



## Note

### The orange spotted emperor *Lethrinus erythracanthus* Valenciennes, 1830 (Perciformes: Lethrinidae) - a new record from Indian waters

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#### Abstract

A specimen of *Lethrinus erythracanthus* which is a new record from Indian waters was obtained by a longline unit operating off Kerala in November 2005. Description of the species along with a comparative statement from different localities is given.

Lethrinidae are tropical marine perciform fishes found entirely in the Indo – Pacific, except for one species that occurs only in the eastern Atlantic. They are an important component of commercial, recreational and artisanal fisheries of the world and are caught by a variety of gears – handlines, droplines, traps, trawls, shore seines, gillnets and vertical longlines. These moderate-sized percoid fishes, characterized by a large head, deep suborbital space, scaleless cheek and a more or less pointed snout inhabit deep lagoons, channels, outer reef slopes and adjacent soft bottom areas at 20 to 120 m depth.

In November 2005, a lethrinid of total length 648 mm and weight 4.5 kg was obtained in a longline unit operating off Kerala. The specimen was identified as *Lethrinus erythracanthus* and deposited in the CMFRI Marine Biodiversity Referral Museum (GB.31.86.3.13). Since the present specimen is from a new locality, a description is given here. Counts and measurements are as prescribed by Hubbs and Lagler (1949).

#### Diagnosis

A moderately deep bodied lethrinid, with a distinctly concave dorsal profile; small mouth, fleshy lips and concealed maxillary. Single continuous dorsal fin; soft anal base less than the longest soft anal ray. Body dark grey, dusky, head brownish grey with indistinct scattered small and

white dots on cheeks, with light stripes on body, pectoral, pelvic, anal and caudal fin bright orange in colour.

*Lethrinus erythracanthus* Valenciennes, 1830

*Lethrinus erythracanthus* Valenciennes in Cuvier & Valenciennes, 1830: 314, Luganor.

*Lethrinus erythropterus* Valenciennes in Cuvier & Valenciennes, 1830: 313, Ulea.

*Lethrinus kallopterus* Bleeker, 1856: 47, Menado (type locality); Gunther, 1859: 460, Menado, compiled. Bleeker, 1876 -77: 113, pl. 351, fig. 3, Celebes, Batjan, New Guinea; Herre & Montalban, 1927: 408, pl. 2, fig. 3, Philippines; Fowler, 1928: 216, compiled; 1933: 30, fig. 3, Philippines, Celebes, Bouro; Weber & Beaufort, 1936: 432, fig. 85, Bleeker's specimens; Hiyama, 1943: 57, pl. 9, fig. 26, Marshall Is.; Schultz in Schultz *et al.*, 1953: 548, Bikini, Rongelap; Smith, 1959: 288, pl. 21, figs. C & D, East Africa; Marshall, 1964: 198, Queensland; Munro, 1967: 327, pl. 43, New Guinea; Guishken, 1972: 39, fig. 188, Okinawa I.; Masuda *et al.*, 1975: 60, fig. A, 234, southern Japan; Kyushin *et al.*, 1977: 164, Chagos.

*Lethrinus striatus* Steindachner, 1866: 479, pl. 5, Zanzibar.

#### Description

Body moderately deep, its depth 2.5 times in standard length; head depth 2.7 times in standard

length; less than body depth. Dorsal profile near eye distinctly convex; snout moderately short, snout angle at a 55 degree relative to upper jaw, interorbital area convex; posterior nostril an oblong opening closer to eye than anterior nostril; eyes placed close to dorsal profile; cheek moderately high, naked; posterior portion of operculum covered with scales. Large fleshy mouth with a cleft in front (Fig. 1). Lateral teeth uniserial, caniniform, robust; postero-lateral teeth roundish. Outer surface of maxilla smooth; end of jaws on the vertical through anterior margin of the orbit. Dorsal fin with 10 spines and 9 soft rays; third to fifth spines longest. Anal fin with 3 spines and 8 rays; fourth ray longest; soft anal base much shorter than the longest soft anal ray. Pectoral ray 13, inner surface covered with scales; pelvic with 1 spine and 5 rays, interfin membranes of pelvic fins without any pigments. Lateral line scale count 47; 5 scale rows between lateral line and median dorsal spines. Caudal lobes distinctly obtuse.



Fig. 1. *Lethrinus erythracanthus*

### Colour

Body dark grey, dusky, becoming paler on ventral side; head brownish grey with indistinct scattered small and white dots on cheeks, with light stripes on body. Pectoral, pelvic, anal and caudal fin bright orange in colour. Dorsal spines blackish yellow in colour. Lips and inside of mouth bright scarlet. Iris grey and silvery. Fin colour becomes greyish in formalin preserved specimens.

### Distribution

Lethrinids are distributed in the tropical and subtropical areas of the Indo – Pacific. *Lethrinus erythracanthus* is the largest recorded species of *Lethrinus* (70 cm) Carpenter and Allen, (1989). They occur from the Western Indian Ocean to Central Pacific, from East Africa, Seychelles, Chagos and Maldives to Thailand, Phillipines, Ryukyus, Micronesia, northeastern Australia, Samoa, Society Islands and Tuamotus.

### Discussion

The present specimen is nearly double the size of the samples recorded from earlier localities (Table 1). The meristic values of the present specimen match with those of the earlier reports, especially with the holotype of *L. kallopterus*, although variation is noticed in pectoral and pelvic fin length. The variation noted in these values

Table 1. Comparative data of *Lethrinus kallopterus* from different localities

Catalogue Number	RMNH 5760 Holotype	UG 1967	UMUTZ52652	UMUTZ52575	GB.31.86.3.13 (Present sample)
Locality	Menado	Guam	New Ireland	Ishigaki	Cochin
Standard length (mm)	290	285	305	385	590
	Per cent of standard length				
Body depth	2.7	2.5	2.5	2.4	2.5
Head length	2.7	2.8	2.7	2.7	2.7
Pectoral length	3.0	3.2	3.1	3.2	5.2
Pelvic length	3.6	3.6	3.5	3.9	7.7
	Per cent of head length				
Orbit length	4.2	4.7	4.5	5.2	6.4
Interorbital width	3.8	3.6	3.2	3.2	3.7
Snout length	1.9	1.9	1.9	1.8	1.8
Suborbital width	2.9	2.7	2.8	2.5	3.7
Upper jaw length	2.1	2.1	2.2	2.0	2.0

may be attributed to the changes in the shape of the body as the fish grows longer and older. Sato (1978) placed the name *L. erythracanthus* in synonymy with *L. kallopterus* and designated the name *L. kallopterus* as the senior synonym, claiming that the name *L. erythracanthus* had not been used for a long time. The current Code on Zoological Nomenclature does not recognize long disuses as justification for relegating a name to junior synonymy. Using the above rule, Carpenter and Allen (1989) raised the original name *Lethrinus erythracanthus* to the senior synonym. Moreover, the original description still holds true for the species and *L. kallopterus* described by Bleeker (1856) (Table 1) can be considered to be a junior synonym of *L. erythracanthus*. With the confirmation of the synonyms of *L. erythracanthus*, the present specimen, which bears close resemblance to that of *L. kallopterus*, can be said to be a new distributional record of *L. erythracanthus* from the Indian waters.

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