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Albino Specimen of *Sebastolobus macrochir* Collected from off the Shimokita Peninsula, Northern Japan

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The scorpaenid, *Sebastolobus macrochir*, is an important, bottom living, commercial species, found in depths of 150–500 m from Sagami Bay to the southern Kuril Islands, and off Sakhalin Island (Amaoka, 1984). On May 1991, a single albino specimen was captured by long-line east of Shiriyasaki, Shimokita Peninsula, Aomori Prefecture, Japan. Although Huzita and Nishino (1966) have already reported an albino specimen of this species, the present example represents a rather different type. The specimen is documented below and compared with normal specimens.

Materials and Methods

The albino specimen is deposited along with comparative material in the Laboratory of Marine Zoology, Faculty of Fisheries, Hokkaido University (HUMZ), as follows:

HUMZ 118890 (albino specimen), 198.8 mm SL, 5 miles east of Shiriyasaki, Aomori Pref., Japan (41°25.1′N, 141°27.1′E), depth 360 m, long-line, 14 May 1991.

Comparative material. Two normal specimens: HUMZ 90678, 189.6 mm SL, off Lake Toufutu, eastern Hokkaido, Japan, 7 May 1981; HUMZ 121147, 173.0 mm SL, off Kushiro, eastern Hokkaido, Japan, 14 November 1991.

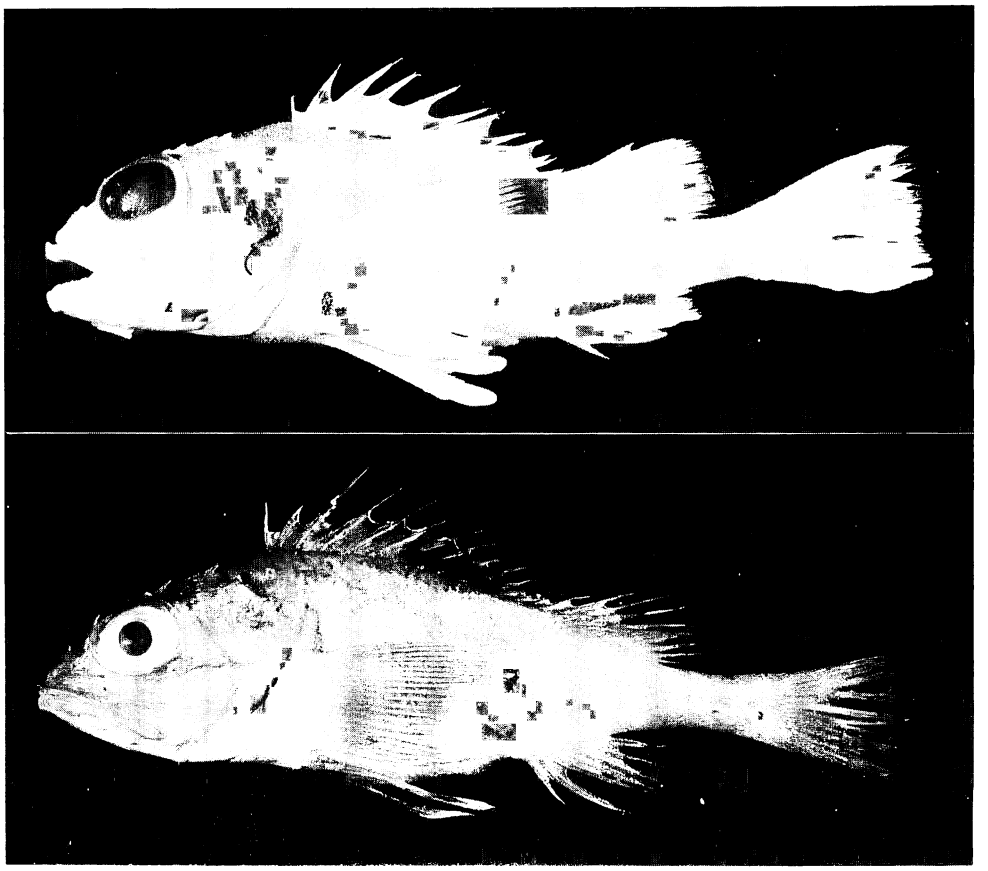

Fig. 1. *Sebastolobus macrochir* from northern Japan. Above, albino specimen, HUMZ 118890, 198.8 mm SL; below, normal specimen, HUMZ 121147, 173.0 mm SL.

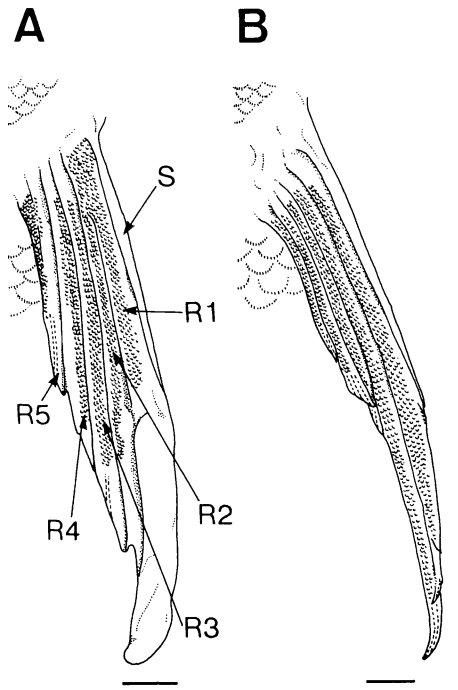

Fig. 2. Ventral view of left pelvic fin of *Sebastolobus macrochir*. A, albino specimen (HUMZ 118890, 198.8 mm SL); B, normal specimen (HUMZ 90678, 189.6 mm SL). S, spine; R1–5, first to fifth soft rays. Bar = 5 mm.

Table 1. Counts and measurements of the albino specimen of *Sebastolobus macrochir*, HUMZ 118890, 198.8 mm SL, Aomori

Counts	
Dorsal fin rays	XV, 9
Anal fin rays	III, 5
Pectoral fin rays	23
Pelvic fin rays	I, 5
Lateral line scales	31
Gill rakers	19 (6+1+12)
Branchiostegal rays	7
Vertebrae	29 (11+18)
Measurements	
(% of standard length)	
Head length	40.2
Body depth	29.5
Body width	20.0
Pectoral fin	29.5
Pectoral fin base	13.7
(% of head length)	
Snout	23.8
Upper jaw	51.5
Interorbital width	12.1
Orbit	33.1
Longest dorsal spine	36.2
(% of body depth at anal origin)	
Caudal peduncle depth	42.3

Measurements and counts followed Amaoka et al. (1983). Vertebrae were examined by radiograph.

Results and Discussion

The albino specimen was readily identified as *Sebastolobus macrochir*, because its external features, except for color, agreed well with the species' diagnosis given by Matsubara (1955), *viz* pectoral fin with a deep notch and thickened rays in lower lobe, strong spines in a line on lateral region of head. Counts and measurements of the specimen are shown in Table 1. The species is normally characterized by a crimson body and a large, black blotch on the dorsal fin (Kanayama, 1983). The present specimen had a uniformly pinkish-white body, except for its eye (red iris and black pupil). The mid-lateral area of the pectoral fin was redder than other areas, and red specks were scattered on the pectoral and pelvic fins. There was no sign of a large, black blotch on the dorsal fin (Fig. 1).

A different type of albino *S. macrochir* was recorded by Huzita and Nishino (1966). Their specimen, which they called a piebald albino, had a greyish-black body with a black blotch on the dorsal fin, a white belly and pectoral fin, and black eyes.

Comparison of meristic and morphometric characters with those of normal colored *S. macrochir* reported by some investigators (e. g., Matsubara, 1943; Kanayama, 1983) showed no clear differences between them. However, it was observed in the albino specimen that the fleshy, distal half of the first soft ray of the pelvic fin was more expanded and lacked scales (Fig. 2). This condition may be uncommon because it has not been documented until now. Because our examination of many specimens deposited in HUMZ, disclosed, albeit rarely, a similar condition in normal colored *S. macrochir*, it is thought to have no relation to the phenomenon of albinism.

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Literature Cited

Amaoka, K. 1984. Scorpaenidae. Pages 309–318 *in* H. Masuda, K. Amaoka, C. Araga, T. Uyeno and T. Yoshino, eds. The fishes of the Japanese Archipelago. English text. Tokai Univ. Press, Tokyo.

Amaoka, K., K. Nakaya, H. Araya and T. Yasui, eds. 1983. Fishes from the north-eastern Sea of Japan and the Okhotsk Sea off Hokkaido. Japan Fish. Res. Cons. Assoc., Tokyo, 371 pp. (In Japanese and English.)

Huzita, S. and K. Nishino. 1966. On an albino of *Sebastolobus macrochir* collected off Cape Erimo, Japan. Japan. J. Ichthyol., 13(4/6): 210–212. (In Japanese with English abstract.)

Kanayama, T. 1983. Scorpaenidae. Pages 150–155, 211–213, 277–279 and 335–336 *in* K. Amaoka, K. Nakaya, H. Araya and T. Yasui, eds. Fishes from the north-eastern Sea of Japan and the Okhotsk Sea off Hokkaido. Japan Fish. Res. Cons. Assoc., Tokyo. (In Japanese and English.)

Matsubara, K. 1943. Studies on the scorpaenoid fishes of Japan. Anatomy, phylogeny and taxonomy. (II). Trans. Shigenkagaku Kenkyusyo, (2): 171–486, pls. I–IV.

Matsubara, K. 1955. Fish morphology and hierarchy. Ishizaki Shoten, Tokyo, xii + 1605 pp., 135 pls. (In Japanese.)

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下北半島沖で採集されたキチジのアルビノ個体

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1991年5月14日，青森県下北半島の尻屋崎東沖合5マイル，水深360 mから延縄により1個体のアルビノのキチジが採集された．キチジのアルビノに関しては襟裳岬沖で得られた体が白黒 (piebald albino) の1例の報告があるが今回得られた個体は眼（赤い虹彩と黒い瞳孔）をのぞく部位のほとんどが淡桃色を呈することにより過去の例とはまったく異なっていた．また，この個体は腹鰭軟条の後端が著しく肥厚するという特異な状態を持つが，特にアルビノとは関係ないと考えられた．

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