

## ***Acanthopotamon panninigi*, A New Record in Fresh Water Crab Fauna of Mizoram, India**

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**Abstract** *Acanthopotamon panninigi* (Bott, 1966) is an addition to the freshwater crab diversity in North-East Himalaya, so far this species was reported from its type locality at Madhya Pradesh, so this report is important in view of zoo-geographical aspect due to the crabs are considered as an economic and bio indicator species of fresh water ecosystem.

**Keywords** *Acanthopotamon panninigi*, New distributional record, Himalaya, Mizoram.

### **Introduction**

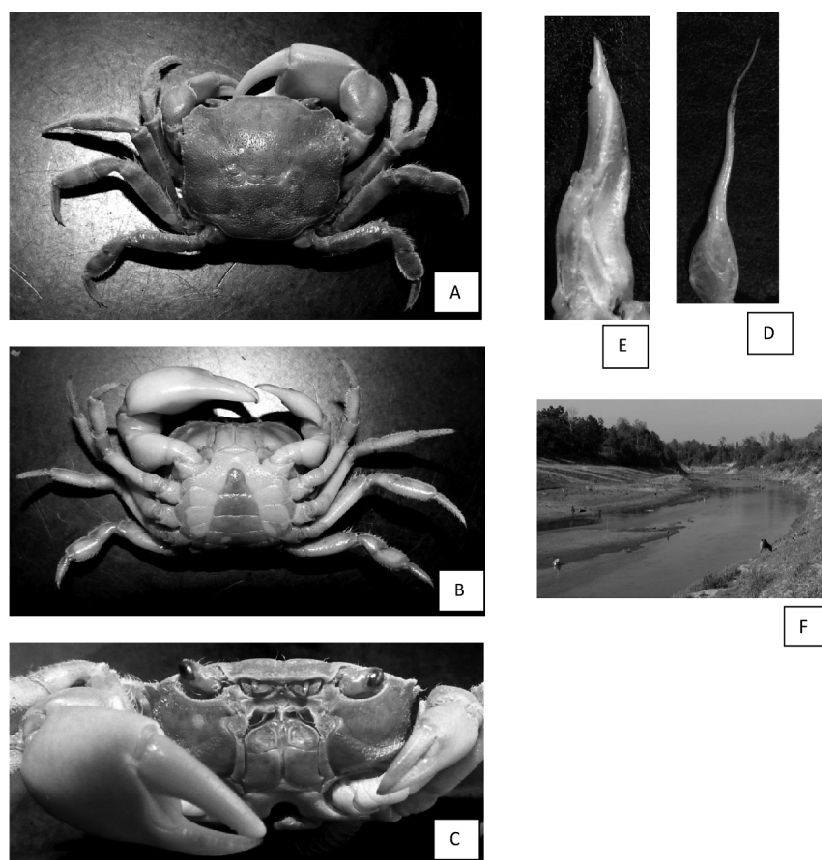
Freshwater crabs have a great role in nutrient cycle in freshwater ecosystem ; these species is significantly use as food, as ethno-medicine and also as a bio-pesticide in rural peoples. True freshwater species are considered as bio-indicator in environmental monitoring. Some species of freshwater crabs recently found as carrier of paragonimiasis a serious disease in North-East India.

Globally true freshwater crabs constitute about 1300 species in relation to 6700 species of brachyuran crabs diversity of the world (Ng et al. 2008); in India true freshwater crabs constitute only 116 species (Potamidae 33 species and Gecarcinucidae 83 species) in comparison to 934 species of brachyuran crabs this statistic also suggests that freshwater crabs in India are not studied elaborately and there is a lot of scope in taxonomic as well as ecological perspectives. Mizoram (latitude 21°58'N to 24°35'N and longitude 90°15'E 93°29'E), located on the extreme southeastern part the seven north-eastern states of India; the typical topography of Mizoram is traversed by numerous streams and rivers, the mountains now represent a biogeographical cross roads for the Indian, Indo-Malayan and Indo-Chinese biotas. The freshwater crabs of Mizoram were very recently explored, a total 15 species belongs to 10 genera and 2 families, including of 1 new species namely, *Teretamon indicum* sp. nov. were communicated by the present author (Mitra 2015 and 2017). At the time of studying the unidentified specimens of crabs of Mizoram, the present authors came across some specimens of *Acanthopotamon*

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**Fig. 1.** *Acanthopotamon panninigi* A. Dorsal view, B. Ventral view, C. Frontal view, D. Dorsal view of male second gonopod, E. Dorsal view of male first gonopod and F. Bairabi river, the habitat.

*panninigi*, this species were described from Banjar river of Balaghat province (Madhya Pradesh), and there is no any report of this species from North-East-Himalaya, so the present record is very interesting in view of zoo-geographical aspect of potamid crab in India. A short description of the species is provided in this communication.

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#### Materials and Methods

After collecting specimens were anaesthetised in a bucket of water with few drops of formalin, and then kept in 4% formaldehyde for overnight for fixation of tissues, and after 10-12 h those samples were thoroughly washed out by clear water and kept finally in 70% alcohol. Specimens were identified by observ-

ing the morphological as well as male gonopod structures, following Bott (1970), Brandis and Sharma (2005) and Yeo and Ng (2007).

## Results

### Taxonomical Account

Potamoidea Ortman 1896

Potamidae Ortman 1896

*Acanthopotamon* Kemp, 1918

*Acanthopotamon panninigi* Bott, 1966

(Fig. 1A-E)

1966. *Potamon (spinopotamon) panninigi* Bott, *Senckenbergiana biol.*, 47:477, Tafel 21, Fig. 17; abb.9.

1970. *Acanthopotamon panninigi* Bott, 145 : taf 38, fig 21 taf 45 fig 19

**Material examined** : 4 ex (3 Males 1 Female); Locality : Bank of the tributaries of Bairabi river, Kolasib, Mizoram; Date : 28.iii.2014; Reg no : ZSI C6875/2.

**Diagnosis** : Small species, carapace flat, covered by dense layer of setae, quadrangular in shape (Fig. 1A) : anterolateral margin with two or three anterolateral teeth, the first teeth is broad based, second tooth pointed, thorn like; third tooth sometimes reduced and rudimentary (Fig. 1A); posterolateral margin convex, not converging but definitely bulging ; post orbital cristae and epigastric cristae low and weak; post orbital cristae forwarded to the epibranchial tooth (Fig. 1A); front broad, slightly intended (Fig. 1C); exorbital tooth rounded; cervical groove wide and flat, semi-circular groove wide; post frontal lobe distinctly bulging (Fig 1A); 7<sup>th</sup> abdominal segment triangular, lateral margin straight (Fig. 1B); cheliped unequal, larger one gapping when closed, carpus and merus without usual spine; am-

bulatory legs very slim and hairy (Fig. 1A and B); terminal article of first gonopod short, cone shaped, distal tip curved outwards, flexible zone reduced, a lateral gap in between terminal and sub-terminal joint (Fig. 1E); second gonopod with a long terminal part (Fig. 1D).

**Distribution** : Banjar river, Mokki-Balaghat, (Madhya Pradesh) (Bott 1970); Nepal (Brandis and Sharma 2005) and Kolasib, (Mizoram) (present record).

**Abroad** : Deune khola, Charali, Jhapa (Nepal) (Brandis and Sharma 2005).

### Discussion

This species is collected from North-Eastern part of Himalaya, significantly important because it was only reported from its type locality at Madhya Pradesh and recently from Nepal, interestingly all the potamid crabs were reported from Northern part of India except this species. This communication also implicated that more works on freshwater crabs till have to be done in Himalayan region or particularly on North-Eastern part of India.

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