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Original Papers

Mizuki Matsunuma*, Luna Yamamori and Yumi Henmi. 2024. First reliable Japanese record of *Richardsonichthys leucogaster* (Tetrarogidae) from Amami-oshima Island, Ryukyu Islands, Japan. Japan. J. Ichthyol., 71(2): 155–161. DOI: 10.11369/jji.24-009.

Abstract A single specimen of *Richardsonichthys leucogaster* (Richardson, 1848) (Tetrarogidae) from the Oshima Channel (between Kakeroma-jima and Amami-oshima Islands), Ryukyu Islands represents the first reliable record of the species from Japan, the species having been previously recorded from Taiwan, the northernmost northwestern Pacific Ocean record. Although previous literature has included Japan in the distribution range of the species, no reliable specimen-based records have been reported. The present specimen (a small juvenile, 17.1 mm standard length) possessed the following features, characteristic of the monotypic genus *Richardsonichthys* Smith, 1958: body completely naked, except for lateral-line scales; head profile rounded; dorsal fin with 13 spines and 8 soft rays; dorsal fin origin anterior to posterior margin of orbit; membranes of spinous dorsal fin not divided (anterior 3 spines not separated from subsequent spines); anal fin with 3 spines; pelvic fin with 5 soft rays; and eye surface with 4 short tentacles. The specimen also had mostly black pelvic and anal fins, probably characteristic juvenile coloration. The new standard name "Umanohoshi-haokoze" is proposed for the species.

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Ryusei Furuhashi* and Hiroyuki Motomura. 2024. *Acanthurus auranticavus* (Acanthuridae) from Amami-oshima Island, Amami Islands, Kagoshima Prefecture, Japan: first Japanese specimen-based record and northernmost record of the species. Japan. J. Ichthyol., 71(2): 163–171. DOI: 10.11369/jji.24-012.

Abstract A single specimen (218.2 mm standard length) of the widely-distributed Indo-Pacific species *Acanthurus auranticavus* Randall, 1956 was collected from Amami-oshima Island, Amami Islands, Satsunan Islands, Kagoshima Prefecture, Japan. In Japanese waters, the species has previously been recorded only from the Yaeyama Islands based on a photograph. Thus, the Amami-oshima specimen, described herein in detail, represents the first specimen-based record of *A. auranticavus* from Japan, and northernmost record of the species. Although the Amami-oshima specimen slightly differed from the original description of *A. auranticavus* in the counts of longitudinal scales rows and upper-jaw teeth, and in the measurements of caudal-fin concavity and caudal-peduncle spine length, these differences, except for the tooth count, are considered here as individual variations. The tooth count of the

Amami-oshima specimen was less than that given in the original description, which might be based on damage at time of collection. In addition, the Amamioshima specimen differed in head, body and fin coloration from previously reported photographs of this species, but coloration variation was also observed among previously reported individuals. Therefore, all coloration differences observed in this study were considered to be individual variation. On the other hand, lack of conspicuous patterns on the head and fins, an elliptical blotch behind the upper gill opening, two orange oblique bands on the chest, a white band on the caudal-fin base, and orange coloration around the caudal-peduncle spine are features that vary little among individuals, and they are recognized to be valid features for identifying this species in this study. The Amami-oshima specimen is considered to be transported from southern waters by the Kuroshio Current at an egg or larval stage, and overwintered at Amami-oshima Island more than once, judging from its body size. However, additional specimens and/or juveniles of this species have at no time been observed around Amami-oshima Island, there being no evidence supporting the species reproducing in the vicinity of the island.
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Yoshiaki Kai*, Toyoho Gosho and Ryo Misawa. 2024. First reliable Japanese record of *Dasyscopelus brachygnathos* from the Kii-oshima Is., Wakayama and new distributional records of *Dasyscopelus*. Japan. J. Ichthyol., 71(2): 173–185. DOI: 10.11369/jji.24-020.
Abstract A single specimen of the myctophid species *Dasyscopelus brachygnathos*, collected from Kii-oshima Is., Wakayama Prefecture, Japan, represents the first specimensupported Japanese record, and northernmost of the species. The specimen was characterized by the following characters: opercle with a smooth dorsoposterior margin; eye diameter almost equal to the distance between the orbit extreme posterior margin and opercle dorsoposterior margin; a suprapectoral luminous organ just above the pectoral-fin base; a slightly angled supralateral luminous organ series; and two precaudal luminous organs well below the lateral line. The body scales of the specimen had 2–4 protrusions, being feebly ctenoid and therefore referable to the genus *Dasyscopelus* [diagnosed by variably developed ctenoid scales, and thereby distinguished from the closely related genus *Myctophum* (usually cycloid scales)]. A detailed description of the specimen is provided, with comments on scale shape being diagnostic for the genus. In addition, the northernmost Pacific records of *D. obtusirostris* (previous northernmost record ca. 39˚N) and *D. selenops* (previous northernmost record ca. 30˚N) off the Tohoku District, northern Japan are reported, with short species descriptions. DNA barcoding of the above and comparative specimens suggested that several cryptic species may also be included in the genus.
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Keita Koeda* and Hiroshi Senou. 2024. Japanese record of *Anoxypristis cuspidata*

(Rhinopristiformes; Pristidae) with comments on the standard Japanese name and current status in Japan. Japan. J. Ichthyol., 71(2): 187–198. DOI: 10.11369/jji.23-042.

Abstract A single specimen (1230 mm total length) of Pointed Sawfish, *Anoxypristis cuspidata* (Latham, 1794), trawled in the East China Sea and landed at Tokyo Market on 5 March 1928, was discovered in the fish collection of the Department of Zoology, The University Museum, The University of Tokyo. The specimen was the basis for the species being considered as probably distributed in Japanese waters. Adoption of the standard Japanese name for species in the family Pristidae are discussed, based on published records of the family in East Asia, together with examination of a Japanese specimen of *Pristis pristis* (Linnaeus, 1758). The standard Japanese name "Nokogiriei" should be applied to *A. cuspidata*, with the new standard Japanese name "Oonokogiriei" proposed for *P. pristis*. Additionally, the standard Japanese name of the order Rhinopristiformes is discussed. Based on previous reports and the current distribution of both species, it is believed that *A. cuspidata* is extinct in Japanese waters, with *P. pristis* likely to be of similar status.

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Hidetoshi Wada* and Akira Kato. 2024. Northernmost record of *Plectranthias randalli* (Serranidae: Anthiadinae) from Sagami Bay, central Japan. Japan. J. Ichthyol., 71(2): 199– 206. DOI: 10.11369/jji.24-023.

Abstract During an ichthyofaunal survey of Sagami Bay, central Japan, a single specimen (95.9 mm standard length: SL) of the genus *Plectranthias* (Serranidae: Anthiadinae) was collected off Hatyama, Kanagawa Prefecture, by line-fishing at a depth of 130 m over rocky substrate, on 6 April 2024. Subsequently identified as *Plectranthias randalli* Fourmanoir and Rivaton, 1980, the specimen had the following combination of characters: dorsal-fin rays X, 16; pectoral-fin rays 13–14, all rays branched except uppermost and lowermost rays; lateral line complete, with 37–39 pored scales; total gill rakers 20; posterior margin of preopercle with 42–44 serrae, entire ventral margin smooth; body deep, 45.2% of SL; third dorsal-fin spine longest; snout scaleless except maxilla covered with scales; two oblique broad red bands on lateral surface of body; single narrow red band from lateral surface of eye to thorax; a single small red blotch on upper portion of caudal-fin base. In addition, the specimen had 10 + 16; supraneurals 3, all similar in length; 6–7 subopercle serrae on posterior margin; 4–5 interopercle serrae on posterior margin; 5–9 serrae on posttemporal; and 6–8 serrae on lacrimal lower margin. The species has been previously recorded from the Coral Sea, Indonesia, and Taiwan, the present specimen, possibly transported by the Kuroshio Current from Taiwan or more southerly waters during the planktonic stage, representing the first Japanese record and northernmost record for the species. The new standard Japanese name "Chocho-hanadai" is proposed for *P. randalli*, based on the present specimen.

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Rei Matsuo*, Takuro Iyo, James Maclaine and Seishi Kimura. 2024. The first record of the deepwater anthiadid fish *Odontanthias randalli* (Perciformes) from Japan. Japan. J. Ichthyol., 71(2): 207–213. DOI: 10.11369/jji.24-027.
Abstract A single specimen (93.2 mm standard length) of the anthiadid fish, *Odontanthias randalli* White, 2011 previously known only from Lombok, Indonesia, Mindanao, Philippines and southern Taiwan, was recently collected from southern Kii Peninsula, Japan. This specimen is the first record of the species from Japan and now the most northernly record. *Odontanthias randalli* differs from its congeners by having a dorsal fin with 10 spines and 16–17 soft rays, 37–39 lateral-line scales, third dorsal spine elongate, third dorsal-fin soft ray produced as a long filament; caudal fin lunate with extremely long filamentous lobes, body depth 2.2–2.5 in standard length; vomerine tooth patch arrowhead shaped; body pinkish laterally with orange fringed bright yellow spots, four pale pinkish oval blotches below dorsal-fin base. The new standard Japanese name “Embi-sakuradai” is proposed here for this species. The present specimen was collected by hook and line from a hard substrate area at a depth of 130 m and is sympatric with *Odontanthias borbonius* (Valenciennes, 1828), *Odontanthias katayamai* (Randall, Maugé and Plessis, 1979) and *Odontanthias unimaculatus* (Tanaka, 1917). From this, *O. randalli* may prefer similar habitats to those congeneric species. Recently, the phenomenon of biofluorescence in fishes has attracted attention, such fluorescence being reported for, *O. katayamai*. The present study shows the fluorescent pattern of *O. randalli.*
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Notes

Minoru Sashida*, Kouko Miyauchi, Kana Takeyama, Satoshi Hasegawa, Kohtaro Toba, Hiroki Tanaka, Keita Maruyama and Toshio Furota. 2024. Japanese icefish, *Salangichthys microdon*; first Tokyo Bay record in ca. 60 years. Japan. J. Ichthyol., 71(2): 215–227. DOI: 10.11369/jji.23-040.
Abstract Icefish (*Salangichthys microdon*) fishery was once carried out in inner Tokyo Bay. However, during the period from the 1950s to the 1960s when environmental deterioration such as water pollution and shallow water reduction progressed rapidly, icefish catch in Tokyo Bay dropped sharply, and the fish became extinct in the 1960s. In February 2021, and February and March 2022, a total of 8 adult *S. microdon* individuals and 321 eggs were collected in the Tama River estuary, inner Tokyo Bay. This is the first record of its existence in almost 60 years in Tokyo Bay, suggesting that *S. microdon* is reproducing in the Tama River estuary. Attempts to determine the origin of *S. microdon* collected in the Tama River estuary by mitochondrial DNA D-loop analysis were unsuccessful due to the haplotypes identified either not occurring in populations elsewhere in Japan or being common to multiple

populations.
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Masaki Nakashimada*, Jumpei Nakamura, Haruto Fujita and Hiroyuki Motomura. 2024. Northernmost records of *Branchiostegus okinawaensis* from Amami Islands, Kagoshima Prefecture, Japan. Japan. J. Ichthyol., 71(2): 229–235. DOI: 10.11369/jji.24-014.

Abstract Seven specimens of *Branchiostegus okinawaensis* (Branchiostegidae), previously known only from Okinawa Prefecture, were collected from Amami-oshima and Kikai-jima islands, Amami Islands, Kagoshima Prefecture, Japan, being the first records of *B. okinawaensis* from Kagoshima Prefecture and northernmost records for the species. In addition, reexamination of the species confirmed the existence of a dark mid-dorsal ridge on the dorsal surface of the head from the interorbital to the dorsal-fin origin, although some authors described the absence of such a ridge. Although *B. okinawaensis* has been regarded as characterized by the orbit diameter greater than the interorbital width, such was not the case in one of the Amami specimens, indicating the variable nature of the character.
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Kazuki Matsushige, Yoshiya Yasutake, Rei Sakanoue, Yusuke Hibino and Noritaka Mochioka*. 2024. Freshwater stream migratory behavior of a silver eel (*Anguilla japonica*) observed using radio-telemetry system. Japan. J. Ichthyol., 71(2): 237–243. DOI: 10.11369/jji.24-001.

Abstract Downstream migratory behavior of a silver eel (*Anguilla japonica*) is reported using a radio-telemetry system in freshwater reaches (1.6–3.5 km from the river mouth) of the Amikake River, Kagoshima Prefecture, Japan. The silver eel individual, released on 20 October 2020, moved from the freshwater reaches to just downstream of the upper tidal limit on the night of 22 October 2020, during a period of rainfall and rising water level. After remaining near the tidal limits for 1–2 weeks, the silver eel left the study area. Rainfall and rising water level occurred once, just before and after the last eel location record, respectively.
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Katsuya Kimura*. 2024. Japanese records of the thickspine roughy *Hoplostethus robustispinus* (Trachichthyiformes: Trachichthyidae). Japan. J. Ichthyol., 71(2): 245–249. DOI: 10.11369/jji.24-028.

Abstract Although Japanese records of *Hoplostethus robustispinus* Moore and Dodd, 2010 have been reported, presumably based on two specimens from the East China Sea, neither a morphological description nor a basis for the identification of the specimens have been provided. Five trachichthyid specimens collected from the East China Sea and the Pacific

coast of Iwate and Aichi prefectures, Japan, were identified as *H. robustispinus* based on the following characters: remarkably thickened spines of the dorsal, anal and pelvic fins; 58 or 59 pyloric caeca; body bright red when fresh; and oral cavity almost entirely black. The specimens therefore represent the first reliable records from Japanese waters for the species. The new standard Japanese name “Togebuto-hiuchi” is proposed for the species.
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Shinichi Tomiyama* and Takafumi Nishimura. 2024. Second record of *Eustomias parini* from Japan. Japan. J. Ichthyol., 71(2): 251–256. DOI: 10.11369/jji.24-029.
Abstract A single specimen of a dragonfish (Stomiiformes; Stomiidae) collected from Suruga Bay, Japan and identified as *Eustomias parini* Clarke, 2001, was distinguished from other congeners by the following combination of characters: 2 pectoral-fin rays, closely bound together in membrane; 7 pelvic-fin rays; mid-ventral groove extending from isthmus to abdomen below 3rd–7th PV photopores; barbel stem darkly pigmented; a single terminal bulb; barbel length to standard length 7.1–13.5%; a single-based medial branch arising from stem well proximal to terminal bulb; a pair of lateral branches arising from medial branch well distal to stem; medial branch distal to origin of lateral branches absent or reduced. The first Japanese record of *E. parini*, a non-type specimen included in the original description, has been overlooked by Japanese ichthyologists. The Suruga Bay specimen, the second example of the species from Japan and a ca. 1,260 km northwestward extension from the previous northernmost record, is fully described. The new standard Japanese name “Matsuba-senko-hoshieso” is proposed for the species.
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