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**NOMENCLATURE OF *SCHISMATORHYNCHUS NUKTA* (SYKES, 1839)
(CYPRINIFORMES: CYPRINIDAE).**

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ABSTRACT

Schismatorhynchus nukta (Sykes, 1839) is redescribed from the specimens collected from Bhadra River, a tributary of Krishna River basin and the subgenus is elevated to the genus level as *Nukta*.

Keywords: *Nukta nukta*. Bhadra River, tributary of Krishna River basin.

INTRODUCTION

Sykes described *Schismatorhynchus* (=Cyprinus) *nukta* from Indrayani River, Maharashtra, a tributary of the Krishna River system. Day (1875, 1889) described it as "*Labeo nukta*." from the type locality. Occurrence of this species was reported by many authors from Krishna River and its tributaries Mula-Mutha River (Fraser, 1942), Bhima River (Suter, 1944), Ujni Wetland (Yazdani and Singh, 1990, Surwade and Khillare, 2010), and Neera River at Veer dam (Ghate *et al.* 2002), Koyna River (Jadhav *et al.* 2011), Panchaganga River (Kalawar and Kelkar, 1956) and Sangli (Jayaram, 1995). In Karnataka it is known from Bhadra River at Bhadravathi (David, 1956), Thunga River (Chacko and Kuriyan, 1948), Bagalkot (Jayaram, 1995) and Doora Lake (Prasad *et al.* 2009). In Andhra Pradesh it was recorded from Lingalagattu at Sri Sailam and Manthralayam (Jayaram, 1995). Recently one of the authors (M.A.) collected samples of *Schismatorhynchus (Nukta) nukta* (Sykes) in the Bhadra River at Bhadravathi.

Two subgenres were clearly distinguished by Hora (1942a): *Heterorhynchus* (Indo-Australian region) and *Nukta* (Indian peninsula). *Nukta's* diagnosis as per Hora is based on the presence of maxillary barbel hided in the grooves, the absence of rostral barbel, a frenulum connecting the lower lip with the anterior gular region and a lower jaw with an elongated cutting edge dividing the upper lip from the lower lip in the corners of the mouth-the lips are not smooth. The peninsular sub genus *Nukta* is elevated to the genus level.

MATERIALS AND METHODS

Fish collections were made between 1996-2016 by earlier workers led by M. Arunachalam from river sites, from nearby fishermen and from fish markets in all over Peninsular India. Measurements were made from point to point using digital calipers. Methods used for the meristic and morphometric data are on Hubbs and Lagler (1964). Morphometric characters of 10, 19-27, 30-32, and 36-37 are the additional truss measurements (Strauss and Bookstein 1982). Body measurements are expressed as percentage of Standard Length (%SL); head measurements are expressed as percentage of Head Length (%HL).

Materials Examined: *Nukta* 7ex, 164.06-224.85 mm SL, Bhadravathi fish market, Bhadra River, Karnataka, collected by M. Arunachalam and team, 10 September 2009.

RESULTS

(Fig. 1, Tables 1-2)

Figure 1 *Nukta*: 1ex, 206.26 mm SL, Bhadravathi fish market, Bhadra River, Karnataka, collected by M. Arunachalam and team , 10 September 2009.



Table 1. Meristic counts of *Schismatorhynchus nukta*

Meristic counts	<i>Schismatorhynchus nukta</i> CMA 376 n=7
1. Dorsal fin rays	iii.9
2. Anal fin rays	ii.5
3. Pelvic fin rays	i.9
4. Pectoral fin rays	i.14
5. Caudal fin rays	10+9
6. Lateral-line scales	38
7. Pre-dorsal scales	15
8. Upper transverse scale rows	7
9. Lower transverse scale rows	6
10. Lateral line to pelvic scale rows	5
11. Circumpeduncular scale rows	20
12. Circumferential scale rows	31-34
13. Transverse breast scale rows	10
14. Pre-anal scale rows	35-40

Table 2. Morphometric characters of *Schismatorhynchus nukta*. Body character measurements are represented as % standard length and head character measurements are represented as % head length.

Measurements from point to point (identified by numbers and names)	<i>Schismatorhynchus nukta</i> CMA 376 n=7
1 Total length (mm)	206.84-286.21
2 Standard length (mm)	164.06-224.85
% of Standard length	
3 Snout to urocentrum	95.29-97.60
4 Pre-anal length	70.99-80.69
5 Pre-dorsal length	41.69-45.47
6 Pre-pelvic length	48.50-53.97
7 Pre-pectoral length	21.78-25.93
8 Pre occipital length	17.66-20.70
9 Caudal peduncle length	20.49-23.22
10 Dorsal-fin origin to pelvic-fin insertion	27.86-32.10
11 Dorsal spinous height	15.46-23.67
12 Anal fin height	18.82-22.82
13 Depth of caudal peduncle	13.41-14.80
14 Caudal fin length	28.37-33.18
15 Dorsal fin height	30.60-36.85
16 Pectoral fin length	18.87-20.78
17 Pelvic fin length	16.38-20.77
18 Pelvic axillary scale length	7.49-9.45
19 Occiput to dorsal-fin origin	23.31-26.12
20 Occiput to pectoral-fin insertion	19.00-22.39
21 Occiput to pelvic-fin insertion	39.51-43.58
22 Dorsal-fin insertion to pelvic-fin insertion	21.83-26.40
23 Dorsal-fin origin to pectoral-fin insertion	27.63-32.78

24 Dorsal-fin origin to anal-fin origin	40.24-44.96
25 Dorsal-fin insertion to caudal-fin	37.00-45.11
26 Dorsal-fin insertion to anal-fin origin	25.83-28.08
27 Dorsal-fin insertion to anal-fin insertion	25.82-29.81
28 Dorsal-fin base length	17.91-19.25
29 Anal-fin base length	7.27-8.00
30 Pectoral-fin insertion to pelvic-fin insertion	24.80-29.66
31 Pectoral-fin insertion to anal-fin origin	45.31-54.55
32 Pelvic-fin insertion to anal-fin origin	17.96-25.07
33 Head length	21.81-24.97
34 Post- dorsal length	57.79-64.59
35 Body depth	22.95-29.90
36 Distance between pectoral-fin and vent	44.26-52.05
37 Distance between pelvic-fin and vent	16.70-22.33
% of Head length	
38 Snout to opercle	63.94-76.60
39 Upper jaw length	21.16-33.12
40 Snout length	35.16-44.47
41 Pre nasal length	24.56-30.72
42 Orbit width	15.02-17.82
43 Interorbital width	38.42-41.52
44 Internasal width	24.12-29.32
45 Head width	58.72-64.27
46 Gape width	29.12-33.91
47 Lower jaw to isthmus	47.14-53.84
48 Head depth at nostril	49.39-58.65
49 Head depth at pupil	64.69-72.54
50 Head depth at occiput	73.27-83.12
51 Maxillary barbel length	1.64-5.91

Generic description: Counts and measurements are from the 7 specimens ranging from 164.06-224.85 mm SL. Body elongated with compressed; its depth at dorsal origin 22.95-29.90 %SL. Head has some pores on the snout and forehead and a deep gap in front of the orbit, which has a pointed appearance and forms a distinct horn. head length 21.81-24.97 %SL. Head depth at nostril 49.39-58.65 at pupil 64.69-72.54 and at occiput 73.27-83.12 %HL. Respectively orbit width 15.02-17.82 %HL. Interorbital width 38.42-41.52 %HL and while nasal width 24.56-30.72 %HL. Snout projecting over mouth, and lips not fleshy, Snout length 35.16-44.47 %HL. Gape width 29.12-33.91 %HL. Barbell a small, flap-like, crenulated maxillary pair. Length of maxillary barbel 1.64-5.91 %HL.

Dorsal fin with 3 simple and 9 (7) branched rays, anal fin with 2 simple and 5 (7) branched rays, pelvic fin with 1 simple and 9 (7) branched rays, pectoral fin with 1 simple and 14 (7) branched rays, caudal fin rays 10+9 (7). Pre dorsal distance 41.69-45.47 %SL and pre pelvic distance 48.50-53.97 %SL. Dorsal fin origin much in advance of pelvic fins. Dorsal fin length 30.60-36.85 %SL. Length of the dorsal spine 15.46-23.67 %SL.

The pectoral neither reaches the ventral nor does the latter do the anal fin. Length of pectoral fin 18.87-20.78 %SL. and length of the pelvic fin 16.38-20.77 %SL. Length and depth of caudal peduncle 28.37-33.18 and 13.41-14.80 %SL respectively. Dorsal fin base is much wider than the anal fin base length. Length of dorsal fin base 17.91-19.25 %SL and length of anal fin base 7.27-8.00 %SL. Anal fin length 18.82-22.82 %SL. Caudal fin deeply forked, its length 28.37-33.18 %SL. Post dorsal length 57.79-64.59 %SL. Distance between pectoral fin insertion and pelvic fin insertion 24.80-29.66 %SL, pectoral-fin insertion to anal-fin origin 45.31-54.55 %SL and pelvic-fin insertion to anal-fin origin 17.96-25.07 %SL. Distance between pectoral fin and vent 44.26-52.05 %SL and distance between pelvic fin and vent 16.70-22.33 %SL.

Lateral line scales 38 (7); pre dorsal scales 15 (7); upper transverse scale rows 7 (7); scales rows from lateral-line to pelvic-fin insertion 5 (7); lower transverse scale rows 6 (7); circumpeduncular scale rows 20 (7); circumferential scale rows 31 (3), 32 (3), 34 (1); transverse breast scales rows 10 (7); pre anal scales 35 (1), 37 (1), 38 (3), 40 (2), ; anal scale rows (anus to anal fin) 2 (7).

Coloration: In living conditions, silver gray body with darker fins. Scale rows of lateral line and the upper and lower rows are silvery with a reddish tinge. Scales ranging from two rows above the lateral line to the dorsum with broad and dark coloured, fins, colorless but strongly melanistic, appearing light orange. Head region and pre-dorsal area, especially the nuchal region, gray to dark gray. After preservation in ethanol or in formalin, body and fins become brown in color.

Type species: It is a monotypic species as *Nukta nukta*.

Geographical Distribution

This species is known from Krishna River and its tributaries, and from Godavari River.

DISCUSSION

In Tamil Nadu part it is known from Moyar River (Manimekalan and Singh, 1997). Occurrence of this species from Cauvery River basin still needs confirmation. This species showed its decrease from the type locality (Yazdani and Mahabal, 1976; Kharat *et al.*, 2003). Occurrence of this species from Tamiraparani River also needs further examination.

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