	Juveniles $(n = 3)$	Adult Male	Adult Female 69.9	
Snout-vent length	33,73 ± 6.01 (28.0-40.0)	61.5		
Head length	4.66 ± 1.15 (4.0-6.0)	10.0	9.75	
Head width	$10.83 \pm 1.61 (9.0-12.0)$	22.0	22.0	
Maximum body width	15.83 ± 1.61 (14.0-17.0)	35.0	41.5	
Snout-orbit distance	2.83 ± 0.28 (2.5-3.0)	4.0	4.5	
Snout-narial distance	$0.58 \pm 0.14 (0.5 - 0.75)$	1.0	1.0	
Internarial distance	$2.83 \pm 0.76$ (2.0-3.5)	5.0	5.0	
Interorbital distance	8.66 ± 0.57(8.0-9.0)	15.0	17.0	
Eye diameter	$3.66 \pm 0.76(3.0-4.5)$	6.0	6.0	
Femur length	14.16 ± 1.75(12.5-16.0)	25.0	27.0	
Tibia length	$13.0 \pm 1.73(12.0-15.0)$	26.0	26.0	
Tibia width	$3.9 \pm 0.96(3.2-5.0)$	9.0	10.0	
Forelimb length		47.0	45.0	

TABLE 1: Morphometric measurements (in mm) of juveniles (± SD; range in parenthesis) and adults of Kaloula pulchra from Cachar District, Assam, north-eastern India.

patches at base of fore- and hindlimbs. Ventral surface greyish with small white spots. Dorsum rough and snout obtuse with nostrils closer to tip of snout than to eyes. Tongue large; tympanum indistinct. Body balloon shaped. Tips of fingers and toes dilated. Fingers and toes in order of length are 3 > 4 > 2 > 1 and 4 > 3 > 5 > 2 > 1, respectively. Fingers with rudimentary webs in juveniles, free in adult. Toes with rudimentary webbing in both juveniles and adult. Tibio-tarsal articulation reaches shoulder; heels do not overlap when folded at right angle to body. Both inner and outer metatarsal tubercles present.

The authors are thankful to S. K. Chanda, Scientist, ZSI, Calcutta for his help in identification. MD gratefully acknowledges UGC for the financial assistance granted and Abhijit Das for assistance in the field.

## LITERATURE CITED

DUTTA, S. K. 1997. Amphibians of India and Sri Lanka (checklist and bibliography). Odyssey Publishing House, Bhubaneswar, xiii + 342 + xxii pp.

ROMER, J. D. 1949. Herpetological observations in Assam and Bengal (1944). J. Bombay nat. Hist. Soc. 48(2): 374-376. Mithra Dey and Abhik Gupta, Department of Ecology, Assam University, Silchar 788 011, Assam, India.

Email (AG): abhikgupta@hotmail.com

Received: 24 June 2000. Accepted: 11 August 2000.

Hamadryad Vol. 25, No. 2, pp. 215 – 217, 2000 Copyright 2000 Centre for Herpetology Madras Crocodile Bank Trust

# Rediscovery of *Chirixalus simus* Annandale, 1915 (Anura: Rhacophoridae) from Assam and West Bengal, eastern India

(with one text-figure)

The genus *Chirixalus* includes nine nominal species and is distributed from Japan in the east to India in the west (Frost, 1985). In India, the genus is represented by four species (Dutta, 1997). The least well-known of these, *Chirixalus simus* Annandale, 1915 is known from the holotype, ZSI 17971, collected by S. W. Kemp, from Mangaldai, Assam on 6 January 1911. On 8 and 15 October 1998, two females (by MFA) and two males (by MFA and SKD) respectively of *Chirixalus* (Fig. 1) specimens were collected

Characters Location Sex	ZSI 17971 (holotype) Mangaldai	ZSI A9122 W Bengal male	ZSI A9123 W. Bengal male	ZSI A9124 W. Bengal male	ZSI A9125 W. Bengal male	ZSI A9130 Assam female	ZSI A9131 Assam female	ZSI A9132 Assam male	ZSI A9133 Assam male										
										Snout-vent length	20.75	22.37	21.5	22.4	23.3	26.87	26.8	20.15	19.3
										Head length	6.92	6.37	6.4	6.1	6.55	7.17	7.0	5.27	5.77
Head width	7.0	7.07	7.2	7.07	7.0	7.8	7.87	6.1	6.27										
Snout length	3.42	3.3	3.45	3.75	3.35	3.37	3.52	2.87	3.2										
Eye diameter	3.27	3.37	3.4	3.1	3.4	3.15	3.57	2.95	3.05										
Tympanum diameter	1.55	1.75	1.5	1.37	1,45	1.4	1.32	1.35	1.15										
Inter-orbital distance	3.77	3.77	3.62	3.4	3.55	3.8	3.55	2.75	3.0										
Internarial distance	2.2	2.32	2.12	2.72	2.42	2.5	2.65	1.87	1.9										
Tibia length	11.6	12.17	12.07	11.75	11.3	12.67	12.55	9.55	9.87										

TABLE 1: Measurement (in mm) of Chirixalus simus specimens.

from the Orang Wildlife Sanctuary, Darrang District, Assam. In addition, on 8 September, 1999, at 20 h, we (SKD, KD and SB) collected four specimens of the genus *Chirixalus* from a marshland in Rajpur, South 24 Parganas District, West Bengal, six km south of Calcutta. They were all calling males. All the specimens were identified as *C. simus*, after comparison with the holotype. Thus, this finding is a rediscovery of the species, 83 years after its description, from two other localities; Assam ca. 40 km away from the type locality and West Bengal ca. 600 km away from its type locality.

While comparing with the holotype, certain minor morphological differences were found both in the holotype and the collected specimens. Annandale (1915) mentioned "the head is broader than long and the snout is considerably shorter than the diameter of the orbit". However, our measurement of the holotype and the referred specimens (Table 1) suggested the following: The head is almost as long as broad and the snout length is equal to the maximum diameter of the eye. Annandale (1915) mentioned of a slight rudiment of web between the inner fingers, but we did not find any webbing between fingers.

The type locality (Mangaldai: 26° 28' N; 92° 05' E) is a low-lying flood plain area, with patchy marsh vegetation. The second locality in Assam (Orang Wildlife Sanctuary: 26° 30'-40' N; 92° 15'-30' E) is ca. 40 km in aerial distance from the type locality. The specimens from Orang were collected at night, from tall grasses

(Saccharum sp.) at a height of ca. 1.5 m above ground. The West Bengal specimens were found in a marshy area, close to human habitation. The water depth in the marsh was ca. 0.5 m and the area is dominated by the grass, Saccharum

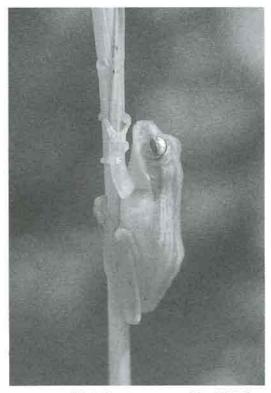


FIGURE 1: Chirixalus simus Annandale, 1915 from Rajpur, South 24 Parganas District, West Bengal, eastern India. (Photo: K. Mookherjee)

spontaneum. The frogs were calling from the grasses, at a height of ca. 1 m above the level of water. The call of the species was a metallic "trrik..trrik..trrik". Other species of frogs, found syntopically at the West Bengal site are, *Euphlyctis cyanophlyctis, Fejervarya* sp. and *Hoplobatrachus tigerinus*. Foam nests of the species were found hanging from the reeds, ca. 0.5 m above water level. The foam was pendulous in shape, measuring 65 mm in length and one of the nests contained 100 white eggs.

The authors are grateful to J. R. B. Alfred, Director and S. K. Chanda, Officer-in-Charge, Zoological Survey of India (ZSI), Calcutta for permission to examine comparative material, A. Banerjee, P. K. Mallick and R. A. Khan for help in the field, photography and to S. Pawar and K. Vasudevan for comments on the manuscript. For granting permission for field studies in Assam, MFA and SKD thank the Forest Department officials of Assam.

#### LITERATURE CITED

ANNANDALE, N. 1915. Herpetological notes and descriptions. *Rec. Indian Mus.* 11: 345-346.

DUTTA, S. K. 1997. Amphibians of India and Sri Lanka (checklist and bibliography). Odyssey Publ. House, Bhubaneswar. xiii + 342 + xxii pp.

FROST, D. R. (Ed). 1985. Amphibian species of the world. Allen Press Inc. & The Assoc. Syst. Coll., Lawrence, Kansas. 732pp.

Kaushik Deuti<sup>1</sup>, Sayantan Biswas<sup>2</sup>, Md. Firoz Ahmed<sup>3</sup> and S. K. Dutta<sup>4</sup> <sup>1</sup>Zoological Survey of India, Prani Vigyan Bhavan, New Alipore, Calcutta 700053, India. <sup>2</sup>Wildlife Institute of India, Chandrabani, Dehradun 248001, India. Email: tokkkey@yahoo.com <sup>3</sup>Department of Zoology, Gauhati University, Guwahati 781014, Assam, India. Email: md\_firoz\_ahmed@yahoo.com <sup>4</sup>Department of Zoology, Utkal University, Bhubaneswar 751004, Orissa, India. Email: sk\_dutta@yahoo.com

> Received: 1 September 2000. Accepted: 6 September 2000.

# REVIEWERS FOR HAMADRYAD Vol. 25 (1 & 2)

K. Adler, A. M. Bauer, S. K. Chanda, P. P. van Dijk, A. Dubois, S. K. Dutta, W. Erdelen, M. A. Ewert, R. Gemel, R. F. Inger, J. B. Iverson, C. J. McCarthy, P. K. Mallick, E. O. Moll, H. Ota, S. M. A. Rashid, P. Ray, G. Underwood, H. K. Voris, V. Wallach, A. Wynn, B. A. Young.

## ERRATUM

In Volume 25(1), 2000, the email address for Karthikeyan Vasudevan ('A new species of *Rhacophorus* (Anura: Rhacophoridae) from the Western Ghats, India', p. 21) is <karthik@wii.gov.in> and not as indicated.