

### The Third Specimen of Cyclopterid Fish, *Eumicrotremus barbatus*, from Japan

Kaoru Kido

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*Eumicrotremus barbatus* (Lindberg et Legeza), family Cyclopteridae, has been known from off the southern extremity of Paramushir Island, Kuril Islands (Lindberg and Legeza, 1955) and from shore of Igitkin Island, Aleutian Islands (Ueno, 1970) (Fig. 1). The third specimen of this species was captured from off Abashiri (44°37'N, 144°04.5'E) (Fig. 1), Hokkaido, by trawl on June 4, 1982, at depth of 210 m. This specimen is deposited at the Laboratory of Marine Zoology, Faculty of Fisheries, Hokkaido University as HUMZ 95456. Counts, measurements and terminology follow Ueno (1970).

*Eumicrotremus barbatus*  
(Lindberg et Legeza, 1955)  
(Japanese name: Hige-dango)

(Fig. 2)

**Description.** Counts and measurements are shown in Table 1. Eye relatively large. Both anterior and posterior nostrils with long tubes; posterior nostril longer than the anterior. Mouth cleft small, not reaching below anterior margin of eye. Lips fleshy and thick. Teeth on both jaws small, conical, arranged in 2 or

3 irregular rows anteriorly and in a single row posteriorly. Anterior 5 pairs of operculomandibular pores with long tubes.

Tubercles on body and head weakly armed with prickles. Interorbital row represented only by a pair of small tubercles in front of insertion of first dorsal fin. Suborbital and operculomandibular rows present: tubercles on those rows smaller than those on anterior part of body; suborbital row represented only by 2 minute tubercles. Two pairs of tubercles along first dorsal fin base, and a single (left side) and 2 tubercles (right side) on interspace between both dorsal fins. Postorbital row with 7 tubercles; its posterior 4 tubercles very small. Postbranchial row with 6 tubercles; its fourth tubercle very small. Circumpectoral row with 5 tubercles; its tubercles large except for the last one. Dermal papillae, which projecting from subcutaneous round bases, present on chin, first dorsal fin, and caudal region. They are not developed on top and sides of head, throat, bases of second dorsal, pectoral and anal fins and surrounding area of anus. In these area, they present as subcutaneous round bases without projections.

First dorsal fin high; its tip reaching origin of second dorsal fin when depressed; its rays not visible except for free tips. Sucking disk large; its length equal to width of mouth cleft and longer than two-thirds of head length.

Body color when fresh wholly yellowish;

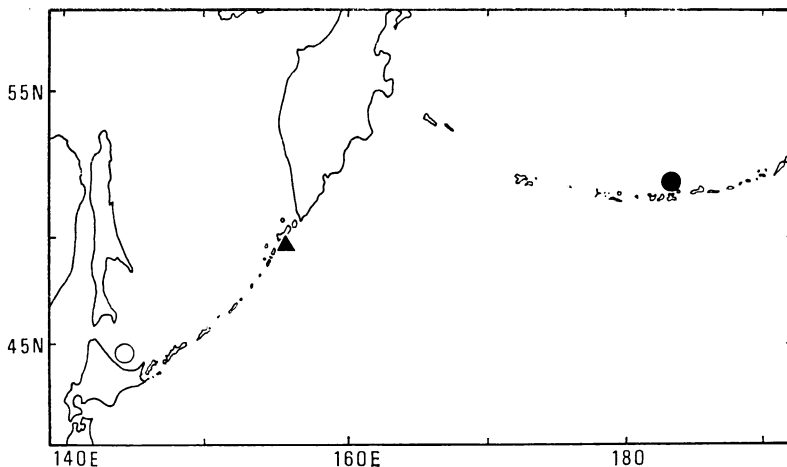


Fig. 1. Map showing collection localities of *Eumicrotremus barbatus*. Open circle, present specimen; solid triangle, holotype (Lindberg and Legeza, 1955); solid circle, second specimen (Ueno, 1970).

eye silver; bases of tubercles and dermal papillae pigmented around their margins. In alcohol yellowish ground color faded.

**Remarks.** Lindberg and Legeza (1955) described the presence of dermal papillae on upper part of head and cheeks, chin and throat, first dorsal fin, bases of second dorsal, pectoral and anal fins and caudal region as the important

characters of this species. Ueno (1970) also described them from the same body region as mentioned above as the diagnosis of this species on the basis of the second specimen. In the present specimen, however, dermal papillae are easily recognizable only on chin, first dorsal fin and caudal region, and are not observed on the other areas. This is probably due to the

Table 1. Comparison of the present specimen with the holotype and the second specimen in *Eumicrotremus barbatus*. Proportional measurements of the holotype are calculated from the actual length shown by Lindberg and Legeza (1955).

Character	Present specimen	Holotype	2nd specimen
		Lindberg and Legeza (1955)	Ueno (1970)
Sex	male	male	—
Total length (mm)	52.6	65.0	—
Standard length (mm)	41.2	50.0	46
In SL:			
Head length	2.1	2.6	2.0
Body depth	1.6	1.5	1.6
Body width	2.1	—	2.1
Interorbital width	3.7	3.9	3.8
Snout length	6.0	5.6	6.6
Eye diameter	7.4	6.2	6.3
Width of mouth cleft	2.9	3.1	3.2
Gill opening length	9.5	6.5	9.7
First dorsal fin base	4.2	4.5	—
Second dorsal fin base	4.2	4.0	—
Distance between both dorsal fins	11.8	—	14.0
Anal fin base	5.4	4.2	—
Pectoral fin length	4.2	4.5	—
Predorsal length	2.2	2.7	—
Snout to anus	3.5	15.6*	—
Mandible to disk	4.3	—	4.0
Disk to anus	18.7	25.0	16.5
Anus to anal	6.3	—	11.3
Disk length	2.9	2.9	2.8
Disk width	3.0	2.9	3.0
Inner disk length	7.0	7.4	—
Inner disk width	6.3	5.9	—
Length of caudal peduncle	10.3	8.8	7.6
Width of caudal peduncle	9.2	8.1	8.6
Caudal fin length	3.6	3.3	—
Counts:			
Dorsal	VII-9	VII-11	VII-11
Anal	10	10	10
Pectoral	24	25	23
Caudal	11	11	11
Vertebrae	11-16=27	—	—
Pyloric caeca	9	—	—

\* The figure of the holotype (Lindberg and Legeza, 1955: fig. 32) shows that this numeral is apparently incorrect.



Fig. 2. *Eumicrotremus barbatus* from off Abashiri, HUMZ 95456, 41.2 mm SL.

intraspecific variation. Intraspecific variation is also shown in count of second dorsal fin rays (Table 1). In spite of these intraspecific variations, *E. barbatus* is easily distinguishable from other species of the genus by having dermal papillae, a high first dorsal fin, much longer tubes of nostrils and operculomandibular pores, and lacking tubercles on interorbital region.

This species was given the Japanese name "hige-dango" by Ueno (1970), but it has not been recorded from Japan. Therefore, the present specimen is the first record of this species from Japan.

#### Acknowledgments

I wish to thank the late Professor Takao Igarashi and Professor Kunio Amaoka of the Laboratory of Marine Zoology, Faculty of Fisheries, Hokkaido University, and Dr. Don E. McAllister of National Museums of Canada, for critical reading of the manuscript. I am grateful to Mr. Toshikatsu Sakamoto and the members of Hokkaido Fisheries Experimental Station at Wakkanai, and the Captain Tatsuo Asaoka and the crew of R/V HokuyoMaru, for their help in collecting the present specimen, and Mr. Toru Miki of the Laboratory of Marine Zoology, Hokkaido University for supplying me with the present specimen.

#### Literature cited

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Ueno, T. 1970. Fauna Japonica. Cyclopteridae (Pisces). Academic Press of Japan, Tokyo, 233 pp., 13 pls.

(Laboratory of Marine Zoology, Faculty of Fisheries, Hokkaido University, Hakodate 041, Japan)

#### 日本初記録のダンゴウオ科魚類ヒゲダンゴ

木戸 芳

北海道網走沖のオホーツク海から、ダンゴウオ科のヒゲダンゴ *Eumicrotremus barbatus* が1個体得られた。本種はこれまで、アリューシャン列島の Igitkin 島沿岸および千島列島の Paramushir 島沖から、それぞれ1個体ずつが知られているにすぎず、本標本は第三番目の記録であり、また日本初記録である。

本種の特徴として、体のほぼ全域に皮質突起が分布することがあげられていたが、本標本では頭、第1背鰭および尾部にのみ認められた。この相違は個体変異と考えられる。しかしながら、少なくとも皮質突起が存在すること、第1背鰭が高いこと、鼻孔および鰓蓋から下顎にかけての感覚孔は管状で、それらが非常に長いこと、また両眼間隔域に骨質瘤状突起を欠くことにより、本種はイボダンゴ属の他種と容易に区別される。

(041 函館市港町 3-1-1 北海道大学水産学部水産動物学講座)