

***Stellistius katsukii* Jordan et Tanaka, 1927, a Junior
Synonym of *Pleurogrammus azonus* Jordan et Metz,
1913 (Scorpaeniformes: Hexagrammidae)**

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The monotypic genus *Stellistius* (*S. katsukii* Jordan et Tanaka), is a problematic hexagrammid because only the holotype has been collected from off Muroran, Hokkaido, Japan (Taranetz, 1937; Okada, 1938; Okada and Matsubara, 1938; Matsubara, 1955; Amaoka, 1984). On the other hand, *Pleurogrammus*, which is very similar to the genus *Stellistius*, contains two species, and one of them, *P. azonus* is a common commercial fish and is distributed around the type locality of *S. katsukii* (Rutenberg, 1962; Amaoka, 1984).

Quast (1960) believed that this species was a merely juvenile *Pleurogrammus monoptyerygius* because the diagnostic characters of this genus might be variations of characters of the genus *Pleurogrammus*, excluding some characters such as the first dorsal spine being the longest. Rutenberg (1962) thought that this genus was a junior synonym of *Pleurogrammus* since *S. katsukii* was suspected as an abnormal young specimen of *P. azonus*. Nevertheless, *Stellistius* was not synonymized into *Pleurogrammus* by the above authors. The validity of *Stellistius* has been upheld by some ichthyologists (e.g., Tominaga and Uyeno, 1981; Amaoka, 1984) because it was considered that this genus was characterized by the first dorsal spine being the longest, which is unique among the family Hexagrammidae.

During a taxonomic survey of the hexagrammid fishes, we reexamined the holotypes of *Stellistius katsukii* and *Pleurogrammus azonus*. Here we document that the former species is a young of the latter, and should be synonymized with it.

Materials and Methods

Abbreviations for examined material follow Leviton et al. (1985).

FMNH 59186 (151.7 mm SL, holotype of *Stellistius katsukii*), Muroran, Hokkaido, Japan (42°21'N, 140°59'E); FMNH 55796 (309.5 mm SL, holotype of *Pleurogrammus azonus*), Chinnampo, Korea, 1911. Comparative material: twenty-three specimens, 126.7-312.4 mm SL: HUMZ 5070, 41°46'N, 140°44'E (Hakodate, Hokkaido, Japan), date unknown; HUMZ 40923, 44°23'N, 143°22'E (off Monbetsu, Hokkaido, Japan), 7 Sept. 1969; HUMZ 44268, 43°14'N, 140°17'E (off Yoichi, Hokkaido, Japan), date unknown; HUMZ 45540, all data unknown; HUMZ 49801, 41°54'N, 140°57'E (Usujiri, southern Hokkaido, Japan), 22 July 1975; HUMZ 64484, 64486, (Hakodate), 21 May 1977; HUMZ 81058, (Usujiri), 18 May 1979; HUMZ 104963, (Usujiri), 29 May 1985; HUMZ 109509, 109513, (Usujiri), 20 June 1986; HUMZ 116264-116269, 116271-116274, 116276, 116278, (Usujiri), 10 May 1990.

The methods for making counts and measurements follow Hubbs and Lagler (1958). Vertebrae and other skeletal elements were examined from radiographs.

Result and Discussion

Counts and measurements are shown in Table 1.

According to Jordan and Tanaka (1927) *Stellistius katsukii* is very similar to the *Pleurogrammus* species but it is distinguishable from the latter at the generic level in having a lower dorsal fin with feebler spines, the anterior spines being highest, the median spines being not elevated, a different course of the lower lateral lines, a slenderer body, and a smaller mouth and scales (Fig. 1B). Our reexamination of the holotype of *S. katsukii*, revealed that the first spine was the shortest of the dorsal fin spines (Fig. 2). In the anterior part of dorsal fin proceeding posteriorly the spines become gradually longer as in *Pleurogrammus*. Because the first two or three dorsal spines are small and weak and are not easily seen without a radiograph, it is judged that Jordan and Tanaka (1927) were incorrect about this character. In addition, the following other differences were revealed between our reexamination and the original description and figure (Fig. 1B): dorsal-fin rays XXI, 28 in our observation as against XX, 26; two-paired nostrils as against one-paired (from the figure); each dorsal and anal soft-ray being branched only at tip as against from its root (figure); no anal spines as against two anal spines. It is concluded based on the above observations that the genus *Stellistius* cannot be supported.

Stellistius katsukii bears the following diagnostic characters of *Pleurogrammus azonus*, which were specified by Rutenberg (1962): first pair of lateral

lines not meeting on the occiput, running far anteriorly; both first lateral lines converging with each other behind the dorsal fin; second lateral line bending rather abruptly down beneath last ray of the dorsal and running through the middle of the caudal peduncle; more than 150 pores on the lateral line. Also, both counts and proportional measurements of *S. katsukii* showed no clear differences from those of the holotype and 23 comparative specimens (including some of similar size to *S. katsukii*) of *Pleurogrammus azonus* (Table 1). In addition, as Rutenberg (1962) commented, the coloration of *S. katsu-*

kii, which was characterized with a dark vermicular pattern, is similar to that of immature specimens of *P. azonus* which are frequently found in Japanese waters.

Consequently, *S. katsukii* is judged to be a young specimen and junior synonym of *P. azonus*.

Additional note. The type specimen of *Stellistius katsukii* was transferred with that of *Pleurogrammus azonus* from the Carnegie Museum of Natural History to the Field Museum of Natural History several years ago. Although the catalogue No. 13776 of the

Table 1. Counts and proportional measurements of *Stellistius katsukii* and *Pleurogrammus azonus*

	<i>Stellistius katsukii</i>		<i>Pleurogrammus azonus</i>	
	FMNH 59186 Holotype	FMNH 55796 Holotype	Comparative specimens ($n = 23$)	
Counts				
Dorsal-fin rays	XXI, 28	XXII, 28	XXI-XXIV, 24-29	
Anal-fin rays	29	28	27-30	
Pectoral-fin rays	23	24	22-25	
Pores on lateral line	153	175	150-180	
Scales above lateral line	24	25	23-28	
Scales below lateral line	57	57	53-61	
Vertebrae (abdominal)	27	27	27-28	
Vertebrae (caudal)	34	34	33-35	
Mesurements (mm)				
Total length	—	359.3	150.0-357.6	
Standard length	151.7	309.5	126.7-312.4	
(% of Standard length)				
Body depth	28.7 (18.9)	67.2 (21.7)	(15.9-24.3)	
Body width	20.9 (13.8)	45.6 (14.7)	(11.4-15.9)	
Head length	35.5 (23.4)	83.3 (26.9)	(22.1-25.3)	
Head width	17.5 (11.5)	44.0 (14.2)	(9.7-14.1)	
Predorsal length	38.7 (25.5)	83.5 (27.0)	(22.6-26.2)	
Length of dorsal base (spine)	42.7 (28.1)	83.8 (27.1)	(25.1-30.2)	
Length of dorsal base (soft ray)	58.6 (38.6)	104.9 (33.9)	(32.7-39.1)	
Preanal length	79.4 (52.3)	180.9 (58.4)	(49.9-58.1)	
Length of anal base	50.1 (33.0)	102.1 (33.0)	(32.0-36.6)	
Prepectoral length	36.2 (23.9)	87.2 (28.2)	(22.0-26.7)	
Pectoral length	24.3 (16.0)	68.0 (22.0)	(13.1-19.8)	
Length of pectoral base	10.1 (6.7)	24.6 (8.0)	(6.0-7.8)	
Prepelvic length	43.5 (28.7)	106.3 (34.3)	(25.5-32.1)	
Pelvic length	16.0 (10.5)	44.7 (14.4)	(9.6-13.0)	
Caudal peduncle depth	8.5 (5.6)	17.0 (5.5)	(5.1-6.2)	
Caudal peduncle length	21.9 (14.4)	42.9 (13.9)	(12.7-15.9)	
(% of Head length)				
Snout length	11.6 (32.7)	31.4 (32.1)	(31.0-36.8)	
Upper jaw length	11.7 (33.0)	28.7 (34.5)	(31.4-38.0)	
Suborbital width	3.6 (10.1)	9.5 (11.4)	(8.1-12.5)	
Eye diameter	7.8 (22.0)	14.9 (17.9)	(16.8-21.4)	
Interorbital width	11.6 (32.7)	23.3 (28.0)	(29.5-34.2)	
Orbit to preopercle	9.8 (27.6)	23.2 (27.9)	(22.3-30.0)	

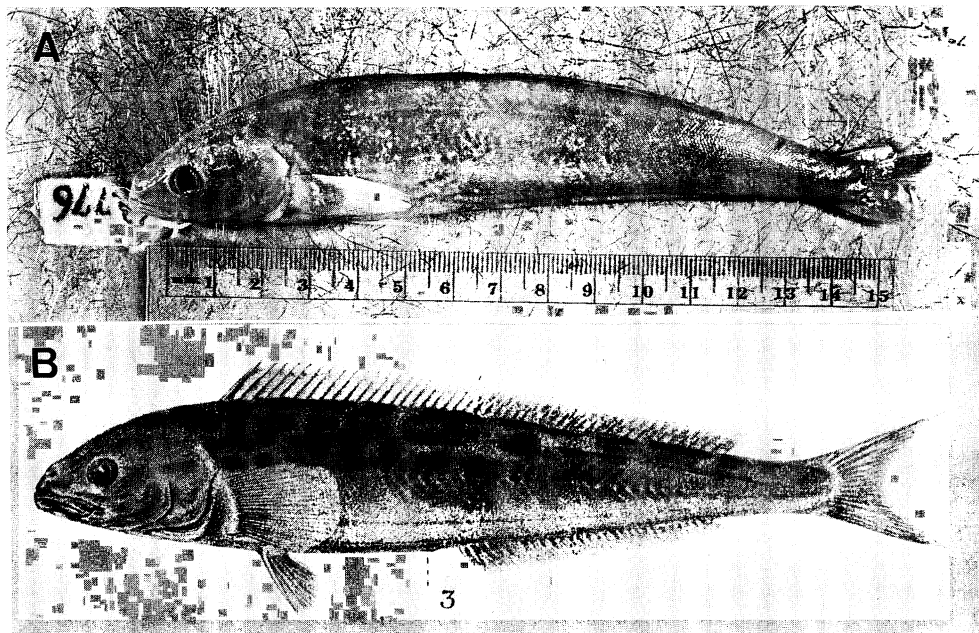


Fig. 1. *Stellistius katsukii* from off Muroan, Hokkaido, Japan. A) Photograph of holotype (FMNH 59186); B) drawing of holotype from Jordan and Tanaka (1927).

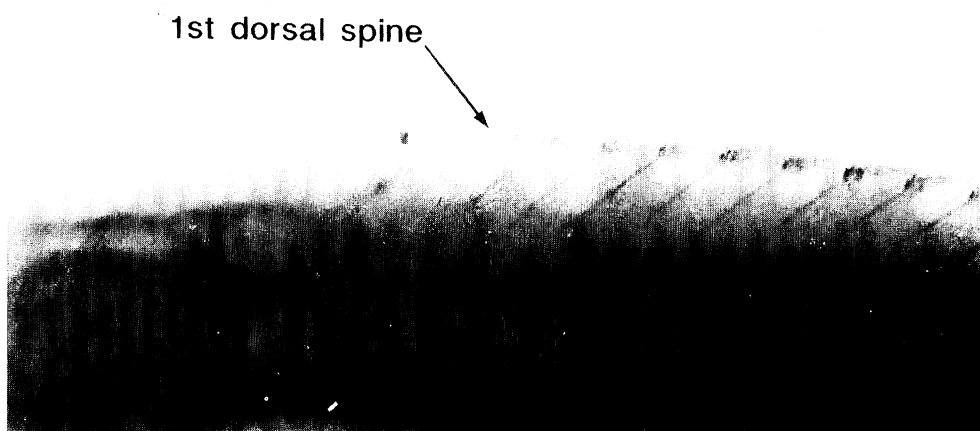


Fig. 2. Radiograph of the dorsoanterior part of *Stellistius katsukii* (FMNH 59186).

type specimen (Fig. 1A) differs from that of the both Field Museum (No. 59186) and Carnegie Museum (No. 8329a, see Jordan and Tanaka, 1927), the number is considered as a personal tag (of Jordan and/or Tanaka?) (Rogers, pers. comm.).

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ヤセアイナメはホッケの新参シノニム

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北海道室蘭沖から得られ、完模式標本以外に採集例のないヤセアイナメ *Stellistius katsukii* Jordan et Tanaka, 1927 と同海域で普通に採集されるホッケ *Pleurogrammus azonus* Jordan et Metz, 1913 との関係について主に外部形態に基づき調査した。両種の完模式標本と日本各地から得た 23 個体のホッケの標本を比較したところ、両者に差異は認められなかった。従って、ヤセアイナメはホッケのシノニムであり、ヤセアイナメ 1 種のみを含むヤセアイナメ属 *Stellistius* もホッケ属 *Pleurogrammus* のシノニムである。また、背鰭第 1 鰭条が長く、後続のものと同様であるというヤセアイナメ属の特徴は模式標本の再調査では認められず、Jordan and Tanaka (1927) の観察が誤りであったと判断された。

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