

A Preliminary Report of Scorpaenid, Synanceiid, Tetrarogid and Aploactinid Fishes in Miyazaki Waters, Southern Japan

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Abstract

Scorpaenid, synanceiid, tetrarogid and aploactinid fishes from the coast of Miyazaki waters, southern Japan were examined taxonomically. They were identified as 21 scorpaenid, 5 synanceiid, 2 tetrarogid and 3 aploactinid fishes belonging to 20 genera. In Miyazaki waters, 11 scorpaenid and one tetrarogid fishes were commonly observed from young to adult stages.

Key words: Scorpaenids, Synanceiids, Tetrarogids, Aploactinids

Introduction

Scorpaenids, a large group of primarily marine fishes, comprise about 388 species world wide¹⁾. Synanceiid, tetrarogid and aploactinid fishes, on the other hand, include about 31, 35 and 37 species, respectively¹⁾, inhabiting various habitats, coral reefs, rocky shores, and muddy and sandy bottoms²⁻⁵⁾. Whereas synanceiid fishes are restricted to tropical waters of the Indo-West Pacific except the Hawaiian Islands⁶⁾, scorpaenid, tetrarogid and aploactinid fishes are widely distributed in the Indo-Pacific, from subarctic to tropical zones^{2-4, 6-8)}.

In Japanese waters, 93 scorpaenid, 8 synanceiid, 8 tetrarogid and 6 aploactinid species have thus far been reported^{4, 9)}. Areas of taxonomic uncertainty occur in all four families.

Recently, lutjanoid, girellid, kyphosid

and carangid fishes were examined from the Hyuga Nada area¹⁰⁻¹²⁾. However, there have been no reports for that region of scorpaenid, synanceiid, tetrarogid or aploactinid fishes. This paper is based on a preliminary investigation of the latter families in Miyazaki waters, southern Japan.

Materials and Methods

The scorpaenid, synanceiid, tetrarogid and aploactinid specimens used in this study were collected mainly from the Meitsu fish market of the Nango Fisheries Cooperative Association, Miyazaki Prefecture (abbreviated to MNM), in 1996 and 1997. Other specimens were held in the museum collection of Miyazaki University. Most specimens were captured by set net, although others examined were collected

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by benthic trawls or hand lines in a range of water depths.

All specimens examined are now deposited in the Department of Animal, Grassland and Fishery Sciences, Miyazaki University (MUFS). Identifications generally follow Nakabo⁴⁾ and these species follow Eschmeyer et al.⁶⁾, Jordan et al.¹³⁾ and Matsu- bara¹⁴⁾ for scorpaenid fishes, Eschmeyer et al.¹⁵⁻¹⁷⁾ for synanceiid fishes, and Matsu- bara¹⁴⁾ for tetraogid and aploactinid fishes. Head spine terminology follows Eschmeyer¹⁸⁾. Abbreviations used in this report are as below: standard length (SL), dorsal fin rays (D.), anal fin rays (A.), pectoral fin rays (P.) and ventral fin rays (V.). Scientific names are arranged alphabetically for each subfamily.

Results

Family Scorpaenidae

Subfamily Apistinae

Apistus carinatus (Bloch and Schneider)

(Japanese name: Hachi, Fig. 1 A)

Materials. MUFS 12438-12439, 2 specimens, 60-73 mm SL, off Aoshima, Miyazaki; MUFS 12995, 87 mm SL, MNM; MUFS 13024-13025, 2 specimens, 87-101 mm SL, MNM; MUFS 13059, 96 mm SL, MNM; MUFS 13215, 102 mm SL, MNM; MUFS 13389, 93 mm SL, MNM; MUFS 13449, 95 mm SL, MNM; MUFS 13455 and 13457, 2 specimens 69-106 mm SL, MNM.

Description. D. XV, 8-9; A. III, 7; P. 11; V. I, 5; gill rakers 6-7+14-15; lowest pectoral fin ray free; tip of anterior lower jaw with 3 barbels, being a pair on lateral side and one at symphysis.

Subfamily Setarchinae

Setarches guentheri Johnson

(Japanese name: Shiro-kasago)

Materials. MUFS 1705, 44 mm SL, off Aoshima, Miyazaki; MUFS 3952, 4240, 4244 and

4252, 4 specimens, 31-56 mm SL, Aoshima, Miyazaki; MUFS 4591, 59 mm SL, Totoro, Nobeoka, Miyazaki.

Description. D. XII, 10; A. III, 4-5; P. 20-22; V. I, 5; preopercular spines from 1st to 3rd ones same in length.

Setarches longimanus (Alcock)

(Japanese name: Aka-kasago)

Materials. MUFS 1682, 132 mm SL, off Aoshima, Miyazaki; MUFS 3953, 133 mm SL, Aoshima, Miyazaki; MUFS 4582-4583, 2 specimens, 134-144 mm SL, Totoro, Nobeoka, Miyazaki; MUFS 12436, 139 mm SL, Totoro, Nobeoka, Miyazaki; MUFS 12587, 70 mm SL, Totoro, Nobeoka, Miyazaki.

Description. D. XII, 9-10; A. III, 5; P. 21-23; V. I, 5; 2nd preopercular spine length same to 5th spine, much shorter than 1st and 3rd; 1st preorbital spine overlapping maxillary.

Subfamily Pteroininae

Dendrochirus zebra (Cuvier)

(Japanese name: Kirinmino)

Materials. MUFS 13472, 109 mm SL, MNM; MUFS 13478-13479, 2 specimens, 108-116 mm SL, MNM.

Description. D. XIII, 10; A. III, 6; P. 17-18; V. I, 5; gill rakers 4-5+9; pectoral fin rays branched; supraocular tentacle longer than orbit diameter; posterior intermembrane of pectoral fin reaching to tip of rays; several brown bands present in around underside of mandible; tip of anterior upper jaw with 3 barbels.

Parapterois heterura (Bleeker)

(Japanese name: Seto-minokasago)

Materials. MUFS 13214, 85 mm SL, MNM.

Description. D. XIII, 9; A. II, 7; P. 19; V. I, 5; gill rakers 6+13; pectoral fin rays branched; posterior intermembrane of pectoral fin reaching to tip of rays; lateral

surface of lacrimal with numerous downward projecting spines.

***Pterois lunulata* Temminck and Schlegel**

(Japanese name: Minokasago, Fig. 1 B)

Materials. MUFS 3419, 160 mm SL, Aoshima, Miyazaki; MUFS 5882, 168 mm SL, Aoshima, Miyazaki; MUFS 8883, 230 mm SL, MNM; MUFS 12205, 166 mm SL, MNM; MUFS 12260, 184 mm SL, MNM; MUFS 12592, 60 mm SL, Mimitsu, Miyazaki; MUFS 13634, 31 mm SL, Nichinan, Miyazaki.

Description. D. XIII, 11; A. III, 7-8; P. 13; V. 1, 5; pectoral fin rays unbranched; posterior intermembrane of pectoral fin reaching to tip of rays; underside of mandible without any spots or bands.

***Pterois volitans* (Linnaeus)**

(Japanese name: Hana-minokasago)

Materials. MUFS 12492, 163 mm SL, MNM.

Description. D. XIII, 11; A. III, 7; P. 14; V. I, 5; gill rakers 5+11; spuraocular tentacles much longer than orbit diameter; pectoral fin rays unbranched; posterior intermembrane of pectoral fin reaching to tip of rays; several brown bands present in around underside of mandible.

Subfamily Scorpaeninae

***Pontinus macrocephalus* (Sauvage)**

(Japanese name: Hiodoshi)

Materials. MUFS 12986-12987, 2 specimens, 186-205 mm SL, MNM; MUFS 13042, 197 mm SL, MNM.

Description. D. XII, 9; A. III, 5; P. 16; V. I, 5; gill rakers 7+12-13; pectoral fin rays unbranched; lacrimal bone with 2 spines projecting over maxillary; mostly red color body and head in life.

***Scorpaena izensis* Jordan and Starks**

(Japanese name: Izu-kasago, Fig. 1C)

Materials. MUFS 12317-12318, 2 specimens,

330-345 mm SL, MNM; MUFS 12898-12899, 2 specimens, 159-166 mm SL, MNM; MUFS 12906, 281 mm SL, MNM; MUFS 12951, 205 mm SL, MNM.

Description. D. XII, 8-9; A. III, 5; P. 19-20; V. 1,5; upper axilla of both pectoral fin with a dermal flap; body elongate and slightly compressed.

***Scorpaena miostoma* Gunther**

(Japanese name: Kokuchi-fusakasago, Fig. 1 D)

Materials. MUFS 5168 and 5194, 2 specimens, 99-106 mm SL, Aoshima, Miyazaki; MUFS 12198, 110 mm SL, MNM; MUFS 12900, 113 mm SL, MNM; MUFS 12908, 100 mm SL, MNM; MUFS 12913, 106 mm SL, MNM; MUFS 13016, 102 mm SL, MNM; MUFS 13182, 119 mm SL, MNM; MUFS 13471, 132 mm SL, MNM; MUFS 13504-13506, 3 specimens, 109-120 mm SL, MNM.

Description. D. XII, 9; A. III, 5; P. 16-17 (usually 16); V. I, 5; gill rakers 4-5+9-10; anterior lateral line profile gradually descending above pectoral fin.

***Scorpaena onaria* Jordan and Snyder**

(Japanese name: Fusa-kasago)

Materials. MUFS 12885, 138 mm SL, MNM; MUFS 12916-12920, 5 specimens, 121-157 mm SL, MNM; MUFS 12993, 182 mm SL, MNM; MUFS 12993-182 mm SL, MNM; MUFS 13180, 158 mm SL, MNM.

Description. D. XII-XIII, 8-9; A. III, 5; P. 17-19 (usually 17); V. I, 5; gill rakers 4-5+9-10; anterior lateral line profile suddenly descending above pectoral fin.

***Scorpaenodes littoralis* (Tanaka)**

(Japanese name: Iso-kasago)

Materials. MUFS 7842-7843, 2 specimens, 74-88 mm SL, Uchiumi, Miyazaki; MUFS 13945-13946, 2 specimens, 65-77 mm SL, Akamizu, Nobeoa, Miyazaki.

Description. D. XIII, 9; A. III, 5; P. 18; V. I, 5; 2 suborbital spines unserrated.

***Scorpaenopsis cirrhosa* (Thunberg)**

(Japanese name: Oni-kasago, Fig. 1 E)

Materials. MUFS 12412, 156 mm SL, MNM; MUFS 12811, 193 mm SL, MNM; MUFS 12817, 182 mm SL, MNM; MUFS 12869-12873 and 12875-12879, 10 specimens, 186-205 mm SL, MNM; MUFS 12991, 164 mm SL, MNM; MUFS 13442-13443, 2 specimens, 140-143 mm SL, MNM; MUFS 13467, 231 mm SL, MNM.

Description. D. XII, 9; A. III, 5; P. 17-19 (usually 18); V. I, 5; ridges on head unserrated.

***Scorpaenopsis neglecta* Heckel**

(Japanese name: Satsuma-kasago, Fig. 1 F)

Materials. MUFS 4007, 111 mm SL, Kushima, Miyazaki; MUFS 5433, 130 mm SL, Kushima, Miyazaki; MUFS 5681, 119 mm SL, Kushima, Miyazaki; MUFS 11719, 117 mm SL, MNM; MUFS 12765, 155 mm SL, MNM; MUFS 12874-180 mm SL, MNM; MUFS 12892, 121 mm SL, MNM; MUFS 12897, 144 mm SL, MNM.

Description. D. XII, 9; A. III, 5; P. 17-18; V. I, 5; supraocular spines serrated; a dark band present along entire distal edge on inner surface of pectoral fin.

***Scorpaenopsis* sp.**

(Japanese name: Mimitoge-onikasago, Fig. 1 G)

Materials. MUFS 12858 and 12863, 2 specimens, 150-154 mm SL, MNM; MUFS 12901-12902, 2 specimens, 135-144 mm SL, MNM; MUFS 12907, 170 mm SL, MNM; MUFS 12915, 89 mm SL, MNM; MUFS 12992, 155 mm SL, MNM; MUFS 13444-13445, 2 specimens, 128-133 mm SL, MNM; MUFS 13470, 167 mm SL, MNM; MUFS 13507, 114 mm SL, MNM.

Description. D. XII, 9; A. III, 5; P. 16-18 (usually 17); V. I, 5; occipital pit large.

Note. This species was temporarily identi-

fied as *Scorpaenopsis* sp.^{4, 19)} being given Japanese name of "Mimitoge-onikasago" according to Nakabo⁴⁾. All the specimens collected from Miyazaki waters lacked a pair of extra spines above tympanic spines on head. This species needs further review.

Subfamily Sebastinae

Helicolenus hilgendorfi

(Steindachner and Döderlein)

(Japanese name: Yume-kasago)

Materials. MUFS 1676 and 1697, 2 specimens, 82-123 mm SL, off Aoshima, Miyazaki; MUFS 3952, 83 mm SL, Aoshima, Miyazaki; MUFS 4248-4250 and 12963-12965, 6 specimens, 53-80 mm SL; Aoshima, Miyazaki; MUFS 4580-4581, 2 specimens, 143-162 mm SL, Totoro, Nobeoka, Miyazaki; MUFS 7746-7750, 5 specimens, 65-122 mm SL, Nobeoka, Miyazaki; MUFS 12591, 89 mm SL, Totoro, Nobeoka, Miyazaki; MUFS 12988, 156 mm SL, MNM.

Description. D. XII, 11-12; A. III, 4-5; P. 18-20; V. I, 5; blackish spots present above lateral line and on back.

***Sebastes inermis* Cuvier**

(Japanese name: Mebaru)

Materials. MUFS 8099, 158 mm SL, Totoro, Nobeoka, Miyazaki.

Description. D. XIII, 14; A. III, 7; P. 15; V. I, 5; 2 preorbital spines present.

Sebastes pachycephalus pachycephalus

Temminck and Schlegel

(Japanese name: Murasoi)

Materials. MUFS 12606-12608, 3 specimens, 69-70 mm SL, MNM.

Description. D. XIII, 11-12; A. III, 6; P. 17-18; V. I, 5; ventral fin without any spots and bands.

***Sebastiscus albofasciatus* (Lacepède)**

(Japanese name: Ayame-kasago, Fig. 1 H)

Materials. MUFS 12423-12424, 2 specimens, 203-225 mm SL, MNM; MUFS 12989-12990, 2 specimens, 136-157 mm SL, MNM.

Description. D. XII, 12; A. III, 5; P. 17; V. I, 5; ocular edge of 2nd suborbital with a spine; yellow spots present on body in fresh; whitish color body and head in preserved specimens.

***Sebastiscus marmoratus* (Cuvier)**

(Japanese name: Kasago, Fig. 1 I)

Materials. MUFS 3725, 101 mm SL, Kushima, Miyazaki; MUFS 4345, 117 mm SL, Kushima, Miyazaki; MUFS 5406, 105 mm SL, Akamizu, Nobeoka, Miyazaki; MUFS 5782, 124 mm SL, Akamizu, Nobeoka, Miyazaki; MUFS 5867, 68 mm SL, Akamizu, Nobeoka, Miyazaki; MUFS 12403-12411, 9 specimens, 201-258 mm SL, MNM.

Description. D. XII, 12; A. III, 5; P. 17-19 (usually 18); V. I, 5; ocular edge of 2nd suborbital without a spine; body color reddish or blackish.

***Sebastiscus tertius* Barsukov and Chen**

(Japanese name: Ukkari-kasago, Fig. 1 J)

Materials. MUFS 12240, 245 mm SL, MNM; MUFS 12888, 153 mm SL, MNM; MUFS 12914, 144 mm SL, MNM.

Description. D. XII, 12; A. III, 5; P. 19; V. I, 5; blue and/or white spots on body in fresh.

Family Synanceiidae

***Erosa erosa* (Langsdorf)**

(Japanese name: Daruma-okoze)

Materials. MUFS 4002, 92 mm SL, Kushima, Miyazaki; MUFS 5431-5432, 2 specimens, 67-111 mm SL, Kushima, Miyazaki; MUFS 12968, 106 mm SL, Kushima, Miyazaki; MUFS 13109, 55 mm SL, Kushima, Miyazaki; MUFS 13447, 72 mm SL, MNM.

Description. D. XIV, 6; A. III, 6; P. 15; V. I, 4; head rounded; mouth terminal, slight-

ly oblique; preorbital bone with 2 broad spines over maxillary; ridge followed by deep square of rectangular occipital pit present.

***Inimicus japonicus* (Cuvier)**

(Japanese name: Oni-okoze)

Materials. MUFS 13614, 152 mm SL, Miyazaki.

Description. D. XVI, 7; A. II, 9; P. 11; V. I, 5; gill rakers 2+8; snout shorter than postorbital distance; each interspinous membrane's height between spinous spines from 4th to 16th dorsal fin spines one-half height of each spine.

***Minous monodactylus* (Bloch and Schneider)**

(Japanese name: Hime-okoze)

Materials. MUFS 3400-3402, 3 specimens, 70-85 mm SL, Aoshima, Miyazaki; MUFS 13757, 75 mm SL, Miyazaki.

Description. D. X, 10-11; A. II, 9; P. 11; V. I, 5; lacrimal bone with 2 spines projecting over maxillary, 1st spine pointing downward and forward, 2nd one downward and backward, 2nd spine at least twice length of 1st one; caudal fin with 2 broad transverse bars.

***Minous pusillus* Temminck and Schlegel**

(Japanese name: Yase-okoze)

Materials. MUFS 13007-13008, 2 specimens, 39-47 mm SL, Kushima, Miyazaki; MUFS 13480, 33 mm SL, MNM.

Description. D. IX-X, 9; A. II, 8; P. 12; V. I, 5; 1st dorsal fin spine shorter than 2nd one; dorsal spines weak and hairlike; lacrimal bone with 2 short spines projecting over maxillary, 1st spine pointing forward and downward, 2nd one downward and backward, 2nd spine slightly longer than 1st one; caudal fin with several narrow vertical dark bars.

***Minous quincarinatus* (Fowler)**

(Japanese name: Ito-okoze)

Materials. MUFS 5707, 90 mm SL, Kushima, Miyazaki.**Description.** D. IX, 12; A. II, 9; P. 12; V. I, 5; 1st dorsal fin spine equal to 2nd one; caudal fin without transverse dark bars; 1st lacrimal spine about twice length of 2nd one, 1st spine pointing downward and forward, 2nd one downward; upper part of

caudal fin with numerous small black spots.

Family Tetrarogidae***Hypodytes rubripinnis***

(Temminck and Schlegel)

(Japanese name: Haokoze)

Materials. MUFS 5857, 84 mm SL, Akamizu, Nobeoka, Miyazaki; MUFS 12076, 48 mm SL, MNM; MUFS 12882, 38 mm SL, MNM; MUFS

Table 1. Scorpaenid, synanceiid, tetrarogid and aploactinid fishes collected from Miyazaki waters, southern Japan, and the largest size reported for each species. Japanese names for family and sub-family are given in parentheses.

Scientific name	Japanese name	SL range of specimens examined	Number	Largest size in literature
Scorpaenidae (Fusakasago-ka)				
Apistimae (Hachi-aka)				
<i>Apistus carinatus</i>	Hachi	60-106	11	150*
Setarchinae (Shirokasago-aka)				
<i>Setarches guentheri</i>	Shiro-kasago	31- 59	6	230**
<i>S. longimanus</i>	Aka-kasago	70-144	6	180**
Pteroininae (Minokasago-aka)				
<i>Dendrochirus zebra</i>	Kirinmino	108-116	3	200*
<i>Parapterois heterura</i>	Seto-minokasago	85	1	200*
<i>Pterois lunulata</i>	Minokasago	31-230	7	250*
<i>P. volitans</i>	Hana-minokasago	163	1	350*
Scorpaeninae (Fusakasago-aka)				
<i>Pontinus macrocephalus</i>	Hiodoshi	186-205	3	450*
<i>Scorpaena izensis</i>	Izu-kasago	159-345	6	350*
<i>S. miostoma</i>	Kokuchi-fusakasago	99-132	12	150*
<i>S. onaria</i>	Fusa-kasago	121-182	8	200*
<i>Scorpaenodes littoralis</i>	Iso-kasago	74- 88	4	100*
<i>Scorpaenopsis cirrhosa</i>	Oni-kasago	140-231	18	250*
<i>S. neglecta</i>	Satsuma-kasago	111-180	8	200*
<i>Scorpaenopsis</i> sp.	Mimitoge-onikasago	87-170	11	160***
Sebastinae (Mebaru-aka)				
<i>Helicolenus hilgendorfi</i>	Yume-kasago	53-162	21	300*
<i>Sebastes inermis</i>	Mebaru	158	1	250*
<i>S. pachycephalus</i>	Murasoi	69- 70	3	350*
<i>pachycephalus</i>				
<i>Sebastes albobfasciatus</i>	Ayame-kasago	136-225	4	250*
<i>S. marmoratus</i>	Kasago	68-258	14	300*
<i>S. tertius</i>	Ukkari-kasago	144-245	3	450*
Synanceiidae (Oniokoze-ka)				
<i>Erosa erosa</i>	Daruma-okoze	55-111	6	150*
<i>Inimicus japonicus</i>	Oni-okoze	152	2	250*
<i>Minous monodactylus</i>	Hime-okoze	70- 85	4	150*
<i>M. pusillus</i>	Yase-okoze	33- 47	3	70*
<i>M. quincarinatus</i>	Ito-okoze	90	1	-
Tetrarogidae (Haokoze-ka)				
<i>Hypodytes rubripinnis</i>	Haokoze	8- 84	5	100*
<i>Snyderina yamanokami</i>	Yamahime	151	1	250*
Aploactinidae (Ibookoze-ka)				
<i>Aploactis aspera</i>	Ibo-okoze	50	1	100*
<i>Erisphex pottii</i>	Abu-okoze	53- 69	5	150*
<i>Kanekonia florida</i>	Hanachigo-okoze	35	1	55*

*, total length (mm)²⁾; **, standard length (mm)³⁾; ***, standard length (mm)¹⁹⁾.

Table 2. Scorpaenid and tetrarogid fishes, being likely but as yet unrecorded inhabitants of Miyazaki waters. Japanese names for family and subfamily are given in parentheses.

Scientific name	Japanese name	Largest size in literature	Ecological habitat
Scorpaenidae (Fusakasago-ka)			
Setarchinae (Shirokasago-aka)			
<i>Ectreposebastes imus</i>	Kuro-kasago	200*	-
<i>Lioscorpilus longiceps</i>	Yase-akakasago	250*	Sandy bottom ²⁾
Pteroininae (Minokasago-aka)			
<i>Brachypterois serrulata</i>	Nokogiri-kasago	100*	Sandy bottom ²⁾
<i>Dendrochirus biocellatus</i>	Hireboshi-minokasago	150*	Rocky bottom ²⁾
<i>D. brachypterus</i>	Shima-himeyamanokami	100*	Rocky bottom ²⁾
<i>Ebosia bleekeri</i>	Eboshi-kasago	200*	Boulder bottom ²⁾
<i>Pterois antennata</i>	Nettai-minokasago	200*	Rocky bottom ²⁾
<i>P. radiata</i>	Kimiokoze	150*	Rocky bottom ²⁾
Scorpaeninae (Fusakasago-aka)			
<i>Hoplosebastes armatus</i>	Hana-kasago	150*	-
<i>Parascorpaena mossambica</i>	Nettai-fusakasago	100*	Rocky bottom ²⁾
<i>Pteroidichthys amboinensis</i>	Tsuno-kasago	70*	Seaweed bed ²⁾
<i>Rhinopias frondosa</i>	Boro-kasago	250*	Rocky bottom ²⁾
<i>R. xenops</i>	Nise-borokasago	180*	Rocky bottom ²⁾
<i>Scorpaenopsis iop</i>	Hime-satsumakasago	80*	Rocky bottom ²⁾
<i>Sebastapistes strongia</i>	Madara-fusakasago	80*	Rocky bottom ²⁾
<i>Thysanichthys crossotus</i>	Fundo-kasago	-	-
Sebastinae (Mebaru-aka)			
<i>Hozukius embremarius</i>	Houzuki	550*	Rocky bottom ²⁾
<i>Sebastes oblongus</i>	Takenoko-mebaru	350**	Rocky bottom ³⁾
<i>S. schlegeli</i>	Kurosoi	600*	Rocky bottom ²⁾
Tetrarogidae (Haokoze-ka)			
<i>Ablabys taenianotus</i>	Tsumajiro-okoze	100*	Rocky bottom ²⁾

*, total length (mm)²⁾; **, standard length (mm)³⁾.

13947-13948, 2 specimens, 63-70 mm SL, Akamizu, Nobeoka, Miyazaki.

Description. D. XIV, 6-7; A. III, 4; P. 11; V. I, 4; 2nd and 3rd dorsal fin spines much longer than 1st and 4th ones.

***Snyderina yamanokami* Jordan and Starks**
(Japanese name: Yamahime)

Materials. MUFS 13142, 151 mm SL, MNM.

Description. D. XIII, 10; A. III, 5; V. I, 5; gill rakers 2+11; posterior pectoral fin reaching beyond origin of first anal fin spine; body with reddish brown, vermiculated color.

Family Aploactinidae

***Aploactis aspera* Richardson**

(Japanese name: Ibo-okoze)

Materials. MUFS 13635, 50 mm SL, Nobeoka, Miyazaki.

Description. D. XIII, 13; A. I, 13; P. 13; V.

I, 2; 5 preopercular spines blunt; body elongate and slightly compressed.

***Erisphex pottii* (Steindachner)**

(Japanese name: Abu-okoze)

Materials. MUFS 12273, 53 mm SL, MNM; MUFS 12883-12884, 2 specimens, 59 mm SL, MNM; MUFS 13446, 69 mm SL, MNM; MUFS 13933, 82 mm SL, MNM.

Description. D. XI-XII, 10-11; A. I, 10; P. 11-12; V. I, 2; 5 preopercular spines strongly pointed; 4th dorsal fin spine much shorter than 3rd and 5th ones.

***Kanekonia florida* Tanaka**

(Japanese name: Hanachigo-okoze)

Materials. MUFS 13756, 35 mm SL, Aoshima, Miyazaki.

Description. D. XII, 8; A. I, 8; P. 14; V. I, 1; 4 preopercular spines present.

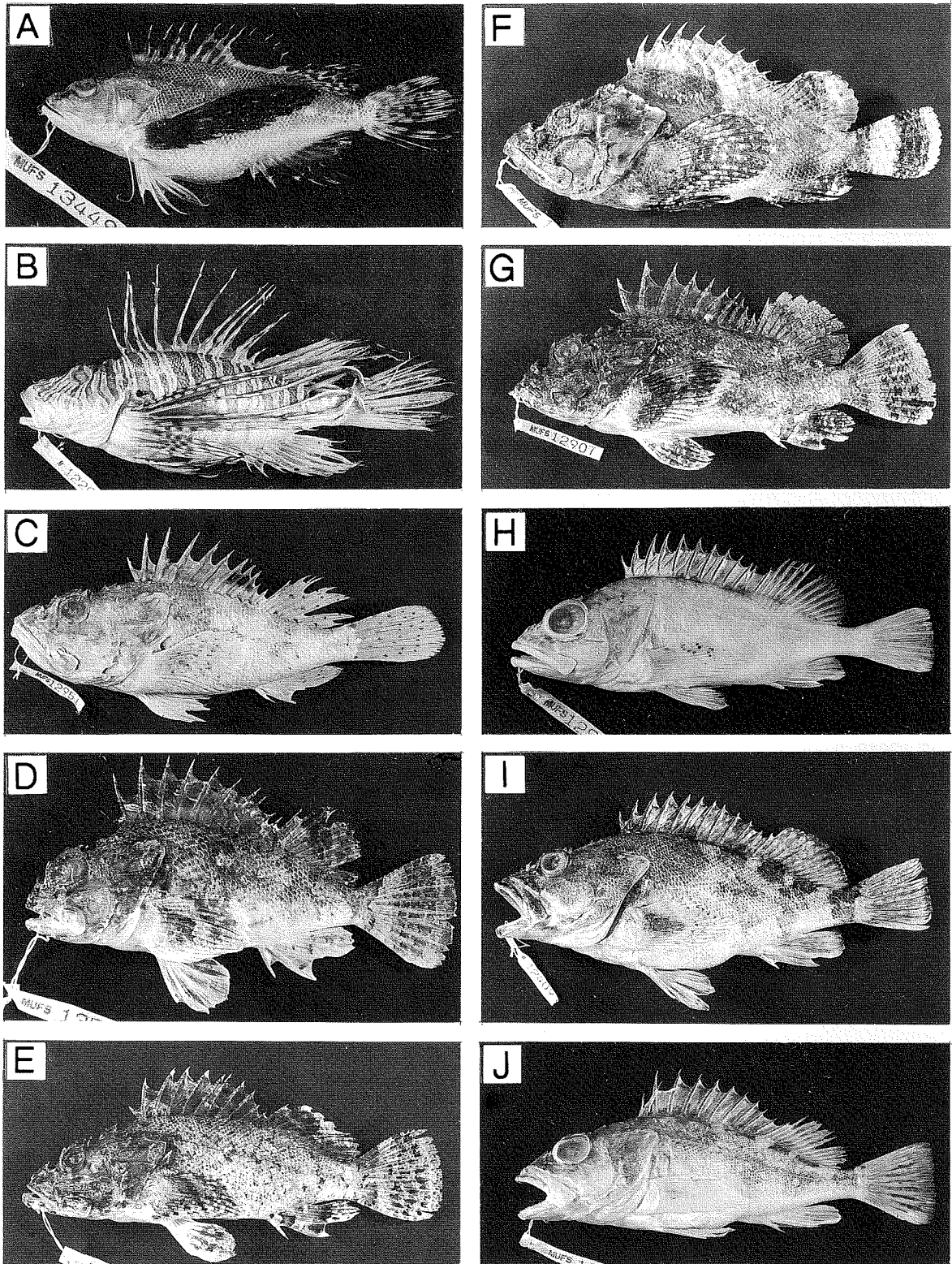


Fig. 1. Scorpaenid fishes in Miyazaki waters. A, *Apistus carinatus*, MUFS 13449, 95 mm SL; B, *Pterois lunulata*, MUFS 12205, 166 mm SL; C, *Scorpaena izensis*, MUFS 12951, 205 mm SL; D, *S. miostoma*, MUFS 13506, 109 mm SL; E, *Scorpaenopsis cirrhosa*, MUFS 13442, 143 mm SL; F, *S. neglecta*, MUFS 12892, 121 mm SL; G, *Scorpaenopsis* sp., MUFS 12907, 170 mm SL; H, *Sebastiscus albofasciatus*, MUFS 12990, 136 mm SL; I, *S. marmoratus*, MUFS 12409, 208 mm SL; J, *S. tertius*, MUFS 12914, 144 mm SL.

Discussion

Twenty one scorpaenid, five synanceiid, two tetrarogid and three aploactinid fishes belonging to twenty genera (Table 1) were recorded from Miyazaki waters. Number of specimens examined, size range and the largest size recorded in the literature for each species are shown in Table 1. Of the scorpaenid and tetrarogid fishes, young and adult stages of 11 species (*Apistus carinatus* [Fig. 1 A], *Setarches longimanus*, *Pterois lunulata* [Fig. 1 B], *Scorpaena izensis* [Fig. 1 C], *S. miostoma* [Fig. 1 D], *Scorpaenopsis cirrhosa* [Fig. 1 E], *S. neglecta* [Fig. 1 F], *Scorpaenopsis* sp. [Fig. 1 G], *Sebastiscus albofasciatus* [Fig. 1 H], *S. marmoratus* [Fig. 1 I] and *Hypodytes rubripinnis*) were captured. This indicates that these species presumably reproduce and complete their life histories in Miyazaki waters (Table 1).

Although larger specimens (over ca. 400 mm SL) of *Sebastiscus tertius* (Fig. 1 J) were not got, such were frequently seen at Meitsu fish market, the species apparently having a similar life history pattern to the above 11 species. Young examples (less than 10 cm SL) of the scorpaenid fishes, *Sebastes inermis* and *S. pachycephalus pachycephalus*, were observed only during the winter season by the second author, there being no examples in the museum collection.

Twenty-one scorpaenid and one tetrarogid species listed in Table 2, which probably occur in Miyazaki waters^{2,4)}, were not recorded during this study. Some species of *Rhinopias* had been observed along the rocky shore off Nichinan, Miyazaki Prefecture, by local divers, but they could not be collected. An earlier collection of young stages of *Sebastes oblongus* and *S. schlegeli* off Akamizu,

Nobeoka, northern Miyazaki Prefecture, made in winter by the second author, have since been lost. The remaining species (listed in Table 2) have not yet been recorded in Miyazaki waters. Of these, 3 species, *Lioscorpius longiceps*²⁾, *Pteroidichthys amboinensis*²⁰⁾ and *Rhinopias frondosa*²⁾, are considered to be very rare, only a few examples ever having been reported. The scorpaenid fishes, *Brachypterois serrulata*, *Dendrochirus brachypterus*, *Parascorpaena mossambica*, *Scorpaenopsis iop* and *Sebastapistes strongia*, and the tetrarogid fish *Ablabys taenianotus*, are relatively small fishes (less than 10 cm TL) (Table 2) and are more likely to evade capture by commercial fishing gears. In fact, although *Ectreposebastes imus* is known to occur between depths of 150-2000 m⁴⁾, most of the unrecorded species in Table 2 inhabit rock interstices in areas not conducive to set and gill net fishing.

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南日本の宮崎県に出現するフサカサゴ科, オニオコゼ科,
ハオコゼ科およびイボオコゼ科魚類

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要 約

宮崎県南郷町目井津魚市場を中心に, 宮崎県周辺水域におけるフサカサゴ科, オニオコゼ科, ハオコゼ科およびイボオコゼ科魚類の出現種を調査し, さらに, これら4科の宮崎大学所蔵標本も再検討した. その結果, フサカサゴ科魚類では12属21種, オニオコゼ科魚類では3属5種, ハオコゼ科魚類では2属2種, およ

びイボオコゼ科魚類では3属3種が確認され, 合計20属31種出現することが明らかになった. 宮崎県で確認された31種の内, フサカサゴ科魚類11種とハオコゼ科魚類1種は, 宮崎県周辺水域において幼魚から成魚まで棲息していることが確認された.

キーワード: フサカサゴ科魚類, オニオコゼ科魚類,
ハオコゼ科魚類, イボオコゼ科魚類

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