

First Record of the Labrid Fish, *Wetmorella philippina*, from Japan

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In 1928, Fowler and Bean proposed the genus *Wetmorella* and described *W. philippina* on the basis of six specimens from the Philippines. Later, three species and one subspecies were added from the Marshall Islands and the Red Sea by Schultz and Marshall (1954): *W. albofasciata*, *W. ocellata*, *W. triocellata* and *W. philippina bifasciata*. The fishes of the genus are widely distributed in the Indo-Pacific region. However, no species has been recorded from Japan.

The authors obtained one labrid specimen at Kuroshima (24°25'N, 124°10'E). The fish is small (51.0 mm SL) and, in our first impression, seemed to resemble the young of *Epibulus insidator* (Pallas). We identified it as *W. philippina*, which is new to Japan. Two additional specimens were collected at the same locality (but at a greater depth) in 1978 and 1979 by Dr. Hitoshi Ida, Kitasato University.

In the present paper, we record *W. philippina* from Japan for the first time with discussion on the validity of *W. ocellata*.

Wetmorella Fowler et Bean

(New Japanese name: Hashinagabera zoku)

Wetmorella Fowler et Bean, 1928: 211 (type species, *Wetmorella philippina* Fowler et Bean)

Cheilinus Lacepède, Fowler, 1931: 358; Beaufort, 1940: 82.

Wetmorella philippina Fowler et Bean

(New Japanese name: Hashinagabera)

(Fig. 1)

Wetmorella philippina Fowler et Bean, 1928: 211 (type locality, Zamboanga, the Philippines); Smith, 1952: 1024 (Mozambique, South Africa); Smith, 1955: 932 (the Aldabra Islands); 1957: 108, pl. 2 (listed from western Indian Ocean); Smith and Smith, 1969: 40, pl. 80 (listed from the Seychelle Islands);

Randall, 1973: 198 (listed from the Society Islands); Harmelin-Vivien, 1977: 292 (Madagascar); Carcasson, 1977: 188 (listed from the Indo-Pacific region); Shen and Choi, 1978: 110, fig. 119 (Taiwan).

Wetmorella ocellata Schultz and Marshall, 1954: 444, pl. 12 (type locality, the Marshall Islands); Choat, 1969: 33, pl. 4 (Heron Island); Kami, 1971: 222 (listed from Guam); Burgess and Axelrod, 1975: figs. 354 and 355 (the Solomon Islands); Harmelin-Vivien, 1977: 292 (Madagascar).

Wetmorella philippina philippina; Schultz and Marshall, 1954: 431, fig. 52; Schultz, 1960: 138, pl. 93.

Wetmorella philippina bifasciata Schultz and Marshall, 1954: 441, fig. 53, pl. 12 (Red Sea); Schultz, 1960: 138.

Materials. Three specimens from Kuroshima, the Yaeyama Group, the Ryukyu Islands: KUFL 771013, 51.0 mm SL, collected from a patch reef (depth 3 m) on October 13, 1977 by Nobuhiko Mizushima; KUFL 780225, 39.1 mm SL, on outer reef slope (10 m), on February 25, 1978; KUFL 790218, 35.2 mm SL, on outer reef slope (10 m), on February 18, 1979, deposited at Fisheries Laboratory, Kyushu University (KUFL). Ten specimens from the Marianas Islands: UG 5133, 33.0~47.0 mm SL, collected in August 1970, deposited at Marine Laboratory, University of Guam (UG).

Description. Dorsal fin rays IX, 10; anal fin rays III, 8; pectoral fin rays ii, 10; branched caudal rays 6+5; pored lateral line scales 13~14+4~5=18 (plus three beyond hypurals). Measurements are given in Table 1.

Body deep, compressed. Snout pointed, forming a triangular head shape. Jaws equal, premaxillary protractile; teeth short, conical, in a single row in both jaws, those near front of both jaws largest, no canines at corners of mouth. Gill membranes broadly jointed and free from isthmus. Large cycloid scales on whole body except anterior side of snout; dorsal and anal fins with a basal row of vertically elongate scales; basal part of caudal fin covered by large scales; axillary pelvic scale present. Lateral line interrupted.

Color of the 51.0 mm SL specimen (KUFL

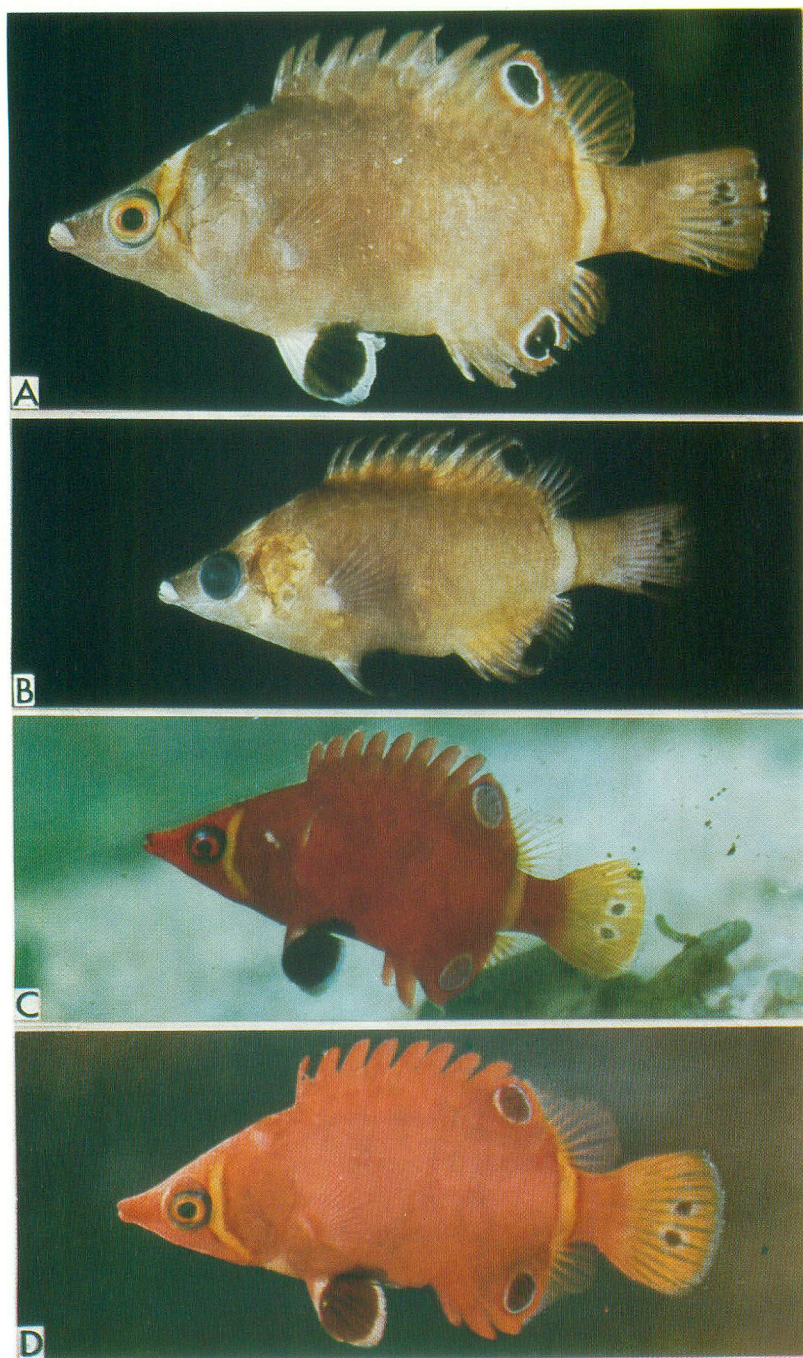


Fig. 1. *Wetmorella philippina* Fowler et Bean from the island of Kuroshima, the Ryukyu Islands: A: 51.0 mm SL, freshly preserved, photo by Y. Yogo. B: 51.0 mm SL, one year after preservation, by Dr. A. Nakazono. C: 39.1 mm SL, in life, by Dr. H. Ida. D: 39.1 mm SL, freshly preserved, by Dr. H. Ida.

Table 1. Measurements, counts and color markings of *W. philippina* and *W. ocellata*. Measurements are expressed as thousandths of standard length. The existence of the two types of color markings are expressed by plus sign (present) and minus sign (absent), and the number of black spots on caudal fin are indicated in parentheses.

Character	<i>W. philippina</i>			<i>W. ocellata</i>									
	Ryukyu Islands			Marianas Islands (UG 5133)									
Standard length (mm)	51.0	39.1	35.2	33.0	34.2	34.9	35.6	38.1	40.2	40.5	40.6	40.9	47.0
Head length	382	368	389	358	374	364	368	365	386	388	382	384	362
Snout length	110	110	114	115	120	109	112	105	117	119	126	130	121
Body depth	392	373	392	364	406	382	388	381	376	383	384	411	398
Eye diameter	104	115	119	130	127	123	121	126	117	121	121	122	123
Interorbital space	92	92	94	79	94	97	84	97	95	96	94	93	85
Pre-dorsal length	435	440	440	455	468	441	447	449	448	444	458	467	432
Dorsal fin base	537	550	520	506	512	499	531	514	480	494	512	533	477
Pre-anal length	686	668	693	736	722	716	699	699	704	699	739	719	698
Anal fin base	256	251	256	264	284	278	275	262	254	262	246	254	283
Length of 1st dorsal spine	88	87	85	85	91	86	71	87	85	84	79	78	91
Length of 1st anal spine	100	105	105	115	105	112	110	108	104	101	111	110	106
Length of 2nd anal spine	161	156	156	164	149	152	157	160	152	151	165	159	160
Length of 3rd anal spine	173	174	170	185	170	169	166	176	172	168	177	174	177
Pectoral fin length	227	225	222	233	246	232	228	236	224	235	236	235	230
Pelvic fin length	184	205	222	200	193	189	188	197	192	200	197	198	196
Length of pelvic spine	124	123	134	136	132	135	129	126	127	126	123	125	130
Caudal length	243	261	230	267	257	232	239	234	234	252	266	259	234
Caudal peduncle depth	143	143	139	130	132	140	140	136	127	128	131	137	136
Pored lateral line scales	13+5	13+5	14+4	14+4	13+6	13+5	13+5	14+5	13+6	13+5	13+5	13+5	13+6
Black spots on caudal fin	+(5)	+(4)*	+(3)	+(3)	-	-	-	-	-	-	-	-	-
Black dots on middle side	-	+	-	+	+	+	+	+	-	+	+	-	-

* Two small spots almost disappeared after preservation.

771013), freshly preserved: Yellowish brown generally, with a transverse pale yellow bar on head and another on caudal peduncle, and a black ocellus on posterior parts of dorsal and another on anal fin. The pale yellow bars edged with brown, one extending from occiput through hinder rim of eye to lower posterior corner of preopercle and the other from rear base of dorsal fin, thence across caudal peduncle to rear base of anal fin. The black dorsal and anal ocelli, rimmed in white and red, equal to eye diameter; dorsal ocellus extending from the ninth spine to the fourth soft ray; anal ocellus from the third spine to the fourth soft ray. Pelvic fins white, with a black blotch larger than eye. This blotch covers almost all of pelvic fins and continues as a black blotch on adjacent region of abdomen. Soft rays of pectoral, dorsal and anal fins pale red, their membranes transparent; fin membranes of spinous dorsal and anal yellowish brown. Five black spots in center of caudal fin. Pupil red, rimmed in reddish orange; iris yellow, rimmed in yellowish brown.

The 39.1 mm SL specimen (KUFL 780225) differs from the 51.0 mm SL specimen chiefly in its reddish brown ground color, yellow caudal, and in the presence of about ten black dots on middle side of body. The 35.2 mm SL specimen (KUFL 790218) is similar to the 39.1 mm SL specimen in color pattern, but lacks dots on middle side of body.

In preservative the colors fade, especially the red pigments, which disappear completely. The bars on head and caudal peduncle may retain a pale yellowish cast as well as the dark brown edge. The black dots on the middle side of body and smaller black spots on the caudal fin of the 39.1 mm SL specimen almost disappeared after about one year in alcohol.

Remarks. The taxonomy of the genus *Wetmorella* seems to be rather confused. Smith (1957) examined specimens of *W. philippina* from the western Indian Ocean, and observed all gradations from plain dusky to almost completely spotted caudal fins. He denied the subspecies *W. philippina bifasciata* and doubted the validity of *W. ocellata*. Schultz (1960) noted that *W. ocellata* is closely

related to *W. philippina*, but differs from it in some color markings, i.e., *W. ocellata* has many black dots on the middle side of the body and lacks black spots on the caudal fin, however these markings are reversed in *W. philippina*.

We examined ten specimens referable to *W. ocellata* from the Marianas Islands and compared them with our three specimens (Table 1). Fin ray counts of the thirteen specimens are identical. The black dots on the middle side of the body peculiar to *W. ocellata* were absent in our three specimens, while the black spots on the caudal fin peculiar to *W. philippina* were present in one specimen from the Marianas Islands. These four specimens do not agree with either species, according to the key provided by Schultz and Marshall (1954). In addition, their body proportions and meristic features overlap.

The black dots on the middle side of the body and some of the smaller spots on the caudal fin seem to become indistinct or disappear after preservation. As pointed out by Smith (1957), the number of black spots on the caudal fin are subject to individual variation.

Although morphological changes due to the growth and sexuality of members of the genus *Wetmorella* are unknown, we treated here *W. ocellata* as a junior synonym of *W. philippina*. We now think that *W. philippina bifasciata* can not be regarded as a subspecies in the Red Sea.

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日本から初記録の *Wetmorella philippina* ハシナガベラ (新称)

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八重山群島黒島から *Wetmorella philippina* 3 個体が得られた。本種はわが国からは初記録で、その和名としてハシナガベラを提唱する。本種は体長 3~5 cm ほどの小型種で、サンゴ礁の比較的浅い場所に生息している。昭和 52 年 10 月 13 日に得られた個体 (51.0 mm SL) の生時の色彩は、全体が黄褐色を呈し、頭部と尾柄部に淡黄色横帯、腹鰭に黒色斑および背鰭と臀鰭に眼状斑などの特徴的な斑紋をもっていた。

採集標本の記載を行うとともに、近縁種とされてきた *W. ocellata* との分類学的な比較、検討を行ったが、両種の形態および色彩には差違がほとんど認められず、*W. ocellata* は本種のシノニムと判断した。

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