Records of the Redmouth Whalefish, *Rondeletia loricata*, from Sagami Bay and Suruga Bay, Japan, with Notes on the Holotype

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Rondeletia loricata Abe and Hotta appears to be cosmopolitan between the latitudes of 40°N and 45°S (Paxton, 1971). From the western North Pacific, however, the species was hitherto known only by the holotype. Two additional specimens of the species were collected from Sagami Bay and one from Suruga Bay, extending the range of distribution about 500 km south-southwestward from the type locality.

Rondeletia loricata Abe and Hotta
(Fig. 1)

Rondeletia loricata Abe and Hotta, 1963: 43, figs. 1–9 (off Kesen-numa, Japan); Fitch and Lavenberg, 1968 : 70, fig. 34 (off southern California); McAllister, 1968 : 98 (hyoid arch); Tominaga, 1970 : 368 (preorbital gland-like organ, abstract); Paxton, 1971 : 111 (abstract).

Rondoletia bicolor (sic) (not of Goode and Bean, 1895); Ebeling, 1962 : 141, fig. 70 (eastern Pacific)*.

Doubtful synonym:

Rondeletia bicolor (not of Goode and Bean); Rofen, 1959 : 259, fig. 4 (off Ceylon-Calcutta and Sunda Trench).

Material

ZUMT (Department of Zoology, the University Museum, the University of Tokyo) 52196. Holotype, female specimen. Trawled. ZUMT 52383, by the oblique haul of 1.8 m Isaacs-Kidd Mid Water Trawl, skeletonized. ZUMT 52384, by the larva net of 1.6 m in mouth diameter. Fixed in formalin then transferred to alcohol. TUMF (Department of Fisheries, College of Marine Science and Technology, Tokai University) 691204, by the larva net of 2.5 m in mouth diameter, horizontal tow at the depth of 140 m layer. Fixed in formailn.

For other data of material, see Table 1.

Description

D. 14～16; A. 13～15; P_1. 10～11; P_2. 5; C. v～vi+9+8+v; vertebrae 10～11+15; gill-rakers 5～6+1+14～15; branchiostegals 8 (4 on ceratohyal, 2 on cartilage between ceratohyal and epihyal, 2 on epihyal). Gills 4; a slit behind 4th. Pseudobranchiae small.

Counts and measurements, including those of the reexamined holotype, are presented in Tables 1 and 2. As shown in Table 2, the body is slenderer in the larger specimens.

Owing to frail nature, the skin of the holotype has been broken and rolled up. The distribution of the sensory papillae on the skin was thus imperfectly described by Abe and Hotta (1963). The specimen ZUMT 52384 was captured in perfect condition, being still alive when brought aboard. The distribution of sensory pores and papillae are described below on this excellent specimen.

The sensory pores are openings of the lateral line canal system of the head. The infraorbital series is composed of 5 pores arranged along the upper jaw and 2 (left) to 3 (right) indistinct pores arranged vertically be-

* This synonym is based on personal communication from Dr. J. R. Paxton.

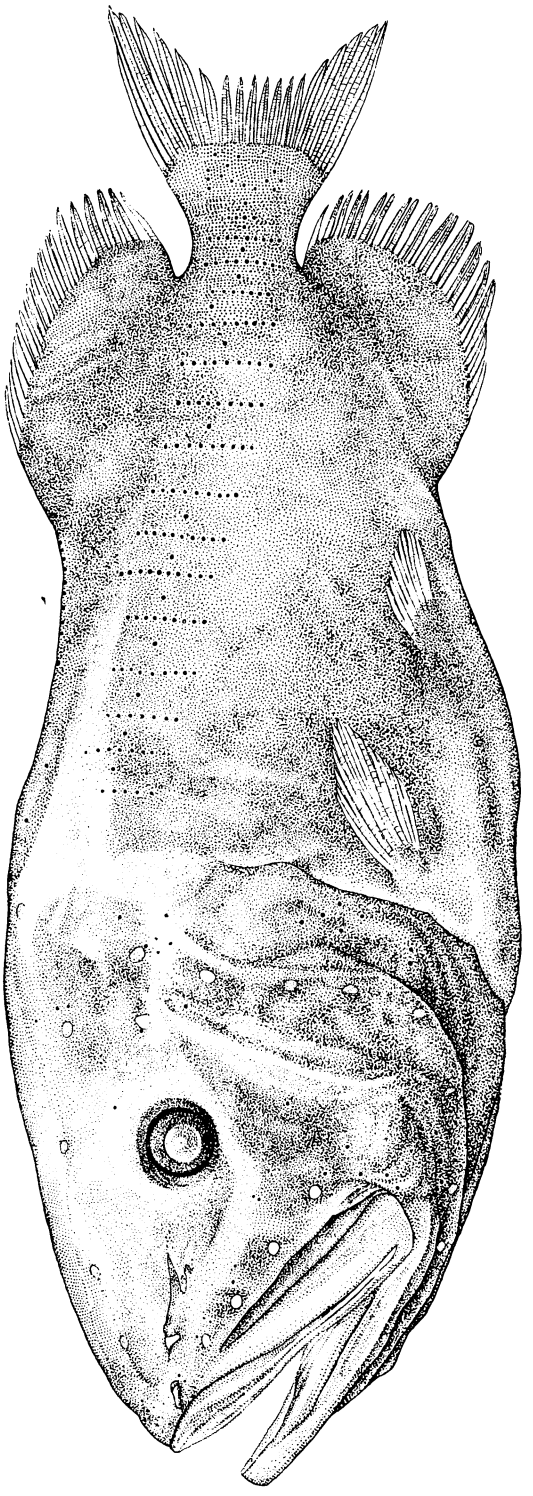

Fig. 1. *Rondeletia loricata* from Sagami Bay, ZUMT 52384, 79.5 mm in standard length.

Table 1. Collection data and counts of *Rondeletia loricata* from Japan.

Catalogue number	ZUMT 52196 (Holotype)	ZUMT 52384	ZUMT 52383	TUMF 691204
Locality	Off Kesen-numa (ca. 38°30′N, 142°20′E)	Sagami Bay (35°00′N, 139°19′E)	Sagami Bay (35°07′N, 139°16′E)	Suruga Bay (35°02′N, 138°44′E)
Depth (m) (shallower than)	750	1000	1000	140
Date	Oct. 1962	Oct. 6, 1968	Aug. 8, 1964	Dec. 4, 1969
Standard length (mm)	102	79.5	45	34.5
Dorsal fin	16 (iv + 12)	14 (ii + 12)	14 (iv + 10)	14 (iv + 10)
Anal fin	14 (iv + 10)	15 (iii + 12)	13 (iii + 10)	13 (iii + 10)
Pectoral fin	11 (ii + 7 + ii)(left), 10 (ii + 7 + i)(right)	10 (ii + 6 + ii) (both sides)	10 (ii + 6 + ii) (both sides)	10
Pelvic fin	5 (all branched)	5 (all branched)	5 (i + 4)	5
Caudal fin*	vi + 9 + 8 + v	v + 9 + 8 + v	vi + 9 + 8 + v	vi + 9 + 8 + vi
Gill-rakers	6 + 1 + 14(left), 6 + 1 + 15(right)		6 + 1 + 14(left), 5 + 1 + 15(right)	6 + 1 + 14(left)
Branchiostegals	8		8 (4 + 2 + 2) (both sides)	
Vertebrae	11 + 15	10 + 15	10 + 15	10 + 15
Pyloric caeca	6		6	

* (Unbranched rays of dorsal lobe) + (branched rays of dorsal lobe) + (branched rays of ventral lobe) + (unbranched rays of ventral lobe).

Table 2. Proportional measurements of *Rondeletia loricata* from Japan.

Catalogue number	ZUMT 52384 (Holotype)	ZUMT 52196	ZUMT 52383	TUMF 691204
Standard length (mm)	102	79.5	45.0	34.5
Total length (mm)	122	91	>51	>38
Fork length (mm)	111	87.5	49.0	38.0
	In hundredths of standard length:			
Head length	48.0	49.7	53.3	46.7
Depth	35.0	39.6	42.2	44.3
Breadth (near pectoral base)	19.1	18.9	22.2	23.2
Breadth (trunk)	16.7	17.6	20.0	
Least depth of caudal peduncle	9.8	8.8	10.0	12.2
Snout	24.5	22.0	25.5	18.0
Upper jaw	28.0	22.5		
Bony interorbital breadth	16.2	18.2	22.2	19.4
Snout tip to pectoral insertion	50.0	53.5	52.2	49.2
Snout tip to pelvic insertion	67.6	68.6	65.5	61.2
Snout tip to dorsal origin	71.6	73.6	76.6	71.3
Snout tip to anal origin	75.5	78.5	78.8	74.5
Dorsal base	24.0	19.6	22.2	23.5
Anal base	18.6	19.0	18.8	20.3

hind the eye (the vertical pores are not represented in Fig. 1). Of 5 pores along the upper jaw, the anteriormost one is slit-like and the longest of the all pores; the other 4 are round and conspicuous openings. The supraorbital series is composed of 5 openings on each side. Owing to the loose skin, being liable to slip out of place, their exact positions are difficult to determine. A pore on the mid-dorsal line of the occiput belongs to the supratemporal series. The preoperculo-mandibular series is composed of 6 pores on the preopercle and 4 (left) or 5 (right) pores discernible on the lower jaw. In the original description only those of the infraorbital and supraorbital series are mentioned.

Sensory papillae on the head region are scattered around sensory pores. They are not distributed on the lips of the upper and lower jaws. On the side of the body, 17 vertical rows of 4 to 10 papillae are present. Between vertical rows of papillae, one papilla is usually present, but rarely none or 2. About 15 papillae are irregularly scattered on the base of the caudal fin behind the last vertical row of the papillae. On each side of the body, 2 papillae are present above the supracleithrum and about 10 are arranged in front of the dorsal fin along the mid-dorsal line. Only the vertical rows on the side of the body are noted in the original description. They are dark in color and fleshy flaps or tubes in nature. When they are tubes, their heights are vaiable and with or without white openings at their tips.

In life the head and shoulder region are vermilion color. The vermilion area extends backward along the enormously developed supratemporal and cleithrum. The paired fins and distal halves of the vertical fins are vermilion. The remaining part of the body is blackish and tinted vermilion. The eye is black.

The ground color of body is brownish black in fixative; head and shoulder region are lighter. The unpaired fins and distal halves of the vertical fins are pale.

Distribution

From the western North Pacific, the holotype is known from off Kesen-numa, Miyagi Pref. Specimens from Sagami Bay and Suruga Bay are reported here. According to Paxton (1971), this species "appears to be cosmopolitan in distribution between the latitudes of 40°N and 45°S". A detailed report on the distribution patterns is to be published by him. The specimens have been usually taken from the depth of about 1000 m. The capture of a young specimen from Suruga Bay, at the depth no more than 140 m, is extraordinarily shallow.

Note

Abe and Hotta (1963) pointed out the differences between *Rondeletia bicolor* and *R. loricata* in the characters of the upper jaw, size of eyes, and shoulder girdle. Paxton (1971) also recognized the above two species in the genus. Abe and Hotta (1963) considered with some hesitation that the specimens from off Ceylon-Culcutta and Sunda Trench, reported as *R. bicolor* by Rofen (1959), belong to *R. loricata*.

The specimen ZUMT 52383 was generously offered for the present study by Dr. Hitoshi Ida of the Department of Fisheries of the University Museum, the University of Tokyo. The specimens ZUMT 52383 and 52384 were taken during the voyages of the Research Vessel Tansei-maru of the Ocean Research Institute, the University of Tokyo. Dr. Tokiharu Abe assisted us for the literature. Fig. 1 was drawn by Mr. Kojiro Komiya. Dr. John R. Paxton of the Australian Museum, Sydney, kindly offered us information concerning the capture record of *Rondeletia*, and critically read the manuscript.

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相模湾および駿河湾で捕れたアカチョッキクジラウオ

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北西太平洋からのアカチョッキクジラウオの記録は，holotypeが気仙沼沖から知られるのみであった．相模湾で捕れた 2 個体と駿河湾で捕れた 1 個体に併せて holotype の再検討を行ない，その形態について報告する．なお，この種類は全世界の海洋に分布しているといわれる．

(東京都文京区本郷　東京大学理学部動物学教室・静岡県清水市折戸　東海大学海洋学部)

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第 20 巻から偶数頁に日付を入れず年号だけとし，表紙にだけ実際の発行日を入れ正確を期すことにしました．また短報のスタイルを変え表題を一段組にします．新しく会員通信欄を設け，気軽にニュース，希望事項，掲載論文に対するコメント，体験談なども載せることに決まりました．必要に応じて資料欄も設け，できるだけ多くの会員の方々が利用できるように計画しております．

原稿の方は 4 月 17 日現在で 20 巻 3 号の一部まで集まっております．今年は各号とも約 60 頁程度にし，1 号を 5 月，2 号を 7 月，3 号を 9 月，4 号を 12 月に発行すべく努力する予定です．印刷所へ原稿を渡すのはそれぞれの発行日の 2 ヵ月前です．投稿されてきた原稿は原則として 2 名以上の匿名の校閲者に読んで頂きます．最近校閲者の方々が熱心にコメントを書いて下さいますので，原稿が著しく改良されるようになり，魚類学雑誌の評判も高くなってきたと言うことをしばしば耳にし喜ばされるとともに一層の充実をはかりたいと考えております．

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編集の仕事にかなりの時間がかかることもあり，下記の事柄に御協力を頂きたく御願い致します．

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3. 図や写真は台紙にベタばりにせず，四隅を両面接着テープなどではる程度にすること．図にはうすい紙などでカヴァーをつけておくこと．

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訂正　Erratum

魚類学雑誌 19 (3): 183, Tab. 2 の ZUMT 52384 と ZUMT 52196 は入れ換る．

Japanese Journal of Ichthyology 19 (3): 183, Tab. 2, ZUMT 52384 and ZUMT 52196 are reversed.