

**THE GENUS NERTHRA (SAY) FROM INDIA WITH A DESCRIPTION OF  
A NEW SPECIES FROM ARUNACHAL PRADESH, NORTH EASTERN INDIA  
(GELASTOCORIDAE : HEMIPTERA : INSECTA)**

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INTRODUCTION

The family Gelastocoridae commonly known as 'Toad Bugs' are short, broad aquatic bugs characterised with protruding eyes. The fore legs are raptorial and abdominal sterna are asymmetrical. There are about 100 species found throughout the world which are divided into two genera, namely, *Gelastocoris* Kirkaldy (subfamily : Gelastocorinae) and the cosmopolitan *Nerthra* Say (Subfamily : Nerthrinae). In India, the genus *Nerthra* is known from North Eastern India and represented by three species, *N. indica*, (Atkinson), *N. asiatica* (Horvath) and *N. spissa*, (Distant) (Distant, 1906 & 1910; Todd, 1955). The genus *Nerthra* can easily be identified by the fused foretarsus to tibia, single foretarsal claw, rostrum appearing to arise on ventral surface of head which is slender. The head is provided with tooth like tubercles on the dorsal side. The ninth abdominal segment of male visible externally with well developed right paramere, left paramere being absent. In the present study, *N. Indica*, hitherto, known from Eastern and North Eastern India, is recorded for the first time from Southern India and a new species of the genus is described from Arunachal Pradesh. A key to all the known Indian species is also given.

*Nerthra indica* (Atkinson)

1888. *Mononyx indicus* Atkinson, *J. Asiatic Soc. Bengal.* LVII : 345.

1906. *M. indicus* Distant, *Fauna British India*, 3 : 15.

1910. *M. projectus* Distant, *Fauna British India*, 5, : 310.

1955. *N. indica* Tod, *Kans. Sci. Bull*, 37 : 405.

Length 10.0 mm; width of pronotum 7.7 mm; width of abdomen 8.2 mm. The ovipositor lobes are small, less projecting and with lateral submarginal tumescences on the last visible abdominal sternite. The lateral dilation of the embolial margin is not triangular.

*Material examined* : One female from a jungle stream, near Kodumudi Aru Estate, Kalakad, Tirunelveli Distt, Tamilnadu, alt. 200 metres, Coll. : M. Vasanth; 26. VIII. 1986.

*Distribution* : Assam, Sikkim, Tamilnadu, (Present recorded), West Bengal.

*Remarks* : The record of *N. indica* from Kalakad, Western Ghats is the first report of this species from Southern India. Todd (1955) remarked that this species is restricted to India in its distribution.

*Nerthra spissa* (Distant)

1910. *Mononyx spissus* Distant, *Fauna British India*, 5 : 312.

1955. *Nerthra* Todd, *Kans. Sci. Bull.*, 37 : 412.

Length 9.0 mm; width of pronotum 6.6 mm; width of abdomen 6.7 mm. Body covered with long erect bristles, head with two larger tubercles in front; pronotum almost rectangular with straight lateral margin; scutellum tumescence laterally and apex. Male paramere large, straight, cylindrical and twisted (Fig. 1.F).

*Material examined* : One male from Julli village, Near Ganga, Itanagar, Arunachal Pradesh, Coll. : D. B. Bastawade, 6. VIII. 91.

*Distribution* : India : Arunachal Pradesh (present record), Assam.

*Remarks* : *N. spissa* was first described from Sivasagar, Assam, North Eastern India (Distant, 1910) and subsequently recorded from Misamari, Assam, (Todd, 1955). In the present study, this species is recorded for the first time from Arunachal Pradesh and thus reported after 40 years of gap.

*Nerthra arunachalensis* sp. nov.

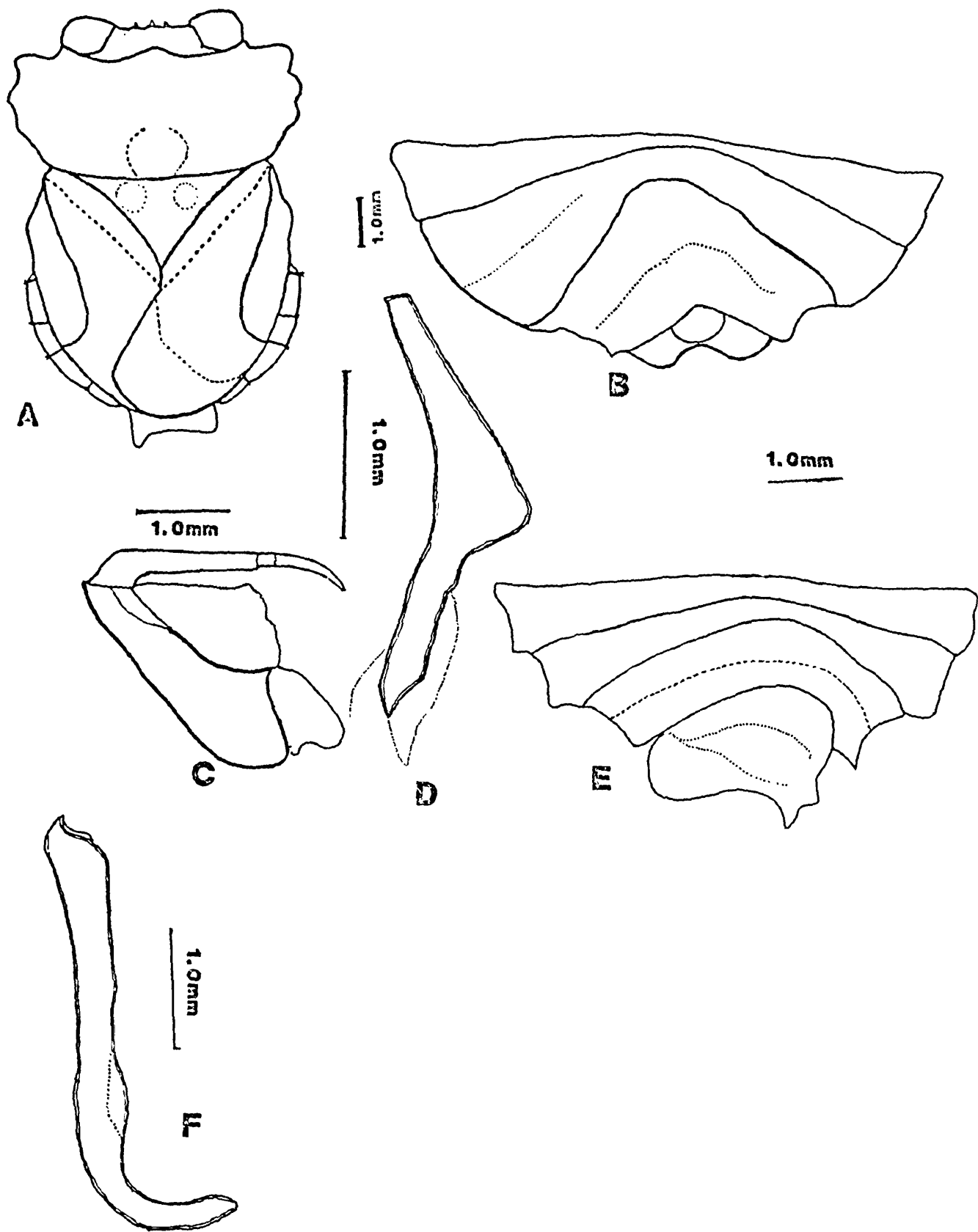
(Fig. 1. A-E)

*Size* : Male : Length, 8.3 mm., width of the pronotum, 6.2 mm., width of abdomen, 5.9 mm., Female : 9.4 mm., width of the pronotum, 7.1mm., width of abdomen, 6.9 mm.

*Colour* : Uniformly more or less light brown, scutellum a little darker than rest of dorsal surface. Venter mostly dark brown, all tibiae, tarsi, claws slightly darker.

*Structural characteristics* : Head with a pair of distinct pointed median tubercles on frons, two pairs indistinct tubercles laterally and in between eyes. Eyes large protruding, pronotum gibbous, carinate, with lateral margin broadly sinuous, greatly ampliate, weakly dentate, forming two distinct furrows projecting beyond the base of the embolium, widest at a level with the transverse furrow. The anterior part converging obliquely towards eyes, where as the posterior part slightly concave, seven distinct longitudinal carination on the disc of posterior part. Scutellum large, moderately elevated laterally, medially tumescent, a pair of two distinct longitudinal carination on either side and a faint tumescence centrally. Hemelytra extending beyond the abdomen almost covering the last genital segment in male, fully covering the ovipositor lobes in female, embolium narrow basally, dilate medially. Body covered with groups of short elevated bristles on pronotum, scutellum and hemelytra. Fore femur broad covered with small black tooth like spines on the anterior margin, foretarsus fused with the tibia, not articulate, one well developed claw. Abdominal sternites in male asymmetrical with ninth abdominal segment visible externally

**Fig. 1**



*A-E Nerthra arunachalensis Sp. nov.*

A. Dorsal view of male. B. Abdominal sternites of female. C. Fore leg male. D. Right paramere. E. Abdominal sternites of male. F. *Nerthra spissa* (Distant) : Right paramere.

(Fig. 1.E), wider than long, right paramere well developed, resting in a depression on the right side of the abdomen, simple, swollen medially, bent and tapering to broad tip (Fig. 1.D). The abdominal sternite of female is nearly symmetrical, last visible sternite more or less projecting posteriorly (Fig. 1.B), completely covering the ovipositor lobes.

*Material examined* : HOLOTYPE : Male from Julli village, Near Ganga, Itanagar, Arunachal Pradesh, India, Coll. : D. B. Bastawade, 6. VIII. 1991. PARATYPE : One female Data same as Holotype.

*Remarks* : *N. arunachalensis* is close to *N. indica* (Atkinson) and *N. serrata* (Montandon) in general appearance, but differs distinctly in the nature of pronotum, ventral abdominal segments, and male paramere and other characters mentioned in the text.

#### Key to the Indian Species of *Nerthra*

1. Lateral margin of pronotum parallel..... *N. asiatica* (Horvath)  
Lateral margin of pronotum straight or irregular with several sinuosities.....2
2. Lateral margin of pronotum straight forming almost right angle with posterior margin....  
..... *N. spissa* (Distant)  
Lateral margin of pronotum broadly sinuous .....3
3. Lateral margin of pronotum projecting beyond the base of embolium .....  
..... *N. arunachalensis*  
Lateral margin of pronotum projecting not beyond the base of embolium. ....  
.....*N. indica* (Atkinson)

The type material is deposited at Arunachal Pradesh Field Station, Zoological Survey of India, Itanagar and will be transferred to National Collections of Zoological Survey of India, Calcutta.

#### SUMMARY

The present study reports new species of the genus *Nerthra* from Arunachal Pradesh (N. Eastern India) and records *N. indica* (Atkinson) for the first time from Southern India and *N. spissa* (Distant) from Arunachal Pradesh after a gap of four decades. A key to the Indian species of the genus is also provided.

#### ACKNOWLEDGEMENT

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\* Original not seen.