The Percophid Fish, Matsubaraea setouchiensis, a Junior Synonym of Matsubaraea fusiforme

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Taki (1953) described a small percophid fish, *Matsubaraea setouchiensis*, on the basis of specimens from Shikoku Island, Japan. It has since been reported to inhabit sandy bottoms along shore lines in the Gulf of Thailand and Japan (Iwamoto, 1980; Senta et al., 1989). Iwamoto (1980) reviewed its generic synonymies and reported additional Thai specimens. Although he suggested that *M. setouchiensis* was conspecific with *Roxasella fusiforme* Fowler, 1943, he retained them as separate species because of differences in anal fin ray and vertebral counts.

In the course of studying Thai shore fishes, I had an opportunity to examine many specimens of this species. Detailed examinations of them and the type specimens of R. fusiforme revealed that M. setouchiensis is a junior synonym of R. fusiforme.

Methods. Methods for counts and measurements follow Hubbs and Lagler (1947). Institutional abbreviations are as follows: BSKU, Department of Biology, Kochi University, Kochi; NSMT, Department of Zoology, National Science Museum (Nat. Hist.), Tokyo; USNM, U. S. National Museum of Natural History, Washington, D.C.

Material examined. Japan: 36 specimens, 29.0-69.0 mm SL. Tottori Prefecture, Honshu, Sea of Japan, 2

specimens, NSMT-P 30844-30845; Tosa Bay, Shikoku, 32 specimens, BSKU 28740-28742, 28745, 28747, 28749-28750, 28757-28758, 28760-28765, 28767-28771, and uncatalogued BSKU specimens; Kagoshima Prefecture, Kyushu, 2 specimens, NSMT-P 29846, 30070.

Philippines: 2 specimens, 38.4-54.8 mm SL. Asparri, Luzon, holotype (USNM 99517) and paratype (USNM 99518) of *R. fusiforme*.

Thailand: 11 specimens, 34.0-61.0 mm SL. Songkhla, west coast of Gulf of Thailand, NSMT-P 34106.

Discussion. Taki (1953) provided a detailed description of *M. setouchiensis*. Corrections to the original description and additional information on morphological characters were given by Iwamoto (1980) and Senta et al. (1989). Because the species has already been well described, a description here is not necessary.

Iwamoto (1980) reported the anal fin ray count of the type specimens of R. fusiforme as 26, and the vertebral number as 9+26. His examination of seven Thai specimens and three Japanese specimens (paratypes) of M. setouchiensis showed 25 anal fin rays and 9+25 vertebrae. This one-count difference in anal fin rays and vertebrae led him to continue recognition of R. fusiforme and M. setouchiensis, although there were no other features distinguishing them.

My examination of 36 Japanese and 11 Thai specimens disclosed wider ranges in meristic characters than those given by Iwamoto (1980). The counts are as follows (my data first): soft dorsal fin rays 16-18 vs. 16-17; anal fin rays 24-26 vs. 25; pectoral fin rays 14-16 vs. 15-16; lateral-line scales 35+2 to 37+2 vs. 35+1 to 36+2; vertebrae 9+24

Table 1. Frequency distributions of fin ray counts in Matsubaraea fusiforme.

Localities	Soft dorsal fin rays			Anal fin rays			Pectoral fin rays		
	16	17	18	24	25	26	14	15	16
Japan	11	21	2	6	22	6	4	25	6
Philippines		2				2		2	
Thailand	1	8	2		11			7	2

Table 2. Frequency distributions of three meristic characters in Matsubaraea fusiforme.

Localities	Lateral-line scales			Vertebrae			Gill rakers		
	35+2	36+2	37+2	9+24	9+25	9+26	1+4	1+5	1+6
Japan	3	8	5	4	25	5	5	14	2
Philippines			1			2		1	
Thailand		5	3		11		3	4	2

to 9+26 vs. 9+25; gill rakers 1+4 to 1+6 vs. 1+4 to 1+5 (see Tables 1-2).

At the Third Indo-Pacific Fish Conference in Wellington, I had the opportunity to examine the type specimens of R. fusiforme, which were brought by Dr. G. David Johnson (USNM) at my request. Comparison of these type specimens and M. setouchiensis specimens confirmed that there are no characters differentiating the two species. Although Iwamoto (1980) reported a one-count difference in anal fin rays and vertebrae between the type specimens and his specimens of M. setouchiensis, the specimens I examined showed these differences to fall within the range for the species (Tables 1, 2). It is therefore clear that M. setouchiensis and R. fusiforme are synonyms. Iwamoto (1980) reviewed the generic synonymies and determined that Matsubaraea should be applied to the species, and that it should be called M. fusiforme.

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Literature cited

Fowler, H. W. 1943. Contributions to the biology of the Philippine Archipelago and adjacent regions. Descriptions and figures of new fishes obtained in Philippine Seas and adjacent waters by the United States Bureau of Fisheries steamer "Albatross". U. S. Natn. Mus., Bull. 100, 14(2): 53-61.

Hubbs, C. L. and K. F. Lagler. 1947. Fishes of the Great Lakes region. Cranbrook Inst. Sci., 26: i-ix+1-186, pls. 1-26.

Iwamoto, T. 1980. Matsubaraea Taki, a senior synonym of Cirrinasus Shultz (Percophididae). Japan. J. Ichthyol., 27(2): 111-114.

Senta, T., T. Noichi and K. Shigemitsu. 1989. The percophidid Matsubaraea setouchiensis from the Fukiagehama beach, southwestern Kyushu. Fac. Fish., Nagasaki Univ., (65): 1-8.

Taki, I. 1953. On two new species of fishes from the Inland Sea of Japan. J. Sci. Hiroshima Univ., (B), Div. 1, 14(1): 201-210, pl. 1.

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マツバラトラスギの学名は Matsubaraea fusiforme

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マツバラトラギスは日本とタイに分布する小型の底生性魚類で、その学名は従来 Matsubaraea setouchiensis Taki, 1953 とされていた。本種はフィリピンから模式標本のみによって知られている同属の M. fusiforme (Fowler, 1943) に酷似し、同種の可能性も示唆されていたが、臀鰭軟条数と脊椎骨数に差が見られるため別種とされていた。日本とタイで採集されたマツバラトラギスの多数の標本と M. fusiforme の模式標本を調査した結果、これらの相違は個体変異の範囲に含まれることが明らかになった。したがって、本種の学名は M. fusiforme となる。

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