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First Records of the Two-tone Goatfish, *Upeneus guttatus*, from Japan, and Comparisons with *U. japonicus* (Perciformes: Mullidae)

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Upeneus guttatus (Day, 1868) (Perciformes: Mullidae) is recorded from Japan for the first time on the basis of 21 specimens (57.8–139.5 mm standard length) collected from Kagoshima Prefecture, southern Japan. These specimens also represent the first records of *U. guttatus* from East Asia and the northernmost records in the western Pacific Ocean; this species has not previously been recorded north of the Philippines. The Japanese specimens of *U. guttatus*, described herein in detail, and 14 specimens from the Indo–West Pacific are compared with 33 specimens of *U. japonicus* (Houttuyn, 1782).

Key Words: Teleostei, Actinopterygii, *Upeneus japonicus*, Kagoshima, distribution.

Introduction

Upeneus Cuvier, 1829 (Perciformes: Mullidae) was recently reviewed by Uiblein and Heemstra (2010), who recognized 26 valid species in the genus, including their four new species from the western Indian Ocean. Subsequently, Uiblein and Heemstra (2011a, b) described *U. randalli* and *U. seychellensis* as new species from the Persian Gulf and Seychelles Bank respectively. Uiblein and Heemstra (2010) defined four major species groups within *Upeneus* using a combination of the numbers of dorsal-fin spines, gill rakers and pectoral-fin rays, and caudal-fin coloration.

Upeneus guttatus (Day, 1868), widespread Indo–West Pacific species, was included in the *Upeneus japonicus* species group, which is characterized by having seven dorsal-fin spines (Uiblein and Heemstra 2010, 2011b). In the northwestern Pacific Ocean, *U. guttatus* had been recorded only from the Philippines until an ichthyological survey of southern Japan yielded 21 specimens from the East China Sea and Pacific Ocean sides of Kagoshima Prefecture at depths of less than 40 m. These specimens are described herein as the first records of *U. guttatus* from Japan and the northernmost records of this species in the western Pacific Ocean. Detailed comparisons of *U. guttatus* with a co-occurring species, *U. japonicus* (Houttuyn, 1782), are also made.

Material and Methods

Counts and measurements generally follow Randall and Kulbicki (2006) and Uiblein and Heemstra (2010). Standard length is abbreviated as SL. Osteological characters were examined from radiographs taken from six specimens of *Upeneus guttatus*. The formula for the configuration of the anterior neural spines and anterior dorsal fin pterygiophores follows Ahlstrom *et al.* (1976). The presence of a swimbladder was confirmed by dissection of the abdomen on the right side. The 'Description' section below is based on Japanese specimens of *U. guttatus*.

Specimens examined in this study have been deposited in the Australian Museum, Sydney (AMS); Bishop Museum, Honolulu (BPBM); Fisheries Research Laboratory, Mie University, Shima (FRLM); Kagoshima University Museum, Kagoshima (KAUM); Muséum National d'Histoire Naturelle, Paris (MNHN); National Museum of Nature and Science, Tsukuba (NSMT); Seikai National Fisheries Research Institute, Nagasaki (SNFR); Museum of Zoology, University of Michigan, Ann Arbor (UMMZ); and Museum Support Center, Smithsonian Institution National Museum of Natural History, Suitland (USNM).

Full counts and measurements of the following 23 specimens (74.7–139.0 mm SL) of *Upeneus japonicus* were taken: **Japan** — KAUM–I. 388, 95.8 mm SL, 19 Apr. 2006, KAUM–I. 7015, 110.7 mm SL, 9 June 2007, KAUM–I. 9847, 104.8 mm SL, 7 May 2008, east of Sakinoyama, Kataura, Kasasa, Minami-satsuma, Kagoshima, 31°25′44″N, 130°11′49″E, set net, 27 m, M. Itou; KAUM–I. 3128, 139.0 mm SL, off Kouzaki-yama, Kataura, Kasasa, Minami-satsuma, Kagoshima, 31°26′00″N, 130°10′05″E, set net, 36 m, Y. Masuda, 20 Apr. 2007; KAUM–I. 9212, 90.9 mm SL, 9 Apr. 2009, KAUM–I. 13819, 90.6 mm SL, 28 Jan. 2009,