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Description of a new sand lance species, *Bleekeria murtii* (Perciformes: Ammodytidae) from India

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ABSTRACT

A new fish species of the genus *Bleekeria* was collected by trawl nets off Tuticorin from a depth of 20-30 m. *Bleekeria murtii* is characterized by 34-39 dorsal rays, 12-16 anal rays, 80-108 lateral line scales, high head length (21.1-23.2 in SL), smaller eye diameter (2.45-5.37 mm) and high body height (8.7-19.7 mm). The species-specific characters, colour pattern and morphometric variations are described in detail.

Keywords: Ammodytidae, *Bleekeria*, New species, Tuticorin

Introduction

The Ammodytidae consists of 8 genera and 25 species (Ida *et al*., 1994; Randall and Earle, 2008; Randall and Heemstra, 2008). Bean (1895) described the first species of *Ammodytoides* as *Bleekeria gilli* from Pacific Ocean. McCulloch and Waite (1916) described the second species as *Bleekeria vaga* from Lord Howe Island. Duncker and More (1939) concluded that this species does not belong to *Bleekeria* and proposed the genus *Ammodytes.* Smith (1957) described a new species as *Bleekeria rennie* from the east coast of South Africa. Ida *et al.* (1994) revised the generic classification of the family, adding two more new genera and recognizing *Bleekeria* for three species, *B. kallolepis* Günther, 1862, *B. mitsukurii* Jordan and Evermann, 1902 and *B. viridianguilla* Fowler, 1931.

In the case of species of the genus *Bleekeria,* the quantitative and qualitative difference shown are equal and comparable with that of the genus *Ammodytes*. This again indicates the evolutionary closeness of different genera in the family Ammodytidae. Fishes of this family are not only significant as a fishery resource for exploitation but as candidate species for the seismic studies, due to their burrowing habitat. It is worth mentioning that species designations and names have changed during the past 40 years. Species ambiguity was due to overlapping meristic characteristics among species which differ with environmental conditions and it is difficult in species designations. Concerning the number of species in this genus, geographic regions, distributional range, latitudinal range, ecological and biological parameters have to be considered. for arriving at fruitful conclusions. According to Eschmeyer and Fricke (2010) there are about eight species recorded in the genus *Bleekeria,* of which only three are valid. The valid ones are *Bleekeria kallolepis* Günther 1862, *B. mitsukuryi* Jordan and Evermann 1902 and *B. viridianguilla* Fowler, 1931. The other genus in the family Ammodytidae *i.e*., *Ammodytes* has 5 species and enjoys wide distribution and abundance (Belgium, Denmark, France, Germany, Ireland, Netherlands, Norway, Poland, Russia and U.K.). The abundance of *Ammodytes* is utilized as an easily available food item and bait. But this genus mainly occurs in the subtropical and arctic seas. In the tropical seas, *Ammodytes* is replaced by much smaller genera like *Bleekeria* and *Hyperoplus,* which are characterized by smaller bodies and lesser number of vertebrae and presence of teeth.

During one of our fishery surveys, a few specimens of sand eels were collected from Tuticorin Fisheries Harbour on 8 June 2009 off the Gulf of Mannar, India. The species was distinct from other fishes of the genus *Bleekeria.* The specimens were thoroughly studied and identified as new species of the genus *Bleekeria.* Although three species have been described in the genus, all of them are poorly known and type status is uncertain in some cases. Therefore, our specimens are described as a new species of the genus *Bleekeria.*

Materials and methods

Samples were collected by trawl nets off Tuticorin from a depth of 20-25 m and landed at Tuticorin Fisheries Harbour on 8th June 2009 (19 specimens) and 12th January 2010 (12 specimens) with a total of 31 specimens ranging in length 87.2 - 132.3 mm standard length (SL). The colour patterns of the fresh specimens were noted and photographs taken immediately. General morphology, appearance, body

shape, depth contour and nature of fishes were recorded. Morphometric and meristic parameters were noted according to Hubbs and Lagler (1941). Details of the types of the three described species of *Bleekeria* were compared with the present specimen. The photograph and details of Holotype *B. viridianguilla*, Fowler, 1931 (ANSP 53458) at Academy of Natural Sciences Philadelphia, U S A, *Bleekeria kallolepis* Günther, 1862 (BMNH 1846.11.22) at Natural History Museum, London and *Bleekeria mitsukurii* Jordan and Evermann, 1902 (SU7133) at Californian Academy of Sciences, California, USA are presented in the paper for comparison.

Standard length (SL) was measured from the front of the upper lip in the median plane to the midbase of the caudal fin. Body depth was the maximum depth from the base of the dorsal fin to the ventral most edge of the abdomen. Head length was taken from the anterior most margin of the upper lip to the posterior margin of the opercular membrane. Body width is taken from the front of the upper lip to the posterior end of the opercular membrane. Eye diameter is the maximum fleshy diameter. Caudal peduncle depth is the least depth and caudal peduncle length is the horizontal distance between verticals at the rear base of the anal fin and caudal fin base. Interorbital width is least fleshy width (Randall *et al*., 1994).

Length of the fin rays are measured to their extreme bases. Certain body proportions are expressed as the percentage of standard length (SL) and the range values are given along with the mean values in parenthesis. Some of the body proportions like pre-orbital, eye diameter, post-orbital, length of first dorsal fin ray, second dorsal fin ray, longest dorsal fin ray, last dorsal fin ray, length of first anal fin ray, second anal fin ray, third anal fin ray, longest anal fin ray and last anal fin ray and upper jaw length were also expressed as percentage of head length (HL). The relation between different body lengths and standard length were computed following least square method (Snedcor and Cochran, 1967). The results are presented in Table containing calculated values of slope (m), y-intercept (b), correlation coefficient (r^2), F statistic, regression sum of squares (ssreg) and standard error of m and b.

Results

Bleekeria murtii sp. nov.

Holotype

GB.5.1.1 of Museum of Designated National Repository, Central Marine Fisheries Research Institute, Kochi, India of 126.5 mm of standard length collected from Tuticorin, India, K. K.Joshi, P. U. Zacharia and P. Kandan on 8 June 2009.

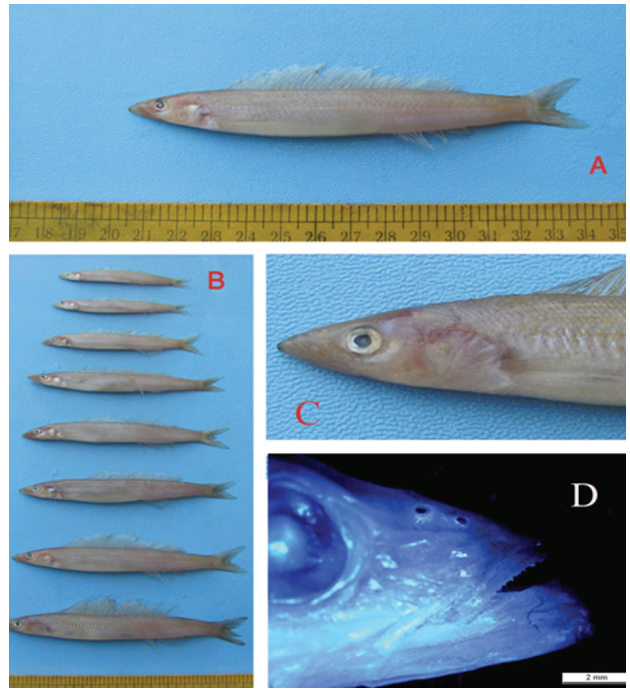

Fig. 1. A - Sand lance (*Bleekeria murtii* sp. nov.) of 126. 5 mm SL; B - *B. murtii* of different lengths; C - Head; D - Photomicrograph of head

Paratype

GB.5.1.1.1 of Museum of Designated National Repository, Central Marine Fisheries Research Institute, Kochi, India and 31 specimens of 87.2-132.3 mm collected with Holotype.

Diagnosis

The species has a torpedo-shaped body with lower jaw protruding than upper jaw. It has 34-49 dorsal soft rays; 12-16 anal soft rays, 56-75 vertebrae, no pelvic fins and lateral line scales 80-108. Scales absent from a medium band anterior to the dorsal fin and from the musculature at the base of caudal fin. It is characterized by a longer head length and shallower body width as compared to other species in the genus. The colour pattern is also different from other species.

Description

The minimum, maximum, mean and standard deviation of meristic counts are given in Table 1. As compared to the other species in this genus, the present species has fewer rays and other counts. Scales above and below lateral line are 3 and 31 respectively and branchiostegal rays are 7. Length of the fins and longest rays are presented in Table 2.

Table 1. Number of soft rays in dorsal and anal fins and number of scales in the lateral line of *B. murtii*

Dorsal soft rays	34	35	36	37	38			
Frequency	4	4	7	2	9			
Anal soft rays	12	13	14	15	16			
Frequency	2	0	6	20	3			
Lateral line scales	80	82	97	98	99	100	101	102
Frequency	1	1	3	7	7	6	3	2

Table 2. Length of dorsal and anal fin rays as percentage of head length of *B. murtii* collected from Tuticorin during 2009-2010

Parameter (mm)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Total length (TL)	144.6	147.9	124.3	140.7	135	127	135	138.5	135.3	133	138	135.7	137.6	123	121.6	140	141.6	126.2	129.2
Head length (HL)	26.7	26.3	23.1	27.5	25.3	23.8	21.4	27.1	25.4	26.0	27.0	25.3	25.7	24.4	20.3	26.7	29.8	22.3	27.3
Length of first dorsal fin ray	14.98	15.42	13	20.4	11.5	11.8	22	25.8	19.7	22.7	12.2	20.2	19.1	14	23.2	10.9	15.7	26	20.5
Length of second dorsal fin ray	16.48	17..7	16	33.8	29.6	22.3	33.6	31	24.4	33.8	25.6	30.8	19.8	22	37.9	30.3	26.1	32.7	33.7
Length of longest dorsal fin ray	45.32	46.3	41.5	50.2	52.2	35.7	51.9	63.5	38.6	52.7	24.4	58.1	36.2	33	60.1	53.9	45.6	47.1	42.5
Length of last dorsal fin ray	20.22	21.1	16	16.7	25.3	14.3	26.6	14	20.5	18.8	15.9	19	13.2	17	24.6	15.4	19.4	23.3	23.4
Length of first anal fin ray	23.22	24.38	21.6	12.4	17.4	23.1	18.7	14	29.1	19.6	24.8	18.2	16.3	16	24.1	14.6	18.4	14.8	11.7
Length of second anal fin ray	35.21	37.6	34.6	23.3	38.7	33.2	33.2	25.1	30.7	33.8	31.1	28.9	19.1	28	33	30.7	36.5	23.8	24.2
Length of third anal fin ray	38.2	39.0	42	26.2	46.2	36.1	50.9	34.7	32.7	35	31.1	36.8	31.9	39	47.3	34.8	38.2	39.9	31.9
Length of longest anal fin ray	38.2	39.1	42	26.2	46.2	36.1	50.9	34.7	32.7	35	31.1	36.8	31.9	39	47.3	34.8	38.2	39.9	31.9
Length of last anal fin ray	14.98	15.6	15.6	9.8	14.2	11.3	28	9.5	13.8	16.9	8.15	13.8	7.39	11	18.2	17.6	15.7	13.9	15

Morphometric parameters

Morphometric measurements, minimum, maximum, mean and standard deviation are given in Table 3.

Body measurements based on percentage of standard length

Head length 17.95-23.8 (21.07), head width 4.12- 10.45 (7.52), pre-orbital length 4.97-9.14 (6.90), eye diameter 2.4- 4.46 (3.63), post-orbital length 6.96-12.30 (9.77), body depth 9.32-12.5 (10.9), body width 10.55-15.45 (12.46), lower jaw length 1.73-11.94 (5.48), upper jaw length 1.73-11.94 (5.48), pectoral fin length 8.93- 15.33 (12.20), pre-dorsal length 18.95-31.89 (25.27), dorsal 4.37-14.62 (8.37), pectoral fin base length 1.52-4.23 (2.88), dorsal fin base length 46.55-81.35 (57.54), anal fin length 4.21-11.98 (6.81), anal fin base length 11.33-23.19 (18.37), caudal peduncle length 11.73-19.26 (14.99), caudal peduncle depth 5.87-8.15 (7.09), pre-anal length 57.75-70.32 (64.54), interorbital length 3.0-4.64 (3.63). Regression results of the selected morphometric parameters on total length are presented in Table 4.

As percentage of head length

Head width 20.1-41.7 (35.3); eye diameter 10.3-23.7 (17.4); pre-orbital length 22.8-39.6 (32.6); post-orbital 33.6-56.6 (46.4).

Eyes are small with eye diameter of 10.38-23.7 (17.4) in HL. Lower jaw projecting, pointed when viewed from above and slightly rounded from the sides (Fig. 1 C and D). Upper jaw length 6.38-58.7 (23.7) in HL; premaxilla protrusible, mouth oblique. Minute teeth in jaws and palate (Fig. 1 D). Nostrils on upper side of snout anterior to dorsal third of eye half way between orbit and front of snout. Gill opening broad, the dorsal end at the level of upper edge of eye, the anterior end nearly reaching at vertical through centre of eye. No spines on opercle. Scales small, thin, cycloid and arranged forming diagonal straight lines in anterodorsal-posterodorsal direction.

Origin of the dorsal fin above 10th lateral line scale. Length of first dorsal fin rays 9.42-26.00 (17.83) in HL; length of second dorsal fin ray 16.5-37.9 (28.35) in HL;

Table 3. Morphometric measurements, minimum, maximum, mean and standard deviation (SD) of *B. murtii* collected from Tuticorin during 2009-2010 (n=31).

Parameter	1 (Holotype)	2 (Paratype)	3	4	5	6	7	8	9	10	Min*	Max*	Mean*	SD
Total length (TL) mm	144.6	147.9	155.6	124.3	140.7	135.4	127.4	134.9	138.5	135.3	87.20	155.6	126.6	19.14
Standard length (SL) mm	126.5	130.7	132.3	106.9	123.9	118.5	108.1	119.2	120.7	113.3	76.61	132.3	111.1	16.28
Fork length (FL) mm	135.0	132.1	141.7	114.1	131.9	127.3	117.6	127.7	129.5	125.3	82.13	141.7	116.8	17.60
Head length (HL) mm	26.7	26.3	30.8	23.1	27.5	25.3	23.8	21.4	27.1	25.4	15.06	30.8	23.6	4.35
Head width (HW) mm	10.4	5.4	13.0	9.7	12.9	9.2	7.8	8.8	10.5	10.1	3.82	13.0	8.6	3.82
Body width (BW) mm	7.9	8.9	7.9	8.2	7.8	8.6	8.1	8.5	7.8	7.9	5.86	10.1	8.16	1.18
Body height (BH) mm	16.5	14.8	16.8	15.0	15.4	15.7	15.5	12.7	14.7	15.5	8.70	19.70	13.9	2.70
Pre-orbital length (PO) mm	8.8	9.2	9.3	8.1	9.5	8.8	7.0	7.9	9.0	7.6	5.32	10.30	7.71	1.46
Eye diameter (ED) mm	4.7	5.0	5.1	4.1	4.5	4.2	3.6	3.7	4.1	3.5	2.45	5.37	4.06	0.77
Post -orbital length (PL) mm	13.9	10.3	14.7	10.3	13.8	13.2	11.3	9.9	12.8	13.2	6.57	15.10	11.07	2.69
Lower jaw length (LJ) mm	4.4	9.3	5.8	4.6	3.1	3.2	4.6	3.9	3.7	3.2	1.90	11.4	5.7	3.05
Upper jaw length (UJ) mm	3.7	8.7	4.4	3.2	2.6	2.5	3.3	2.5	2.5	2.9	1.70	10.3	5.1	3.19
Pre-dorsal length (PD) mm	27.3	32.8	32.8	27.4	30.0	26.2	25.1	33.7	26.4	27.5	16.24	39.1	28.0	5.79
Dorsal height (DH) mm	8.4	19.0	9.5	5.7	10.4	8.3	7.9	9.0	8.2	10.8	4.80	19.0	9.4	3.66
Dorsal base length (DB) mm	75.7	74.6	79.5	58.0	73.9	96.4	66.0	69.0	70.5	70.6	9.99	18.1	13.4	2.10
Pectoral fin length (PF) mm	11.3	18.1	16.3	13.3	14.4	12.3	13.6	12.1	13.5	13.9	38.77	96.4	64.3	13.32
Pectoral fin base length (PB) mm	3.7	3.8	3.6	3.0	3.8	2.8	2.8	2.4	3.4	2.8	1.71	5.2	3.2	0.91
Anal length (AL) mm	5.5	11.3	5.6	4.5	7.7	7.7	7.6	8.1	10.7	7.4	2.44	5.1	4.0	0.69
Anal base length (AB) mm	25.1	24.7	24.6	19.6	23.3	23.1	19.3	13.5	23.2	20.8	4.02	12.6	7.4	2.39
Pre-anal length (PA) mm	80.9	79.7	86.2	69.8	81.8	75.7	70.2	79.7	75.6	77.6	52.13	86.2	71.8	10.41
Caudal peduncle length (CL) mm	14.9	21.1	18.2	12.9	18.2	13.9	14.7	18.2	17.2	17.0	11.22	22.0	16.5	3.00
Caudal peduncle depth (CP) mm	8.5	9.8	10.1	7.8	10.1	8.7	7.2	7.0	8.6	7.2	4.83	10.2	7.9	1.55
Caudal fin length (CF) mm	15.9	18.8	16.9	13.5	15.3	14.6	13.6	13.2	16.5	13.5	13.50	25.1	20.4	3.43
Inter orbital length (IB) mm	4.6	4.6	4.9	4.1	4.4	4.1	4.0	3.6	3.8	3.8	2.44	5.09	4.01	0.69
Weight (g)	12.1	14.0	14.8	7.3	11.7	10.7	9.5	8.7	10.6	10.7	2.00	14.8	8.62	3.51
Sex	M	F	M	M	M	F	F	M	M	M	* (N= 31)			

length of longest dorsal fin ray 24.4-63.5 (45.66) in HL and length of last dorsal fin ray 13.2-26.6 (18.7) HL. Origin of the anal fin above 60th lateral line scale. Length of first anal fin ray 11.7-29.1 (18.13) in HL; length of second anal fin ray 19.1-38.7 (29.27) in HL; length of third anal fin ray 26.2-50.9 (36.69) in HL; length of longest anal fin ray 26.2-50.6 (36.69) in HL; length of last anal fin ray 7.39-28 (13.74) in HL.

Lateral line high on the body ascending from the end of the gill opening to below the origin of dorsal fin, then passing parallel to the upper part of the body. Further, the lateral line curves downwards and continue laterally on the base of the caudal fin. Lateral line system of head continuous in the suborbital region. There are three scale rows above lateral line and 20 scale rows below the lateral line.

Colour

Grayish yellow on back, shading to silvery white laterally and ventrally with continuous and discontinuous yellow bands. Sexual dimorphism is seen in this species. The margins of the anal fin of the adult female is dark and male is white. The upper half and lower half of the caudal peduncle is grayish white and the middle band is yellow in colour. The yellow bands in the body continuously run to the middle portion of the caudal peduncle to join the yellow band of the caudal peduncle. Dorsal fin is transparent and the interspace between rays has yellow bands. In the specimens below 90 mm, the yellow bands and other body colouration are less intense and as the fish grows the colour intensity increases (Fig. 1B).

Distribution

The present record of the species shows that its distribution is limited to India .

Ecology

Like other members of the genus, *Bleekeria murtii* found over sandy bottoms of depth between 20-50 m. They form schools and protect themselves from their prey by burrowing. Predators include the tuna *Euthynnus affinis* and carangids.

Table 4. Regression results of selected morphometric parameters on standard length (SL) of *B. murtii* (n=31; Total length range 76.6 to 132.3 mm)

Regression	Slope (m)	Std error of m (sem)	Y-intercept (b)	Std Error of b (seb)	Correlation coefficient (r^2)
FOL on TL	0.89893	0.03239	6.20	3.83	0.9636966
HEL on TL	3.45508	0.28115	29.74	6.74	0.838902
HEW on TL	3.92590	0.73818	77.63	6.67	0.4937566
PRO on TL	8.96180	1.20486	42.49	9.42	0.65609
EYD on TL	15.1058	2.8849	50.10	11.89	0.4859712
PSO on TL	4.68205	0.67687	59.62	7.69	0.622625
BDD on TL	5.32696	0.62362	37.40	8.80	0.7155888
BDW on TL	9.41359	1.89646	34.62	15.62	0.459348
LOJ on TL	-1.4400	0.93478	119.61	5.91	0.0756441
UPJ on TL	-2.1380	0.81692	122.18	4.79	0.1910500
PD on TL	2.24865	0.33902	48.42	9.67	0.60270488
DH on TL	2.42900	0.73592	89.15	7.18	0.27307264
DB on TL	1.09937	0.13058	41.08	8.50	0.7096590
PD on TL	2.24865	0.33902	48.42	9.67	0.60270488
DH on TL	2.42900	0.73592	89.15	7.18	0.27307264
DB on TL	1.09937	0.13058	41.08	8.50	0.7096591
PF on TL	5.40548	1.08962	39.06	14.74	0.45905957
PB on TL	10.1556	2.83889	78.86	9.42	0.30617583
AL on TL	2.95810	1.15735	89.90	8.82	0.18384999
AB on TL	3.27072	0.63366	44.41	13.15	0.47881233
PA on TL	1.45599	0.09471	6.78	6.87	0.8906963
CL on TL	3.92266	0.70345	46.881635	11.75	0.5174268
CPL on TL	9.33332	0.90281	37.292645	7.29	0.786569
CFL on TL	4.85134	0.98523	39,619945	14.74	0.4553587
IB on TL	3.70624	0.43402	4.701010	2.25	0.8871775

(Regression equation: y = mx + b (y= morphometric parameter; x= standard length; m = slope; b = Y-intercept)

Etymology

We name this species in honour of Dr. V. Sriramachandra Murty, a well known taxonomist and former Head, Demersal Fisheries Division, Central Marine Fisheries Research Institute, Kochi, India.

Comparisons

The major difference of this species compared to the other three species of *Bleekeria* is the deep body depth. In this species, the deep body depth is 10.5-15.4% (12.4) whereas it is 8.8% in *B. viridianguilla*, 10.0% in *B. mitsukurii* and 9.8% in *B. kallolepis*. The eye diameter showed a low range of 2.40- 4.46 (3.63%) SL as compared to the other species, whereas it is 4.74% in *B. viridianguilla,* 4.0 % in *B. mitsukurii* and 4.3% in *B. kallolepis*. The head length is shorter 17.9-23.8 (21.0), compared to 23.0% in *B. viridianguilla,* 34.1% in *B. mitsukurii* and 21.7% in *B. kallolepis* (Table 5).

The original description of *B. viridianguilla* (= *Herklotsina viridianguilla*) by Fowler, 1931 was from Hong Kong. This species is reported from China and Taiwan (Ida, *et al.*,1994). Holotype of the species (ANSP 53458) (Fig. 2 B).

Günther (1862) described the second species *Bleekeria kallolepis* collected from Madras. According to Günther (1862) in the same species body is less than one-half of the length of the head, which is one-fifth of the total of head and body together. It has a large eye. Günther was unable to detect any teeth in jaws or on the palate. This species is reported from Thailand, India and Sri Lanka (Krishnan and Mishra, 1993). Holotype is available in the British Museum of Natural History (BMNH 1846.11.22), (Fig. 2A).

The third species *Embolichthy smitsukurii* (=*Bleekeria mitsukurii*) was first described by Jordan and Evermann in1902 from Giran. Lectotype designated by Pietzch and Zabetian in 1990. Subsequently, several authors reported the same species from different localities (Jordan, 1903; Peitsch and Zebastian, 1990; Suzuki and Hosokawa, 1994; Goren and Dor, 1994; Collette, 2001; Nakabo, 2002) but mainly from Australia, Japan, Indonesia and Taiwan. Holotype of the species (SU7133, SU 67143), (Fig. 2 C).

Table 5. Comparison of morphometric data of holoytpes of three species of *Bleekeria* and new species *B. murtii*

Species	*B. kallolepis* (BMNH 1846.11.22)	*B. viridianguilla* (ANSP 53458)	*B. mitsukurii* (SU 7133)	*B. murtii sp. nov.* Sp1	Sp2
Morphometric parameters					
Total length (mm)	105	173	110	87.20	155.6
Standard length (mm)	92	148	100	76.61	132.3
Fork length (% SL)	102.2	104.1	101.0	100.39	110.59
Head length (% SL)	21.7	23.0	23.0	17.95	23.80
Pre-orbital length (% SL)	6.5	7.4	8.0	4.97	9.14
Eye diameter (% SL)	4.3	4.7	4.0	2.40	4.46
Post-orbital length (% SL)	12.0	12.2	11.0	6.96	12.30
Body depth (% SL)	9.8	8.8	10.0	10.55	15.45
Lower jaw (% SL)	6.5	6.1	7.0	1.73	11.94
Upper jaw (% SL)	5.4	4.7	6.0	1.49	12.66
Dorsal fin length (% SL)	-	10.1	5.0	4.37	14.62
Dorsal base length (% SL)	-	60.8	56.0	46.55	81.35
Pectoral length (% SL)	-	13.5	3.0	8.93	15.33
Pectoral base length (% SL)	-	4.1	14.0	1.52	4.23
Anal fin length (% SL)	-	6.8	5.0	4.21	11.98
Anal base length (% SL)	-	20.3	17.0	11.33	23.19
Caudal peduncle length (% SL)	-	16.2	13.0	11.73	19.26
Caudal peduncle width (% SL)	-	7.4	7.0	5.87	8.15
Meristic parameters					
Dorsal rays	40	40-42	42	38	39
Anal fin rays	15	14	15	15	16
Lateral line scales	100	108-111		82	108

Fig. 2. A - *Bleekeria kallolepis* Gunther, 1862 (BMNH 1846.11.22); B - *B. viridianguilla* Fowler, 1931 (ANSP 53458), C - *B. mitsukurii* Jordan and Evermann, 1902 (SU 7 133)

Of the three species, *Bleekeria mitsukurii* described by Jordan and Evermann, 1902 from Taiwan, is most closely related to the present species but the colour pattern of *B. mitsukurii* is entirely different from *B. murtii*.

The new species resembles *B. viridianguilla* in having an elongate body, long caudal peduncle, protractile premaxillaries and minute teeth. The latter differs in having more dorsal rays (40-42), more lateral line scales (108-114) and lower head length of 23.0% SL as compared to 21.0% SL in the present specimen. *B. viridianguilla* has a large eye as compared to the small eye of the *B. murtii*, 34.1% HL in the former and 17.4% HL in the latter. The colour pattern of *B. viridianguilla* is different from others, with the back and above broccoli brown, sides and below pale vinaceous cinnamon to whitish with silvery white Iris.

Although there are five reports of *Bleekeria kallolepis* from India, detailed descriptions are available only for three. Day (1878) gave detailed description of *B. kallolepis* but *B. murtii* shows much dissimilarity with it. Other descriptions of the *B. kallolepis* also do not match with the present species (Günther, 1869; Krishnan and Mishra, 1993).

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