

## Fishes of Yoro-jima and Uke-jima islands in the Amami Islands: 89 new specimen-based records

Keita Koeda<sup>1\*</sup>, Takuma Fujii<sup>2</sup>, Shigeaki Koeda<sup>1</sup>, Hiroyuki Motomura<sup>1</sup>

**Key words:** Fish fauna, Ryukyu Archipelago, Coral reef, Kagoshima

### Abstract

Field sampling has never been performed in Yoro-jima and Uke-jima islands in the Amami Islands, Ryukyu Archipelago, southern Japan. 172 species (50 families) and a single species have previously been reported from Yoro-jima and Uke-jima islands, respectively, but these records (except for a single species from Uke-jima island) were based on visual recordings, and some of the identifications of the listed species are doubtful. Therefore, field sampling for three days at each island was conducted, and 182 specimens (89 species, 35 families) were collected. The present paper lists a total of 195 species of marine fish species occurring around Yoro-jima and Uke-jima islands on the bases of collected specimens and a single published piece of literature.

### Introduction

Yoro-jima and Uke-jima islands are located at the middle of the Ryukyu Archipelago (Yoro-jima island: 28°02'N, 127°10'E; Uke-jima island: 28°02'N, 127°15'E). They are also ca. 15 km south of Amami-oshima island, and 22 km northeast of Tokuno-shima island. Yoro-jima island has an area of 9.35 km<sup>2</sup>, and is 18.4 km in circumference with a population of ca. 100 people<sup>1)</sup>. Uke-jima island located 3.5 km east of Yoro-jima island, and has an area of 13.34 km<sup>2</sup>, and is 24.8 km in circumference with a population of ca. 130 people<sup>1)</sup>. Both islands have mountains which highest point above sea level of 200–400 m, and most of the area are covered by native forests. The islands are surrounded mostly by coral reefs or rocky reefs, and only a handful sandy beaches around the islands.

In recent years, fishes occurring on the Ryukyu Archipelago have been comprehensively investigated on the basis of field surveys, and species lists have been published as checklists or field guides: viz., Ie-jima island<sup>2)</sup>, Miyako Islands<sup>3)</sup>, Tokashiki-jima island<sup>4)</sup>, Yaku-shima island<sup>5)</sup>, Iou-jima and Take-shima islands<sup>6)</sup>, Yoron-jima island<sup>7)</sup>, and Yonaguni-jima island<sup>8)</sup>. In addition, many ichthyologists have visited Amami-oshima island over the years, and performed comprehensive field surveys. Although the fish fauna of such islands nearby Yoro-jima and Uke-jima islands have been relatively well surveyed, only a single paper with a fish species

list of Yoro-jima island has previously been published<sup>9)</sup>. They reported 172 species from the island, however, the list was based on visual recordings without voucher specimens or photographs, and some of the identifications of the listed species are doubtful. In addition, scientific field surveys have never been performed before around Uke-jima island. Therefore, in the current study, the authors conducted field sampling for three days at each island, and 182 specimens with 89 species (35 families) were collected. All of the species represent the first records from the islands on the basis of collected specimens.

A total of 195 species of marine fishes occurring around Yoro-jima and Uke-jima islands which closely located and having similar environments, is herein listed together on the basis of collected specimens along with color photographs, and a published literature<sup>9)</sup>.

### Materials and methods

Fishes were collected by using snorkeling with hand nets and spears, line-fishing from the coast, and gill nets. Curatorial procedures for collected specimens followed Motomura and Ishikawa<sup>10)</sup>. Scientific names generally follow Nakabo<sup>11)</sup> and Eschmeyer<sup>12)</sup>, with some modifications based on recently published taxonomic studies. Species in families are arranged in alphabetical order by species name. Standard Japanese

<sup>1</sup> The Kagoshima University Museum, 1-21-30 Korimoto, Kagoshima 890-0065, Japan

<sup>2</sup> Research Center for the Pacific Islands Amami Station, Kagoshima University, 2-1 Naze-yanagimachi, Amami, Kagoshima 894-0032, Japan

\* Corresponding author, E-mail: hatampo@gmail.com

names (abbreviated as 'Jpn name') follow Nakabo<sup>11)</sup>, and are transliterated using the Hepburn system. Each species record was compiled from voucher specimens and literature sources. Data for each voucher specimen comprises registration number, standard length (abbreviated as SL) or total length (TL), locality, and collecting method. Specimens collected during the survey at Yoro-jima and Uke-jima islands are deposited at the Kagoshima University Museum (KAUM).

### Annotated Checklist of Fishes from Yoro-jima and Uke-jima islands

#### FAMILY LAMNIDAE

*Trienodon obesus* (Rüppell, 1837)

[Jpn name: Nemuri-buka]

KUMERS<sup>9)</sup>: 42, 57.

#### FAMILY AETOBATIDAE

*Aetobatus narinari* (Euphrasen, 1790)

[Jpn name: Madara-tobie]

KUMERS<sup>9)</sup>: iii (upper fig.), 57.

Remarks. The family name, Aetobatidae, follows White and Naylor<sup>13)</sup>.

#### FAMILY MURAENIDAE

*Echidna nebulosa* (Ahl, 1789)

[Jpn name: Kumo-utsubo]

KUMERS<sup>9)</sup>: 57.

*Gymnothorax flavimarginatus* (Rüppell, 1830)

[Jpn name: Goma-utsubo]

KUMERS<sup>9)</sup>: 57.

#### FAMILY PLOTOSIDAE

*Plotosus* sp. (Thunberg, 1787)

KUMERS<sup>9)</sup>: 57.

Remarks: KUMERS<sup>9)</sup> reported "Gonzui" which is presently given to *Plotosus japonicus* Yoshino and Kishimoto, 2008, from Yoro-jima island. However, *P. japonicus* is not common in the Ryukyu Archipelago, and KUMER's<sup>9)</sup> "Gonzui" is possibly a misidentification of *P. lineatus*.

#### FAMILY HOLOCENTRIDAE

*Myripristis berndti* Jordan and Evermann, 1903

[Jpn name: Aka-matsukasa] Fig. 2A

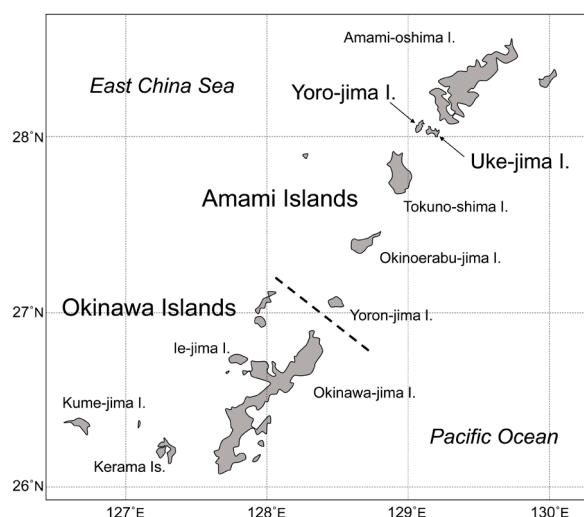


Fig. 1. Map showing the location of Yoro-jima and Uke-jima islands in the Amami Islands.

KUMERS<sup>9)</sup>: 42, 57.

KAUM-I. 89187, 110.0 mm SL, KAUM-I. 89188, 128.4 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Myripristis murdjan* (Forsskål, 1775)

[Jpn name: Yogore-matsukasa] Fig. 2B

KAUM-I. 89189, 176.4 mm SL, Yoro Port, Yoro-jima island.

*Neoniphon sammara* (Forsskål, 1775)

[Jpn name: Ukeguchi-ittodai] Fig. 2C

KAUM-I. 89172, 130.9 mm SL; KAUM-I. 89173, 166.0 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Sargocentron ittodai* (Jordan and Fowler, 1902)

[Jpn name: Teri-ebisu] Fig. 2D

KUMERS<sup>9)</sup>: 42, 57.

KAUM-I. 89174, 106.0 mm SL, KAUM-I. 89184, 103.2 mm SL, KAUM-I. 89185, 62.0 mm SL, KAUM-I. 89186, 118.8 mm SL, Yoro Port, Yoro-jima island; KAUM-I. 89220, 120.0 mm SL, KAUM-I. 89221, 128.9 mm SL, Ukeamuro Port, Uke-jima island, line fishing.

*Sargocentron punctatissimum* (Cuvier, 1829)

[Jpn name: Hoshi-ebisu]

KUMERS<sup>9)</sup>: 42, 57.

#### FAMILY AULOSTOMIDAE

*Aulostomus chinensis* (Linnaeus, 1766)

[Jpn name: Hera-yagara]

KUMERS<sup>9)</sup>: 57.

FAMILY FISTULARIIDAE

*Fistularia commersonii* Rüppell, 1838

[Jpn name: Ao-yagara]

KUMERS<sup>9)</sup>: 57.

FAMILY CENTRISCIDAE

*Aeoliscus strigatus* (Günther, 1861)

[Jpn name: Hekoayu] Fig. 2E

KUMERS<sup>9)</sup>: 48–53, 57.

KAUM–I. 89268, 130.0 mm TL, KAUM–I. 89269, 117.3 mm TL, KAUM–I. 89270, 129.5 mm TL, KAUM–I. 89271, 123.7 mm TL, off Ikeji Port, Uke-jima island, hand net.

FAMILY SYNGNATHIDAE

*Corythoichthys haematopterus* (Bleeker, 1851)

[Jpn name: Ishi-youji] Fig. 2F

KUMERS<sup>9)</sup>: 57.

KAUM–I. 89240, 94.8 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

*Doryrhamphus (Doryrhamphus) excisus excisus* Kaup, 1856

[Jpn name: Hibashi-youji] Fig. 2G

KAUM–I. 88329, 46.5 mm SL, north of Ukeamuro Port, Uke-jima island; KAUM–I. 89242, 48.0 mm SL, beach east of Ukeamuro Port, Uke-jima island, hand net.

FAMILY MUGILIDAE

*Crenimugil crenilabis* (Forsskål, 1775)

[Jpn name: Furai-bora] Fig. 2H

KUMERS<sup>9)</sup>: 57.

KAUM–I. 89205, 400.0 mm SL, KAUM–I. 89206, 370.0 mm SL, beach east of Ukeamuro Port, Uke-jima island, gill net.

FAMILY BELONIDAE

*Strongylura incisa* (Valenciennes, 1846)

[Jpn name: Ryukyu-datsu] Fig. 2I

KAUM–I. 89208, 670.0 mm SL, beach east of Ukeamuro Port, Uke-jima island, gill net.

*Tylosurus crocodilus crocodilus* (Péron and Lesueur, 1821)

[Jpn name: Oki-zayori]

KUMERS<sup>9)</sup>: 57.

FAMILY SCORPAENIDAE

*Dendrochirus zebra* (Cuvier, 1829)

[Jpn name: Kirim-mino]

KUMERS<sup>9)</sup>: 62.

*Pterois volitans* (Linnaeus, 1758)

[Jpn name: Hana-minokasago] Fig. 2J

KUMERS<sup>9)</sup>: 62.

KAUM–I. 89280, 222.8 mm SL, off Ikeji Port, Uke-jima island, spear.

*Scorpaenodes evides* (Jordan and Tompson, 1914)

[Jpn name: Iso-kasago]

KUMERS<sup>9)</sup>: 62.

FAMILY SYNANCEIIDAE

*Synanceia verrucosa* Bloch and Schneider, 1801

[Jpn name: Onidaruma-okoze]

KUMERS<sup>9)</sup>: 62.

FAMILY SERRANIDAE

*Cephalopholis miniata* (Forsskål, 1775)

[Jpn name: Yukata-hata]

KUMERS<sup>9)</sup>: 58.

*Cephalopholis urodeta* (Forster, 1801)

[Jpn name: Niji-hata]

KUMERS<sup>9)</sup>: 42, 58.

*Epinephelus fasciatus* (Forsskål, 1775)

[Jpn name: Aka-hata]

KUMERS<sup>9)</sup>: 42, 58.

*Epinephelus hexagonatus* (Forster, 1801)

[Jpn name: Ishigaki-hata]

KUMERS<sup>9)</sup>: 58.

*Epinephelus merra* Bloch, 1793

[Jpn name: Kammon-hata] Fig. 2K

KUMERS<sup>9)</sup>: 42, 58.

KAUM–I. 89169, 145.1 mm SL, KAUM–I. 89170, 122.3 mm SL, KAUM–I. 89171, 137.2 mm SL, KAUM–I. 89196, 125.6 mm SL, KAUM–I. 89197, 122.3 mm SL, KAUM–I. 89198, 127.2 mm SL, KAUM–I. 89199, 99.7 mm SL, KAUM–I. 89200, 113.7 mm SL, Yoro Port, Yoro-jima island; KAUM–

I. 89215, 109.4 mm SL, KAUM–I. 89216, 122.6 mm SL, KAUM–I. 89234, 129.5 mm SL, KAUM–I. 89235, 160.0 mm SL, KAUM–I. 89236, 150.1 mm SL, Ukeamuro Port, Uke-jima island; KAUM–I. 89260, 79.8 mm SL, off Ikeji Port, Uke-jima island; KAUM–I. 89311, 180.1 mm SL, Yoro Port, Yoro-jima island, line fishing.

Remarks. This species is abundant in the ports of both islands.

***Epinephelus tauvina*** (Forsskål, 1775)

[Jpn name: Hitomi-hata]

KUMERS<sup>9)</sup>: 42, 57.

***Grammistes sexlineatus*** (Thunberg, 1792)

[Jpn name: Nunosarashi] Fig. 2L

KAUM–I. 89262, 47.8 mm SL, off Ikeji Port, Uke-jima island, hand net.

***Liopropoma latifasciatum*** (Tanaka, 1922)

[Jpn name: Tsurugue]

KUMERS<sup>9)</sup>: 42, 58.

***Plectropomus leopardus*** (Lacepède, 1802)

[Jpn name: Suji-ara]

KUMERS<sup>9)</sup>: 58.

FAMILY PSEUDOCHROMIDAE

***Labracinus cyclophthalmus*** (Müller and Troschel, 1849)

[Jpn name: Megisu] Fig. 2M

KAUM–I. 89193, 97.8 mm SL, Yoro Port, Yoro-jima island, line fishing; KAUM–I. 89212, 116.7 mm SL, KAUM–I. 89213, 112.3 mm SL, KAUM–I. 89214, 106.1 mm SL, KAUM–I. 89217, 101.5 mm SL, KAUM–I. 89218, 97.3 mm SL, KAUM–I. 89219, 85.0 mm SL, Ukeamuro Port, Uke-jima island, line fishing; KAUM–I. 89281, 109.3 mm SL; KAUM–I. 89289, 101.4 mm SL, Yoro Port, Yoro-jima island, line fishing;

KAUM–I. 89306, 101.0 mm SL, Yoro Port, Yoro-jima island, line fishing.

Remarks. This species is abundant in the ports of both islands.

***Pseudochromis cyanotaenia*** Bleeker, 1857

[Jpn name: Ryukyu-nisesuzume] Fig. 2N

KAUM–I. 88324, 36.2 mm SL, north of Ukeamuro Port, Uke-jima island, hand net.

***Pseudochromis marshallensis*** Schultz, 1953

[Jpn name: Hoshi-nisesuzume] Fig. 2O

KAUM–I. 89023, 40.8 mm SL, beach north of Yoro Port, Yoro-jima island, hand net; KAUM–I. 89265, 40.8 mm SL, off Ikeji Port, Uke-jima island, hand net.

FAMILY PLESIOPIDAE

***Belonepterygion fasciolatum*** (Ogilby, 1889)

[Jpn name: Toge-tanabatauo]

KUMERS<sup>9)</sup>: 58.

***Plesiops coeruleolineatus*** Rüppell, 1835

[Jpn name: Tanabatauo] Fig. 2P

KAUM–I. 88330, 25.9 mm SL, KAUM–I. 88331, 23.9 mm SL, north of Ukeamuro Port, Uke-jima island; KAUM–I. 89019, 38.4 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

FAMILY PRIACANTHIDAE

***Heteropriacanthus cruentatus*** (Lacepède, 1801)

[Jpn name: Gomahire-kintoki] Fig. 2Q

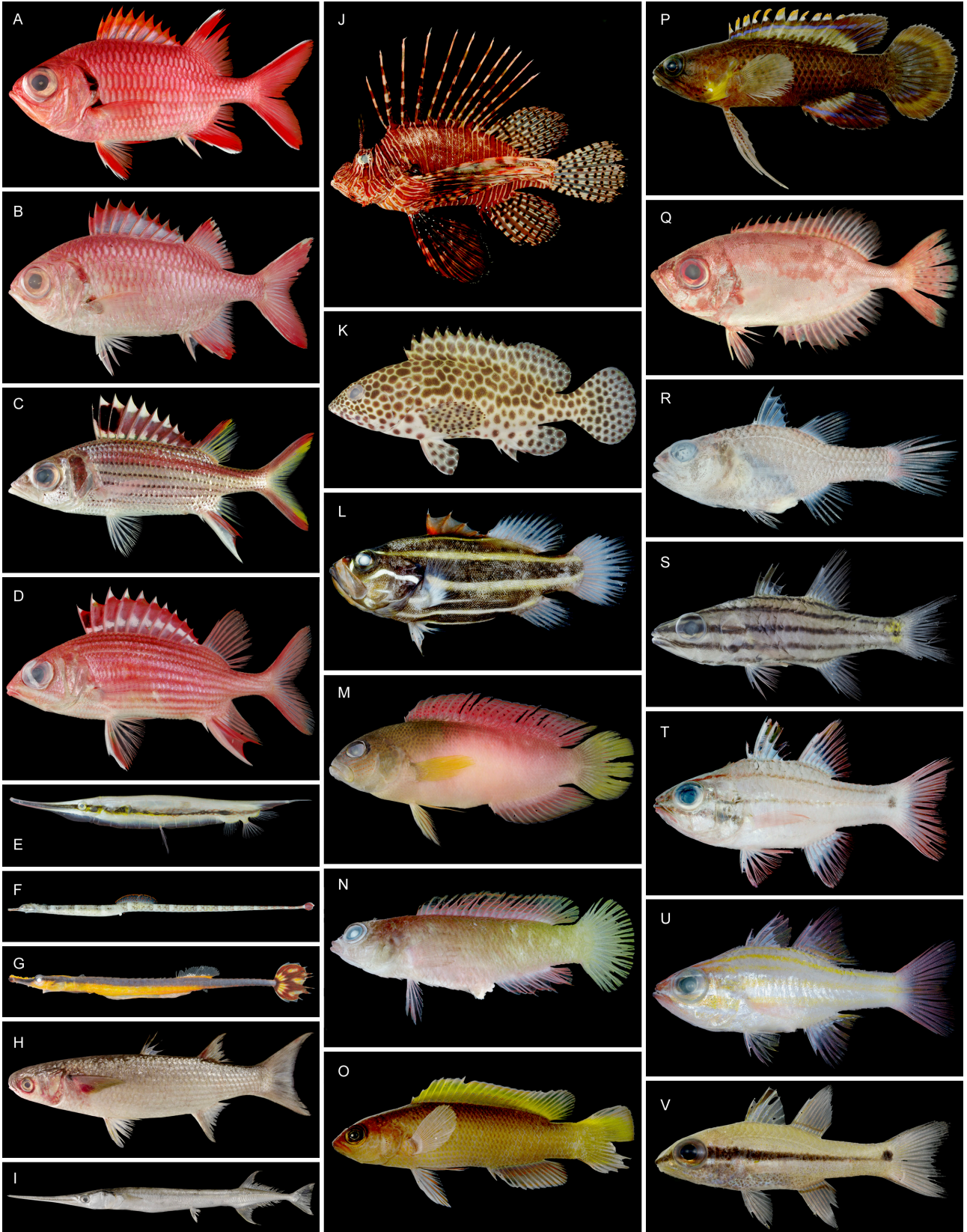
KAUM–I. 89202, 173.6 mm SL, KAUM–I. 89203, 185.1 mm SL, beach east of Ukeamuro Port, Uke-jima island, gill net.

FAMILY APOGONIDAE

***Apogon kominatoensis*** Rüppell, 1838

Page 5: Fig. 2. Fishes of Yoro-jima and Uke-jima islands – 1. A: *Myripristis berndti*, KAUM–I. 89188, 128.4 mm SL; B: *Myripristis murdjan*, KAUM–I. 89189, 176.4 mm SL; C: *Neoniphon sammara*, KAUM–I. 89172, 130.9 mm SL; D: *Sargocentron ittodai*, KAUM–I. 89184, 103.2 mm SL; E: *Aeoliscus strigatus*, KAUM–I. 89268, 130.0 mm TL; F: *Corythoichthys haematopterus*, KAUM–I. 89240, 94.8 mm SL; G: *Doryrhamphus (Doryrhamphus) excisus excisus*, KAUM–I. 89242, 48.0 mm SL; H: *Crenimugil crenilabis*, KAUM–I. 89205, 400.0 mm SL; I: *Strongylura incisa*, KAUM–I. 89208, 670.0 mm SL; J: *Pterois volitans*, KAUM–I. 89280, 222.8 mm SL; K: *Epinephelus merra*, KAUM–I. 89198, 127.2 mm SL; L: *Grammistes sexlineatus*, KAUM–I. 89262, 47.8 mm SL; M: *Labracinus cyclophthalmus*, KAUM–I. 89193, 97.8 mm SL; N: *Pseudochromis cyanotaenia*, KAUM–I. 88324, 36.2 mm SL; O: *Pseudochromis marshallensis*, KAUM–I. 89023, 40.8 mm SL; P: *Plesiops coeruleolineatus*, KAUM–I. 89019, 38.4 mm SL; Q: *Heteropriacanthus cruentatus*, KAUM–I. 89202, 173.6 mm SL; R: *Apogon kominatoensis*, KAUM–I. 88328, 37.8 mm SL; S: *Cheilodipterus quinquelineatus*, KAUM–I. 89302, 88.8 mm SL; T: *Ostorhinchus doederleini*, KAUM–I. 89261, 82.7 mm SL; U: *Ostorhinchus properuptus*, KAUM–I. 89254, 55.8 mm SL; V: *Pristiapogon exostigma*, KAUM–I. 89022, 36.7 mm SL.





- [Jpn name: Kominato-tenjikudai] Fig. 2R  
KUMERS<sup>9)</sup>: 58.  
KAUM-I. 88328, 37.8 mm SL, north of Ukeamuro Port, Uke-jima island, hand net.
- Cheilodipterus quinquelineatus* Cuvier, 1828  
[Jpn name: Yarai-ishimochi] Fig. 2S  
KUMERS<sup>9)</sup>: 58.  
KAUM-I. 89302, 88.8 mm SL, beach at north of Yoro Port, Yoro-jima island, hand net.
- Ostorhinchus doederleini* Jordan and Snyder, 1901  
[Jpn name: Oosuji-ishimochi] Fig. 2T  
Yoshida and Motomura<sup>14)</sup>: 147.  
KAUM-I. 89261, 82.7 mm SL, off Ikeji Port, Uke-jima island, hand net.  
Remarks. The present specimen (KAUM-I. 89261) was listed as a comparative specimen in Yoshida and Motomura<sup>14)</sup>.
- Ostorhinchus properuptus* (Whitley, 1964)  
[Jpn name: Kinsen-ishimochi] Fig. 2U  
KAUM-I. 89254, 55.8 mm SL, beach east of Ukeamuro Port, Uke-jima island, hand net.
- Pristiapogon exostigma* (Jordan and Starks, 1906)  
[Jpn name: Yukata-ishimochi] Fig. 2V  
KAUM-I. 89022, 36.7 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.
- Pristiapogon fraenatus* Valenciennes, 1832  
[Jpn name: Hitosuji-ishimochi]  
KUMERS<sup>9)</sup>: 58.
- Siphamia majimai* Matsubara and Iwai, 1958  
[Jpn name: Majimakuro-ishimochi] Fig. 3A  
KAUM-I. 89244, 29.2 mm SL, beach east of Ukeamuro Port, Uke-jima island, hand net.
- Uke-jima island, hand net.  
FAMILY CARANGIDAE  
*Alectis ciliaris* (Bloch, 1787)  
[Jpn name: Itohiki-aji]  
KUMERS<sup>9)</sup>: 57.
- Elagatis bipinnulata* (Quoy and Gaimard, 1825)  
[Jpn name: Tsumuburi]  
KUMERS<sup>9)</sup>: 57.
- Scomberoides tol* (Cuvier, 1832)  
[Jpn name: Minami-ikekatsuo] Fig. 3B  
KAUM-I. 89207, 454.0 mm SL, beach east of Ukeamuro Port, Uke-jima island, gill net.
- Trachinotus baillonii* (Lacepède, 1801)  
[Jpn name: Koban-aji]  
KUMERS<sup>9)</sup>: 57.
- FAMILY LUTJANIDAE  
*Lutjanus kasmira* (Forsskål, 1775)  
[Jpn name: Yosuji-fuedai] Fig. 3C  
KAUM-I. 89211, 135.2 mm SL, Ukeamuro Port, Uke-jima island, line fishing.
- FAMILY HAEMULIDAE  
*Plectorhinchus lessonii* (Cuvier, 1830)  
[Jpn name: Hireguro-koshoudai] Fig. 3D  
KAUM-I. 89231, 200.0 mm SL, north of Ukeamuro Port, Uke-jima island, spear.
- Plectorhinchus picus* (Cuvier, 1830)  
[Jpn name: Ajia-koshoudai]  
KUMERS<sup>9)</sup>: 59.

Page 7: Fig. 3. Fishes of Yoro-jima and Uke-jima islands – 2. A: *Siphamia majimai*, KAUM-I. 89244, 29.2 mm SL; B: *Scomberoides tol*, KAUM-I. 89207, 454.0 mm SL; C: *Lutjanus kasmira*, KAUM-I. 89211, 135.2 mm SL; D: *Plectorhinchus lessonii*, KAUM-I. 89231, 200.0 mm SL; E: *Gnathodentex aureolineatus*, KAUM-I. 89201, 165.9 mm SL; F: *Parupeneus multifasciatus*, KAUM-I. 89168, 115.2 mm SL; G: *Pempheris adusta*, KAUM-I. 89190, 126.5 mm SL; H: *Pempheris schwenkii*, KAUM-I. 89001, 5.4 mm SL; I: *Chaetodon auriga*, KAUM-I. 89288, 139.4 mm SL; J: *Chaetodon auripes*, KAUM-I. 89233, 112.4 mm SL; K: *Paracirrhites forsteri*, KAUM-I. 89024, 50.2 mm SL; L: *Abudefduf sexfasciatus*, KAUM-I. 89237, 106.4 mm SL; M: *Abudefduf sordidus*, KAUM-I. 89305, 109.6 mm SL; N: *Abudefduf vaigiensis*, KAUM-I. 89159, 99.5 mm SL; O: *Amblyglyphidodon curacao*, KAUM-I. 89162, 95.1 mm SL; P: *Amphiprion clarkii*, KAUM-I. 89295, 34.2 mm SL.





***Plectorhinchus vittatus*** Bloch, 1793

[Jpn name: Musuji-koshoudai]

KUMERS<sup>9)</sup>: 42, 59.

## FAMILY LETHRINIDAE

***Gnathodentex aureolineatus*** (Lacepède, 1802)

[Jpn name: Nokogiridai] Fig. 3E

KUMERS<sup>9)</sup>: iii (lower fig.), 58.

KAUM-I. 89201, 165.9 mm SL, beach east of Ukeamuro Port, Uke-jima island, gill net.

## FAMILY MULLIDAE

***Parupeneus ciliatus*** (Lacepède, 1802)

[Jpn name: Hourai-himeji]

KUMERS<sup>9)</sup>: 58.***Parupeneus multifasciatus*** (Quoy and Gaimard, 1825)

[Jpn name: Ojisan] Fig. 3F

KUMERS<sup>9)</sup>: 58.

KAUM-I. 89167, 190.7 mm SL, KAUM-I. 89168, 115.2 mm SL, KAUM-I. 89291, 151.1 mm SL, Yoro Port, Yoro-jima island, line fishing.

## FAMILY PEMPHERIDAE

***Pempheris adusta*** Bleeker, 1855

[Jpn name: Ryukyu-hatampo] Fig. 3G

KAUM-I. 89190, 126.5 mm SL, Yoro Port, Yoro-jima island, line fishing.

***Pempheris schwenkii*** Bleeker, 1877

[Jpn name: Minami-hatampo] Fig. 3H

KAUM-I. 88334, 6.0 mm SL, KAUM-I. 88335, 6.2 mm SL, north of Ukeamuro Port, Uke-jima island, hand net; KAUM-I. 89000, 6.0 mm SL, KAUM-I. 89001, 5.4 mm SL, KAUM-I. 89002, 5.3 mm SL, KAUM-I. 89003, 4.4 mm SL, KAUM-I. 89004, 5.0 mm SL, KAUM-I. 89005, 4.7 mm SL, KAUM-I. 89006, 4.6 mm SL, KAUM-I. 89007, 5.4 mm SL, KAUM-I. 89008, 5.4 mm SL, KAUM-I. 89009, 4.4 mm SL, KAUM-I. 89010, 3.6 mm SL, KAUM-I. 89011, 3.8 mm SL, KAUM-I. 89012, 3.9 mm SL, KAUM-I. 89013, 4.5 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

Remarks. Only juveniles were collected, but the first author observed that some individuals were formed a school in wave-dissipating blocks at the port of Yoro-jima island.

## FAMILY CHAETODONTIDAE

***Chaetodon argentatus*** Smith and Radcliffe, 1911

[Jpn name: Kagami-chouchouuo]

KUMERS<sup>9)</sup>: 42, 61.***Chaetodon auriga*** Forsskål, 1775

[Jpn name: Toge-chouchouuo] Fig. 3I

KUMERS<sup>9)</sup>: 42, 61.

KAUM-I. 89166, 147.7 mm SL, KAUM-I. 89288, 139.4 mm SL, Yoro Port, Yoro-jima island, line fishing.

***Chaetodon auripes*** Jordan and Snyder, 1901

[Jpn name: Chouchouuo] Fig. 3J

KUMERS<sup>9)</sup>: 42, 61.

KAUM-I. 89233, 112.4 mm SL, north of Ukeamuro Port, Uke-jima island, spear.

***Chaetodon bennetti*** Cuvier, 1831

[Jpn name: Umizuki-chouchouuo]

KUMERS<sup>9)</sup>: 42, 61.***Chaetodon citrinellus*** Cuvier, 1831

[Jpn name: Goma-chouchouuo]

KUMERS<sup>9)</sup>: 42, 61.***Chaetodon ephippium*** Cuvier, 1831

[Jpn name: Seguro-chouchouuo]

KUMERS<sup>9)</sup>: 42, 61.***Chaetodon lunula*** (Lacepède, 1802)

[Jpn name: Chouhan]

KUMERS<sup>9)</sup>: 42, 61.***Chaetodon lunulatus*** Quoy and Gaimard, 1825

[Jpn name: Misuji-chouchouuo]

KUMERS<sup>9)</sup>: 42, 61.***Chaetodon melannotus*** Bloch and Schneider, 1801

[Jpn name: Akebono-chouchouuo]

KUMERS<sup>9)</sup>: 42, 61.***Chaetodon ornatissimus*** Cuvier, 1831

[Jpn name: Hanaguro-chouchouuo]

KUMERS<sup>9)</sup>: 42, 61.



*Chaetodon plebeius* Cuvier, 1831  
[Jpn name: Sumitsuki-tonosamadai]  
KUMERS<sup>9)</sup>: 42, 61.

*Chaetodon trifascialis* Quoy and Gaimard, 1825  
[Jpn name: Yarikatagi]  
KUMERS<sup>9)</sup>: 42, 60.

*Chaetodon ulietensis* Cuvier, 1831  
[Jpn name: Sudare-chouchouuo]  
KUMERS<sup>9)</sup>: 61.

*Chaetodon unimaculatus* Bloch, 1787  
[Jpn name: Itten-chouchouuo]  
KUMERS<sup>9)</sup>: 61.

*Chaetodon vagabundus* Linnaeus, 1758  
[Jpn name: Fuurai-chouchouuo]  
KUMERS<sup>9)</sup>: 42, 61.

*Forcipiger flavissimus* Jordan and McGregor, 1898  
[Jpn name: Fueyakkodai]  
KUMERS<sup>9)</sup>: 42–47, 61.

*Hemitaurichthys polylepis* (Bleeker, 1857)  
[Jpn name: Kasumi-chouchouuo]  
KUMERS<sup>9)</sup>: 42, 61.

*Heniochus chrysostomus* Cuvier, 1831  
[Jpn name: Minami-hatatatedai]  
KUMERS<sup>9)</sup>: 42, 61.

*Heniochus monoceros* Cuvier, 1831  
[Jpn name: Oni-hatatatedai]  
KUMERS<sup>9)</sup>: 42, 61.

FAMILY POMACANTHIDAE

*Apolemichthys trimaculatus* (Cuvier, 1831)  
[Jpn name: Shiten-yakko]  
KUMERS<sup>9)</sup>: 60.

*Centropyge vrolikii* (Bleeker, 1853)  
[Jpn name: Namera-yakko]  
KUMERS<sup>9)</sup>: 42, 60.

*Pomacanthus imperator* (Bloch, 1787)  
[Jpn name: Tatejima-yakko]  
KUMERS<sup>9)</sup>: 60.

*Pomacanthus semicirculatus* (Cuvier, 1831)  
[Jpn name: Sazanami-yakko]  
KUMERS<sup>9)</sup>: 42, 60.

*Pygoplites diacanthus* (Boddaert, 1772)  
[Jpn name: Nishiki-yakko]  
KUMERS<sup>9)</sup>: 60.

FAMILY CIRRHITIDAE

*Cirrhitus pinnulatus* (Forster, 1801)  
[Jpn name: Iso-gombe]  
KUMERS<sup>9)</sup>: 59.

*Paracirrhites forsteri* (Schneider, 1801)  
[Jpn name: Hoshi-gombe] Fig. 3K  
KUMERS<sup>9)</sup>: 42, 59.

KAUM–I. 89024, 50.2 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

FAMILY CHEILODOCTYLIDAE

*Goniistius zebra* (Döderlein, 1883)  
[Jpn name: Migimaki]  
KUMERS<sup>9)</sup>: 59.

*Goniistius zonatus* (Cuvier, 1830)  
[Jpn name: Takanohadai]  
KUMERS<sup>9)</sup>: 59.

FAMILY POMACENTRIDAE

*Abudefduf sexfasciatus* (Lacepède, 1801)  
[Jpn name: Rokusen-suzumedai] Fig. 3L  
KUMERS<sup>9)</sup>: 42, 59.

KAUM–I. 89160, 99.3 mm SL, KAUM–I. 89161, 94.3 mm SL, KAUM–I. 89284, 80.6 mm SL, KAUM–I. 89292, 99.1 mm SL, Yoro Port, Yoro-jima island, line fishing; KAUM–I. 89237, 106.4 mm SL, KAUM–I. 89238, 115.8 mm SL, Ukeamuro Port, Uke-jima island, line fishing.

*Abudefduf sordidus* (Forsskål, 1775)  
[Jpn name: Shima-suzumedai] Fig. 3M  
KUMERS<sup>9)</sup>: 42, 59.

KAUM-I. 89195, 123.1 mm SL, KAUM-I. 89304, 110.4 mm SL, KAUM-I. 89305, 109.6 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Abudefduf vaigiensis* (Quoy and Gaimard, 1825)

[Jpn name: Oyabitcha] Fig. 3N

KUMERS<sup>9)</sup>: 42, 59.

KAUM-I. 89159, 99.5 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Amblyglyphidodon curacao* (Bloch, 1787)

[Jpn name: Kurakao-suzumedai] Fig. 3O

KUMERS<sup>9)</sup>: 59.

KAUM-I. 89162, 95.1 mm SL, KAUM-I. 89163, 98.6 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Amphiprion clarkii* (Bennett, 1830)

[Jpn name: Kumanomi] Fig. 3P

KUMERS<sup>9)</sup>: 41, 54–56, 59.

KAUM-I. 89295, 34.2 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

*Amphiprion frenatus* Brevoort, 1856

[Jpn name: Hama-kumanomi]

KUMERS<sup>9)</sup>: 41, 54–56, 59.

*Amphiprion perideraion* Bleeker, 1855

[Jpn name: Hanabira-kumanomi]

KUMERS<sup>9)</sup>: 41–42, 54–56, 59.

*Chromis chrysurus* (Bliss, 1883)

[Jpn name: Amami-suzumedai] Fig. 4A

KUMERS<sup>9)</sup>: 59.

KAUM-I. 89222, 115.1 mm SL, Ukeamuro Port, Uke-jima island; KAUM-I. 89258, 82.4 mm SL, off Ukeamuro Port, Uke-jima island, line fishing; KAUM-I. 89282, 91.2 mm SL,

KAUM-I. 89283, 97.8 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Chromis viridis* (Cuvier, 1830)

[Jpn name: Deba-suzumedai] Fig. 4B

KAUM-I. 88332, 27.0 mm SL, KAUM-I. 88333, 21.6 mm SL, off Ikeji Port, Uke-jima island, hand net.

*Chromis yamakawai* Iwatsubo and Motomura, 2013

[Jpn name: Kihoshi-suzumedai] Fig. 4C

KAUM-I. 89259, 78.2 mm SL, off Ukeamuro Port, Uke-jima island, line fishing.

*Chrysiptera cyanea* (Quoy and Gaimard, 1825)

[Jpn name: Ruri-suzumedai] Fig. 4D

KUMERS<sup>9)</sup>: 59.

KAUM-I. 89021, 37.9 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

*Chrysiptera rex* (Snyder, 1909)

[Jpn name: Remon-suzumedai] Fig. 4E

KUMERS<sup>9)</sup>: 42, 59.

KAUM-I. 89294, 34.2 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

*Dascyllus aruanus* (Linnaeus, 1758)

[Jpn name: Misujiryukyu-suzumedai] Fig. 4F

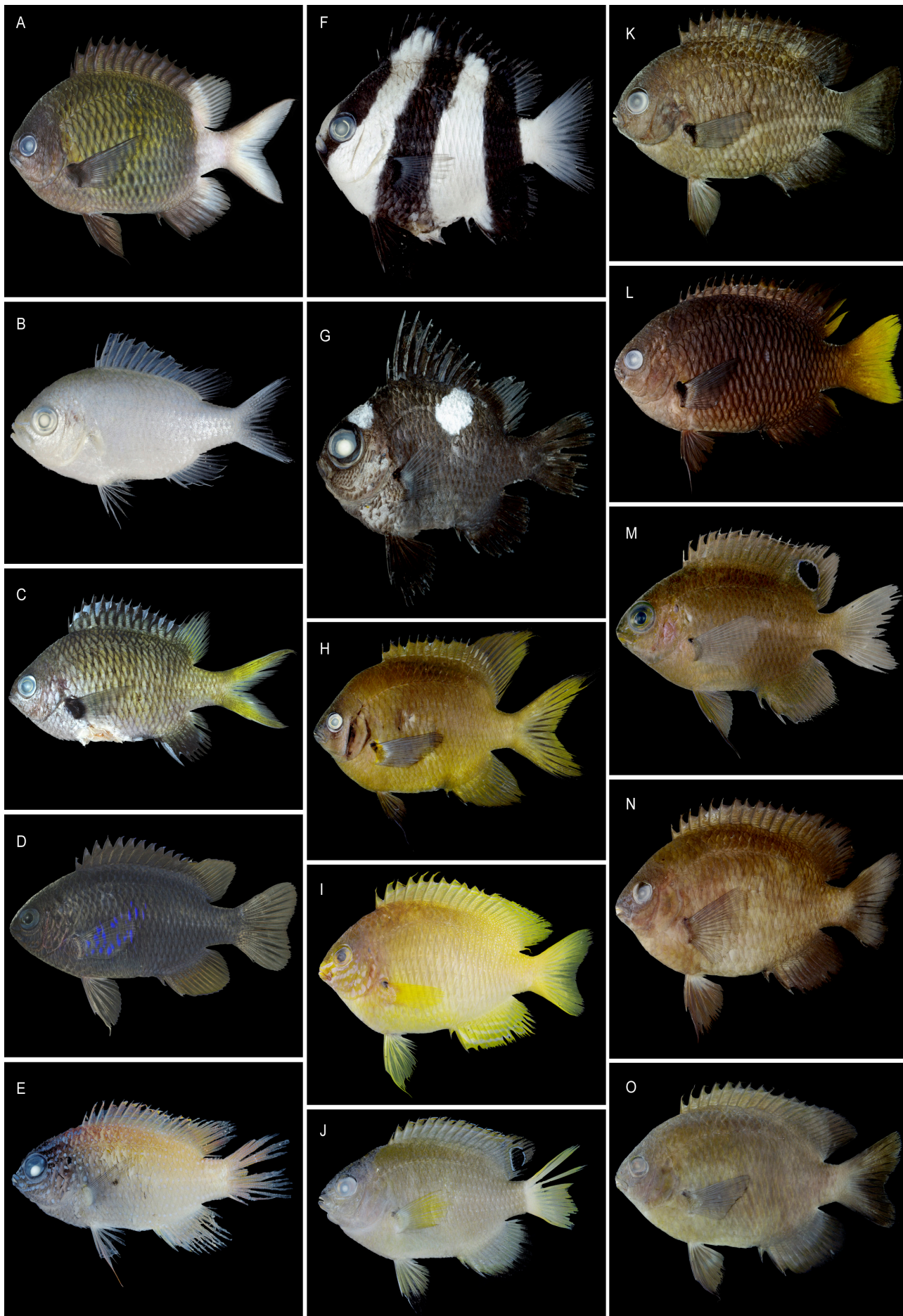
KAUM-I. 89263, 44.8 mm SL, KAUM-I. 89264, 40.6 mm SL, off Ikeji Port, Uke-jima island, hand net.

*Dascyllus trimaculatus* (Rüppell, 1829)

[Jpn name: Mitsuboshikuro-suzumedai] Fig. 4G

KUMERS<sup>9)</sup>: 42, 59.

KAUM-I. 89293, 25.8 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.



***Neoglyphidodon nigroris*** (Cuvier, 1830)

[Jpn name: Hirenaga-suzumedai] Fig. 4H

KAUM-I. 89180, 64.8 mm SL, Yoro Port, Yoro-jima island;  
 KAUM-I. 89225, 73.5 mm SL, KAUM-I. 89226, 94.4 mm  
 SL, KAUM-I. 89227, 81.0 mm SL, KAUM-I. 89228, 76.7  
 mm SL, KAUM-I. 89229, 88.3 mm SL, Ukeamuro Port, Uke-  
 jima island, line fishing.

***Plectroglyphidodon dickii*** (Liénard, 1839)

[Jpn name: Ishigaki-suzumedai]

KUMERS<sup>9)</sup>: 42, 59.***Plectroglyphidodon lacrymatus*** (Quoy and Gaimard, 1825)

[Jpn name: Rurihoshi-suzumedai]

KUMERS<sup>9)</sup>: 59.***Pomacentrus amboinensis*** Bleeker, 1868

[Jpn name: Nisenettai-suzumedai] Fig. 4I

KAUM-I. 89275, 68.5 mm SL, KAUM-I. 89276, 51.1 mm  
 SL, off Ikeji Port, Uke-jima island, hand net.

***Pomacentrus bankanensis*** Bleeker, 1853

[Jpn name: Megane-suzumedai]

KUMERS<sup>9)</sup>: 59.

KAUM-I. 89298, 36.0 mm SL, beach north of Yoro Port,  
 Yoro-jima island, hand net.

***Pomacentrus chrysurus*** Cuvier, 1830

[Jpn name: Ojiro-suzumedai] Fig. 4J

KAUM-I. 89255, 40.2 mm SL, beach east of Ukeamuro Port,  
 Uke-jima island; KAUM-I. 89272, 34.0 mm SL, off Ikeji Port,  
 Uke-jima island, hand net; KAUM-I. 89300, 64.7 mm SL,  
 beach north of Yoro Port, Yoro-jima island, hand net.

***Pomacentrus coelestis*** Jordan and Starks, 1901

[Jpn name: Sora-suzumedai]

KUMERS<sup>9)</sup>: 42, 59.***Pomacentrus nagasakiensis*** Tanaka, 1917

[Jpn name: Nagasaki-suzumedai] Fig. 4K

KAUM-I. 89285, 74.8 mm SL, KAUM-I. 89286, 74.4 mm  
 SL, KAUM-I. 89287, 59.3 mm SL, Yoro Port, Yoro-jima  
 island, line fishing.

***Pomacentrus philippinus*** Evermann and Seale, 1907

[Jpn name: Firipin-suzumedai] Fig. 4L

KAUM-I. 89181, 85.7 mm SL, Yoro Port, Yoro-jima island,  
 line fishing; KAUM-I. 89223, 85.2 mm SL, KAUM-I. 89224,  
 79.3 mm SL, Ukeamuro Port, Uke-jima island, line fishing;  
 KAUM-I. 89299, 33.1 mm SL, beach north of Yoro Port,  
 Yoro-jima island, hand net.

***Pomacentrus* sp.**

[Jpn name: Minamiiso-suzumedai] Fig. 4M

KAUM-I. 89025, 32.0 mm SL, beach north of Yoro Port,  
 Yoro-jima island, hand net.

***Pomacentrus taeniometopon*** Bleeker, 1852

[Jpn name: Sumizome-suzumedai] Fig. 4N

KAUM-I. 89178, 83.1 mm SL, KAUM-I. 89179, 63.1 mm  
 SL, Yoro Port, Yoro-jima island, hand net.

***Pomachromis richardsoni*** (Snyder, 1909)

[Jpn name: Okinawa-suzumedai]

KUMERS<sup>9)</sup>: 42, 59.***Stegastes altus*** (Okada and Ikeda, 1937)

[Jpn name: Sedaka-suzumedai]

KUMERS<sup>9)</sup>: 59.***Stegastes fasciolatus*** (Ogilby, 1889)

[Jpn name: Fuchidori-suzumedai] Fig. 4O

KAUM-I. 89277, 74.5 mm SL, off Ikeji Port, Uke-jima island;  
 KAUM-I. 89290, 69.9 mm SL, Yoro Port, Yoro-jima island,  
 line fishing.

***Stegastes nigricans*** (Lacepède, 1802)

[Jpn name: Kurosora-suzumedai]

KUMERS<sup>9)</sup>: 42, 59.

## FAMILY KUHLIIDAE

***Kuhlia mugil*** (Forster, 1801)

[Jpn name: Gin-yugoi]

KUMERS<sup>9)</sup>: 58.

## FAMILY OPLEGNATHIDAE

***Oplegnathus punctatus*** (Temminck and Schlegel, 1844)

[Jpn name: Ishigakidai] Fig. 5A

KAUM-I. 89279, 241.3 mm SL, off Ikeji Port, Uke-jima



island, spear.

KUMERS<sup>9)</sup>: 60.

FAMILY KYPHOSIDAE

*Kyphosus cinerascens* (Forsskål, 1775)

[Jpn name: Tenjiku-isaki]

KUMERS<sup>9)</sup>: 42, 58.

*Kyphosus pacificus* Sakai and Nakabo, 2004

[Jpn name: Minami-isuzumi] Fig. 5B

KAUM-I. 89192, 181.1 mm SL, Yoro Port, Yoro-jima island,  
line fishing.

FAMILY MICROCANTHIDAE

*Microcanthus strigatus* (Cuvier, 1831)

[Jpn name: Kagokakidai]

KUMERS<sup>9)</sup>: 60.

FAMILY GIRELLIDAE

*Girella leonina* (Richardson, 1846)

[Jpn name: Kuro-mejina]

KUMERS<sup>9)</sup>: 58.

*Girella punctata* Gray, 1835

[Jpn name: Mejina]

KUMERS<sup>9)</sup>: 58.

FAMILY LABRIDAE

*Bodianus axillaris* (Bennett, 1831)

[Jpn name: Sumitsuki-bera]

KUMERS<sup>9)</sup>: 42, 60.

*Bodianus bilunulatus* (Lacepède, 1801)

[Jpn name: Kitsune-bera]

KUMERS<sup>9)</sup>: 60.

*Choerodon fasciatus* (Günther 1867)

[Jpn name: Shichisem-bera]

KUMERS<sup>9)</sup>: 42, 60.

*Coris aygula* Lacepède, 1801

[Jpn name: Kammuri-bera]

KUMERS<sup>9)</sup>: 42, 60.

*Coris gaimard* (Quoy and Gaimard, 1824)

[Jpn name: Tsuyu-bera]

*Gomphosus varius* Lacepède, 1801

[Jpn name: Kugi-bera]

KUMERS<sup>9)</sup>: 41, 60.

*Halichoeres hortulanus* (Lacepède, 1801)

[Jpn name: Tokara-bera]

KUMERS<sup>9)</sup>: 42, 60.

*Halichoeres melanochir* (Gilbert, 1890)

[Jpn name: Munaten-bera] Fig. 5C

KAUM-I. 89239, 163.3 mm SL, Ukeamuro Port, Uke-jima  
island, line fishing.

*Halichoeres trimaculatus* (Quoy and Gaimard, 1834)

[Jpn name: Mitsuboshi-kyusen]

KUMERS<sup>9)</sup>: 60.

*Hemigymnus fasciatus* (Bloch, 1792)

[Jpn name: Shimatarekuchi-bera]

KUMERS<sup>9)</sup>: 41, 60.

*Hemigymnus melapterus* (Bloch, 1791)

[Jpn name: Tarekuchi-bera]

KUMERS<sup>9)</sup>: 41, 60.

*Labroides bicolor* Fowler and Bean, 1928

[Jpn name: Somewake-bera]

KUMERS<sup>9)</sup>: 60.

*Labroides dimidiatus* (Valenciennes, 1839)

[Jpn name: Honsomewake-bera]

KUMERS<sup>9)</sup>: 41, 60.

*Novaculichthys taeniourus* (Lacepède, 1801)

[Jpn name: Obi-tensumodoki] Fig. 5D

KAUM-I. 88325, 49.9 mm SL, north of Ukeamuro Port, Uke-  
jima island, hand net.

*Pseudocheilinus hexataenia* (Bleeker, 1857)

[Jpn name: Nise-mochinouo] Fig. 5E

KAUM-I. 89020, 34.6 mm SL, beach north of Yoro Port,  
Yoro-jima island, hand net.

***Stethojulis bandanensis*** (Bleeker, 1851)

[Jpn name: Akaobi-bera] Fig. 5F

KAUM-I. 89297, 33.1 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

***Stethojulis interrupta*** terina Jordan and Snyder, 1902

[Jpn name: Kaminari-bera]

KUMERS<sup>9)</sup>: 60.***Thalassoma hardwicke*** (Bennett, 1830)

[Jpn name: Senasuji-bera]

KUMERS<sup>9)</sup>: 41, 42, 60.***Thalassoma lunare*** (Linnaeus, 1758)

[Jpn name: Otome-bera]

KUMERS<sup>9)</sup>: 60.***Thalassoma lutescens*** (Lay and Bennett, 1839)

[Jpn name: Yamabuki-bera] Fig. 5G

KUMERS<sup>9)</sup>: 41, 42, 60.

KAUM-I. 89183, 142.0 mm SL, beach north of Yoro Port, Yoro-jima island, line fishing.

***Thalassoma purpureum*** (Forsskål, 1775)

[Jpn name: Kinu-bera]

KUMERS<sup>9)</sup>: 60.***Thalassoma trilobatum*** (Lacepède, 1801)

[Jpn name: Ryugu-bera]

KUMERS<sup>9)</sup>: 42, 60.

## FAMILY SCARIDAE

***Scarus festivus*** Valenciennes, 1840

[Jpn name: Tsukinowa-budai]

KUMERS<sup>9)</sup>: 60.***Scarus ghobban*** Forsskål, 1775

[Jpn name: Hi-budai] Fig. 5H

KAUM-I. 89308, 208.6 mm SL, Yoro Port, Yoro-jima island, line fishing.

***Scarus schlegeli*** (Bleeker, 1861)

[Jpn name: Obi-budai] Fig. 5I

KAUM-I. 89194, 147.0 mm SL, Yoro Port, Yoro-jima island, line fishing.

## FAMILY PINGUIPEDIDAE

***Parapercis pacifica*** Imamura and Yoshino, 2007

[Jpn name: Oguro-toragisu] Fig. 5J

KAUM-I. 89164, 188.5 mm SL, KAUM-I. 89165, 178.0 mm SL, KAUM-I. 89309, 158.7 mm SL, KAUM-I. 89310, 172.9 mm SL, Yoro Port, Yoro-jima island, line fishing.

## FAMILY TRIPTERYGIIDAE

***Enneapterygius leucopunctatus*** Shen and Wu, 1994

[Jpn name: Hakuten-hebigimpo] Fig. 5K

KAUM-I. 89018, 23.9 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

***Enneapterygius* sp.** Fig. 5L

KAUM-I. 89267, 23.1 mm SL, off Ikeji Port, Uke-jima island, hand net.

***Helcogramma inclinata*** (Fowler, 1946)

[Jpn name: Aya-hebigimpo] Fig. 5M

KAUM-I. 88323, 37.8 mm SL, north of Ukeamuro Port, Uke-jima island, hand net.

## FAMILY BLENNIIDAE

***Cirripectes castaneus*** (Valenciennes, 1836)

[Jpn name: Tategami-kaeruuo] Fig. 5N

Page 15: Fig. 5. Fishes of Yoro-jima and Uke-jima islands – 4. A: *Oplegnathus punctatus*, KAUM-I. 89279, 241.3 mm SL; B: *Kyphosus pacificus*, KAUM-I. 89192, 181.1 mm SL; C: *Halichoeres melanochir*, KAUM-I. 89239, 163.3 mm SL; D: *Novaculichthys taeniourus*, KAUM-I. 88325, 49.9 mm SL; E: *Pseudocheilinus hexataenia*, KAUM-I. 89020, 34.6 mm SL; F: *Stethojulis bandanensis*, KAUM-I. 89297, 33.1 mm SL; G: *Thalassoma lutescens*, KAUM-I. 89183, 142.0 mm SL; H: *Scarus ghobban*, KAUM-I. 89308, 208.6 mm SL; I: *Scarus schlegeli*, KAUM-I. 89194, 147.0 mm SL; J: *Parapercis pacifica*, KAUM-I. 89310, 172.9 mm SL; K: *Enneapterygius leucopunctatus*, KAUM-I. 89018, 23.9 mm SL; L: *Enneapterygius* sp., KAUM-I. 89267, 23.1 mm SL; M: *Helcogramma inclinata*, KAUM-I. 88323, 37.8 mm SL; N: *Cirripectes castaneus*, KAUM-I. 89266, 61.0 mm SL; O: *Ecsenius yaeyamaensis*, KAUM-I. 88327, 31.1 mm SL; P: *Petrosirtes breviceps*, KAUM-I. 89014, 17.3 mm SL; Q: *Salaria fasciatus*, KAUM-I. 89256, 82.7 mm SL; R: *Conidens laticephalus*, KAUM-I. 89303, 8.3 mm SL; S: *Asterropteryx semipunctata*, KAUM-I. 89243, 22.4 mm SL; T: *Eviota rubriguttata*, KAUM-I. 88326, 14.9 mm SL; U: *Eviota toshiyuki*, KAUM-I. 89017, 15.0 mm SL; V: *Gnatholepis cauerensis cauerensis*, KAUM-I. 89296, 37.0 mm SL; W: *Gobioidei* sp., KAUM-I. 89257, 13.1 mm SL.



KAUM-I. 89266, 61.0 mm SL, off Ikeji Port, Uke-jima island, hand net.

*Ecsenius yaeyamaensis* (Aoyagi, 1954)

[Jpn name: Ishigaki-kaeruuo] Fig. 5O

KAUM-I. 88327, 31.1 mm SL, north of Ukeamuro Port, Uke-jima island, hand net.

*Meiacanthus kamoharai* Tomiyama, 1956

[Jpn name: Kamohara-gimpo]

KUMERS<sup>9)</sup>: 59.

*Petroscirtes breviceps* (Valenciennes, 1836)

[Jpn name: Niji-gimpo] Fig. 5P

KAUM-I. 89014, 17.3 mm SL, KAUM-I. 89015, 15.5 mm SL, KAUM-I. 89016, 17.1 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

*Salarias fasciatus* (Bloch, 1786)

[Jpn name: Yaeyama-gimpo] Fig. 5Q

KAUM-I. 89256, 82.7 mm SL, beach east of Ukeamuro Port, Uke-jima island, hand net.

FAMILY GOBIESOCIDAE

*Conidens laticephalus* (Tanaka, 1909)

[Jpn name: Ankou-ubauo] Fig. 5R

KAUM-I. 89303, 8.3 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

FAMILY GOBIIDAE

*Asterropteryx semipunctata* Rüppell, 1830

[Jpn name: Hoshi-haze] Fig. 5S

KAUM-I. 89243, 22.4 mm SL, beach east of Ukeamuro Port, Uke-jima island, hand net.

*Eviota rubriguttata* Greenfield and Suzuki, 2011

[Jpn name: Hanabi-isohaze] Fig. 5T

KAUM-I. 88326, 14.9 mm SL, north of Ukeamuro Port, Uke-jima island.

*Eviota toshiyuki* Greenfield and Randall, 2010

[Jpn name: Midori-haze] Fig. 5U

KAUM-I. 89017, 15.0 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

*Gnatholepis cauerensis cauerensis* (Bleeker, 1853)

[Jpn name: Kataboshi-oomonhaze] Fig. 5V

KAUM-I. 89296, 37.0 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

**Un-identified specimen of Gobioidi.** Fig. 5W

KAUM-I. 89257, 13.1 mm SL, beach east of Ukeamuro Port, Uke-jima island, hand net.

Remarks. The specimen was difficult to identify, because of the small body size, undeveloped morphological characters, and sample condition.

FAMILY SIGANIDAE

*Siganus argenteus* (Quoy and Gaimard, 1825)

[Jpn name: Hana-aigo]

KUMERS<sup>9)</sup>: 61.

*Siganus fuscescens* (Houttuyn, 1782)

[Jpn name: Aigo]

KUMERS<sup>9)</sup>: 61.

*Siganus spinus* (Linnaeus, 1758)

[Jpn name: Ami-aigo]

KUMERS<sup>9)</sup>: 61.

*Siganus virgatus* (Valenciennes, 1835)

[Jpn name: Hime-aigo]

KUMERS<sup>9)</sup>: 61.

FAMILY ZANCLIDAE

*Zanclus cornutus* (Linnaeus, 1758)

[Jpn name: Tsunodashi]

KUMERS<sup>9)</sup>: 42, 61.

FAMILY ACANTHURIDAE

*Acanthurus lineatus* (Linnaeus, 1758)

[Jpn name: Niji-hagi]

KUMERS<sup>9)</sup>: 42, 61.

*Acanthurus nigricans* (Linnaeus, 1758)

[Jpn name: Meganekuro-hagi]

KUMERS<sup>9)</sup>: 42, 61.

*Acanthurus nigrofuscus* (Forsskål, 1775)

[Jpn name: Naga-niza]



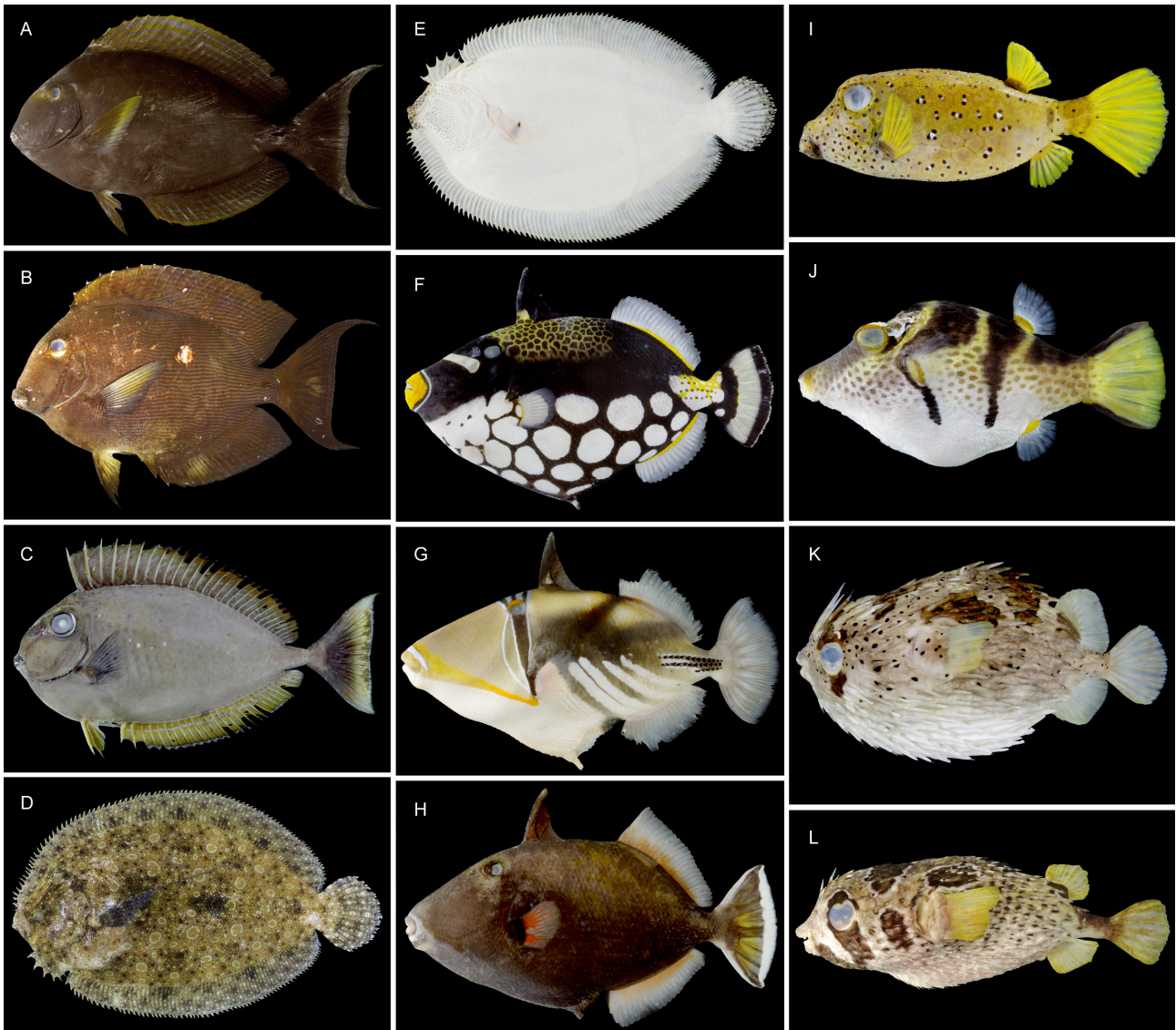


Fig. 6. Fishes of Yoro-jima and Uke-jima islands – 5. A: *Acanthurus xanthopterus*, KAUM-I. 89209, 318.5 mm SL; B: *Ctenochaetus striatus*, KAUM-I. 89230, 156.4 mm SL; C: *Naso vlamingii*, KAUM-I. 89307, 146.8 mm SL; D: *Bothus mancus*, KAUM-I. 89191, 307.7 mm SL; E: *Bothus mancus*, KAUM-I. 89191, blind side; F: *Balistoides conspicillum*, KAUM-I. 89274, 182.6 mm SL; G: *Rhinecanthus aculeatus*, KAUM-I. 89182, 144.3 mm SL; H: *Sufflamen chrysopterum*, KAUM-I. 89175, 128.6 mm SL; I: *Ostracion cubicus*, KAUM-I. 89278, 78.5 mm SL; J: *Canthigaster valentini*, KAUM-I. 89301, 64.8 mm SL; K: *Diodon holocanthus*, KAUM-I. 89204, 117.2 mm SL; L: *Diodon liturosus*, KAUM-I. 89232, 179.4 mm SL.

KUMERS<sup>9)</sup>: 42, 61.

*Acanthurus olivaceus* Bloch and Schneider, 1801

[Jpn name: Montsuki-hagi]

KUMERS<sup>9)</sup>: 42, 61.

*Acanthurus triostegus* (Linnaeus, 1758)

[Jpn name: Shima-hagi]

KUMERS<sup>9)</sup>: 61.

*Acanthurus xanthopterus* Valenciennes, 1835

[Jpn name: Kuro-hagi] Fig. 6A

KUMERS<sup>9)</sup>: 42, 61.

KAUM-I. 89209, 318.5 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Ctenochaetus striatus* (Quoy and Gaimard, 1825)

[Jpn name: Sazanami-hagi] Fig. 6B

KAUM-I. 89230, 156.4 mm SL, north of Ukeamuro Port, Uke-jima island, spear.

*Naso lituratus* (Forster, 1801)

[Jpn name: Miyakotengu-hagi]

KUMERS<sup>9)</sup>: 42, 61.*Naso tonganus* (Valenciennes, 1835)

[Jpn name: Tosaka-hagi]

KUMERS<sup>9)</sup>: 61.*Naso unicornis* (Forsskål, 1775)

[Jpn name: Tengu-hagi]

KUMERS<sup>9)</sup>: 42, 61.*Naso vlamingii* (Valenciennes, 1835)

[Jpn name: Sazanamitosaka-hagi] Fig. 6C

KAUM-I. 89307, 146.8 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Zebrasoma scopas* (Cuvier, 1829)

[Jpn name: Goma-hagi]

KUMERS<sup>9)</sup>: 61.*Zebrasoma veliferum* (Bloch, 1795)

[Jpn name: Hirenaga-hagi]

KUMERS<sup>9)</sup>: 42, 61.

## FAMILY BOTHIDAE

*Bothus mancus* (Broussonet, 1782)

[Jpn name: Mon-darumagarei] Fig. 6DE

KAUM-I. 89191, 307.7 mm SL, beach north of Yoro Port, Yoro-jima island, spear.

## FAMILY BALISTIDAE

*Balistoides conspicillum* (Bloch and Schneider, 1801)

[Jpn name: Mongarakawahagi] Fig. 6F

KUMERS<sup>9)</sup>: 42, 62.

KAUM-I. 89241, 183.3 mm SL, Ukeamuro Port, Uke-jima island, line fishing; KAUM-I. 89274, 182.6 mm SL, off Ikeji Port, Uke-jima island, spear.

*Melichthys vidua* (Richardson, 1845)

[Jpn name: Kuro-mongara]

KUMERS<sup>9)</sup>: 61.*Odonus niger* (Rüppell, 1836)

[Jpn name: Aka-mongara]

KUMERS<sup>9)</sup>: 42, 62.*Rhinecanthus aculeatus* (Linnaeus, 1758)

[Jpn name: Murasame-mongara] Fig. 6G

KUMERS<sup>9)</sup>: 42, 62.

KAUM-I. 89182, 144.3 mm SL, beach north of Yoro Port, Yoro-jima island, line fishing.

*Rhinecanthus rectangulus* (Bloch and Schneider, 1801)

[Jpn name: Tasuki-mongara]

KUMERS<sup>9)</sup>: 42, 62.*Sufflamen bursa* (Bloch and Schneider, 1801)

[Jpn name: Musume-hagi]

KUMERS<sup>9)</sup>: 62.*Sufflamen chrysopterum* (Bloch and Schneider, 1801)

[Jpn name: Tsumajiro-mongara] Fig. 6H

KAUM-I. 89175, 128.6 mm SL, KAUM-I. 89176, 106.9 mm SL, KAUM-I. 89177, 98.4 mm SL, Yoro Port, Yoro-jima island, line fishing.

*Sufflamen fraenatum* (Latreille, 1804)

[Jpn name: Megane-hagi]

KUMERS<sup>9)</sup>: 62.

## FAMILY MONACANTHIDAE

*Cantherhines pardalis* (Rüppell, 1837)

[Jpn name: Amimeumazura-hagi]

KUMERS<sup>9)</sup>: 62.*Oxymonacanthus longirostris* (Bloch and Schneider, 1801)

[Jpn name: Tengu-kawahagi]

KUMERS<sup>9)</sup>: 62.

## FAMILY OSTRACIIDAE

*Ostracion cubicus* Linnaeus, 1758

[Jpn name: Minami-hakofugu] Fig. 6I

KAUM-I. 89278, 78.5 mm SL, off Ikeji Port, Uke-jima island, hand net.

*Ostracion meleagris* Shaw, 1796

[Jpn name: Kuro-hakofugu]

KUMERS<sup>9)</sup>: 62.

## FAMILY TETRAODONTIDAE

*Canthigaster valentini* (Bleeker, 1855)

[Jpn name: Shimakinchaku-fugu] Fig. 6J

KUMERS<sup>9)</sup>: 62.

KAUM-I. 89301, 64.8 mm SL, beach north of Yoro Port, Yoro-jima island, hand net.

#### FAMILY DIODONTIDAE

*Diodon holocanthus* Linnaeus, 1758

[Jpn name: Harisembon] Fig. 6K

KAUM-I. 89204, 117.2 mm SL, beach east of Ukeamuro Port, Uke-jima island, hand; KAUM-I. 89273, 165.7 mm SL, off Ikeji Port, Uke-jima island, hand.

*Diodon liturosus* Shaw, 1804

[Jpn name: Hitozura-harisembon] Fig. 6L

KAUM-I. 89232, 179.4 mm SL, north of Ukeamuro Port, Uke-jima island, hand.

#### Conclusion

In this study, 195 fish species (50 families) were confirmed to occur around Yoro-jima and Uke-jima islands with 89 species (35 families) representing the first specimen-based records from the islands. Most of the species commonly occur in shallow waters of other coral reef areas in the Ryukyu Archipelago. In the present study, field sampling was done by line fishing from shore or snorkeling without scuba diving. Therefore, the fishes were collected were generally only from depths of less than 5 m. Thus, the marine biodiversity of fishes around both islands is still not well understood, and further field surveys, especially in the deeper areas of various environments with various fish collection methods, are required.

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