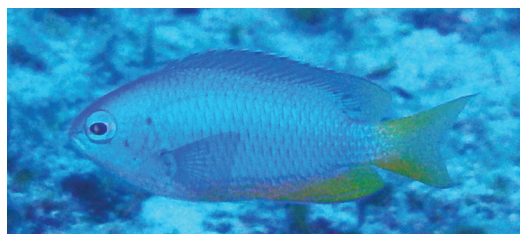


Fig. 308. *Pomacentrus coelestis* ソラスズメダイ (Diving Service MARLIN).

Pomacentrus philippinus Evermann and Seale, 1907

フィリピンズズメダイ [Marine] (Fig. 309)

Ito (2009).

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



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

***Pomacentrus* sp. 1**

ミナミイソズメダイ [Marine] (Fig. 310)

Ito (2009).

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



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

***Pomacentrus* sp. 2**

ソラスズメダイ属の一種 [Marine] (Fig. 311)

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



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

Stegastes altus (Okada and Ikeda, 1937)

セダカズメダイ [Marine]

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

Stegastes fasciolatus (Ogilby, 1889)

フチドリズメダイ [Marine] (Fig. 312)

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



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

Stegastes nigricans (Lacepède, 1802)

クロソラスズメダイ [Marine] (Fig. 313)

Ito (2009).

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



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

Stegastes punctatus (Quoy and Gaimard, 1825)

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

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



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

FAMILY POLYNEMIDAE

ツバメコノシロ科

Polynemidae sp.

ツバメコノシロ科の一種 [Marine; brackish]

はにまち

Ikema (2003).

FAMILY LABRIDAE

ベラ科

くつつあび

Anampses caeruleopunctatus Rüppell, 1829

ブチススキベラ [Marine] (Fig. 315)

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

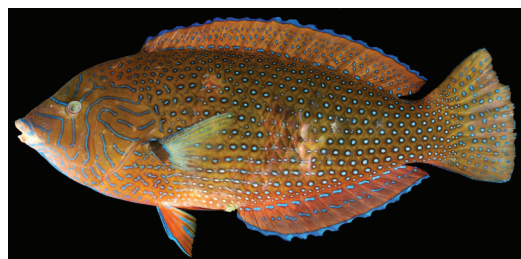


Fig. 315. *Anampses caeruleopunctatus* ブチススキベラ (KAUM-I. 80223, 208.5 mm SL).

Anampses twistii Bleeker, 1856

ホシススキベラ [Marine] (Fig. 316)

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

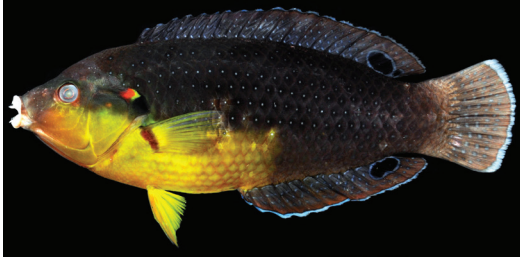


Fig. 316. *Anampses twistii* ホシススキベラ (FRLM 50702, 135.0 mm SL).

Bodianus axillaris (Bennett, 1832)

スミツキベラ [Marine] (Fig. 317)



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

Bodianus bilunulatus (Lacepède, 1801)

キツネベラ [Marine] (Fig. 318)

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



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

Bodianus dictynna Gomon, 2006

モンツキベラ [Marine] (Fig. 319)

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



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

Bodianus perditio (Quoy and Gaimard, 1834)

タキベラ [Marine] (Fig. 320)

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



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

Cheilinus chlorourus (Bloch, 1791)

アカテンモチノウオ [Marine] (Fig. 321)

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

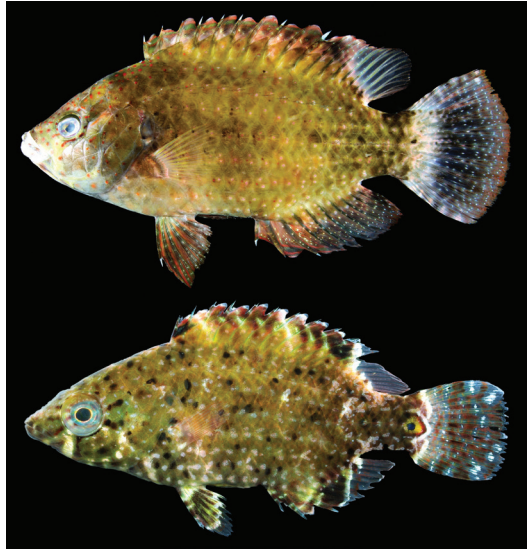


Fig. 321. *Cheilinus chlorourus* アカテンモチノウオ (upper: KAUM-I. 80281, 113.5 mm SL; lower: KAUM-I. 78514, 28.3 mm SL).

Cheilinus trilobatus Lacepède, 1801

ミツバモチノウオ [Marine] (Fig. 322)

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



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

Cheilinus undulatus Rüppell, 1835

メガネモチノウオ [Marine] (Fig. 323)

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

カマスベラ [Marine; brackish] (Fig. 324)

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

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

クラカケベラ [Marine] (Fig. 325)

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

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

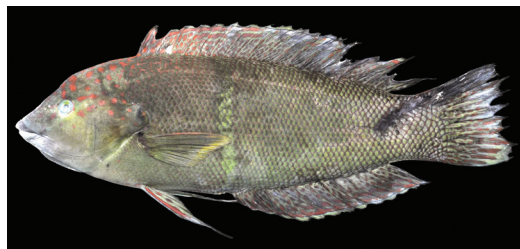
クロヘリイトヒキベラ [Marine] (Fig. 326)

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

カンムリベラ [Marine] (Fig. 327)

Yoshigou et al. (2001).

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

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

シチセンムスメベラ [Marine] (Fig. 328)

Yoshigou et al. (2001).

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

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

スジベラ [Marine] (Fig. 329)

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

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

Epibulus insidiator (Pallas, 1770)

ギチペラ [Marine] (Fig. 330)

Ito (2009).

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



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

Halichoeres hortulanus (Lacepède, 1801)

トカラペラ [Marine] (Fig. 331)

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

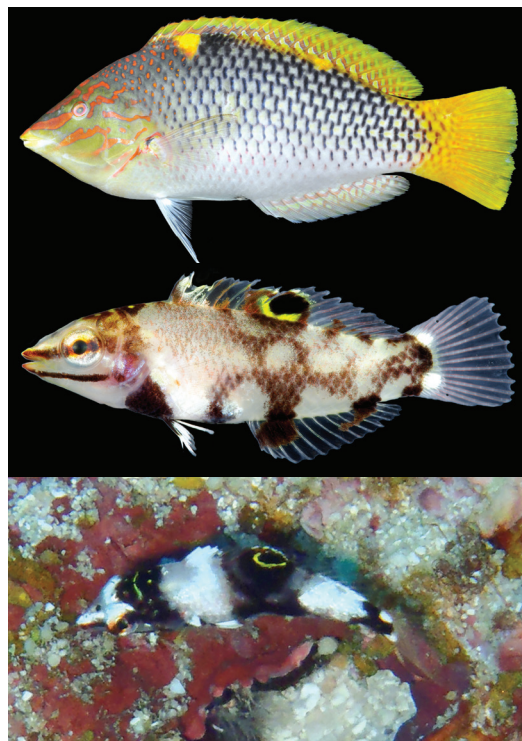


Fig. 331. *Halichoeres hortulanus* トカラペラ (upper: FRLM 50751, 225.0 mm SL, inverted; middle: KAUM-I. 78368, 12.0 mm SL; lower: Diving Service MARLIN).

Halichoeres margaritaceus (Valenciennes, 1839)

アカニジペラ [Marine]

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

Halichoeres marginatus Rüppell, 1835

カノコペラ [Marine] (Fig. 332)

Yoshigou et al. (2001).

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



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

Halichoeres melanochir Fowler and Bean, 1928

ムナテンベラ [Marine] (Fig. 333)

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



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

Halichoeres nebulosus (Valenciennes, 1839)

イナズマベラ [Marine]

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

Halichoeres orientalis Randall, 1999

ツキベラ [Marine]

Ito (2009).

Halichoeres prosopion (Bleeker, 1853)

ムナテンベラダマシ [Marine]

Ito (2009).

Halichoeres richmondi Fowler and Bean, 1928

ゴシキキュウセン [Marine]

Ito (2009).

Halichoeres trimaculatus (Quoy and Gaimard, 1834)

ミツボシキュウセン [Marine] (Fig. 334)

Ito (2009).

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



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

Hemigymnus fasciatus (Bloch, 1792)

シマタレクチベラ [Marine] (Fig. 335)

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

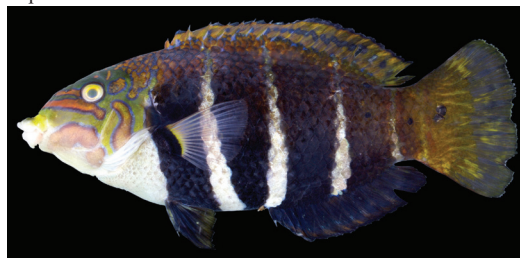


Fig. 335. *Hemigymnus fasciatus* シマタレクチベラ (KAUM-I. 78556, 115.0 mm SL).

Hemigymnus melapterus (Bloch, 1791)

タレクチベラ [Marine] (Fig. 336)

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

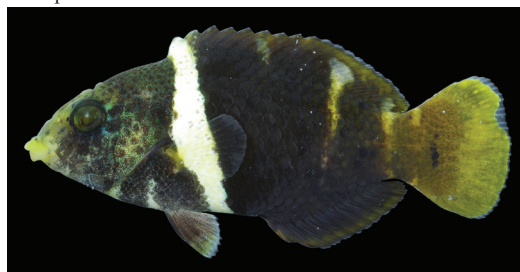


Fig. 336. *Hemigymnus melapterus* タレクチベラ (KAUM-I. 78469, 44.2 mm SL).

Hologymnosus doliatus (Lacepède, 1801)

シロタスキベラ [Marine] (Fig. 337)

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



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

Iniistius celebicus (Bleeker, 1856)
 ホウキボシテンス [Marine] (Fig. 338)

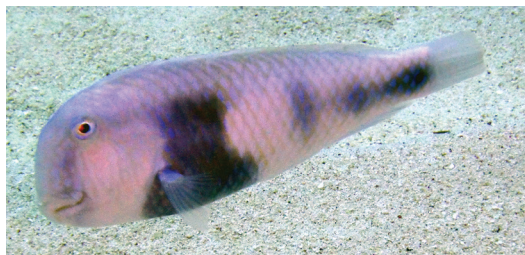


Fig. 338. *Iniistius celebicus* ホウキボシテンス (Diving Service MARLIN).

Iniistius pavo (Valenciennes, 1840)
 ホシテンス [Marine] (Fig. 339)



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

Labroides dimidiatus (Valenciennes, 1839)
 ホンソメワケベラ [Marine] (Fig. 340)

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



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

Novaculichthys taeniourus (Lacepède, 1801)
 オビテンスモドキ [Marine] (Fig. 341)

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



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

Oxycheilinus orientalis (Günther, 1862)
 カタグロホホスジモチノウオ [Marine] (Fig. 342)

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



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

Oxycheilinus unifasciatus (Streets, 1877)
 ヒトスジモチノウオ [Marine] (Fig. 343)

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



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

Pseudocheilinus hexataenia (Bleeker, 1857)

ニセモチノウオ [Marine] (Fig. 344)

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

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

アカオビベラ [Marine] (Fig. 345)

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

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

ハラズジベラ [Marine]

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

Stethojulis trilineata (Bloch and Schneider, 1801)

オニベラ [Marine] (Fig. 346)

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

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

コガシラベラ [Marine] (Fig. 347)

Yoshigou et al. (2001).

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

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

セナスジベラ [Marine] (Fig. 348)

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

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

ヤンセンニシキベラ [Marine] (Fig. 349)

Ito (2009).

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

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

ヤマブキベラ [Marine] (Fig. 350)

Yoshigou et al. (2001).

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

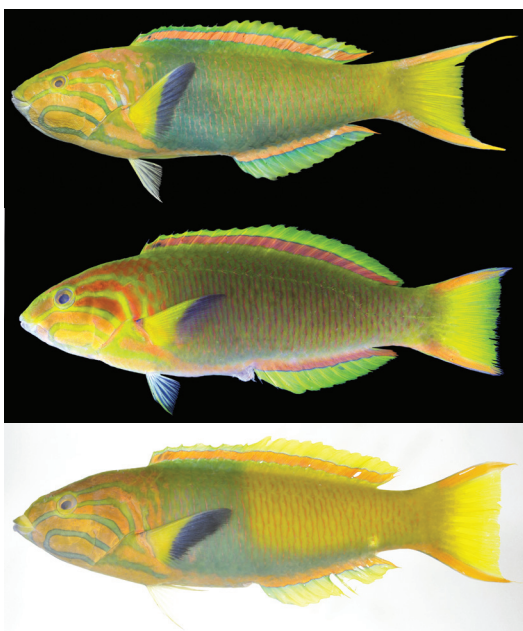


Fig. 350. *Thalassoma lutescens* ヤマブキベラ (upper: FRLM 51989, 149.5 mm SL; middle: KAUM-I. 80213, 113.6 mm SL; lower: MUFS 46893, 123.0 mm SL).

Thalassoma purpureum (Forsskål, 1775)

キヌベラ [Marine] (Fig. 351)

Yoshigou et al. (2001).

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



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

Thalassoma quinquevittatum (Lay and Bennett, 1839)

ハコベラ [Marine] (Fig. 352)

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



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

Thalassoma trilobatum (Lacepède, 1801)

リュウグウベラ [Marine] (Fig. 353)

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

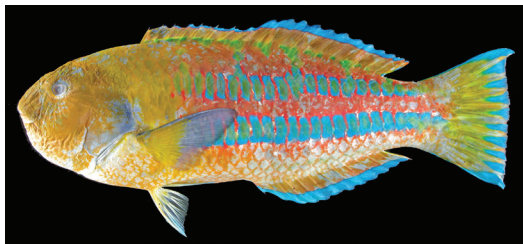


Fig. 353. *Thalassoma trilobatum* リュウグウベラ (KAUM-I. 80450, 192.2 mm SL).

Thalassoma sp.

ニシキベラ属の一種 [Marine]

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

Wetmorella nigropinnata (Seale, 1901)

ハシナガベラ [Marine] (Fig. 354)

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



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

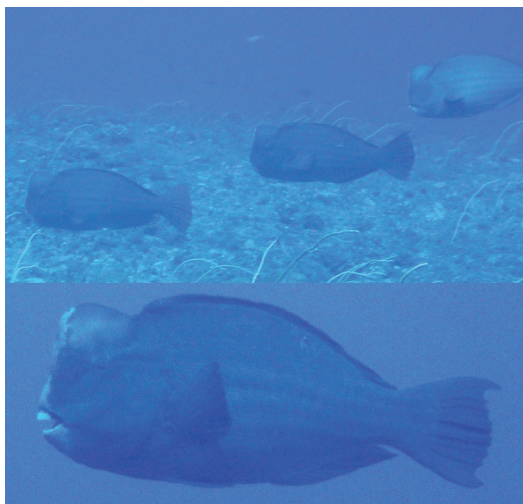
FAMILY SCARIDAE

ブダイ科

Bolbometopon muricatum (Valenciennes, 1840)

カンムリブダイ [Marine] (Fig. 355)

Ito (2009).

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

タイワンブダイ [Marine] (Fig. 356)

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

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

イロブダイ [Marine] (Fig. 357)

Senou et al. (1997): piebald individual.

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

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

オオモンハゲブダイ [Marine] (Fig. 358)

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

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

ナンヨウブダイ [Marine]

Ito (2009).

Scarus dimidiatus Bleeker, 1859

カワリブダイ [Marine]

Ito (2009).

Scarus festivus Valenciennes, 1840
ツキノワブダイ [Marine] (Fig. 359)

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



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

Scarus forsteni (Bleeker, 1861)
イチモンジブダイ [Marine] (Fig. 360)

Ito (2009).

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



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

Scarus niger Forsskål, 1775
ブチブダイ [Marine] (Fig. 361)

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

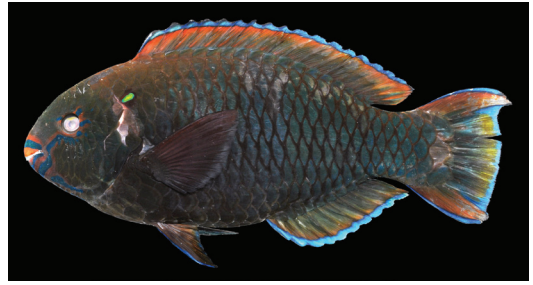


Fig. 361. *Scarus niger* ブチブダイ (FRLM 50752, 255.5 mm SL).

Scarus psittacus Forsskål, 1775
オウムブダイ [Marine] (Fig. 362)

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



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

Scarus rubroviolaceus Bleeker, 1847
ナガブダイ [Marine] (Fig. 363)

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



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

Scarus schlegeli (Bleeker, 1861)

オビブダイ [Marine] (Fig. 364)

Yoshigou et al. (2001).

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



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

Scarus xanthopleura Bleeker, 1853

アカブダイ [Marine] (Fig. 365)

あがいらぶた

Ikema (2003).



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

Scaridae sp.

ブダイ科の一種 [Marine] (Fig. 366)

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



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

FAMILY PINGUIPEDIDAE

トラギス科

Parapercis cylindrica (Bloch, 1792)

ダンダラトラギス [Marine] (Fig. 367)

KAUM-I. 78561, 81.6 mm SL, KAUM-I. 78562, 64.1 mm SL, off Hikawa, line-fishing, 22 Sept. 2015.



Fig. 367. *Parapercis cylindrica* ダンダラトラギス (upper: KAUM-I. 78561, 81.6 mm SL; lower: Diving Service MARLIN).

Parapercis millepunctata (Günther, 1860)

ワスケトラギス [Marine] (Fig. 368)

Ito (2009).

KAUM-I. 78380, 88.4 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; NSMT-P 101231, 112.7 mm SL, Kubura Hinan Port, line-fishing, 16 Mar. 2010.



Fig. 368. *Parapercis millepunctata* ワスケトラギス (KAUM-I. 78380, 88.4 mm SL).

Parapercis pacifica Imamura and Yoshino, 2007

オグロトラギス [Marine] (Fig. 369)

FRLM 50726, 128.4 mm SL, male, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 51565, 161.5 mm SL, male, Kubura Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78306, 176.4 mm SL, Kataburu Beach, line-fishing, 17 Sept. 2015; KAUM-I. 78379, 169.5 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015; KAUM-I. 78441, 163.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.

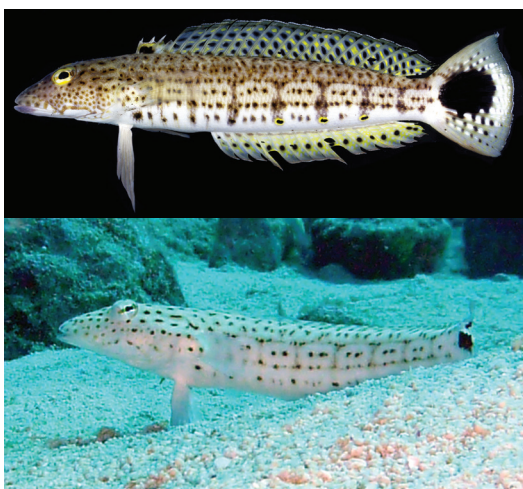


Fig. 369. *Parapercis pacifica* オグロトラギス (upper: KAUM-I. 78441, 163.0 mm SL; lower: Diving Service MARLIN).

Parapercis tetracantha (Lacepède, 1801)

マダラトラギス [Marine] (Fig. 370)

FRLM 51480, 151.0 mm SL, male, off Northern Pasture, line-fishing, 22 Sept. 2015.



Fig. 370. *Parapercis tetracantha* マダラトラギス (FRLM 51480, 151.0 mm SL).

FAMILY TRIPTERYGIIDAE

ヘビギンボ科

Enneapterygius philippinus (Peters, 1869)

クサギンボ [Marine]

URM-P 28692, Hikawa, 10 Oct. 1992.

Enneapterygius rhabdotus Fricke, 1994

クレナイヘビギンボ [Marine] (Fig. 371)

Yoshigou and Yoshino (2002); Yoshigou and Nakamura (2002); Nakabo (2013).

HMNH-P3077, 16.1 mm SL, HMNH-P3078, 17.2 mm SL, Agarizaki, hand net, 9 Aug. 1999; NSMT-P 106821, 5 specimens, 13.6–21.0 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 371. *Enneapterygius rhabdotus* クレナイヘビギンボ (HMNH-P3077, 16.1 mm SL, preserved specimen).

Enneapterygius tutuilae Jordan and Seale, 1906

セグロヘビギンボ [Marine] (Fig. 372)

FRLM 51522, 17.3 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; KAUM-I. 78361, 17.5 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015; KAUM-I. 78549, 13.4 mm SL, Umabana, hand net, 22 Sept. 2015.

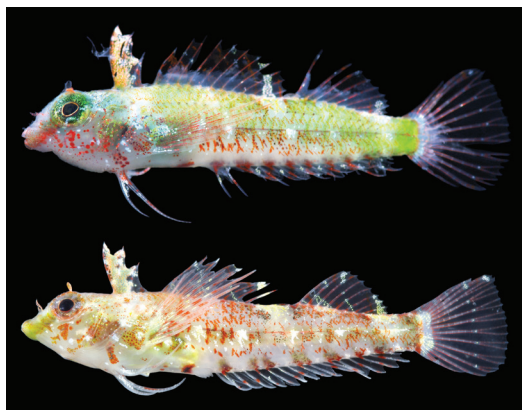


Fig. 372. *Enneapterygius tutuilae* セグロヘビギンボ (upper: KAUM-I. 78549, 13.4 mm SL; lower: KAUM-I. 78361, 17.5 mm SL).

Enneapterygius sp.

ヘビギンボ属の一種 [Marine] (Fig. 373)

KAUM-I. 78532, 19.2 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 373. *Enneapterygius* sp. (KAUM-I. 78532, 19.2 mm SL).

Helcogramma fuscipectoris (Fowler, 1946)

クロマスク [Marine] (Fig. 374)

Yoshigou et al. (2001).

HMNH-P1996, 6 specimens, 12.2–21.8 mm SL, Agarizaki, hand net, 9 Aug. 1999.



Fig. 374. *Helcogramma fuscipectoris* クロマスク (HMNH-P1996, 21.8 mm SL, preserved specimen).

Helcogramma hudsoni (Jordan and Seale, 1906)

ナナメヘビギンボ [Marine] (Fig. 375)

Yoshigou and Nakamura (2003).

HMNH-P7189, 2 specimens, 29.7–31.8 mm SL, Agarizaki, hand net, 9 Aug. 1999.



Fig. 375. *Helcogramma hudsoni* ナナメヘビギンボ (HMNH-P7189, 31.8 mm SL, preserved specimen).

Helcogramma inclinata (Fowler, 1946)

アヤヘビギンポ [Marine] (Fig. 376)

KAUM-I. 78370, 19.4 mm SL, Arakawa Bay, hand net, 18 Sept. 2015.



Fig. 376. *Helcogramma inclinata* アヤヘビギンポ (KAUM-I. 78370, 19.4 mm SL).

Helcogramma striata Hansen, 1986

タテジマヘビギンポ [Marine] (Fig. 377)

KAUM-I. 78537, 19.1 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 377. *Helcogramma striata* タテジマヘビギンポ (KAUM-I. 78537, 19.1 mm SL).

FAMILY TRICHONOTIDAE

ベラギンポ科

Trichonotus sp.

ベラギンポ属の一種 [Marine] (Fig. 378)



Fig. 378. *Trichonotus* sp. (Diving Service MARLIN).

FAMILY BLENNIIDAE

イソギンポ科

Alticus saliens (Forster, 1788)

タマカエルウオ [Marine] (Fig. 379)

KAUM-I. 78520, 63.0 mm SL, Sonai Fishing Port, hand net, 21 Sept. 2015.

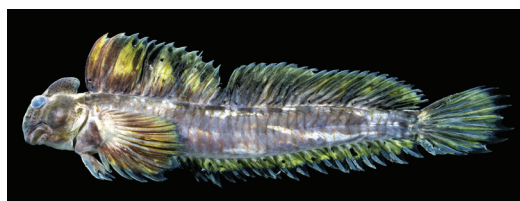


Fig. 379. *Alticus saliens* タマカエルウオ (KAUM-I. 78520, 63.0 mm SL).

Andamia tetradactylus (Bleeker, 1858)

ヨダレカケ [Marine] (Fig. 380)

FRLM 51434, 82.7 mm SL, FRLM 51435, 83.2 mm SL, Kubura Hinan Port, hand net, 20 Sept. 2015; KAUM-I. 78519, 85.4 mm SL, Sonai Fishing Port, hand net, 21 Sept. 2015; MUFS 47015, 87.0 mm SL, MUFS 47016, 37.0 mm SL, MUFS 47017, 31.0 mm SL, MUFS 47018, 28.0 mm SL, Sonai Fishing Port, hand net, 22 Sept. 2015.

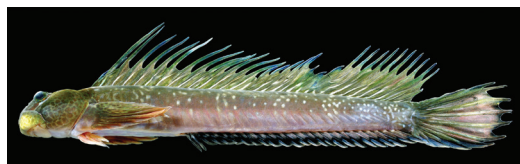


Fig. 380. *Andamia tetradactylus* ヨダレカケ (KAUM-I. 78519, 85.4 mm SL).

Blenniella interrupta (Bleeker, 1857)

ジュズダマギンポ [Marine]

Yoshigou and Yoshino (2002); Nakabo (2013).

Cirripectes castaneus (Valenciennes, 1836)

タテガミカエルウオ [Marine] (Fig. 381)

KAUM-I. 78555, 21.1 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78571, 51.1 mm SL, Danno Beach, hand net, 23 Sept. 2015; MUFS 47029, 51.0 mm SL, Danno Beach, hand net, 24 Sept. 2015.



Fig. 381. *Cirripectes castaneus* タテガミカエルウオ (upper: KAUM-I. 78571, 51.1 mm SL; lower: KAUM-I. 78555, 21.1 mm SL).

***Cirripectes* sp.**

タテガミカエルウオ属の一種 [Marine] (Fig. 382)

KAUM-I. 78541, 35.9 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 382. *Cirripectes* sp. (KAUM-I. 78541, 35.9 mm SL).

***Ecsenius lineatus* Klauswitz, 1962**

ヒトスジギンボ [Marine] (Fig. 383)

KAUM-I. 78570, 45.0 mm SL, Danno Beach, hand net, 23 Sept. 2015.

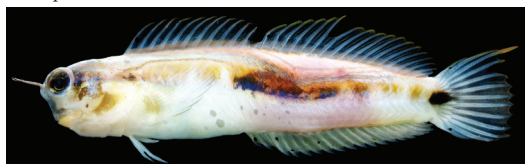


Fig. 383. *Ecsenius lineatus* ヒトスジギンボ (KAUM-I. 78570, 45.0 mm SL).

***Ecsenius oculus* Springer, 1971**

ゴイシギンボ [Marine] (Fig. 384)

KAUM-I. 78569, 26.7 mm SL, Danno Beach, hand net, 23 Sept. 2015.



Fig. 384. *Ecsenius oculus* ゴイシギンボ (KAUM-I. 78569, 26.7 mm SL).

***Entomacrodus niuafoouensis* (Fowler, 1932)**

ケシヨウギンボ [Marine] (Fig. 385)

FRLM 51483, 92.1 mm SL, FRLM 51488, 72.6 mm SL, FRLM 51489, 56.7 mm SL, Southern Pasture, hand net, 22 Sept. 2015; KAUM-I. 78518, 90.6 mm SL, Southern Pasture, hand net, 21 Sept. 2015.



Fig. 385. *Entomacrodus niuafoouensis* ケシヨウギンボ (upper: KAUM-I. 78518, 90.6 mm SL; lower: FRLM 51483, 92.1 mm SL).

***Glyptoparus delicatulus* Smith, 1959**

ヤイトギンボ [Marine] (Fig. 386)

MUFS 46883, 35.0 mm SL, Kataburu Beach, hand net, 17 Sept. 2015; MUFS 46932, 27.8 mm SL, Kataburu Beach, hand net, 18 Sept. 2015.



Fig. 386. *Glyptoparus delicatulus* ヤイトギンボ (MUFS 46932, 27.8 mm SL).

***Istiblennius edentulus* (Forster and Schneider, 1801)**

ニセカエルウオ [Marine] (Fig. 387)

Yoshigou et al. (2001).

HMNH-P120, 76.3 mm SL, Agarizaki, hand net, 9 Aug. 1999; HMNH-P134, 76.6 mm SL, HMNH-P782, 52.1 mm SL, Sonai, hand net, 9 Aug. 1999; NSMT-P 94374, 5 specimens, 63.1–96.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 387. *Istiblennius edentulus* ニセカエルウオ (HMNH-P782, 52.1 mm SL, preserved specimen).

***Meiacanthus grammistes* (Valenciennes, 1836)**

ヒゲニジギンボ [Marine]

Ito (2009).

***Nannosalarias nativitatis* (Regan, 1909)**

ヒナギンボ [Marine] (Fig. 388)

MUFS 46941, 29.9 mm SL, MUFS 46942, 28.0 mm SL, Danno Beach, hand net, 19 Sept. 2015; MUFS 46943, Danno Beach, hand net, 19 Sept. 2015; MUFS 47030, 32.0 mm SL, MUFS 47031, MUFS 47032, 38.0 mm SL, Danno Beach, hand net, 24 Sept. 2015.



Fig. 388. *Nannosalarias nativitatis* ヒナギンボ (MUFS 46942, 28.0 mm SL).

Plagiotremus rhinorhynchos (Bleeker, 1852)

ミナミギンボ [Marine] (Fig. 389)

Fig. 389. *Plagiotremus rhinorhynchos* ミナミギンボ (Diving Service MARLIN).*Praealticus bilineatus* (Peters, 1868)

タマギンボ [Marine] (Fig. 390)

KAUM-I. 78383, 24.0 mm SL, Southern Pasture, hand net, 19 Sept. 2015; MUFS 46947, 35.0 mm SL, Danno Beach, hand net, 19 Sept. 2015; MUFS 47033, 33.0 mm SL, Yonaguni-jima island, hand net, 24 Sept. 2015; NSMT-P 94376, 3 specimens, 43.2–52.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Fig. 390. *Praealticus striatus* タマギンボ (KAUM-I. 78383, 24.0 mm SL).*Praealticus striatus* (Bath, 1992)

カブキギンボ [Marine] (Fig. 391)

FRLM 51484, 52.0 mm SL, FRLM 51490, 50.2 mm SL, Southern Pasture, hand net, 22 Sept. 2015; KAUM-I. 78385, 61.5 mm SL, male, KAUM-I. 78386, 50.6 mm SL, female, Southern Pasture, hand net, 19 Sept. 2015; MUFS 46946, 54.7 mm SL, male, Danno Beach, hand net, 19 Sept. 2015.

Fig. 391. *Praealticus tanegasimae* タネギンボ (upper: MUFS 46946, 54.7 mm SL; lower: KAUM-I. 78386, 50.6 mm SL).*Rhabdoblennius nitidus* (Günther, 1861)

ロウソクギンボ [Marine] (Fig. 392)

MUFS 46931, 43.8 mm SL, Kataburu Beach, hand net, 18 Sept. 2015; MUFS 46945, 40.1 mm SL, Danno Beach, hand net, 19 Sept. 2015.

Fig. 392. *Rhabdoblennius nitidus* ロウソクギンボ (MUFS 46931, 43.8 mm SL).

FAMILY CALLIONYMIDAE

ネズッポ科

Neosynchiropus moyeri (Zaiser and Fricke, 1985)

ミヤケテグリ [Marine] (Fig. 393)

Fig. 393. *Neosynchiropus moyeri* ミヤケテグリ (Diving Service MARLIN).

FAMILY ELEOTRIDAE

カワアナゴ科

Eleotris acanthopoma Bleeker, 1853

チチブモドキ [Brackish; freshwater] (Fig. 394)

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

FRLM 51514, 27.9 mm SL, FRLM 51515, 50.4 mm SL, Tabaru River, hand net, 23 Sept. 2015; FRLM 51527, 50.0 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P45, 62.4 mm SL, HMNH-P46, 69.0 mm SL, Tabaru River, hand net, 9 Aug. 1999; HMNH-P102, 33.6 mm SL, HMNH-P103, 80.8 mm SL, HMNH-P105, 41.5 mm SL, Kubura River, hand net, 10 Aug. 1999; KAUM-I. 78413, 45.3 mm SL, KAUM-I. 78454, 48.5 mm SL, KAUM-I. 78455, 30.7 mm SL, Tabaru River, hand net, 20 Sept. 2015.

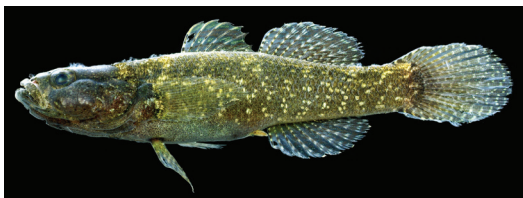


Fig. 394. *Eleotris acanthopoma* チチブモドキ (upper: KAUM-I. 78413, 45.3 mm SL; lower: HMNH-P45, 62.4 mm SL).

Eleotris fusca (Bloch and Schneider, 1801)

テンジクカワアナゴ [Freshwater] (Fig. 395)

どろ

Jordan and Tanaka (1927); Kuroiwa (1927); Okinawa Prefecture Experimental Fisheries Station (1934); Ogawa (1937); Hayashi (1995); Yoshigou (2000); Yoshigou et al. (2001); Konishi (2011)

FRLM 51529, 72.7 mm SL, FRLM 51530, 52.2 mm SL, Tabaru River, hand net, 24 Sept. 2015; HMNH-P47, 53.0 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 395. *Eleotris fusca* テンジクカワアナゴ (FRLM 51529, 72.7 mm SL).

Ophieleotris sp. 1

タメトモハゼ [Brackish; freshwater]

Yoshigou (2000); Japan Wild Life Research Center (2002); Ministry of the Environment (2003); Okinawa Prefecture (2005); Ministry of the Environment (2010b); Nakabo (2013).

Ophieleotris sp. 2

ゴシキタメトモハゼ [Brackish; freshwater]

Ministry of the Environment (2010a).

Ophiocara porocephala (Valenciennes, 1837)

ホシマダラハゼ [Brackish; freshwater] (Fig. 396)

Yoshigou (2000); Yoshigou et al. (2001); Japan Wild Life Research Center (2002); Senou et al. (2004); Ministry of the Environment (2010a); Ministry of the Environment (2010b).

FRLM 51507, 23.1 mm SL, Tabaru River, hand net, 20 Sept. 2015; HMNH-P54, 81.1 mm SL, Tabaru River, hand net, 9 Aug. 1999; KAUM-I. 78451, 28.3 mm SL, Tabaru River, gill net, 20 Sept. 2015; KAUM-I. 78453, 10.9 mm SL, Tabaru River, hand net, 20 Sept. 2015.

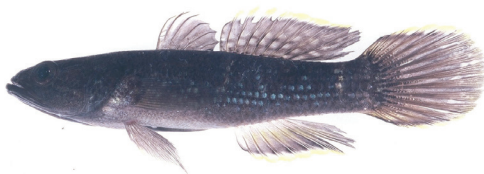


Fig. 396. *Ophiocara porocephala* ホシマダラハゼ (upper: HMNH-P54, 81.1 mm SL; lower: FRLM 51507, 23.1 mm SL).



FAMILY GOBIIDAE

ハゼ科

Acentrogobius janthinopterus (Bleeker, 1853)

カスミハゼ [Brackish] (Fig. 397)

Yoshigou (2000); Yoshigou et al. (2001); Nakabo (2013).

HMNH-P56, 40.6 mm SL, HMNH-P63, 38.7 mm SL, HMNH-P64, 16.4 mm SL, Tabaru River, hand net, 9 Aug. 1999; HMNH-P95, 23.4 mm SL, Tabaru River, hand net, 10 Aug. 1999.

Fig. 397. *Acentrogobius janthinopterus* カスミハゼ (HMNH-P56, 40.6 mm SL).*Amblyeleotris guttata* (Fowler, 1938)

ヤマブキハゼ [Marine] (Fig. 398)

Fig. 398. *Amblyeleotris guttata* ヤマブキハゼ (Diving Service MARLIN).*Amblyeleotris wheeleri* (Polunin and Lubbock, 1977)

クビアカハゼ [Marine] (Fig. 399)

Fig. 399. *Amblyeleotris wheeleri* クビアカハゼ (Diving Service MARLIN).*Amblygobius hectori* (Smith, 1957)

キンセンハゼ [Marine]

Ito (2009).

Amblygobius nocturnus (Herre, 1945)

ホホベニサラサハゼ [Marine] (Fig. 400)

FRLM 51479, 20.7 mm SL, Hikawa, hand net, 22 Sept. 2015; KAUM-I. 78565, 18.3 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

Fig. 400. *Amblygobius nocturnus* ホホベニサラサハゼ (upper: FRLM 51479, 20.7 mm SL; lower: KAUM-I. 78565, 18.3 mm SL).*Amblygobius phalaena* (Valenciennes, 1837)

サラサハゼ [Marine] (Fig. 401)

Ito (2009).

FRLM 51554, 64.4 mm SL, male, FRLM 51555, 76.5 mm SL, male, Kubura Fishing Port, hand net, 24 Sept. 2015; KAUM-I. 78255, 83.0 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 78498, 88.3 mm SL, Hikawa, hand net, 21 Sept. 2015.

Fig. 401. *Amblygobius phalaena* サラサハゼ (upper: KAUM-I. 78498, 88.3 mm SL; middle: FRLM 51555, 76.5 mm SL; lower: KAUM-I. 78255, 83.0 mm SL).

Asterropteryx semipunctata Rüppell, 1830

ホシハゼ [Marine; brackish] (Fig. 402)

KAUM-I. 78399, 29.6 mm SL, Hikawa, hand net, 20 Sept. 2015; KAUM-I. 78515, 21.3 mm SL, Hikawa, hand net, 21 Sept. 2015.

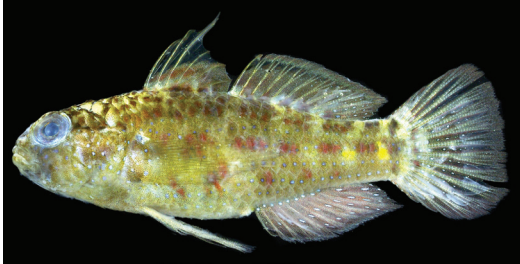


Fig. 402. *Asterropteryx semipunctata* ホシハゼ (KAUM-I. 78399, 29.6 mm SL).

Awaous ocellaris (Broussonet, 1782)

ミナミハゼ [Brackish; freshwater] (Fig. 403)

Yoshigou (2000); Yoshigou et al. (2001); Nakabo (2013).

HMNH-P38, 74.0 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 403. *Awaous ocellaris* ミナミハゼ (HMNH-P38, 74.0 mm SL).

Bathygobius coalitus (Bennett, 1832)

クロヤハズハゼ [Marine; brackish] (Fig. 404)

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

FRLM 51510, 48.0 mm SL, Tabaru River, hand net, 23 Sept. 2015; FRLM 51516, 48.6 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P101, 2 specimens, 35.5–41.5 mm SL, Kubura River, hand net, 10 Aug. 1999; HMNH-P250, 60.5 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78393, 13.9 mm SL, KAUM-I. 78394, 12.2 mm SL, Southern Pasture, hand net, 19 Sept. 2015; KAUM-I. 78400, 43.2 mm SL, Hikawa, hand net, 20 Sept. 2015.

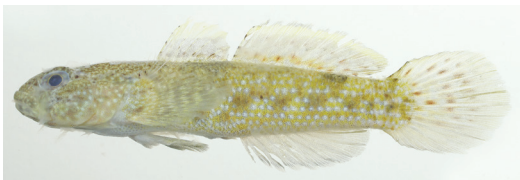


Fig. 404. *Bathygobius coalitus* クロヤハズハゼ (KAUM-I. 78400, 43.2 mm SL).

Bathygobius cyclopterus (Valenciennes, 1837)

ヤハズハゼ [Marine; brackish] (Fig. 405)

Yoshigou et al. (2001).

HMNH-P251, 2 specimens, 21.4–26.6 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78434, 20.4 mm SL, Tabaru River, hand net, 20 Sept. 2015; KAUM-I. 78439, 18.1 mm SL, mouth of Tabaru River, hand net, 20 Sept. 2015.

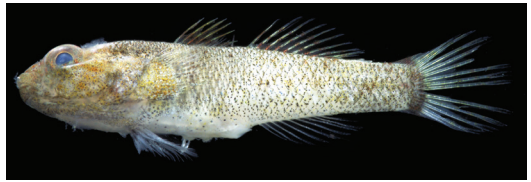


Fig. 405. *Bathygobius cyclopterus* ヤハズハゼ (KAUM-I. 78439, 18.1 mm SL).

Bathygobius fuscus (Rüppell, 1830)

クモハゼ [Marine; brackish] (Fig. 406)

FRLM 51508, 25.7 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; KAUM-I. 78566, 33.8 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

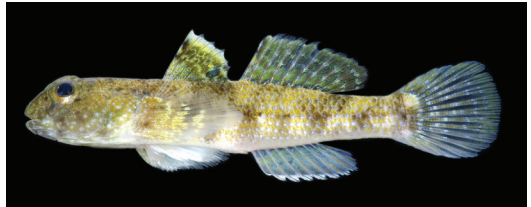


Fig. 406. *Bathygobius fuscus* クモハゼ (KAUM-I. 78566, 33.8 mm SL).

Bathygobius sp.

クモハゼ属の一種 [Brackish]

KAUM-I. 78435, 16.3 mm SL, KAUM-I. 78436, 15.8 mm SL, KAUM-I. 78437, 16.1 mm SL, Tabaru River, hand net, 20 Sept. 2015.

Callogobius tanegasimae (Snyder, 1908)

タネハゼ [Marine; brackish] (Fig. 407)

Yoshigou (2000); Yoshigou et al. (2001); Senou et al. (2004).

HMNH-P67, 22.9 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 407. *Callogobius tanegasimae* タネハゼ (HMNH-P67, 22.9 mm SL).

Callogobius sp.

オキナワハゼ属の一種 [Marine] (Fig. 408)

KAUM-I. 78359, 15.0 mm SL, off Kubura Hinan Port, hand net, 18 Sept. 2015.

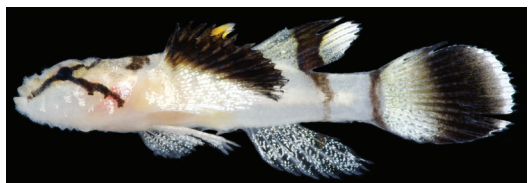


Fig. 408. *Callogobius* sp. (KAUM-I. 78359, 15.0 mm SL).

Cryptocentroides insignis (Seale, 1910)

ハスジマハゼ [Marine; brackish] (Fig. 409)

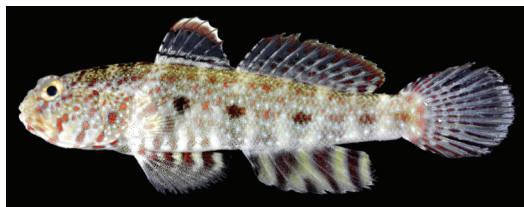
Yoshigou (2000); Yoshigou et al. (2001); Senou et al. (2004); Nakabo (2013).

HMNH-P100, 35.4 mm SL, male, Kubura River, hand net, 10 Aug. 1999.

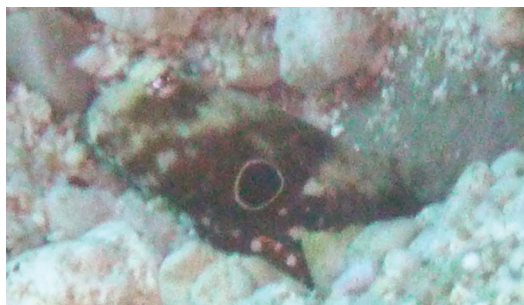
Fig. 409. *Cryptocentroides insignis* ハスジマハゼ (HMNH-P100, 35.4 mm SL).*Cryptocentrus caeruleomaculatus* (Herre, 1933)

タカノハハゼ [Marine; brackish] (Fig. 410)

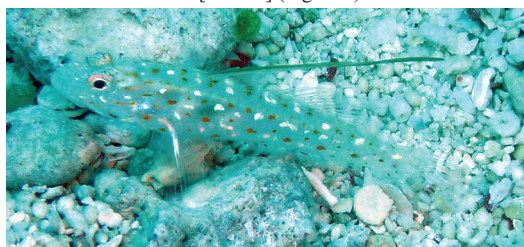
FRLM 51519, 27.3 mm SL, Tabaru River, hand net, 23 Sept. 2015; FRLM 51520, 7.6 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015.

Fig. 410. *Cryptocentrus caeruleomaculatus* タカノハハゼ (FRLM 51519, 27.3 mm SL).*Cryptocentrus nigrocellatus* (Yanagisawa, 1978)

クロホシハゼ [Marine] (Fig. 411)

Fig. 411. *Cryptocentrus nigrocellatus* クロホシハゼ (Diving Service MARLIN).*Ctenogobiops tangaroai* Lubbock and Polunin, 1977

ハタタテシノビハゼ [Marine] (Fig. 412)

Fig. 412. *Ctenogobiops tangaroai* ハタタテシノビハゼ (Diving Service MARLIN).*Eviota abax* (Jordan and Snyder, 1901)

イソハゼ [Marine] (Fig. 413)

KAUM-I. 78563, 16.2 mm SL, KAUM-I. 78564, 13.9 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

Fig. 413. *Eviota abax* イソハゼ (upper: KAUM-I. 78563, 16.2 mm SL; lower: KAUM-I. 78564, 13.9 mm SL).*Eviota korechika* Shibukawa and Suzuki, 2005

シボリイソハゼ [Marine] (Fig. 414)

KAUM-I. 78529, 13.3 mm SL, Umabana, hand net, 22 Sept. 2015.

Fig. 414. *Eviota korechika* シボリイソハゼ (KAUM-I. 78529, 13.3 mm SL).*Eviota prasites* Jordan and Seale, 1906

アオイソハゼ [Marine] (Fig. 415)

KAUM-I. 78493, 19.5 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

Fig. 415. *Eviota prasites* アオイソハゼ (KAUM-I. 78493, 19.5 mm SL).*Eviota saipanensis* Fowler, 1945

ムスジイソハゼ [Marine] (Fig. 416)

KAUM-I. 78390, 18.6 mm SL, KAUM-I. 78391, 16.0 mm SL, KAUM-I. 78392, 13.8 mm SL, Southern Pasture, hand net, 19 Sept. 2015.



Fig. 416. *Eviota saipanensis* ムスジイソハゼ (upper: KAUM-I. 78391, 16.0 mm SL; lower: KAUM-I. 78390, 18.6 mm SL).

***Eviota* sp.**

イソハゼ属の一種 [Marine] (Fig. 417)

Yoshigou et al. (2001).

HMNH-P249, Agarizaki, hand net, 9 Aug. 1999.



Fig. 417. *Eviota* sp. (HMNH-P249, preserved specimen).

***Exyrias belissimus* (Smith, 1959)**

オバケインコハゼ [Marine; brackish] (Fig. 418)

KAUM-I. 78256, 89.8 mm SL, Kubura Fishing Port, spear, 16 Sept. 2015; KAUM-I. 78516, 53.1 mm SL, Hikawa, hand net, 21 Sept. 2015.



Fig. 418. *Exyrias belissimus* オバケインコハゼ (KAUM-I. 78516, 53.1 mm SL).

***Exyrias puntang* (Bleeker, 1851)**

インコハゼ [Marine; brackish] (Fig. 419)

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

FRLM 51443, 59.9 mm SL, mouth of Kubura River, cast net, 21 Sept. 2015; HMNH-P55, 32.3 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 419. *Exyrias puntang* インコハゼ (FRLM 51443, 59.9 mm SL).

***Favonigobius reichei* (Bleeker, 1854)**

ミナミヒメハゼ [Brackish] (Fig. 420)

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

FRLM 51550, 36.8 mm SL, mouth of Kubura River, hand net, 24 Sept. 2015; HMNH-P93, 47.1 mm SL, male, Tabaru River, hand net, 10 Aug. 1999; KAUM-I. 78433, 38.7 mm SL, Tabaru River, hand net, 20 Sept. 2015.



Fig. 420. *Favonigobius reichei* ミナミヒメハゼ (upper: FRLM 51550, 36.8 mm SL; lower: KAUM-I. 78433, 38.7 mm SL).

***Favonigobius* sp.**

ヒメハゼ属の一種 [Brackish] (Fig. 421)

HMNH-P69, 6 specimens, 17.9–19.4 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 421. *Favonigobius* sp. (HMNH-P69, 19.4 mm SL).

***Fusigobius inframaculatus* (Randall, 1994)**

ハタタテサンカクハゼ [Marine] (Fig. 422)

KAUM-I. 78472, 37.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015.



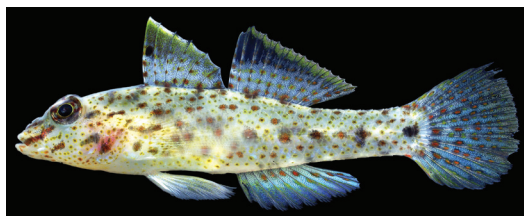
Fig. 422. *Fusigobius inframaculatus* ハタタテサンカクハゼ (KAUM-I. 78472, 37.0 mm SL).

Fusigobius neophytus (Günther, 1877)

サンカクハゼ [Marine] (Fig. 423)

Ito (2009).

KAUM-I. 78401, 41.2 mm SL, Hikawa, hand net, 20 Sept. 2015; KAUM-I. 78475, 33.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015

Fig. 423. *Fusigobius neophytus* サンカクハゼ (KAUM-I. 78475, 33.0 mm SL).***Glossogobius biocellatus*** (Valenciennes, 1837)

ヒトミハゼ [Brackish] (Fig. 424)

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

FRLM 50756, 51.0 mm SL, Tabaru River, hand net, 14 Mar. 2015; HMNH-P57, 45.0 mm SL, HMNH-P62, 25.1 mm SL, Tabaru River, hand net, 9 Aug. 1999.

Fig. 424. *Glossogobius biocellatus* ヒトミハゼ (FRLM 50756, 51.0 mm SL).***Glossogobius celebius*** (Valenciennes, 1837)

イワハゼ [Freshwater] (Fig. 425)

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

HMNH-P39, 69.8 mm SL, Tabaru River, hand net, 9 Aug. 1999.

Fig. 425. *Glossogobius celebius* イワハゼ (HMNH-P39, 69.8 mm SL).***Gnatholepis cauerensis*** (Bleeker, 1853)

カタボシオオモンハゼ [Marine] (Fig. 426)

FRLM 51477, 37.9 mm SL, Umabana, hand net, 22 Sept. 2015; KAUM-I. 78474, 26.1 mm SL, Sonai Channel, hand net, 21 Sept. 2015.

Fig. 426. *Gnatholepis cauerensis* カタボシオオモンハゼ (KAUM-I. 78474, 26.1 mm SL).***Istigobius decoratus*** (Herre, 1927)

ホシカザリハゼ [Marine; brackish] (Fig. 427)

Fig. 427. *Istigobius decoratus* ホシカザリハゼ (Diving Service MARLIN).***Istigobius ornatus*** (Rüppell, 1830)

カザリハゼ [Marine; brackish] (Fig. 428)

Yoshigou et al. (2001).

FRLM 51517, 68.1 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P99, 40.7 mm SL, Kubura River, hand net, 10 Aug. 1999; KAUM-I. 78568, 19.3 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.

Fig. 428. *Istigobius ornatus* カザリハゼ (upper: FRLM 51517, 68.1 mm SL; lower: KAUM-I. 78568, 19.3 mm SL).***Kelloggella cardinalis*** Jordan and Seale, 1906

アカヒレハダカハゼ [Marine] (Fig. 429)

KAUM-I. 78374, 26.0 mm SL, KAUM-I. 78375, 21.2 mm SL, KAUM-I. 78376, 23.4 mm SL, KAUM-I. 78389, 18.9 mm SL, Southern Pasture, hand net, 19 Sept. 2015.

Fig. 429. *Kelloggella cardinalis* アカヒレハダカハゼ (upper: KAUM-I. 78389, 18.9 mm SL; lower: KAUM-I. 78374, 26.0 mm SL).

Lotilia klausewitzii Shibukawa, Suzuki and Senou, 2012
オドリハゼ [Marine] (Fig. 430)



Fig. 430. *Lotilia klausewitzii* オドリハゼ (Diving Service MARLIN).

Macrodontogobius wilburi Herre, 1936
マダラハゼ [Marine] (Fig. 431)

KAUM-I. 78287, 39.5 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.

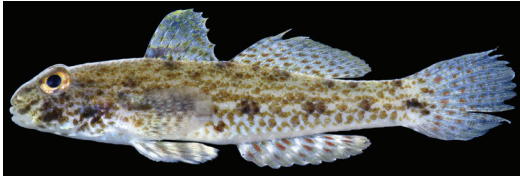


Fig. 431. *Macrodontogobius wilburi* マダラハゼ (KAUM-I. 78287, 39.5 mm SL).

Mugilogobius cavifrons (Weber, 1909)
ホホグロハゼ [Brackish] (Fig. 432)

Yoshigou (2000); Yoshigou et al. (2001); Senou et al. (2004); Ministry of the Environment (2010a); Nakabo (2013).

FRLM 51504, 18.6 mm SL, mouth of Kubura River, hand, 23 Sept. 2015; FRLM 51511, 21.6 mm SL, mouth of Kubura River, hand net, 23 Sept. 2015; HMNH-P36, 2 specimens, 21.3–30.2 mm SL, Kubura River, hand net, 8 Aug. 1999.



Fig. 432. *Mugilogobius cavifrons* ホホグロハゼ (upper: FRLM 51511, 21.6 mm SL; lower: HMNH-P36, 30.2 mm SL).

Oligolepis acutipennis (Valenciennes, 1837)
ノボリハゼ [Brackish] (Fig. 433)

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

HMNH-P59, 46.2 mm SL, HMNH-P65, 32.1 mm SL, HMNH-P66, 17.5 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 433. *Oligolepis acutipennis* ノボリハゼ (HMNH-P59, 46.2 mm SL).

Oligolepis stomias (Smith, 1941)

クチサケハゼ [Brackish] (Fig. 434)

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

HMNH-P60, 32.8 mm SL, Tabaru River, hand net, 9 Aug. 1999.

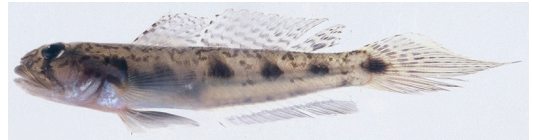


Fig. 434. *Oligolepis stomias* クチサケハゼ (HMNH-P60, 32.8 mm SL).

Oplopomus oplopomus (Valenciennes, 1837)

ケシヨウハゼ [Marine] (Fig. 435)

FRLM 51518, 16.4 mm SL, Hikawa, hand net, 23 Sept. 2015.



Fig. 435. *Oplopomus oplopomus* ケシヨウハゼ (FRLM 51518, 16.4 mm SL).

Oxyurichthys visayanus Herre, 1927

ミナミサルハゼ [Brackish] (Fig. 436)

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

HMNH-P58, 49.7 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 436. *Oxyurichthys visayanus* ミナミサルハゼ (HMNH-P58, 49.7 mm SL).

Palutrus meteori (Klausewitz and Zander, 1967)

ヒメクモハゼ [Brackish] (Fig. 437)

KAUM-I. 78438, 18.1 mm SL, mouth of Tabaru River, hand net, 20 Sept. 2015.



Fig. 437. *Palutrus meteori* ヒメクモハゼ (KAUM-I. 78438, 18.1 mm SL).

Pandaka trimaculata Akihito and Meguro, 1975

ミツボシゴマハゼ [Brackish] (Fig. 438)

Yoshigou (2000); Yoshigou et al. (2001); Nakabo (2013).

HMNH-P68, 11.1 mm SL, Tabaru River, hand net, 9 Aug. 1999; KAUM-I. 78445, 11.7 mm SL, KAUM-I. 78446, 12.1 mm SL, KAUM-I. 78447, 13.4 mm SL, KAUM-I. 78448, 10.7 mm SL, KAUM-I. 78449, 12.6 mm SL, KAUM-I. 78450, 12.4 mm SL, Tabaru River, hand net, 20 Sept. 2015.



Fig. 438. *Pandaka trimaculata* ミツボシゴマハゼ (upper: KAUM-I. 78445, 11.7 mm SL; lower: KAUM-I. 78449, 12.6 mm SL).

Periophthalmus argentilineatus Valenciennes, 1837

ミナミトビハゼ [Marine; brackish] (Fig. 439)

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

FRLM 51526, 89.7 mm SL, Tabaru River, hand net, 23 Sept. 2015; HMNH-P61, 2 specimens, 18.5–32.8 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 439. *Periophthalmus argentilineatus* ミナミトビハゼ (FRLM 51526, 89.7 mm SL).



Priolepis cincta (Regan, 1908)

ベンケイハゼ [Marine] (Fig. 440)

KAUM-I. 78533, 22.4 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 440. *Priolepis cincta* ベンケイハゼ (KAUM-I. 78533, 22.4 mm SL).

Priolepis latifascima Winterbottom and Burrige, 1993

フトスジイレズミハゼ [Marine] (Fig. 441)

KAUM-I. 78539, 13.1 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 441. *Priolepis latifascima* フトスジイレズミハゼ (KAUM-I. 78539, 13.1 mm SL).

Pseudogobius sp.

コクチスナゴハゼ [Brackish] (Fig. 442)

FRLM 51509, 34.3 mm SL, male, Tabaru River, hand net, 23 Sept. 2015.



Fig. 442. *Pseudogobius* sp. コクチスナゴハゼ (FRLM 51509, 34.3 mm SL).

Rhinogobius giurinus (Rutter, 1897)

ゴクラクハゼ [Brackish; freshwater]

Okada and Isa (1959).

Rhinogobius nagoyae Jordan and Seale, 1906

シマヨシノボリ [Brackish; freshwater]

Yoshigou (2000).

Sicyopterus lagocephalus (Pallas, 1770)

ルリボウズハゼ [Freshwater] (Fig. 443)

Yoshigou (2000).

HMNH-P40, 47.2 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 443. *Sicyopterus lagocephalus* ルリボウズハゼ (HMNH-P40, 47.2 mm SL).

Sicyopus leprurus (Sakai and Nakamura, 1979)

カエルハゼ [Freshwater] (Fig. 444)

Yoshigou (2000); Yoshigou et al. (2001); Ministry of the Environment (2003); Senou et al. (2004); Okinawa Prefecture (2005); Nakabo (2013).

HMNH-P42, 34.6 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 444. *Sicyopus leprurus* カエルハゼ (HMNH-P42, 34.6 mm SL).

Stenogobius sp.

タネカワハゼ [Brackish] (Fig. 445)

Yoshigou et al. (2001).

HMNH-P25, 65.1 mm SL, HMNH-P26, 59.3 mm SL, Tabaru River, hand net, 8 Aug. 1999; HMNH-P43, 88.7 mm SL, HMNH-P44, 78.3 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 445. *Stenogobius* sp. タネカワハゼ (HMNH-P25, 65.1 mm SL).

Stiphodon percnopterygionus Watson and Chen, 1998

ナンヨウボウズハゼ [Freshwater] (Fig. 446)

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

HMNH-P27, 25.7 mm SL, male, HMNH-P41, 2 specimens, 25.4–26.5 mm SL, male, Tabaru River, hand net, 8 Aug. 1999; KAUM-I. 78408, 33.4 mm SL, male, KAUM-I. 78409, 25.2 mm SL, male, KAUM-I. 78410, 29.3 mm SL, female, KAUM-I. 78411, 18.1 mm SL, female, Tabaru River, hand net, 20 Sept. 2015.



Fig. 446. *Stiphodon percnopterygionus* ナンヨウボウズハゼ (upper: KAUM-I. 78408, 33.4 mm SL; middle: KAUM-I. 78409, 25.2 mm SL; lower: KAUM-I. 78410, 29.3 mm SL).

Trimma macrophthalmus (Tomiyama, 1936)

オオメハゼ [Marine] (Fig. 447)

KAUM-I. 78525, 17.3 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 447. *Trimma macrophthalmus* オオメハゼ (KAUM-I. 78525, 17.3 mm SL).

Trimma okinawae (Aoyagi, 1949)

オキナワベニハゼ [Marine] (Fig. 448)

KAUM-I. 78530, 20.0 mm SL, Umabana, hand net, 22 Sept. 2015.



Fig. 448. *Trimma okinawae* オキナワベニハゼ (KAUM-I. 78530, 20.0 mm SL).

Valenciennesa sexguttata (Valenciennes, 1837)

ミズタマハゼ [Marine] (Fig. 449)

FRLM 51492, 36.5 mm SL, Sonai Fishing Port, hand net, 22 Sept. 2015; KAUM-I. 78567, 36.8 mm SL, Kataburu Beach, hand net, 22 Sept. 2015.



Fig. 449. *Valenciennesa sexguttata* ミズタマハゼ (KAUM-I. 78567, 36.8 mm SL).

Valenciennesa strigata (Broussonet, 1782)

アカハチハゼ [Marine] (Fig. 450)

KAUM-I. 78573, 57.6 mm SL, Danno Beach, hand net, 23 Sept. 2015.



Fig. 450. *Valenciennesa strigata* アカハチハゼ (upper: KAUM-I. 78573, 57.6 mm SL; lower: Diving Service MARLIN).

FAMILY PTERELEOTRIDAE

クロユリハゼ科

Nemateleotris decora Randall and Allen, 1973

アケボノハゼ [Marine] (Fig. 451)

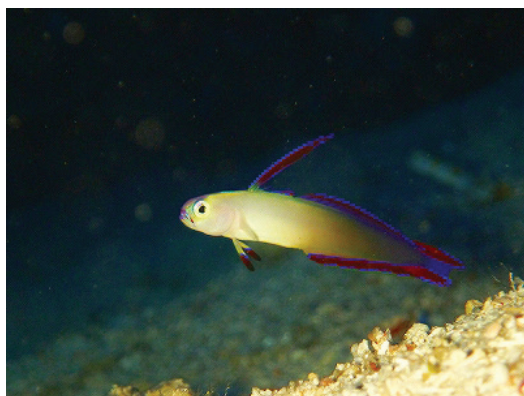


Fig. 451. *Nemateleotris decora* アケボノハゼ (Diving Service MARLIN).

Nemateleotris helfrichi Randall and Allen, 1973

シコンハタタテハゼ [Marine] (Fig. 452)

Nakabo (2013).



Fig. 452. *Nemateleotris helfrichi* シコンハタタテハゼ (Diving Service MARLIN).

Nemateleotris magnifica Fowler, 1938

ハタタテハゼ [Marine] (Fig. 453)

KAUM-I. 78572, 45.8 mm SL, Danno Beach, spear, 23 Sept. 2015.



Fig. 453. *Nemateleotris magnifica* ハタタテハゼ (KAUM-I. 78572, 45.8 mm SL).

Ptereleotris evides (Jordan and Hubbs, 1925)

クロユリハゼ [Marine] (Fig. 454)



Fig. 454. *Ptereleotris evides* クロユリハゼ (Diving Service MARLIN).

Ptereleotris heteroptera (Bleeker, 1855)
オグロクロユリハゼ [Marine] (Fig. 455)



Fig. 455. *Ptereleotris heteroptera* オグロクロユリハゼ (Diving Service MARLIN).

Ptereleotris zebra (Fowler, 1938)
ゼブラハゼ [Marine] (Fig. 456)
Nakabo (2013).



Fig. 456. *Ptereleotris zebra* ゼブラハゼ (Diving Service MARLIN).

FAMILY EPHIPPIDAE

マンジュウダイ科

Platax boersii Bleeker, 1853

ミカツキツバメウオ [Marine] (Fig. 457)

Ito (2009).

KAUM-I. 80274, 132.0 mm SL, Sonai Channel, spear, 21
Sept. 2015.



Fig. 457. *Platax boersii* ミカツキツバメウオ (KAUM-I. 80274, 132.0 mm SL).



Platax orbicularis (Forsskål, 1775)

ナンヨウツバメウオ [Marine; brackish] (Fig. 458)

KAUM-I. 78403, 98.2 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46877, 25.3 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.



Fig. 458. *Platax orbicularis* ナンヨウツバメウオ (upper: KAUM-I. 78403, 98.2 mm SL; lower: MUFS 46877, 25.3 mm SL).

FAMILY SCATOPHAGIDAE

クロホシマンジュウダイ科

Scatophagus argus (Linnaeus, 1766)

クロホシマンジュウダイ [Marine; brackish] (Fig. 459)
Yoshigou (2000).

FRLM 51538, 8.0 mm SL, mouth of Kubura River, hand net, 24 Sept. 2015.



Fig. 459. *Scatophagus argus* クロホシマンジュウダイ (FRLM 51538, 8.0 mm SL).

FAMILY SIGANIDAE

アイゴ科

Siganus argenteus (Quoy and Gaimard, 1825)

ハナアイゴ [Marine] (Fig. 460)

FRLM 52045, 222.5 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 78440, 195.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 460. *Siganus argenteus* ハナアイゴ (KAUM-I. 78440, 195.0 mm SL).

Siganus woodlandi Randall and Kulbicki, 2005

セダカハナアイゴ [Marine]

Ito (2009).

Siganus sp.

アイゴ属の一種 [Marine]

あいぬいゆ

Ikema (2003).

FAMILY ZANCLIDAE

ツノダシ科

Zanclus cornutus (Linnaeus, 1758)

ツノダシ [Marine] (Fig. 461)

FRLM 50720, 90.4 mm SL, Kubura Fishing Port, hand net, 12 Mar. 2015; KAUM-I. 79746, 133.6 mm SL, Rakuda Rock, spear, 17 Sept. 2015; KAUM-I. 80366, 104.1 mm SL, Sonai Channel, gill net, 20 Sept. 2015; NSMT-P 101124, 121.0 mm SL, Hikawa, 11 Mar. 2010.



Fig. 461. *Zanclus cornutus* ツノダシ (upper: KAUM-I. 80366, 104.1 mm SL; lower: M. Sakurai).

FAMILY ACANTHURIDAE

ニザダイ科

Acanthurus bariene Lesson, 1831

カンランハギ [Marine] (Fig. 462)

MUFS 46926, 185.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015.



Fig. 462. *Acanthurus bariene* カンランハギ (MUFS 46926, 185.0 mm SL).

Acanthurus blochii Valenciennes, 1835

オスジクロハギ [Marine] (Fig. 463)

FRLM 52030, 204.0 mm SL, FRLM 52031, 202.5 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 78404, 128.8 mm SL, KAUM-I. 78405, 132.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46954, 295.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.



Fig. 463. *Acanthurus blochii* オスジクロハギ (upper: KAUM-I. 78404, 128.8 mm SL; lower: FRLM 52030, 204.0 mm SL).

Acanthurus dussumieri Valenciennes, 1835

ニセカンランハギ [Marine]

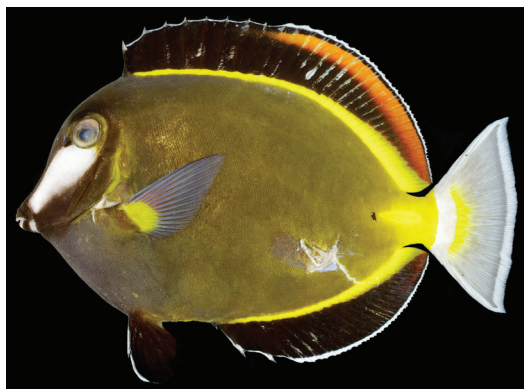
とうがだ

Ikema (2003).

Acanthurus japonicus (Schmidt, 1931)

ナミダクロハギ [Marine] (Fig. 464)

KAUM-I. 80262, 136.5 mm SL, Anchor's graves, spear, 17 Sept. 2015; NSMT-P 101238, 138.5 mm SL, Danno Beach, 19 Mar. 2010.

Fig. 464. *Acanthurus japonicus* ナミダクロハギ (KAUM-I. 80262, 136.5 mm SL).*Acanthurus leucopareius* (Jenkins, 1903)

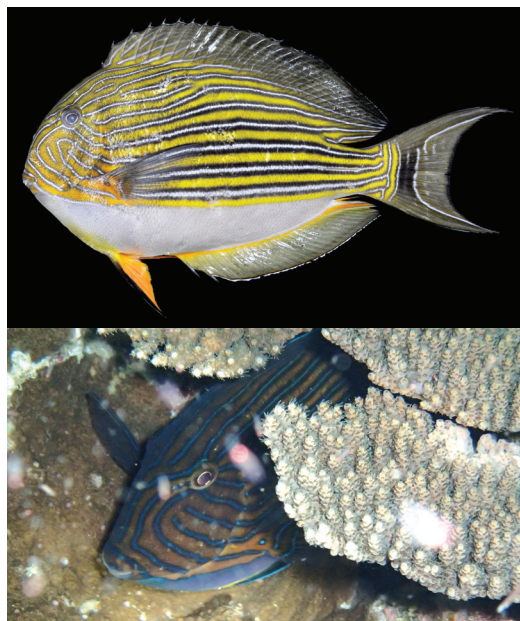
スジクロハギ [Marine] (Fig. 465)

FRLM 52099, 201.8 mm SL, Southern Pasture, line-fishing, 21 Sept. 2015; KAUM-I. 80225, 130.8 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

Fig. 465. *Acanthurus leucopareius* スジクロハギ (upper: FRLM 52099, 201.8 mm SL; lower: KAUM-I. 80225, 130.8 mm SL).*Acanthurus lineatus* (Linnaeus, 1758)

ニジハギ [Marine] (Fig. 466)

FRLM 51585, 126.2 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 80230, 173.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015; NSMT-P 55462, 2 specimens, 80.8–150.2 mm SL, Agarizaki, hand net, 28 Mar. 1997.

Fig. 466. *Acanthurus lineatus* ニジハギ (upper: FRLM 51585, 126.2 mm SL; lower: Diving Service MARLIN).*Acanthurus maculiceps* (Ahl, 1923)

イレズミニザ [Marine] (Fig. 467)

FRLM 51454, 200.8 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015.

Fig. 467. *Acanthurus maculiceps* イレズミニザ (FRLM 51454, 200.8 mm SL).*Acanthurus mata* (Cuvier, 1829)

ヒラニザ [Marine] (Fig. 468)

とうがだ

FRLM 51557, 255.3 mm SL, Kubura Fishing Port, line-fishing, 24 Sept. 2015; FRLM 51957, 190.1 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; KAUM-I. 79742, 161.7 mm SL, Rakuda Rock, spear, 17 Sept. 2015.



Fig. 468. *Acanthurus mata* ヒラニザ (upper: FRLM 51957, 190.1 mm SL; lower: Diving Service MARLIN).

Acanthurus nigricans (Linnaeus, 1758)

メガネクロハギ [Marine] (Fig. 469)



Fig. 469. *Acanthurus nigricans* メガネクロハギ (M. Sakurai).

Acanthurus nigricauda Duncker and Mohr, 1929

クロモンツキ [Marine] (Fig. 470)

KAUM-I. 80224, 183.7 mm SL, Arakawa Bay, spear, 18 Sept. 2015; KAUM-I. 80480, 207.6 mm SL, Sonai Channel, gill net, 20 Sept. 2015; MUFS 46955, 210.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.



Fig. 470. *Acanthurus nigricauda* クロモンツキ (KAUM-I. 80480, 207.5 mm SL).

Acanthurus nigrofuscus (Forsskål, 1775)

ナガニザ [Marine] (Fig. 471)

Ito (2009).

FRLM 50700, 122.8 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 52056, 114.7 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 80361, 125.9 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46957, 127.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; NSMT-P 55463, 12 specimens, 66.6–125.5 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 471. *Acanthurus nigrofuscus* ナガニザ (MUFS 46957, 127.0 mm SL).

Acanthurus olivaceus Bloch and Schneider, 1801

モンツキハギ [Marine] (Fig. 472)

Ito (2009).

KAUM-I. 80273, 174.1 mm SL, Sonai Channel, spear, 21 Sept. 2015.



Fig. 472. *Acanthurus olivaceus* モンツキハギ (KAUM-I. 80273, 174.1 mm SL).

Acanthurus pyroferus Kittlitz, 1834

クログチニザ [Marine] (Fig. 473)

MUFS 46936, 121.0 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 473. *Acanthurus pyroferus* クログチニザ (MUFS 46936, 121.0 mm SL).

Acanthurus thompsoni (Fowler, 1923)

オハグロハギ [Marine] (Fig. 474)

KAUM-I. 80266, 106.6 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 474. *Acanthurus thompsoni* オハグロハギ (KAUM-I. 80266, 106.6 mm SL).

Acanthurus triostegus (Linnaeus, 1758)

シマハギ [Marine; brackish] (Fig. 475)

FRLM 51584, 136.0 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 80363, 114.8 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; MUFS 46956, 137.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015; NSMT-P 55477, 2 specimens, 19.3–21.1 mm SL, Agarizaki, hand net, 28 Mar. 1997.



Fig. 475. *Acanthurus triostegus* シマハギ (KAUM-I. 80363, 114.8 mm SL).

Acanthurus xanthopterus Valenciennes, 1835

クロハギ [Marine; brackish] (Fig. 476)

FRLM 51586, 118.2 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 78299, 25.1 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; KAUM-I. 80482, 215.0 mm SL, Kubura Fishing Port, gill net, 20 Sept. 2015.



Fig. 476. *Acanthurus xanthopterus* クロハギ (upper: KAUM-I. 80482, 215.0 mm SL; middle: KAUM-I. 78299, 25.1 mm SL; lower: Diving Service MARLIN).

Acanthurus sp.

クロハギ属の一種 [Marine; brackish]

Yoshigou (2000).

Ctenochaetus binotatus Randall, 1955

コクテンサザナミハギ [Marine] (Fig. 477)

KAUM-I. 80264, 102.4 mm SL, Anchor's graves, spear, 17 Sept. 2015.



Fig. 477. *Ctenochaetus binotatus* コクテンサザナミハギ (KAUM-I. 80264, 102.4 mm SL).

Ctenochaetus striatus (Quoy and Gaimard, 1825)

サザナミハギ [Marine] (Fig. 478)

FRLM 52057, 106.1 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 78286, 33.3 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015; MUFS 46889, 125.0 mm SL, Rakuda Rock, spear, 17 Sept. 2015.

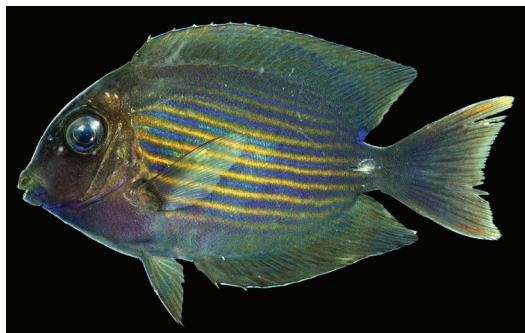


Fig. 478. *Ctenochaetus striatus* サザナミハギ (KAUM-I. 78286, 33.3 mm SL).

Naso hexacanthus (Bleeker, 1855)

テングハギモドキ [Marine] (Fig. 479)

FRLM 50764, 280.0 mm SL, FRLM 50765, 257.3 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 51959, 215.5 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; FRLM 52035, 205.8 mm SL, FRLM 52036, 235.7 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 80357, 206.0 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015.



Fig. 479. *Naso hexacanthus* テングハギモドキ (upper: FRLM 50764, 280.0 mm SL; middle: KAUM-I. 80357, 206.0 mm SL; lower: Diving Service MARLIN).

Naso lituratus (Forster, 1801)

ミヤコテングハギ [Marine; brackish] (Fig. 480)

FRLM 51583, 213.5 mm SL, FRLM 51587, 212.0 mm SL, mouth of Kubura River, gill net, 20 Sept. 2015; KAUM-I. 80467, 227.7 mm SL, KAUM-I. 80481, 215.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015; MUFS 46953, 163.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 480. *Naso lituratus* ミヤコテングハギ (KAUM-I. 80467, 227.7 mm SL).

Naso unicornis (Forsskål, 1775)

テングハギ [Marine] (Fig. 481)

Fujimoto (1972).

KAUM-I. 80479, 266.6 mm SL, Sonai Channel, gill net, 20 Sept. 2015.



Fig. 481. *Naso unicornis* テングハギ (KAUM-I. 80479, 266.6 mm SL).

Naso vlamingii (Valenciennes, 1835)

サザナミトサカハギ [Marine] (Fig. 482)

FRLM 50694, 119.1 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 51471, 300.4 mm SL, FRLM 51472, 248.2 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; KAUM-I. 80449, 261.0 mm SL, male, Kubura-bari, line-fishing, 22 Sept. 2015.



Fig. 482. *Naso vlamingii* サザナミトサカハギ (upper: FRLM: 51471, 300.4 mm SL; middle: KAUM-I. 80449, 261.0 mm SL; lower: FRLM 50694, 119.1 mm SL).

Paracanthurus hepatus (Linnaeus, 1766)

ナンヨウハギ [Marine] (Fig. 483)

FRLM 51495, 187.5 mm SL, Danno-dropoff, spear, 22 Sept. 2015; KAUM-I. 80386, 150.0 mm SL, Umabana, spear, 22 Sept. 2015.



Fig. 483. *Paracanthurus hepatus* ナンヨウハギ (upper: FRLM 51495, 187.5 mm SL; middle: KAUM-I. 80386, 150.0 mm SL; lower: Diving Service MARLIN).

Prionurus scalprum Valenciennes, 1835

ニザダイ [Marine] (Fig. 484)

KAUM-I. 80209, 364.2 mm SL, Arakawa Bay, spear, 18 Sept. 2015.



Fig. 484. *Prionurus scalprum* ニザダイ (KAUM-I. 80209, 364.2 mm SL).

Zebrasoma scopas (Cuvier, 1829)

ゴマハギ [Marine] (Fig. 485)

KAUM-I. 78467, 26.0 mm SL, Sonai Channel, hand net, 21 Sept. 2015; KAUM-I. 80265, 121.0 mm SL, Anchor's graves, spear, 17 Sept. 2015.

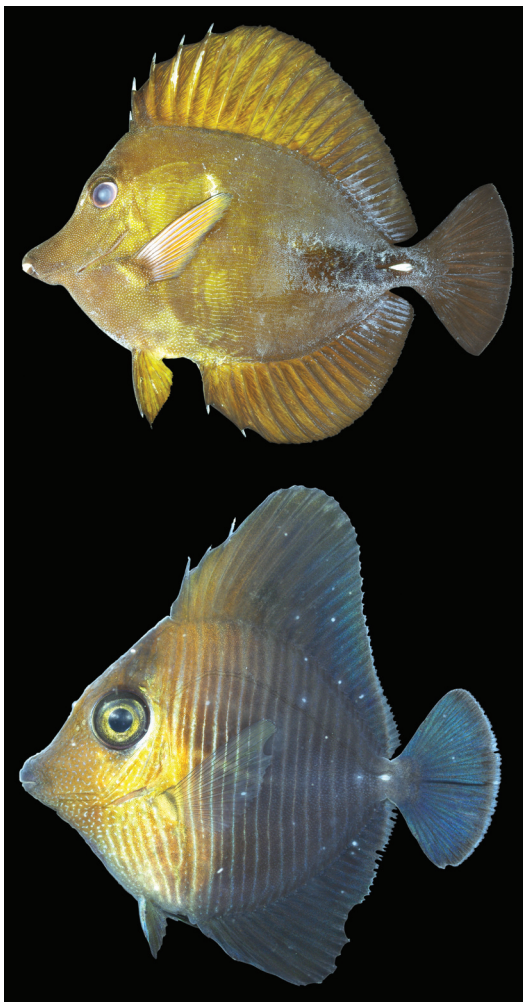


Fig. 485. *Zebrasoma scopas* ゴマハギ (upper: KAUM-I. 80265, 121.0 mm SL; lower: KAUM-I. 78467, 26.0 mm SL).

Zebrasoma veliferum (Bloch, 1795)

ヒレナガハギ [Marine] (Fig. 486)

KAUM-I. 80268, 173.6 mm SL, Kubura Fishing Port, line-fishing, 19 Sept. 2015.



Fig. 486. *Zebrasoma veliferum* ヒレナガハギ (KAUM-I. 80268, 173.6 mm SL).

FAMILY SPHYRAENIDAE

カマス科

かまさ

Sphyraena barracuda (Edwards, 1771)

オニカマス [Marine; brackish] (Fig. 487)

MUFS 46952, 413.0 mm SL, Kubura Fishing Port, line-fishing, 20 Sept. 2015.



Fig. 487. *Sphyraena barracuda* オニカマス (MUFS 46952, 413.0 mm SL).

Sphyraena helleri Jenkins, 1901

ホソカマス [Marine] (Fig. 488)



Fig. 488. *Sphyraena helleri* ホソカマス (Diving Service MARLIN).

Sphyraena putnamae Jordan and Seale, 1905

オオカマス [Marine] (Fig. 489)

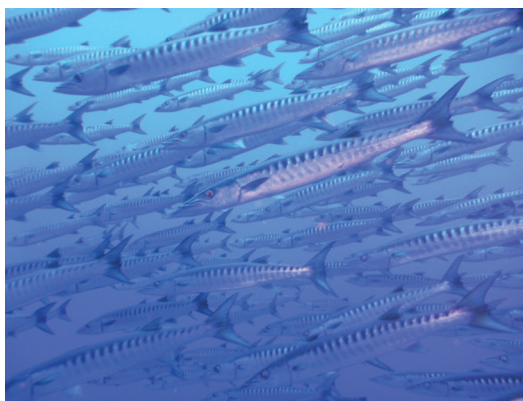


Fig. 489. *Sphyraena putnamae* オオカマス (Diving Service MARLIN).

Sphyraena sp.

カマス属の一種 [Marine] (Fig. 490)



Fig. 490. *Sphyraena* sp. (Diving Service MARLIN).

FAMILY GEMPYLIDAE

クロタチカマス科

Thyrsitoides marleyi Fowler, 1929

ナガタチカマス [Marine] (Fig. 491)



Fig. 491. *Thyrsitoides marleyi* ナガタチカマス (D. Sasaki).

FAMILY SCOMBRIDAE

サバ科

Acanthocybium solandri (Cuvier, 1832)

カマスサワラ [Marine]

さーら

Fujimoto (1972); Ikema (2003).

Gymnosarda unicolor (Rüppell, 1836)

イソマグロ [Marine] (Fig. 492)

とうがぎん

Ito (2009).

KAUM-I. 80425, 525.0 mm SL, Danno-dropoff, line-fishing, 22 Sept. 2015.



Fig. 492. *Gymnosarda unicolor* イソマグロ (upper: KAUM-I. 80425, 525.0 mm SL; middle: Underwater Ruin, Diving Service MARLIN; lower: fish landing port at Yonaguni-jima island, K. Koeda).

Katsuwonus pelamis (Linnaeus, 1758)

カツオ [Marine] (Fig. 493)

KAUM-I. 79749, 349.0 mm SL, south of Yonaguni-jima island, line-fishing, 18 Sept. 2015; NSMT-P 100671, 390.3 mm SL, south of Yonaguni-jima island, line-fishing, 17 Mar. 2010.



Fig. 493. *Katsuwonus pelamis* カツオ (KAUM-I. 79749, 349.0 mm SL).

Scomberomorus commerson (Lacepède, 1800)

ヨコシマサワラ [Marine]

Ito (2009).

Thunnus albacares (Bonnaterre, 1788)

キハダ [Marine] (Fig. 494)

しび

Ikema (2003).

KAUM-I. 79711, 320.4 mm SL, KAUM-I. 79715, 329.3 mm SL, south of Yonaguni-jima island, line-fishing, 18 Sept. 2015; MUFS 46914, 324.0 mm SL, south of Yonaguni-jima island, line-fishing, 18 Sept. 2015.



Fig. 494. *Thunnus albacares* キハダ (upper: KAUM-I. 79711, 320.4 mm SL; lower: KAUM-I. 79715, 329.3 mm SL).

Thunnus obesus (Lowe, 1839)

メバチ [Marine]

しび

Ikema (2003).

Thunnus sp.

マグロ属の一種 [Marine]

だいしび

Ikema (2003).

FAMILY ISTIOPHORIDAE

マカジキ科

Istiopax indica (Cuvier, 1832)

シロカジキ [Marine]

Shimose et al. (2008).

Istiophorus platypterus (Shaw, 1792)

バシヨウカジキ [Marine] (Fig. 495)

はにあてい



Fig. 495. *Istiophorus platypterus* バシヨウカジキ (Diving Service MARLIN).

Makaira nigricans Lacepède, 1802

クロカジキ [Marine] (Fig. 496)

あていぬいゆ

Shimose et al. (2006, 2009).



Fig. 496. *Makaira nigricans* クロカジキ (Diving Service MARLIN).

FAMILY NOMEIDAE

エボシダイ科

Psenes arafurensis Günther, 1889

クラゲウオ [Marine] (Fig. 497)



Fig. 497. *Psenes arafurensis* クラゲウオ (Diving Service MARLIN).

Psenes cyanophrys Valenciennes, 1833

スジハナピラウオ [Marine]

URM-P 30224, May 1993.

Psenes pellucidus Lütken, 1880

ハナピラウオ [Marine]

Ito (2009).

FAMILY ARIOMMATIDAE

オオメメダイ科

Ariomma luridum Jordan and Snyder, 1904

オオメメダイ [Marine]

NSMT-P 76148, 214.6 mm SL, southeast of Yonaguni-jima island, 1 Aug. 2006.

FAMILY CAPROIDAE

ヒシダイ科

Antigonia capros Lowe, 1843

ヒシダイ [Marine] (Fig. 498)

FRLM 50750, 141.2 mm SL, west of Yonaguni-jima island, line-fishing, 16 Mar. 2015.



Fig. 498. *Antigonia capros* ヒシダイ (FRLM 50750, 141.2 mm SL).



ORDER PLEURONECTIFORMES

カレイ目

FAMILY BOTHIDAE

ダルマガレイ科

Bothus pantherinus (Rüppell, 1830)

トゲダルマガレイ [Marine; Brackish] (Fig. 499)

Yoshigou et al. (2001).

HMNH-P73, 31.7 mm SL, Tabaru River, hand net, 9 Aug. 1999; FRLM 51531, 30.4 mm SL, Sonai Fishing Port, fishing light, 24 Sept. 2015.

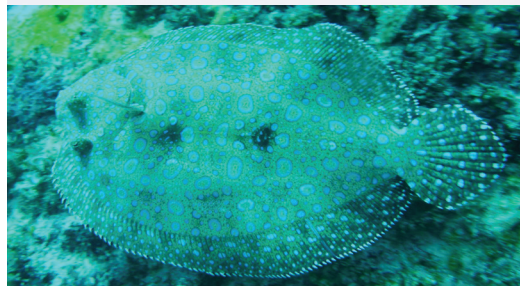
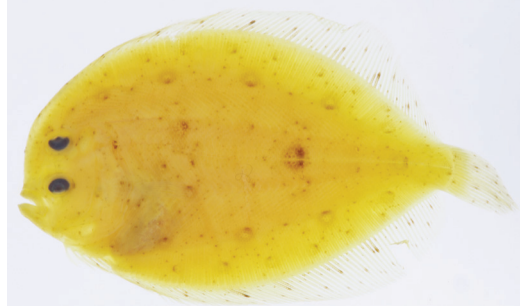
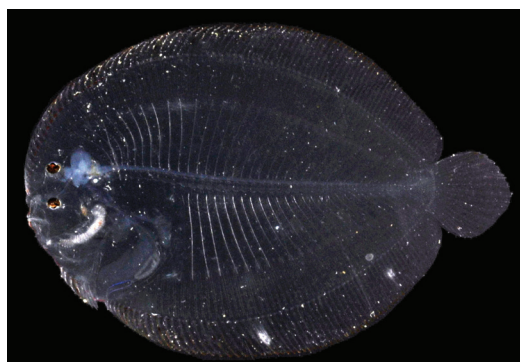


Fig. 499. *Bothus pantherinus* トゲダルマガレイ (upper: FRLM 51531, 30.4 mm SL; middle: HMNH-P73, 31.7 mm SL, preserved specimen; lower: Diving Service MARLIN).

FAMILY SOLEIDAE

ササウシノシタ科

Aseraggodes cheni Randall and Senou, 2007

ムシクイササウシノシタ [Marine] (Fig. 500)

KAUM-I. 80402, 57.9 mm SL, Na-ma Beach, cast net, 22 Sept. 2015.



Fig. 500. *Aseraggodes cheni* ムシクイササウシノシタ (KAUM-I. 80402, 57.9 mm SL).

Aseraggodes xenicus (Matsubara and Ochiai, 1963)

オトメウシノシタ [Brackish] (Fig. 501)

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

HMNH-P72, 59.0 mm SL, Tabaru River, hand net, 9 Aug. 1999.



Fig. 501. *Aseraggodes xenicus* オトメウシノシタ (HMNH-P72, 59.0 mm SL).

ORDER TETRAODONTIFORMES

フグ目

FAMILY BALISTIDAE

モンガラカワハギ科

くるび

Balistapus undulatus (Park, 1797)

クマドリ [Marine] (Fig. 502)

FRLM 50761, 134.0 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 51972, 200.1 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; FRLM 52043, 109.0 mm SL, Kubura-bari, line-fishing, 22 Sept. 2015; FRLM 52092, 171.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 80208, 202.5 mm SL, Yonaguni-jima island, line-fishing, 18 Sept. 2015; KAUM-I. 80394, 139.6 mm SL, female, off Hikawa, line-fishing, 21 Sept. 2015; MUFS 46908, 190.0 mm SL, MUFS 46909, 125.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015.



Fig. 502. *Balistapus undulatus* クマドリ (KAUM-I. 80208, 202.5 mm SL).

Balistoides conspicillum (Bloch and Schneider, 1801)

モンガラカワハギ [Marine] (Fig. 503)

Fujimoto (1972).

FRLM 50759, 204.5 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; KAUM-I. 80220, 217.0 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

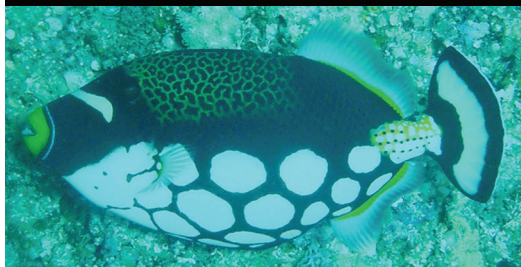


Fig. 503. *Balistoides conspicillum* モンガラカワハギ (upper: KAUM-I. 80220, 217.0 mm SL; lower: Diving Service MARLIN).

Balistoides viridescens (Bloch and Schneider, 1801)

ゴマモンガラ [Marine] (Fig. 504)

Ito (2009).

FRLM 50754, 251.6 mm SL, Sonai Fishing Port, line-fishing, 14 Mar. 2015; KAUM-I. 78501, 41.6 mm SL, Hikawa, hand net, 21 Sept. 2015; KAUM-I. 80396, 303.5 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 504. *Balistoides viridescens* ゴマモンガラ (upper to lower: FRLM 50754, 251.6 mm SL; KAUM-I. 80396, 303.5 mm SL; KAUM-I. 78501, 41.6 mm SL; Diving Service MARLIN).

Canthidermis maculata (Bloch, 1786)

アミモンガラ [Marine]

NSMT-P 76151, 254.2 mm SL, southeast of Yonaguni-jima island, spear, 1 Aug. 2006.

Melichthys vidua (Richardson, 1845)

クロモンガラ [Marine] (Fig. 505)

FRLM 52089, 121.5 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79743, 161.3 mm SL, Rakuda Rock, spear, 17 Sept. 2015; KAUM-I. 80258, 174.9 mm SL, Anchor's graves, spear, 17 Sept. 2015; MUFS 46910, 145.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015.



Fig. 505. *Melichthys vidua* クロモンガラ (KAUM-I. 79743, 161.3 mm SL).

Odonus niger (Rüppell, 1836)

アカモンガラ [Marine] (Fig. 506)

Ito (2009).

FRLM 52090, 160.8 mm SL, FRLM 52095, 118.6 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79734, 161.2 mm SL, KAUM-I. 79738, 162.2 mm SL, off Kubura Hinan Port, spear, 18 Sept. 2015; MUFS 46912, 117.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 46993, 120.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 506. *Odonus niger* アカモンガラ (upper: FRLM 52095, 160.8 mm SL; lower: KAUM-I. 79738, 162.2 mm SL).

Pseudobalistes flavimarginatus (Rüppell, 1829)

キヘリモンガラ [Marine] (Fig. 507)

KAUM-I. 78502, 32.6 mm SL, Hikawa, hand net, 21 Sept. 2015.

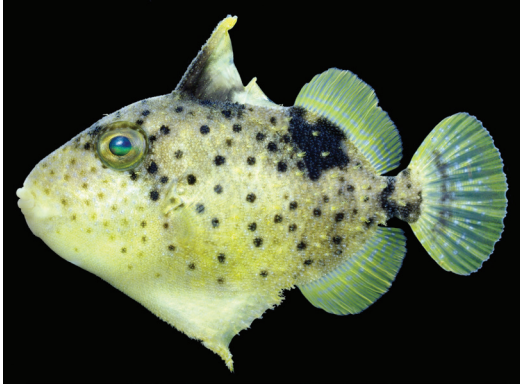


Fig. 507. *Pseudobalistes flavimarginatus* キヘリモンガラ (KAUM-I. 78502, 32.6 mm SL).

Pseudobalistes fuscus (Bloch and Schneider, 1801)

イソモンガラ [Marine] (Fig. 508)



Fig. 508. *Pseudobalistes fuscus* イソモンガラ (Underwater Luin, K. Koeda).

Rhinecanthus aculeatus (Linnaeus, 1758)

ムラサメモンガラ [Marine] (Fig. 509)

FRLM 50701, 90.8 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 52046, 119.3 mm SL, Sonai Fishing Port, line-fishing, 24 Sept. 2015; KAUM-I. 80284, 110.0 mm SL, Sonai Fishing Port, line-fishing, 20 Sept. 2015; KAUM-I. 80351, 115.0 mm SL, Sonai Channel, spear, 21 Sept. 2015.



Fig. 509. *Rhinecanthus aculeatus* ムラサメモンガラ (upper: FRLM 50701, 90.8 mm SL; middle: KAUM-I. 80284, 110.0 mm SL; lower: Diving Service MARLIN).

Rhinecanthus rectangulus (Bloch and Schneider, 1801)

タスキモンガラ [Marine] (Fig. 510)

FRLM 50760, 136.6 mm SL, Kubura-bari, line-fishing, 13 Mar. 2015; FRLM 51451, 91.2 mm SL, Kubura-bari, line-fishing, 20 Sept. 2015; KAUM-I. 78649, 137.5 mm SL, Arakawa Bay, spear, 18 Sept. 2015; NSMT-P 101237, 135.0 mm SL, Danno Beach, 19 Mar. 2010.

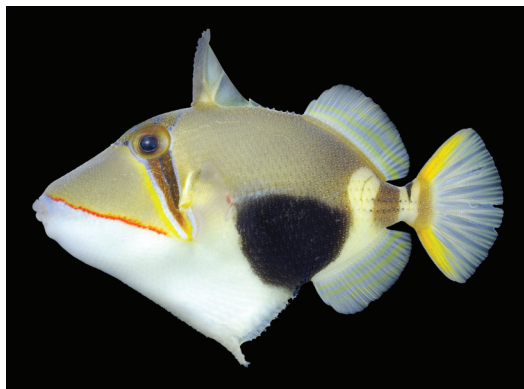


Fig. 510. *Rhinecanthus rectangulus* タスキモンガラ (KAUM-I. 78649, 137.5 mm SL).

Rhinecanthus verrucosus (Linnaeus, 1758)

クラカケモンガラ [Marine] (Fig. 511)

KAUM-I. 78500, 47.8 mm SL, Hikawa, hand net, 21 Sept. 2015.

Fig. 511. *Rhinecanthus verrucosus* クラカケモンガラ (KAUM-I. 78500, 47.8 mm SL).*Sufflamen bursa* (Bloch and Schneider, 1801)

ムスメハギ [Marine] (Fig. 512)

FRLM 52008, 134.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 79739, 100.3 mm SL, off Kubura Hinan Port, spear, 18 Sept. 2015; KAUM-I. 80390, 110.8 mm SL, Umabana, spear, 22 Sept. 2015.

Fig. 512. *Sufflamen bursa* ムスメハギ (KAUM-I. 79739, 100.3 mm SL).*Sufflamen chrysopteron* (Bloch and Schneider, 1801)

ツマジロモンガラ [Marine] (Fig. 513)

FRLM 50729, 104.0 mm SL, Kubura Fishing Port, line-fishing, 12 Mar. 2015; FRLM 52084, 102.8 mm SL, FRLM 52088, 110.8 mm SL, off Hikawa, line-fishing, 21 Sept. 2015; KAUM-I. 78308, 113.0 mm SL, male, Kataburu Beach, line-fishing, 17 Sept. 2015; MUFS 46911, 139.0 mm SL, off Kubura Hinan Port, line-fishing, 18 Sept. 2015; MUFS 46925, 129.0 mm SL, levee at Kubura, line-fishing, 18 Sept. 2015; MUFS 46994, 109.0 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.

Fig. 513. *Sufflamen chrysopteron* ツマジロモンガラ (KAUM-I. 78308, 113.0 mm SL).*Sufflamen fraenatum* (Latreille, 1804)

メガネハギ [Marine] (Fig. 514)

FRLM 52091, 150.3 mm SL, male, off Hikawa, line-fishing, 21 Sept. 2015.

Fig. 514. *Sufflamen fraenatum* メガネハギ (FRLM 52091, 150.3 mm SL).*Xanthichthys auromarginatus* (Bennett, 1832)

ホシモンガラ [Marine] (Fig. 515)

FRLM 51481, 120.3 mm SL, male, off Northern Pasture, line-fishing, 22 Sept. 2015.

Fig. 515. *Xanthichthys auromarginatus* ホシモンガラ (FRLM 51481, 120.3 mm SL).

Xanthichthys lineopunctatus (Hollard, 1854)

スジナメモンガラ [Marine] (Fig. 516)

FRLM 51974, 141.6 mm SL, FRLM 52007, 146.9 mm SL, off Hikawa, line-fishing, 21 Sept. 2015.



Fig. 516. *Xanthichthys lineopunctatus* スジナメモンガラ (FRLM 51974, 141.6 mm SL).

FAMILY MONACANTHIDAE

カワハギ科

くるび

Paraluteres prionurus (Bleeker, 1851)

ノコギリハギ [Marine] (Fig. 517)

KAUM-I. 78266, 17.9 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.



Fig. 517. *Paraluteres prionurus* ノコギリハギ (upper: KAUM-I. 78266, 17.9 mm SL; lower: Diving Service MARLIN).

FAMILY OSTRACIIDAE

ハコフグ科

Ostracion cubicus Linnaeus, 1758

ミナミハコフグ [Marine] (Fig. 518)

KAUM-I. 80214, 178.0 mm SL, Kubura Fishing Port, line-fishing, 18 Sept. 2015.

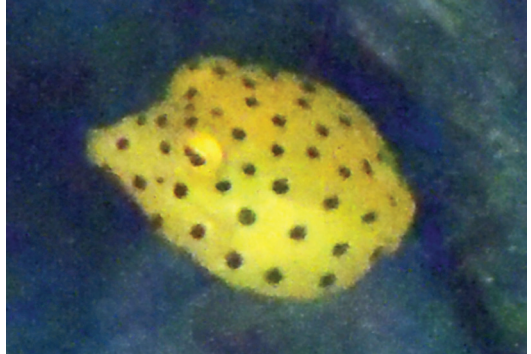


Fig. 518. *Ostracion cubicus* ミナミハコフグ (upper: KAUM-I. 80214, 178.0 mm SL; lower: Diving Service MARLIN).

Ostracion meleagris Shaw, 1796

クロハコフグ [Marine] (Fig. 519)

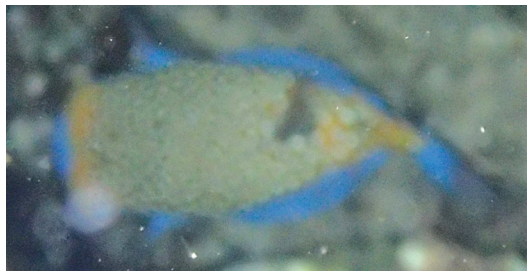


Fig. 519. *Ostracion meleagris* クロハコフグ (Diving Service MARLIN).

FAMILY TRIODONTIDAE

ウチワフグ科

Triodon macropterus Lesson, 1829

ウチワフグ [Marine]

NSMT-P 78544, 296.8 mm SL, southeast of Yonaguni-jima island, line-fishing, 21 July 2007.

FAMILY TETRAODONTIDAE

フグ科

Arothron caeruleopunctatus Matsuura, 1994

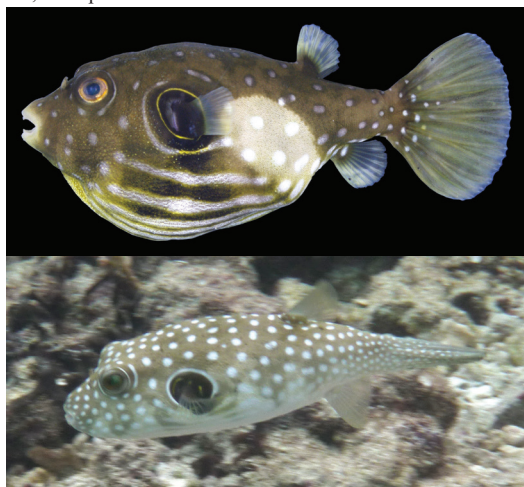
アラレフグ [Marine]

Nakabo (2013).

Arothron hispidus (Linnaeus, 1758)

サザナミフグ [Marine; brackish] (Fig. 520)

KAUM-I. 78298, 62.2 mm SL, Kubura Fishing Port, hand net, 16 Sept. 2015.

Fig. 520. *Arothron hispidus* サザナミフグ (upper: KAUM-I. 78298, 62.2 mm SL; lower: Diving Service MARLIN).*Arothron nigropunctatus* (Bloch and Schneider, 1801)

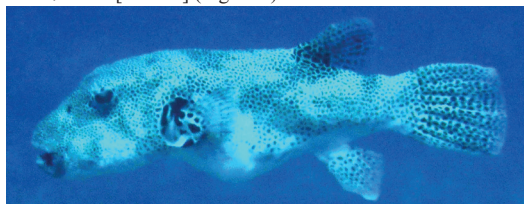
コクテンフグ [Marine] (Fig. 521)

Yoshigou et al. (2001).

HMNH-P121, 40.1 mm SL, Agarizaki, hand net, 9 Aug. 1999; KAUM-I. 80519, 175.4 mm SL, Arakawa Bay, spear, 18 Sept. 2015.

Fig. 521. *Arothron nigropunctatus* コクテンフグ (KAUM-I. 80519, 175.4 mm).*Arothron stellatus* (Anonymous, 1798)

モヨウフグ [Marine] (Fig. 522)

Fig. 522. *Arothron stellatus* モヨウフグ (Diving Service MARLIN).*Canthigaster amboinensis* (Bleeker, 1864)

ゴマフキンチャクフグ [Marine]

URM-P 34361, Danno Beach, 2 Aug. 1995.

Canthigaster compressa (Marion de Procé, 1822)

ヒメキンチャクフグ [Marine]

Ito (2009).

Canthigaster janthinoptera (Bleeker, 1855)

シボリキンチャクフグ [Marine] (Fig. 523)

FRLM 51475, 46.3 mm SL, Umabana, hand net, 22 Sept. 2015; HMNH-P139, 51.2 mm SL, Sonai, hand net, 9 Aug. 1999; KAUM-I. 78553, 45.5 mm SL, Umabana, hand net, 22 Sept. 2015.

Fig. 523. *Canthigaster janthinoptera* シボリキンチャクフグ (KAUM-I. 78553, 45.5 mm SL).*Canthigaster valentini* (Bleeker, 1853)

シマキンチャクフグ [Marine] (Fig. 524)

FRLM 50703, 65.4 mm SL, Sonai Fishing Port, line-fishing, 13 Mar. 2015; FRLM 51430, 78.4 mm SL, FRLM 51991, 93.1 mm SL, Sonai Fishing Port, line-fishing, 19 Sept. 2015.

Fig. 524. *Canthigaster valentini* シマキンチャクフグ (upper: FRLM 50703, 65.4 mm SL; lower: Diving Service MARLIN).

Sphoeroides pachygaster (Müller and Troschel, 1848)

ヨリトフグ [Marine]

NSMT-P 71452, 230.1 mm SL, southeast of Yonaguni-jima island, 13 July 2005.

FAMILY DIODONTIDAE

ハリセンボン科

とうとう

Diodon hystrix Linnaeus, 1758

ネズミフグ [Marine] (Fig. 525)

FRLM 51967, 308.4 mm SL, Sonai Fishing Port, hand net, 23 Sept. 2015.



Fig. 525. *Diodon hystrix* ネズミフグ (FRLM 51967, 308.4 mm SL).

Diodon liturosus Shaw, 1804

ヒトヅラハリセンボン [Marine; brackish] (Fig. 526)

FRLM 51977, 203.1 mm SL, mouth of Tabaru River, hand net, 21 Sept. 2015.

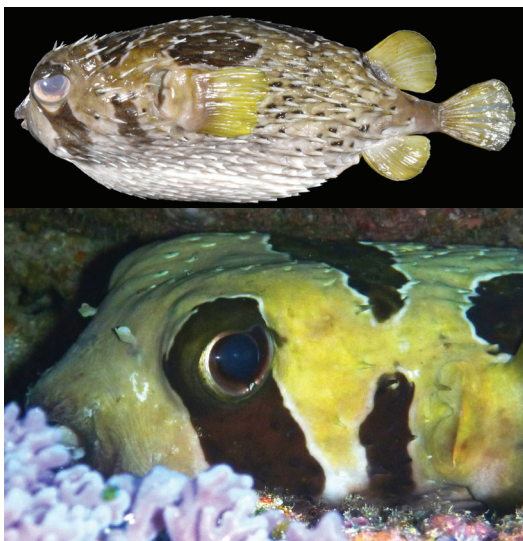


Fig. 526. *Diodon liturosus* ヒトヅラハリセンボン (upper: FRLM 51977, 203.1 mm SL; lower: Diving Service MARLIN).



Discussion

In this study, 603 fish species (306 genera and 104 families) were confirmed to occur around Yonaguni-jima island based on the examination of 1,314 specimens, 146 photographs, and previous literature. 334 species and 78 species are representing the first records from the island based on collected specimens and photographs, respectively. 1,120 specimens of 399 species (211 genera, 72 families) of marine, brackish and freshwater fishes were collected during our expedition at Yonaguni-jima island, with 299 species representing the first records from the island. Two species, *Cypr zaps* (Pseudochromidae) and *Opistognathus variabilis* (Opistognathidae), were collected for the first time from Japanese waters in our expedition. These have been separately reported with morphological descriptions and taxonomic information (Hibino et al., 2016; Yoshida et al., in press).

The most speciose families of fishes in marine, brackish, and freshwater of Yonaguni-jima island are listed in Table 2. Consequently, a total of 94 species of 33 families and 28 species of 12 families were confirmed from brackish and fresh waters of Yonaguni-jima island in the present study, respectively (Table 2). It is dramatically fewer than the adjacent islands [290 in Ishigaki-jima and 493 in Iriomote-jima islands (Yoshigou, 2014)] because of fewer and smaller rivers on Yonaguni-jima island. As stated above, Yoshigou (2000) recorded 63 fresh and brackish waters species (26 families) from Yonaguni-jima island in three days survey including 50 species (22 families) from Tabaru River. However, despite focused effort collecting fresh and brackish water specimens survey in our expedition, only 27 species of 12 families were collected from the Tabaru River. In 1999, the tideland of Tabaru River in the mangrove area had a highly speciose environment with some numerous small gobies, e.g., *Acentrogobius janthinopterus* (Bleeker, 1853) and *Callogobius tanegasimae* (Snyder, 1908) (Mr. H.

Yoshigou, pers. comm.). In contrast, this area was a very poor environment in the present survey in September 2015, and there were few macro-benthos or gobies [*Eleotris acanthopoma* Bleeker, 1853, *Pandaka trimaculata* Akihito and Meguro, 1975, *Periophthalmus argentilineatus* (Bleeker, 1854), and *Pseudogobius* sp.]. The sluice gate of Tabaru River and its mouth area were repaired and modified after the survey in 1999 by Yoshigou (2000). From personal communications with Mr. H. Yoshigou, it is inferred that the salinity level of Tabaru River became extremely much lower than in 1999 due to the repair work. These results indicate environmental deterioration has been occurred in the Tabaru River.

The presence or absence of inshore fishes represents biogeographical features more clearly than the presence or absence of deepwater fishes, which usually have a broader distribution (sometimes even circumglobal). In total, 565 marine fish species of 95 families are recorded from Yonaguni-jima island. The top 15 marine fish families comprise 64% of the total ichthyofauna; in those, Labridae (47 species), Pomacentridae (39 species), and Gobiidae (37 species) are the dominant families, with a total of 123 species representing more than 20% of total ichthyofauna. In the Ryukyu Archipelago, Senou et al. (2006; 2007), Watai et al. (2009), and Motomura et al. (2010) reported ichthyofaunal checklists which mainly focused on marine fishes of the Miyako Group (Fig. 2D), Ie-jima island (Fig. 2F), Tokashiki-jima island (Fig. 2E), and Yaku-shima island (Fig. 2H), respectively, and ranked the most speciose families. Additionally, field guides of Iou-jima and Take-shima islands (Fig. 2I), and Yoron-jima island (Fig. 2G) were published by Motomura et al. (2013) and Motomura and Matsuura (2014), respectively, on the basis of collected specimens and underwater photographs. Although, some reports include freshwater and brackish water fish in their rank, their results are herein compared at Table 3. Our expedition was carried

Table 2. Most speciose 15 families of fishes in marine, brackish, and freshwater of Yonaguni-jima island in the present study.

Rank	All			Marine			Brackish			Freshwater		
	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF
1	Gobiidae	57	9.5	Labridae	46	8.1	Gobiidae	28	29.8	Gobiidae	7	25.0
2	Labridae	46	7.6	Pomacentridae	39	6.9	Mugilidae	7	7.4	Eleotridae	5	17.9
3	Pomacentridae	39	6.5	Gobiidae	38	6.7	Carangidae	6	6.4	Ambassidae	4	14.3
4	Chaetodontidae	29	4.8	Chaetodontidae	29	5.1	Ambassidae	4	4.3	Anguillidae	2	7.1
5	Serranidae	28	4.6	Serranidae	28	5.0	Lutjanidae	4	4.3	Cyprinidae	2	7.1
6	Acanthuridae	26	4.3	Acanthuridae	26	4.6	Eleotridae	4	4.3	Kuhliidae	2	7.1
7	Lutjanidae	20	3.3	Lutjanidae	20	3.5	Acanthuridae	4	4.3	Elopidae	1	3.6
8	Apogonidae	20	3.3	Apogonidae	19	3.4	Gerreidae	4	4.3	Cobitidae	1	3.6
9	Scorpaenidae	19	3.2	Scorpaenidae	19	3.4	Chaetodontidae	3	3.2	Mugilidae	1	3.6
10	Holocentridae	17	2.8	Holocentridae	17	3.0	Anguillidae	2	2.1	Poecliidae	1	3.6
11	Blenniidae	16	2.7	Blenniidae	16	2.8	Muraenidae	2	2.1	Syngnathidae	1	3.6
12	Balistidae	16	2.7	Balistidae	16	2.8	Aulopidae	2	2.1	Cichlidae	1	3.6
13	Muraenidae	16	2.7	Muraenidae	16	2.8	Apogonidae	2	2.1			
14	Carangidae	15	2.5	Carangidae	15	2.7	Kuhliidae	2	2.1			
15	Scaridae	14	2.3	Scaridae	14	2.5	Pomacentridae	2	2.1			
	Subtotal	378	62.7	Subtotal	358	63.4	Subtotal	76	81.1	Subtotal	28	
	Total	603		Total	565		Total	94		Total	28	

NS, number of species; %TIF, % of total ichthyofauna.

Checklist of fishes of Yonaguni-jima island

Table 3. Most speciose 15 families of fishes of the islands in the Ryukyu Archipelago in the previous studies.

Rank	Miyako Group*			Tokashiki-jima island*			Ie-jima island*		
	Senou et al. (2007)			Watai et al. (2009)			Senou et al. (2006)		
	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF
1	Gobiidae	146	16.9	Pomacentridae	52	12.7	Gobiidae	112	12.6
2	Labridae	97	11.2	Labridae	43	10.5	Labridae	97	10.9
3	Pomacentridae	83	9.6	Gobiidae	39	9.5	Pomacentridae	78	8.8
4	Apogonidae	45	5.2	Blenniidae	31	7.5	Apogonidae	48	5.4
5	Serranidae	34	3.9	Chaetodontidae	22	5.4	Serranidae	45	5.1
6	Chaetodontidae	33	3.8	Apogonidae	20	4.9	Blenniidae	37	4.2
7	Blenniidae	32	3.7	Scorpaenidae	12	2.9	Chaetodontidae	32	3.6
8	Scaridae	26	3.0	Muraenidae	11	2.7	Acanthuridae	27	3.0
9	Acanthuridae	25	2.9	Acanthuridae	11	2.7	Scaridae	25	2.8
10	Syngnathidae	19	2.2	Serranidae	10	2.4	Syngnathidae	21	2.4
11	Pomacanthidae	16	1.9	Holocentridae	9	2.2	Muraenidae	19	2.1
12	Holocentridae	15	1.7	Pomacanthidae	8	1.9	Pomacanthidae	18	2.0
13	Muraenidae	14	1.6	Tripterygiidae	8	1.9	Scorpaenidae	18	2.0
14	Ptereleotridae	14	1.6	Syngnathidae	7	1.7	Holocentridae	17	1.9
15	Scorpaenidae	14	1.6	Balistidae	7	1.7	Carangidae	16	1.8
	Subtotal	613	71.0	Subtotal	290	70.6	Subtotal	610	68.6
	Total	863	100.0	Total	411	100.0	Total	889	100.0

NS, number of species; %TIF, % of total ichthyofauna. *only marine fish species are listed

Table 3. continue.

Rank	Yoron-jima island			Iou-jima and Take-shima islands			Yaku-shima island**		
	Motomura and Matsuura (2014)			Motomura et al. (2013)			Motomura et al. (2010)		
	Family	NS	%TIF	Family	NS	%TIF	Family	NS	%TIF
1	Gobiidae	69	9.9	Labridae	42	10.1	Gobiidae	110	11.6
2	Labridae	56	8.0	Gobiidae	34	8.2	Labridae	98	10.3
3	Pomacentridae	56	8.0	Pomacentridae	29	7.0	Pomacentridae	66	6.9
4	Apogonidae	36	5.2	Serranidae	27	6.5	Apogonidae	45	4.7
5	Blenniidae	29	4.2	Scorpaenidae	26	6.3	Serranidae	43	4.5
6	Serranidae	28	4.0	Apogonidae	26	6.3	Blenniidae	38	4.0
7	Scorpaenidae	21	3.0	Chaetodontidae	18	4.3	Chaetodontidae	34	3.6
8	Chaetodontidae	21	3.0	Blenniidae	16	3.9	Acanthuridae	28	2.9
9	Acanthuridae	21	3.0	Scaridae	13	3.1	Holocentridae	24	2.5
10	Tripterygiidae	18	2.6	Carangidae	12	2.9	Scaridae	24	2.5
11	Carangidae	15	2.2	Holocentridae	10	2.4	Muraenidae	23	2.4
12	Balistidae	15	2.2	Acanthuridae	10	2.4	Lutjanidae	21	2.2
13	Muraenidae	14	2.0	Muraenidae	7	1.7	Scorpaenidae	20	2.1
14	Holocentridae	14	2.0	Lutjanidae	7	1.7	Tripterygiidae	18	1.9
15	Scaridae	14	2.0	Balistidae	7	1.7	Syngnathidae	16	1.7
	Subtotal	427	61.3	Subtotal	284	68.6	Subtotal	608	63.9
	Total	697	100.0	Total	414	100.0	Total	951	100.0

NS, number of species; %TIF, % of total ichthyofauna. **only marine and brackish fish species are listed

out over only 20 days (10 days for main survey at September 2015), and was obviously shorter than the other previous research (Motomura et al, 2010, 2013; Motomura and Matsuura, 2014). However, the number of collected species has no large difference among those reports. The list of marine fishes of Yonaguni-jima island does show some differences from other reports. Gobiidae which was ranked as 1st in most of other islands, are ranked as 3rd, and Labridae and Pomacentridae are 1st and 2nd, respectively. In addition, the percentages of these three families are generally lower than at other islands. Chaetodontidae, Serranidae, and Acanthuridae are ranked 4th to 6th with small differences in Yonaguni-jima island, but those were lower (Chaetodontidae: 5th to 7th; Serranidae: 4th to 10th; Acanthuridae: 7th to 11th) in other islands. Lutjanidae ranked 7th in Yonaguni-jima island, higher

(12th to 18th) than the other islands. Balistidae (11th) is also a higher rank than at the other islands. On the other hand, the ranks of Apogonidae (8th) and Blenniidae (11th) in Yonaguni-jima island are obviously lower than those of the other islands (Apogonidae: 4th to 6th; Blenniidae: 4th to 8th). The present results from Yonaguni-jima island can be characterized by high species diversity in middle-sized swimming taxa (e.g. Chaetodontidae, Acanthuridae, Lutjanidae, and Balistidae), and low species diversity in small-sized benthic taxa (e.g. Gobiidae, Apogonidae and Blenniidae). Based on our results of the unusual species composition, it is speculated that the ichthyofauna of Yonaguni-jima island is influenced by the combination of environmental factors, such as few and small rivers, narrow shallow reef areas with few inner bays, and especially strong water currents surrounding the island.

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References

- Aoyagi, H. (1948) General notes on the freshwater fishes of the Ryukyu Islands. *Zoological Magazine*, 58 (1–2), 13–14. (In Japanese)
- Eguchi, K. & Motomura, H. (2016) Holocentrid fishes of the Ryukyu Islands, Japan. *Nature of Kagoshima*, 42, 57–112. (In Japanese)
- Eschmeyer, W.N., Fricke, R. & van der Laan, R. (2016) *Catalog of fishes: genera, species, references. electronic version* (2 May 2016). <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>
- Fujimoto, Y. (1972) *Organisms of Yonaguni Island (1)*. Konan Press, Kobe. 108 pp. (In Japanese)
- Fukuda, M. & Ebisawa, A. (2001) Research of control and furtherance on fisheries of “Machi”. *Okinawa Prefecture Experimental Fisheries Station Progress Reports*, 2001, 54–57. (In Japanese)
- Gill, A.C. (2004) Revision of the Indo-Pacific dottyback fish subfamily Pseudochrominae (Perciformes: Pseudochromidae). *Smithiana Monographs*, 1, 1–214, pls. 1–12.
- Gushiken, S. (1972) *Fishes of the Okinawa Islands*. Tiger Press, Urasoe, 248 pp. (In Japanese)
- Hayashi, M. (1995) Catalogue of fishes of Yokosuka City Museum (III) –Dr. Aoyagi’s fish collection–. *Miscellaneous Report of the Yokosuka City Museum*, 20, 1–70. (In Japanese)
- Hibino, Y., Sasaki, D. & Kimura, S. (2016) A first record of a jawfish (Perciformes: Opistognathidae) *Opistognathus variabilis* from Yonaguni Island, Yaeyama Islands, Japan. *Japanese Journal of Ichthyology*, 63 (1): 33–38. (In Japanese with English abstract)
- Hosoya, K. (2013) Family Cyprinidae. In: Nakabo, T. (Ed.) *Fishes of Japan with pictorial keys to the species, third edition*. Tokai University Press, Hadano, pp. 308–327, 1813–1819. (In Japanese)
- Ikema, N. (2003) *Yonaguni language dictionary*. Yonaguni, Yonaguni, 376 pp. (In Japanese)
- Ishikawa, T., Shimose, T. & Tachihara, K. (2013) Life history of an invasive and unexploited population of Nile tilapia (*Oreochromis niloticus*) and geographical variation across its native and non-native ranges. *Environmental Biology of Fishes*, 96, 603–616.
- Ito, K. (2009) *The Underwater in Okinawa*. Data house Co., Ltd., Tokyo, 457 pp. (In Japanese)
- Japan Wild Life Research Center (2002) *Biodiversity research. Research report of distribution of animals. Report of freshwater fishes*. Nature Conservation Bureau, Ministry of the Environment, Tokyo. (In Japanese)
- Jordan, D.S. & Tanaka, S. (1927) The fresh-water fishes of the Ryukyu Island, Japan. *Annals of the Carnegie Museum*, 17 (2), 259–278, pls. 22–23.
- Koeda, K., Maekawa, T., Wada, H. & Motomura, H. Records of the Orange Goatfish, *Mulloidichthys pflugeri* (Teleostei: Mullidae), from Amami-oshima and Yonaguni-jima islands in the Ryukyu Archipelago, southern Japan. *South Pacific Studies*, (in press).
- Kouchi, Y. (1991) *River fishes of Okinawa. Good news from Toiyu to Ryukyu-ayu*. Okinawa Press, Ginowan, 165 pp. (In Japanese)
- Kuroiwa, H. (1927) Catalogue of fresh water fishes collected in Liukiu Curve, 1912–1925. *Zoological Magazine*, 39, 355–368. (In Japanese)
- Ministry of the Environment (2003) *Red data book, 4th Edition—Threatened Wildlife of Japan—*. Brackish and Fresh Water Fishes. Japan Wildlife Research Center, Tokyo. (In Japanese)
- Ministry of the Environment (2010a) Freshwater fishes. In: Ministry of the Environment (Ed.) *Attached Explanatory Material of Revised Red List*. Wildlife Division, Nature Conservation Bureau, Ministry of the Environment, Tokyo. (In Japanese)
- Ministry of the Environment (2010b) *The National Survey on the Natural Environment Distributional Survey of Japanese Animals Animal Distribution Atlas of Japan*. Japan Wildlife Research Center, Heibonsha Ltd., Tokyo, 1070 pp. (In Japanese)
- Ministry of the Environment (2014) *Red Data Book 2014—Threatened Wildlife of Japan—*. Gyosei Corporation, Tokyo, 414 pp. (In Japanese)

- Motomura, H., Dewa, S., Furuta, K. & Matsuura, K. (2013) *Fishes of Iou-jima and Take-shima islands, Mishima, Kagoshima, Japan*. The Kagoshima University Museum, Kagoshima and the National Museum of Nature and Science, Tsukuba. 390 pp., 883 figs. (In Japanese)
- Motomura, H. & Ishikawa, S. (2013) *Fish Collection Building and Procedures Manual, English Edition*. The Kagoshima University Museum, Kagoshima and the Research Institute for Humanity and Nature, Kyoto. 70 pp.
- Motomura, H., Kuriwaa, K. Katayama, E., Senou, H., Ogihara, G., Meguro, M., Matsunuma, M., Takata, Y., Yoshida, T., Yamashita, M., Kimura, S., Endo, H., Murase, A., Iwatsuki, Y., Sakurai, Y., Harazaki, S., Hidaka, K., Izumi, H. & Matsuura, K. (2010) Annotated checklist of marine and estuarine fishes of Yaku-shima Island, Kagoshima, southern Japan. In: Motomura, H. & Matsuura, K. (Eds.) *Fishes of Yaku-shima Island – A World Heritage island in the Osumi Group, Kagoshima Prefecture, southern Japan*. National Museum of Nature and Science, Tokyo, pp. 65–248.
- Motomura, H. & Matsuura, K. (2014) *Field guide to fishes of Yoron Island in the middle of the Ryukyu Islands, Japan*. The Kagoshima University Museum, Kagoshima and the National Museum of Nature and Science, Tsukuba. 648 pp., 1808 figs. (In Japanese)
- Nakabo, T. (2013) *Fishes of Japan with pictorial keys to the species, third edition*. Tokai University Press, Hadano, i–xlx + 1–2428. (In Japanese)
- Nakamura, M. (1974) Fishes in the Okinawan rivers. *Natural Science and Museums*, 41 (3), 117–120. (In Japanese)
- Nelson, J.S. (2006) *Fishes of the world. Fourth edition*. John Wiley & Sons, Inc., Hoboken, i–xv + 1–601.
- Ogawa, K. (1937) Regional distribution of freshwater fishes of Kagoshima Prefecture. *Natural Science Association Magazine, Hiroshima University*, 5, 11–27. (In Japanese)
- Okada, Y. & Isa, J. (1959) Fish. In: Okada, Y. (Ed.) *A Catalogue of Vertebrates of Okinawa*. Okinawa Association of Biology Education, Naha, pp. 33–117. (In Japanese)
- Okinawa Prefecture (2005) *The Threatened Wildlife in Okinawa, 2nd Edition (Animals) –Red data Okinawa–*. Nature Conservation Division, Department of Cultural and Environmental Affairs, Okinawa. 561 pp. (In Japanese)
- Okinawa Prefecture Experimental Fisheries Station (1934) *Catalogue of fishes. Showa 7th Okinawa Prefecture Experimental Fisheries Station Progress Reports*, 142–160. (In Japanese)
- Saitoh, K. & Uchiyama, R. (2015) *Pictorial Field Guide to Japanese Freshwater Fishes*. Yama-kei Publishers co., Ltd., Tokyo, 127 pp. (In Japanese)
- Senou, H., Kobayashi, Y. & Kobayashi, N. (2007) Coastal fishes of the Miyako Group, the Ryukyu Islands, Japan. *Bulletin of the Kanagawa Prefectural Museum (Natural Science)*, 36, 47–74.
- Senou, H., Kodato, H., Nomura, T. & Yunokawa, K. (2006) Coastal fishes of Ie-jima island, the Ryukyu Islands, Okinawa, Japan. *Bulletin of the Kanagawa Prefectural Museum (Natural Science)*, 35, 67–92.
- Senou, H., Suzuki, T. & Iwamoto, T. (1997) An imperfect albino of *Cetoscarus bicolor* (Perciformes, Scaridae) from Yonaguni-jima Island, the Ryukyu Islands. *Izu Oceanic Park Diving News*, 8 (4), 7. (In Japanese with English abstract)
- Senou, H., Suzuki, T., Shibukawa, K. & Yano, K. (2004) *A Photographic Guide to the Gobioid Fishes of Japan*. Heibonsha Ltd., Tokyo, 536 pp. (In Japanese)
- Shibata, Y. (1964) Freshwater fishes collected from Okinoerabu Island (Amami Islands). *Kansai Shizen Bunka Kenkyukai Kenkyu Hokoku*, 1, 20–24. (In Japanese)
- Shimose, T., Fujita, M., Yokawa, K., Saito, H. & Tachihara, K. (2009) Reproductive biology of blue marlin *Makaira nigricans* around Yonaguni Island, southwestern Japan. *Fisheries Science*, 75, 109–119.
- Shimose, T., Syono, H., Yokawa, K., Saito, H. & Tachihara, K. (2006) Food and feeding habits of blue marlin, *Makaira nigricans*, around Yonaguni Island, southwestern Japan. *Bulletin of Marine Science*, 79 (3), 761–775.
- Shimose, T., Yokawa, K., Saito, H. & Tachihara, K. (2008) Seasonal occurrence and feeding habits of black marlin, *Istiompax indica*, around Yonaguni Island, southwestern Japan. *Ichthyological Research*, 55, 90–94.
- Takada, M., Tachihara, K., Kon, T., Yamamoto, G., Iguchi, K., Miya, M. & Nishida M. (2010) Biogeography and evolution of the *Carassius auratus*-complex in East Asia. *BMC Evolutionary Biology*, 10, 1–18.
- Takahara, K., Toyama, M., Kohama, T., Kouchi, Y., Chinen, M. & Higa, Y. (1997) *Immigrant animals of Okinawa—animals came over the waters*. Okinawa Press, Urasoc. 227 pp.
- Tatsuma, H. (1999) Sea of Yonaguni. *Izu Oceanic Park Diving News*, 13 (7), 2–4. (In Japanese)
- Yokogawa, H. (2000) Tilapia inhabited Ryukyu Islands, Japan. *Izu Oceanic Park Diving News*, 12 (1), 2–5. (In Japanese with English abstract)
- Yoshida, T., Koeda, K. & Motomura, H. First Japanese specimen-based records of *Cypho zaps* (Perciformes: Pseudochromidae), from Yonaguni-jima island. *Species diversity*. (in press)
- Yoshigou, H. (2000) The inland-water fishes of the Yonaguni-jima Island, Ryulyu Islands. *Miscellaneous reports of Hiwa Museum for Natural History*, 39, 165–179. (In Japanese with English abstract)
- Yoshigou, H. (2014) Inland water fishes from the Ryukyus. *Fauna Ryukyuana*, 9, 1–153. (In Japanese)
- Yoshigou, H., Naito, J. & Nakamura, S. (2001) Catalogue of fish specimens preserved in Hiwa Museum for Natural History. *Hiwa Museum for Natural History material reports*, 2, 119–168. (In Japanese with English abstract)
- Yoshigou, H. & Nakamura, S. (2003) Catalogue of fish specimens preserved in Hiwa Museum for Natural History III. *Hiwa Museum for Natural History material reports*, 4, 29–75, pl. 1. (In Japanese with English abstract)
- Yoshigou, H. & Yoshino, T. (2002) First records of two blennioid fishes, *Enneapterygius rhabdotus* and *Blenniella interrupta* from Japan. *Izu Oceanic Park Diving News*, 13 (7), 2–4. (In Japanese with English abstract)
- Yoshino, T. (1972) *Plectranthias yamakawai*, a new anthiine fish from Ryūkyū Islands, with a revision of the genus *Plectranthias*. *Japanese Journal of Ichthyology*, 19 (2), 49–56.
- Watai, M., Miyazaki, Y., Murase, A. & Senou, H. (2009) Fish Fauna of Tokashiku Bay, Tokashiki Island, the Kerama Islands, Okinawa Prefecture. *Bulletin of the Kanagawa Prefectural Museum (Natural Science)*, 38, 119–132.



Authors at Hikawa Bay (left to right): Tomohiro Yoshida, Keita Koeda, Yuki Kimura, Saki Tanaka, Misaki Fujisawa, Momoko Sakurai (first row), Taiga Kunishima, Keisuke Eguchi, Tomoki Inaba, Yusuke Hibino, Ryohei Miki, Hiromu Suzuki, Takanao Furukawa, Daichi Sasaki (second row), Hidetoshi Wada, Takuya Uejo (upper windows)

