

FIRST RECORD OF FLAT TOADFISH, *COLLETTEICHTHYS DUSSUMIERI* (VALENCINNES, 1837) (FAMILY: BATRACHOIDIDAE) FROM VISAKHAPATNAM COAST, OFF NORTH ANDHRA PRADESH

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ABSTRACT : The flat toadfish, *Colletteichthys dussumieri* (Valencinnes, 1837) is recorded for the first time along the Visakhapatnam coast of Northern Andhra Pradesh. A detail description of the species is given here with illustrations. Two specimens were collected from trawl catches off Visakhapatnam coast, North Andhra Pradesh, East coast of India during the month of March, 2013. Current manuscript deals on distribution patterns, species description, morphometric and meristic characters.

Key words : Flat toad fish, *Colletteichthys dussumieri* (Valencinnes, 1837) east coast of India, Visakhapatnam.

INTRODUCTION

First record of the toadfish, *Colletteichthys dussumieri* encountered during routine trawl fishing at off Visakhapatnam waters (Lat 17° 44'N; Long. 83°23' E) of North east coast of India. The family Batrachoididae includes three sub families, twenty two genera and seventy eight species (Nelson, 2004). The toadfishes are commonly known as frogfishes in Australia. Studies on the toadfishes of Indian waters are very scanty.

Distribution

The toadfishes are usually distributed in mud and dirty waters; they frequent the shores ascending tidal rivers and estuaries, occasionally entering rivers, (Day, 1875). Toadfishes are found worldwide between about 51° N and 45° S along continents in marine and brackish waters, occasionally entering rivers, with several freshwater species in South America. They are found from the shoreline down to a depth of at least 366 m, often burying in the sand or under rocks or coral heads where they act as ambush predators feeding on crabs, shrimps, molluscs, sea urchins and fishes. (Greenfield *et al.*, 2008).

Classification

Class: Actinopterygii
Order: Batrachoidiformes
Family: Batrachoididae
Subfamily: Holophryinae
Genus: *Colletteichthys*
Species: *dussumieri*

Common name: Flat toadfish

Local Telugu name: Salleru kappu

General Species Description

Colour

Prominent, dark brown, shading to white ventrally, with four irregular, branching, dark brown bars on body and dark yellowish or light orange bands alternatively and blotches on head and fin, dark brown, irregular crossbars on sides and soft dorsal and anal fins. Marbled, dark brown, continued onto soft dorsal and anal. Top of the head marbled with dark brownish checks with five dark bands. From eye to dorsal fin origin alternatively yellowish bands with dark brown bands present. Caudal fin with dark brown with yellowish bands present, tip of the rays yellowish or orange with brown in fresh specimens. Eyes deep yellow. Pelvics with light yellowish bands and brown.

General Characters

D III, 19; A 16-17; P 21; C 12-13; Lline 3.

Body anteriorly cylindrical and posteriorly compressed and tapering; dorsal profile of head depressed, flattened, large and broad, often with barbles and fleshy flaps around their largemouth; the eyes are top of the head directed upwards. Inter orbital width equals pre orbital distance. Maxilla reaches to below the hind border of the pupil. Two rows of pointed teeth present, upper jaw with two to three rows of pointed teeth anteriorly, two rows on side, grading into single row posterior; vomerine teeth and palatine with single row of pointed teeth present. Tongue smooth, apically pointed. Profile of snout broad, depressed.

Table 1 : Morphometric data of *Colletteichthys dussumieri* (Valenciennes, 1837) represented in the trawl catches off Visakhapatnam.

	<i>Colletteichthys dussumieri</i> n =2	
Standard Length	121-131 mm SL	
	Min- Max	$\bar{x} \pm SD$
As percentage of standard length		
Total length	116.5 – 118.3	117.4 \pm 0.89
Body depth	16.7 – 18.8	17.4 \pm 0.69
Body width	22.9 – 25.6	24.2 \pm 1.35
Head length	32.8 – 34.7	33.7 \pm 0.94
Pre dorsal distance	33.8 – 34.5	34.1 \pm 0.23
Prepectoral distance	35.1 – 36.3	35.7 \pm 0.62
Pre pelvic distance	26.7 -28.0	27.4 \pm 0.69
Pre anal distance	55.7 – 58.6	57.2 \pm 1.47
Dorsal fin base	58.0 – 61.1	59.5 \pm 1.57
Anal fin base	36.3 – 36.6	36.5 \pm 0.13
Dorsal 1 st spine height	2.2 – 3.3	2.7 \pm 0.50
Dorsal 2 nd spine height	4.1 – 5.3	4.7 \pm 0.60
Dorsal 3 rd spine height	4.9 – 6.1	5.5 \pm 0.57
Soft dorsal height	12.2 – 12.3	12.3 \pm 0.09
Soft anal height	9.09 – 9.1	9.1 \pm 0.03
Pectoral length	16.0 – 17.3	16.6 \pm 0.66
Soft pelvic fin length	14.8 – 15.2	15.0 \pm 0.19
As percentage of head length		
Head depth	48.8 – 50	49.4 \pm 0.58
Head width	71.4 – 74.4	72.9 \pm 1.49
Eye diameter	11.9 – 13.9	12.9 \pm 1.02
Pre orbital distance	19.0 – 20.9	19.9 \pm 0.94
Post orbital distance	61.9 – 65.1	63.5 \pm 1.60
Inter orbital distance	19.0 – 20.9	19.9 \pm 0.94
Upper jaw length	37.2 – 38.0	37.6 \pm 0.44
Lower jaw length	33.3 – 32.9	32.9 \pm 0.38
Maxilla width	6.9 – 7.1	7.6 \pm 0.08
Snout length	16.2 – 16.6	16.4 \pm 0.17
Caudal peduncle depth	7.4 – 8.3	7.9 \pm 0.47
Opercular first spine height	9.3 – 9.5	9.4 \pm 0.11
Opercular 2 nd spine height	11.6 – 11.9	11.7 \pm 0.13
Opercular 3 rd spine height	7.1 – 9.3	8.2 \pm 1.07

Table 2 : Meristic characters of *Colletteichthys dussumieri* as compared by different authors.

Author	Dorsal fin	Anal	Pectoral	Caudal	LLS
Greenfield (2006)	III, 19-22	15-17	21-24	—	3
Present study	III, 19	16-17	21	12-13	3

Nostrils close together, anterior nostril tubular, posterior one round with small cirri. Gill membrane broadly joined to isthmus. Three lateral line with small pores present, each pore with dermal flaps. Opercular with three solid spines and one sub opercular spines present, often with a small second point below; two subopercular filament;

scales absent, body smooth; a funnel- shaped pit present at top of pectoral fin axil.

First dorsal triangular with fin continuous, spines moderately strong, Three solid spines present and soft rays branched; soft ray longer than longest dorsal spine height; pectorals rounded, anal soft rays branched; Caudal fin branched with rounded. Head and body scaleless; Head smooth; skin on top of head fairly smooth. Small fringed tentacles present on lower side of the mouth and anterior and posterior side of the eyes; and small cirri on lower margin of opercular bases.



Fig. 1 : *Colletteichthys dussumieri* (TL-15.5).

Field Observations

During a routine field collection for toadfishes at Visakhapatnam fishing harbour in March 2013, two numbers of toadfish, *Colletteichthys dussumieri* (Valenciennes, 1837) was encountered in the trawl bycatches. This species was caught from the gear trawl, operating at the depths beyond 100 meters and was identified as a new flat toadfish new to East coast of India.

Two specimens examined in the present study were collected from Visakhapatnam fishing harbour at (Lat 17° 44'N; Long. 83°23' E) North east coast of India caught by a trawler, from a depth of about 100 m depth during March, 2013. Thirty two morphometric measurements were (Hubbs and lagler 1964) morphometric measurements were (Hubbs and lagler, 1964) given in table 1.

Remarks

The meristic characters of this species generally agree with the descriptions of Green field, (2006) for the number of dorsal spines, and soft rays, pectoral rays, are same. Morphometric data is given in Table1 and2.

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