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Vinciguerria nimbaria (Jordan and Williams), a Gonostomatid Fish New to the Fauna of Japan

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During my visit to the Far Seas Fisheries Research Laboratory (Shimizu, Shizuoka Pref.) in the autumn of 1968, I often took a walk along the sandy beach of Miho near the Laboratory, directly facing the western side of the Suruga Bay. At times, it was observed that a great number of fishes, composed mainly of the several species of the Myctophidae, *Maurolicus muelleri japonicus* Ishikawa, and *Bregmaceros* sp., and the sergestid shrimps, *Sergestes lucens* Hansen, were stranded ashore usually along the high tide level. Among them, I found five specimens of the genus *Vinciguerria*, probably referable to *V. nimbaria* (Jordan and Williams).

As far as I know, one and the only information for the genus *Vinciguerria* in Japan is Imai's preliminary report (1961), in which *Vinciguerria lucetia* (Garman) was listed as the bathypelagic fish obtained in the southwestern sea of Kyushu.

Evidently, this must be the first record of *Vinciguerria nimbaria* (Jordan and Williams) from the Japanese water, so that several remarks on the present specimens are given in this paper, with a new Japanese name proposed.

Vinciguerria nimbaria (Jordan and Williams)

New Japanese Name: Yabe-Ukieso

Material: 1 specimen, 26.0 mm in standard length, collected on the beach of Miho (35°-00′N, 138°-32′E), Shimizu, Japan, Oct. 29, 1968; 4 specimens, 26.6–37.8 mm, the same locality, Nov. 18, 1968. Deposited at the museum of the Japan Sea Regional Fisheries Research Laboratory.

Counts of all specimens are shown in Table 1, but the photograph (Fig. 1) and the measurements are given for the largest specimen only.

Measurements in mm: Total length 43.0; standard length 37.8; maximum body depth 6.7; head length 10.0; least depth of caudal peduncle 2.88; eye diameter 2.63; snout length 1.94; premaxillary 1.06; maxillary

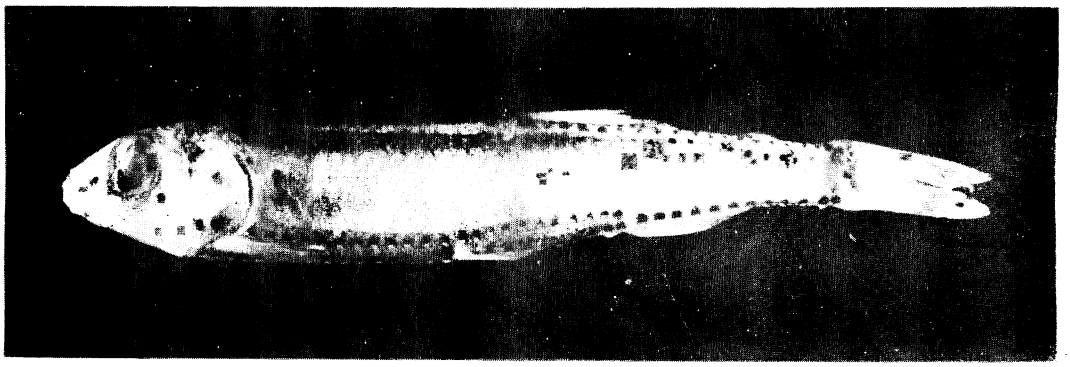

Fig. 1. The largest specimen, 37.8 mm in standard length of *Vinciguerria nimbaria* (Jordan and Williams) taken from Suruga Bay, Japan.

(toothed portion) 4.69; snout to dorsal 22.6; snout to anal 26.4; snout to ventral 19.2; dorsal base 6.6; anal base 5.5; longest dorsal ray (2nd) 4.44; longest anal ray (2nd) 3.19; ventral ray 3.38; pectoral ray 5.5; adipose fin length 1.69.

Morphological features of the Japanese specimens essentially agree with the descriptions given by Ahlstrom and Counts (1958) and Grey (1964). Therefore, only a few aspects of particular interest will be mentioned below.

The largest specimen at my hand well retained the cycloid scales, which are deciduous as already indicated by Ahlstrom and Counts (1958), loosely beset over the body. These scales (Fig. 2) are rather large, thin, transparent and roughly ovoid in outline, but vary in size and shape according to the locations. In addition, they are provided with 12–13 ridges and one or two radial grooves in the anterior half. Grey (1964) probably mistook as "scales absent, no evidence of scalation". As regards the dentition, her description goes that "the premaxillary bears 6–12 small, unequal teeth...". On the other hand, the relevant count revealed by Ahlstrom and Counts (1958) is 12–17, and one of the Japanese specimens possesses 19 smaller and longer teeth on the premaxillary.

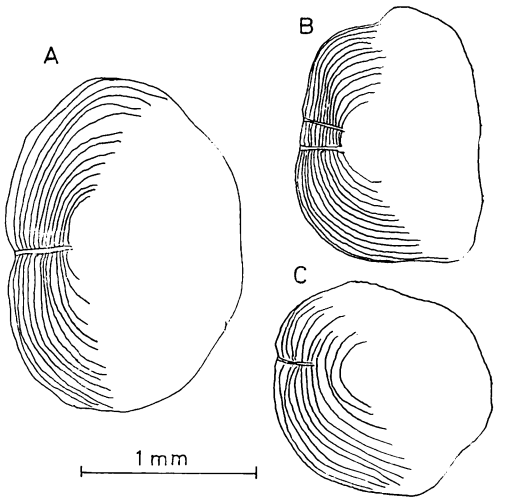

Fig. 2. Scales of the largest specimen of *Vinciguerria* (Jordan and Williams) (see Fig. 1). A, taken from the abdomen; B, dorsolateral side; C, ventrolateral side.

Although there are no significant differences

Table 1. Standard lengths and meristic characters of 5 specimens of *Vinciguerria nimbaria* (Jordan and Williams) from Japan, and the known ranges of the counts in the species given by Ahlstrom and Counts (1958) and Grey (1964). The photophores groups are defined following Grey (1960); counts given in parentheses for AC are those on the right side of fish.

	Specimens from the beach of Miho					Known ranges
Standard length	26.0	26.6	32.4	34.6	37.8	
Dorsal fin rays	13	14	13	ca.13	14	13–16
Anal fin rays	14	14	14	14	14	13–17
Ventral fin rays	7	7	7	7	7	7
Pectoral fin rays	10	10	10	10	10	9–10
Caudal fin rays	10+9	10+9	10+9	10+9	10+9	—
Branchiostegal rays	11	11	—	—	11	—
Gill rakers on 1st gill arch	5+15	6+15	5+14	5+13	4+14	5−6+13−15
Photophore groups:						
ORB	2	2	2	2	2	2
OP	3	3	3	3	3	3
SO	1	1	1	1	1	1
BR	8	8	8	8	8	8
IV	22	23	22	22	22	23–24
VAV	10	10	9	9	10	9–11
AC	12(13)	ca.11	13	13	12(13)	12–14
OA	23	23	?	22	23	24–25

in the meristic characters including the photophores (Table 1) between the Japanese and the hitherto described specimens, the former are apt to give the lower counts. Such a trend thus resulted in the recognizable discrepancy in the full complement of the photophores in the manner such as 80–83 on each side of the body in the Japanese specimens against 84–87 in the eastern Pacific ones (Ahlstrom and Counts, 1958). Owing to the small sample size of the Japanese material, however, these differences may be insufficient for the specific distinction.

Four species of the genus *Vinciguerria* are currently recognized: *V. nimbaria, V. lucetia, V. poweriae,* and *V. attenuata,* and the first species alone has been known to be worldwide in its distribution (Briggs, 1960). According to Ahlstrom and Counts (1958), in spite of their great abundance, little overlap occurs in the distribution of the closely allied former two species; *V. nimbaria* occurs to the west of 134°W, whereas *V. lucetia* is conspicuously frequent in the net hauls in the further eastern regions adjacent to the American Continent. Such an evidence poses the question on the validity of Imai's identification of *V. lucetia.*

Anyhow, in view of the fact that five specimens of *V. nimbaria* were collected during a short time, it appears that the occurrence of this genus is not so rare at the western side of the Pacific.

It seems worthwhile to mention herewith that *V. nimbaria* lives closest to the sea surface among three sympatric congeners in the North Atlantic (Marshall, 1954: 342) and its occasional appearances in the sea surface and the strandings were already reported by Grey (1964).

New Japanese name, "Yabe-Ukieso" is proposed in honor of Dr. Hiroshi Yabe, the Director of the Far Seas Fisheries Research Laboratory.

My thanks are due to Drs. Hiroshi Yabe and Shoji Ueyanagi of the Far Seas Fisheries Research Laboratory for the facilities and assistances rendered for me during the stay at that Laboratory. I also wish to thank to Dr. Izumi Nakamura of the Kyoto University for his kind informations on the genus *Vinciguerria.*

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わが国から初記録のヤベウキエソ（新和名） 沖山宗雄

昭和 43 年秋に，駿河湾西岸に面した三保海岸に打上げられた多数の魚類の中から，これまでわが国から記録されたことのないヨコエソ科の 1 種 *Vinciguerria nimbaria* (Jordan and Williams) と同定される 5 個体（体長 26.0 ～ 37.8 mm）を発見した．これらの個体は他の海域のものに較べて総体的に発光器数が少ない傾向を示した．鱗の形態について詳述するとともに，ヤベウキエソという新和名を提唱した．

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