

# Papers Published in *Japanese Journal of Ichthyology*

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## *Commemorative Paper*

**Koji Maekawa\*. 2025. Fascinated by charr research: evolutionary and ecological studies on the Miyabe charr. *Japan. J. Ichthyol.*, 72(2): 131–146. DOI: 10.11369/jji.25-009. No Abstract Available.**

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## *Review*

**Toru Nagasawa. 2025. Ocean ecology of pink salmon *Oncorhynchus gorbuscha* in the Sea of Japan. *Japan. J. Ichthyol.*, 72(2): 147–169. DOI: 10.11369/jji.24-026.**

**Abstract** Pink salmon (*Oncorhynchus gorbuscha*) in the Sea of Japan comprise populations which have migrated from their natal rivers in Primorsky Krai (Primorie) and the Amur River basin (Russian Far East), and south-western Sakhalin Island. A review of the ecology of these populations, including seasonal migration, feeding, growth, and population dynamics, indicated that after downstream migration to the sea from April to June, juvenile pink salmon spend the first summer and autumn in the Sea of Okhotsk, passing through the Soya Strait in November, from where they migrate to the southern part of the Tatar Strait and continental coast in the Sea of Japan (SST < 10°C). The following February, to avoid low water temperatures (< 4°C off the continental coast), pink salmon move offshore toward the polar front in the central Sea of Japan, remaining widely distributed in the latter region between April and May. In particular, pink salmon density remained high in the area of cold-water protrusion toward the south, resulting in a favorable fishing ground for drift nets in the 1960-1990's. Fast-growing pink salmon males migrate to offshore waters of northern Japan in early spring for feeding, returning to their natal rivers earlier than females and small males. Although maturing pink salmon feed primarily on amphipods (*Themisto japonica*) in the warm water area of the polar front, they feed on euphausiids (*Thysanoessa longipes*) and juvenile arabesque greenling (*Pleurogrammus azonus*) in the cold-water area. Trending total commercial catches in the coastal regions of Primorie, Amur, and south-western Sakhalin Island differed from those of other North Pacific populations. Annual fluctuation of growth of pink salmon indicated by mean fork length in May were negative correlated with the Pacific decadal oscillation index.

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## Original Papers

**Sorari Aiba\*, Keigo Sawairi, Kohsei Ajisaka and Hiromitsu Endo. 2025. First record of the Arrow Gaper, *Champsodon sagittus* Nemeth, 1994, from southern Japan. Japan. J. Ichthyol., 72(2): 171–178. DOI: 10.11369/jji.25–004.**

**Abstract** *Champsodon* Günther, 1895 is composed of 13 valid species known from the Indo-West Pacific, which are divided into the “*C. atridorsalis* species group” (five spp.) and the “*C. vorax* species group” (eight spp.) by the shape of their anterior haemal spines, nasal rosette, and premaxillary. Among the four species of *Champsodon* found in Japan, *C. guentheri*, *C. longipinnis*, and *C. pantolepis* are included in the former group and *C. snyderi* in the latter, respectively. Four specimens (48.3–88.7 mm standard length) collected from the Okinawa Trough, Amami-oshima Island, Hyuga-nada Sea, and Tosa Bay, southern Japan, were identified as *Champsodon sagittus* Nemeth, 1994. They are characterized by having normal haemal spines and premaxillary notch (“*C. vorax* species group”) and the following features: first spine on ventral lachrymal reaching below premaxillary; a row of six pairs of sensory papillae paralleled on dorsal surface of head from snout to interorbital; papillae on nape between posterior of orbits not arranged in an arc; pupil indented ventrally; posterior end of maxillary not beyond a vertical below posterior rim of orbit; 2 + 12–13 gill rakers on first arch; area behind chin naked or with small patch; breast scaled; abdomen and the area between pectoral- and pelvic-fin bases naked; first dorsal fin pale; and body scales sparse around transverse lateral lines. Although *C. sagittus* has been recorded from India, Andaman Sea, Philippines, Indonesia, and Australia, it has not been reported from Japanese waters. Thus, the present specimens represent not only the first record from Japan but also the northernmost record of the species. The new standard Japanese name, “Yajiri-wanigisu”, is proposed for *C. sagittus*, in referring to its characteristic body shape.

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**Kenta Kuriyama\* and Hiroyuki Motomura. 2025. First Japanese record of *Parapercis moki* (Pinguipedidae) from the deep sea off Amami-oshima Island, Amami Islands, Kagoshima Prefecture, Japan. Japan. J. Ichthyol., 72(2): 179–184. DOI: 10.11369/jji.25-007.**

**Abstract** The marine sandperch genus *Parapercis* Bleeker, 1863 (Pinguipedidae) is characterized by the body nearly cylindrical anteriorly and compressed posteriorly, each jaw with a single row of recurved canine-like teeth anteriorly, followed by a band of villiform teeth, the opercle with a single sharp spine, dorsal fin continuous with four or five (rarely six) spines and 19–25 soft rays, and anal fin with a single spine and 16–20 soft rays. Approximately 90 valid species have been recognized worldwide, except in the eastern Pacific, 28 having been recorded from Japanese waters to date. On 28 June 2023, a single specimen of *Parapercis* (99.0 mm standard length), collected from the mouth of a Red Cornetfish (*Fistularia petimba* Lacepède, 1803) caught by longline in 300 m depth off Amami-oshima Island, Amami Islands (Kagoshima Prefecture), Japan was subsequently identified as

*Parapercis moki* Ho and Johnson, 2013 on the basis of the following combination of characters: very narrow interorbital space; four pairs of canine-like teeth in outer row of lower jaw; palatines each with two rows of teeth; single large spine on posteroventral corner of subopercle; dorsal fin with four spines, becoming progressively longer posteriorly; and six narrow transverse bands on body. *Parapercis moki* has been previously recorded only from the holotype and two additional specimens, all from southeastern Taiwan. The presently reported specimen represents the first record of *P. moki* from Japanese waters and northernmost record of the species, for which the new Japanese standard name “Hanezu-toragisu” is proposed.

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**Tsubasa Matsunaga\*, Daijiro Yuki and Hiromitsu Endo. 2025. First northern hemisphere record of *Ostichthys delta* (Beryciformes: Holocentridae) from Ie-jima Island, Okinawa Prefecture, Japan. Japan. J. Ichthyol., 72(2): 185–193. DOI: 10.11369/jji.24-045.**

**Abstract** The holocentrid genus *Ostichthys* Cuvier in Cuvier and Valenciennes, 1829, comprising 16 valid species, is widely distributed in tropical to temperate western Atlantic and Indo-Pacific waters. To date, four species have been recorded from Japan: *Ostichthys archiepiscopus* (Valenciennes, 1862), *Ostichthys hypsipterygion* Randall, Shimizu and Yamakawa, 1982, *Ostichthys japonicus* (Cuvier, 1829), and *Ostichthys kaianus* (Günther, 1880). In July, 2003, a single specimen of *Ostichthys* (151.5 mm SL) collected off Iejima Island (26°44'31"N, 127°48'45"E), Okinawa Prefecture, Japan, was identified as *Ostichthys delta* Randall, Shimizu and Yamakawa, 1982, recognized by the following combination of characters: dorsal-fin spines 11; scales above lateral line to middle spinous dorsal fin base 2.5; half scale anterior to first lateral-line scale absent; dorsal profile of head nearly straight; spine on anterior end of nasal bone absent; pectoral-fin rays 16; lateral-line scales 28; gill rakers 8+12; 5 upper and 4 lower spiniform procurent caudal-fin rays; last dorsal-fin spine shortest; anal fin origin beneath soft dorsal fin; deep body (depth 2.3 in standard length); short snout (length 4.6 in head length); caudal peduncle slender (depth 4.7 in head length). *Ostichthys delta* is distributed in the southern Indo-West Pacific, including the Comoros, western Mascarenes (Réunion), and Samoa (Tutuila Island), but has not been previously recorded from Japanese waters or the northern hemisphere. Thus, the present specimen from the Okinawa Islands represents the first record of *O. delta* from Japan and the northern hemisphere. The new standard Japanese name, “Churashima-ebisu”, is proposed based on the present specimen, and a revised key to the Japanese species of *Ostichthys* is provided.

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**Sorari Aiba\*, Yutaro Tsutsui and Hiromitsu Endo. 2025. First records of *Pterygotrigla* (*Otohime*) *tagala* (Herre and Kauffman, 1952) from Japan. Japan. J. Ichthyol., 72(2): 195–202. DOI: 10.11369/jji.25-015.**

**Abstract** The gurnard genus *Pterygotrigla* Waite, 1899 comprises 32 valid species in three subgenera: *Otohime* Jordan and Starks, 1907 [short rostral projection (RP) without nasal spine (NS), short

posttemporal spine (PS), very short or no cleithral spine (CS), and long opercular spine (OP)]; *Pterygotrigla* Waite, 1899 (short RP without NS, long PS and CS, and short OS); *Parapterygotrigla* Matsubara, 1937 (long RP with NS, long PS and CS, and short OS). Forty-six specimens (69.2–151.4 mm standard length) of *Pterygotrigla (Otohime) tagala* (Herre and Kauffman, 1952) were collected from Tosa Bay, Kochi Prefecture, Japan by trawl net in 100–250 m, being characterized by a spiny dorsal fin lacking black pigment, short snout (length nearly equal to orbit diameter), no vomerine teeth, 13 pectoral-fin rays, a long first free pectoral-fin ray (extending to tip of longest connected pectoral fin ray), pectoral-fin inner surface with a round jet-black blotch including one or more white spots, a scaled chest, and tubular lateral-line scales. Although *P. (O.) tagala* has been previously recorded from Thailand, the Gulf of Tonkin, Taiwan, the Philippines, and New Caledonia, the current specimens represent the first record from Japan. The standard Japanese name for *P. (O.) tagala*, “Tonkin-sokohobo,” proposed by Asano and Okamura (1963), was based on seven specimens collected from the Gulf of Tonkin (northern Vietnam/southern China).

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**Ryo Misawa\*, Makoto Furusho, Fumihito Tashiro, Yoji Narimatsu and Yoshiaki Kai. 2025. First Japanese record of *Snyderidia canina* and northernmost record of *Pyramodon ventralis* (Ophidiiformes; Carapidae), collected off the Pacific coast of Tohoku District, northern Japan. Japan. J. Ichthyol., 72(2): 203–214 DOI: 10.11369/jji.25-018.**

**Abstract** The genera *Snyderidia* Gilbert, 1905 and *Pyramodon* Smith and Radcliffe, 1913 are both free-living members of the family Carapidae, the former represented by a single valid species, *Snyderidia canina* Gilbert, 1905, distributed circumglobally in tropical and subtropical waters, and the latter by four valid species in the Indo-Pacific region, two being known from Japan: *Pyramodon ventralis* Smith and Radcliffe, 1913, and *Pyramodon lindas* Markle and Olney, 1990. Three specimens (149.8–163.8+ mm total length: TL) of *Snyderidia* and two (111.1–182.9 mm TL) of *Pyramodon* were collected off the Pacific coast of Tohoku District, northern Japan, during bottom trawl surveys conducted in autumn from 2021 to 2024. The former, identified as *S. canina* based on the following combination of characters: pelvic fins absent; dorsal fin origin anterior to anal fin origin; 6 or 7 dorsal-fin rays anterior to anal fin origin; 24–27 pectoral-fin rays; 15 precaudal vertebrae; fang-like teeth (canines) present at symphysis of both jaws; and cardiform teeth absent, represent the first Japanese records of the species, a specimen collected off Iwate Prefecture (ca. 40°N) being the northernmost record. The latter were identified as *P. ventralis* based on the following combination of characters: pelvic fins present; dorsal and anal fin posterior regions only pigmented, margins without black edge; cheek and pectoral-fin base pigmented; dorsal fin origin almost directly above anal fin origin; pectoral-fin rays 25 or 26; precaudal vertebrae 14 or 15; vertebrae to anal fin origin 6 or 7; and gnathoproctal length (snout to anus) 116.3–136.2% of head length. Since the distribution of *P. ventralis* has previously been restricted to the Indo-Pacific region south of Choshi, Chiba Prefecture, Japan, the specimen collected off Miyagi Prefecture (ca. 38°N) represents the northernmost record of the species.

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**Kosuke Honda\* and Hidetoshi Wada. 2025. First Japanese record of the perchlet, *Plectranthias inermis* (Serranidae) from the Ryukyu Islands, Southern Japan, with morphological comparison with *P. altipinnatus*. Japan. J. Ichthyol., 72(2): 215–222 DOI: 10.11369/jji.25-020.**

**Abstract** A single specimen of *Plectranthias inermis* Randall, 1980 (Perciformes: Serranidae), widely distributed in the eastern Indian Ocean from Christmas Island to the South Pacific Ocean and around Mauritius (western Indian Ocean), was collected from the Ryukyu Islands, Japan, thereby representing the first record of *P. inermis* in Japan and northernmost record of the species [previously documented northern limit being Luzon, the Philippines (type locality)]. The new standard Japanese name “Renga-hanadai” is proposed for *P. inermis*. A morphological comparison of *P. inermis* with the closely related species *Plectranthias altipinnatus* Katayama and Masuda, 1980 revealed that the former differed from *P. altipinnatus* as follows: first dorsal-fin spine longer than tenth spine [tenth dorsal-fin spine length 50.0–77.8% (mean 62.5%) of first spine length vs. 100.0–137.5% (111.2%) in *P. altipinnatus*]; second anal-fin spine relatively long [length 36.3–42.2% (38.7%) of head length vs. 27.8–34.0% (31.9%) in *P. altipinnatus*]; dorsal-fin base relatively short [length 46.9–51.4% (48.7%) of standard length vs. 51.7–56.3% (54.6%) in *P. altipinnatus*].

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## Notes

**Katsuya Kimura\*, Ryo Misawa and Fumihito Tashiro. 2025. First confirmed record of *Stemonosudis miscella* (Aulopiformes: Paralepididae) from the Japanese Exclusive Economic Zone. Japan. J. Ichthyol., 72(2): 223–228. DOI: 10.11369/jji.25-001.**

**Abstract** A single specimen [150.3 mm in standard length (SL)] of the paralepidid genus *Stemonosudis* Harry, 1951, collected off Hitachi, Ibaraki Prefecture, northern Japan, was identified as *Stemonosudis miscella* (Ege, 1933), based on the following combination of characters: 3 saddle-like blotches on dorsum before dorsal fin origin; 10 peritoneal pigment sections; predorsal length 66.1% SL; and preanal length 78.2% SL. Although the species has previously been considered to be recorded from Japanese waters, it was revealed here that there were no reliable records of the species from inside of Japanese Exclusive Economic Zone. The present specimen therefore represents the first confirmed Japanese record and northernmost record of the species.

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**Yuki Yashima\*, Shotaro Ohgita, Jyun-ichi Kitamura and Tadao Kitagawa. 2025. Morphological characterization of an unidentified local population of dojo loach, characterized as “Jindai Dojo” in the Mie Prefectural Museum fish collection. Japan. J. Ichthyol., 72(2): 229–241. DOI:**

**10.11369/jji.24-048.**

**Abstract** An unidentified local population of dojo loach (genus *Misgurnus*), restricted to the upper part of the Yodo River system (Shindo area of Iga City, Mie Prefecture, central Honshu Island) and characterized as “*Jindai Dojo*”, is currently considered to be extinct. The historical records and morphological characteristics of the “*Jindai Dojo*” collection, including 11 specimens from two different sources, in the Mie Prefectural Museum were examined. The label information and associated documents indicated that all specimens had been collected by Mr. Shunko Takashima, Principal of the Reiho Junior High School, from the Shindo area in the 1950s. Principal component analyses of meristic and morphometric characters revealed that nine (seven females and two males) of the 11 specimens labeled as “*Jindai Dojo*” differed from the Japanese common dojo loach, *M. anguillicaudatus*, but closely resembled a cryptic dojo loach, recently recognized as *M. sp. Type I* sensu Okada et al., 2017. Moreover, seven female specimens showed significant differences from *M. anguillicaudatus* in branched pectoral-fin ray count, total vertebral number, position of the first pterygiophore, head length, caudal peduncle length, caudal peduncle depth at the caudal fin base, and pelvic fin length. Sexual dimorphism in *M. sp. Type I*, the lack of raised ridges anteriorly on the body in males, and lack of spawning scars in females were also confirmed. The remaining two specimens, inferred as “intermediate-types” (as indicated on the labels), exhibited morphological features similar to those of *M. anguillicaudatus*. Overall, the findings suggested that the unidentified “*Jindai Dojo*” population was a relictual population of *M. sp. Type I*, primarily found in eastern Honshu.

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**Daichi Sasaki\*, Kimiya Abe, Keita Koeda and Seishi Kimura. 2025. Records of the Hawaiian Flagtail *Kuhlia sandvicensis* (Centrarchiformes: Kuhliidae) from the oceanic islands of Japan. Japan. J. Ichthyol., 72(2): 243–249. DOI: 10.11369/jji.25-019.**

**Abstract** Two specimens of *Kuhlia sandvicensis* (Steindachner, 1876), previously reported in Japanese waters only from Minamitori-shima Island, were recently collected from Minamidaito-jima Island, Japan. In Japanese waters, *K. sandvicensis* is most similar to *Kuhlia munda* (De Vis, 1884), but differs from the latter in having a greater number of lower gill rakers (25–30 vs. 21–26), smaller eyes (eye diameter 2.88–3.45 in head length vs. 2.30–2.80), and no dark markings on the body and fins (except black caudal-fin margins in juveniles) (vs. a black spot on the caudal-fin base and dark diagonal bands on both caudal-fin lobes). The new standard Japanese name “Saihate-yugoi” is proposed for the species.

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**Kentaro Mochizuki\*, Masahiro Aizawa, Kenji Kobayashi and Hidetoshi Wada. 2025. Arrangement of distributional records of *Pseudorasbora pumila* in the Kanto Region, Japan, and previous status of the species in the region, guessed by these distributional records. Japan. J. Ichthyol., 72(2): 251–264, DOI: 10.11369/jji.25-014.**

**Abstract** The Japanese freshwater gudgeon *Pseudorasbora pumila* Miyadi, 1930 is presently

considered extinct in the Kanto Region, with few records and limited information available from the area. Fifty-four specimens (26.7–65.4 mm standard length) of *P. pumila* collected from the Kanto Region before the 1960s, were confirmed in the fish collections of the Department of Zoology, the University Museum, the University of Tokyo, and the National Museum of Nature and Science, Tsukuba. Combining these specimen-based records with historical literature records revealed that the species had once inhabited Ibaraki, Tochigi, Gunma, and Chiba Prefectures, and possibly also Tokyo and Saitama Prefectures.

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