

## Identity of the freshwater crab *Indochinamon beieri* (Pretzmann, 1966), with the description of a new genus and four new species from northeastern India (Decapoda, Brachyura, Potamidae)

Sameer K. PATI, Santanu MITRA & Peter K. L. NG



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COUVERTURE / *COVER*:

Capitamon capitatum *n. gen., n. sp.*, holotype ♂ (49.5 × 37.3 mm) (ZSI-WRC C.2400) – overall dorsal view.

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# **Identity of the freshwater crab *Indochinamon beieri* (Pretzmann, 1966), with the description of a new genus and four new species from northeastern India (Decapoda, Brachyura, Potamidae)**

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## **ABSTRACT**

The precise identity of the potamid freshwater crab, *Indochinamon beieri* (Pretzmann, 1966), is ascertained, diagnosed and illustrated after examining the type material from Myanmar. The diagnosis/description of the species and subsequent accounts were based on a wrongly identified and illustrated specimen, probably from Nagaland in northeastern India, which caused substantial confusion among carcinologists, who referred to different taxa as *I. beieri*. Two such taxa from northeastern India are referred to herein as new species of a new genus, *Capitamon* n. gen., i.e., *C. mizoramense* n. gen., n. sp. from Mizoram and *C. clarki* n. gen., n. sp. probably from Nagaland. *Capitamon* n. gen. also includes two new species, i.e., *C. capitatum* n. gen., n. sp. (type species) from Arunachal Pradesh and Nagaland, and *C. meitei* n. gen., n. sp. from Manipur. *Indochinamon manipurensis* (Alcock, 1909) is also assigned to *Capitamon* n. gen. as it possesses the characteristics of the new genus. *Capitamon* n. gen. is thus known by five nominal species from northeastern India, while *I. beieri* is restricted to its type locality in Myanmar, with the previous Indian records revealed to be erroneous. With the exclusion of *I. manipurensis*, *Indochinamon* Yeo & Ng, 2007, now contains 42 species. An identification key to the species of *Capitamon* n. gen. is provided.

## **KEY WORDS**

Crustacea,  
*Potamiscinae*,  
*Capitamon*,  
Myanmar,  
identification key,  
new combination,  
new species,  
new genus.

## RÉSUMÉ

Identité du crabe d'eau douce *Indochinamon beieri* (Pretzmann, 1966), avec la description d'un nouveau genre et de quatre nouvelles espèces du nord-est de l'Inde (Decapoda, Brachyura, Potamidae).

L'identité précise du crabe d'eau douce potamidé, *Indochinamon beieri* (Pretzmann, 1966), est établie, diagnostiquée et illustrée après examen du matériel type provenant du Myanmar. La diagnose/description de l'espèce et les mentions ultérieures étaient basées sur un spécimen mal identifié et illustré, probablement du Nagaland dans le nord-est de l'Inde, ce qui a semé une confusion importante parmi les carcinologues, qui se sont référés à différents taxons sous le nom d'*I. beieri*. Deux de ces taxons du nord-est de l'Inde sont présentés ici comme de nouvelles espèces d'un nouveau genre, *Capitamon* n. gen., i.e., *C. mizoramense* n. gen., n. sp. du Mizoram et *C. clarki* n. gen., n. sp. probablement du Nagaland. *Capitamon* n. gen. comprend également deux nouvelles espèces, à savoir *C. capitatum* n. gen., n. sp. (espèce type) de l'Arunachal Pradesh et du Nagaland, et *C. meitei* n. gen., n. sp. de Manipur. *Indochinamon manipurensis* (Alcock, 1909) est également attribué à *Capitamon* n. gen. car il possède les caractéristiques du nouveau genre. *Capitamon* n. gen. est ainsi connu par cinq espèces nominales du nord-est de l'Inde, tandis que *I. beieri* est limité à sa localité type au Myanmar, les signalisations indiennes précédentes se révélant erronées. À l'exclusion de *I. manipurensis*, *Indochinamon* Yeo & Ng, 2007, contient désormais 42 espèces. Une clé d'identification des espèces de *Capitamon* n. gen. est fournie.

## MOTS CLÉS

Crustacea,  
Potamiscinae,  
*Capitamon*,  
Myanmar,  
combinaison nouvelle,  
clé d'identification,  
espèces nouvelles,  
genre nouveau.

## INTRODUCTION

The taxonomy of the potamid freshwater crab, *Indochinamon beieri* (Pretzmann, 1966) has a long history of confusion. Pretzmann (1966a), without figures and catalogue number, described the species under *Potamon* Savigny, 1816, based only on the holotype male from Myanmar. In a separate publication, he provided a detailed description of the species with figures (Pretzmann 1966b: 301, pl. 4, figs 12-15). The holotype (NHM 1934.1.15.1) of *Potamon beieri* Pretzmann, 1966, located in the Natural History Museum, London, is now traced with evidence from the locality label, size of the specimen and figures (Pretzmann 1966b: pl. 4, figs 13-15). After examining the holotype and verifying it with the publications by Pretzmann (1966a, b), we noticed that the diagnosis/description was based on a wrongly identified specimen, whose male first gonopod (G1) was illustrated in Pretzmann (1966b: pl. 4, fig. 12). The carapace of the same specimen was also illustrated in Pretzmann (1966b: pl. 5, figs 16-18), which is that of a male from NHM 1909.5.1.1. The wrong diagnosis/description and particularly the incorrect figure of the G1 in Pretzmann (1966b) caused subsequent researchers (e.g., Bott 1966, 1970; Türkay & Naiyanetr 1987; Brandis 2000; Mitra 2017) to recognize different species as *I. beieri*.

In the present study, *I. beieri* s. str. is diagnosed and illustrated based on the holotype male and a simultaneously collected topotypic female specimen from Myanmar. As regards the species from northeastern India, the specimens incorrectly identified as *I. beieri* by Pretzmann (1966b) probably from Nagaland and by Mitra (2017) from Mizoram are referred to herein as two different new species but in a new genus, *Capitamon* n. gen. In addition, two new species of *Capitamon* n. gen. are now recognized from northeastern India, one from Arunachal Pradesh and Nagaland states, and the other from Manipur state. Furthermore, *Indochinamon manipurensis* (Alcock, 1909) from Manipur also possesses the

characteristics of *Capitamon* n. gen., which justifies a new generic combination. An identification key is provided for the species of *Capitamon* n. gen.

The new genus, *Capitamon* n. gen., is presently known by five nominal species from northeastern India (Arunachal Pradesh, Manipur, Mizoram and Nagaland) (Fig. 1): *C. capitatum* n. gen., n. sp. (type species); *C. clarki* n. gen., n. sp.; *C. manipurensis* (Alcock, 1909) n. comb.; *C. meitei* n. gen., n. sp.; and *C. mizoramense* n. gen., n. sp. *Indochinamon beieri* is restricted in distribution to the type locality in Myanmar (Fig. 1). The previous records of *I. beieri* from India thus prove erroneous. *Indochinamon* Yeo & Ng, 2007, currently contains 42 species from southern and southwestern China, northeastern India, northern Laos, northern and central Myanmar, central and northern Thailand, and central and northern Vietnam (cf. Ng & Win Mar 2018; Pati et al. 2020; Zhang et al. 2020; Ng & Ngo 2023; Shi et al. 2023; present study).

## MATERIAL AND METHODS

The measurements of carapace and terminologies mainly follows Ng (1988). Some terminologies are adopted from Guinot et al. (2013), Davie et al. (2015), and Pati et al. (2023).

## ABBREVIATIONS

### Institutions

NHM	Natural History Museum, London, United Kingdom;
NMB	Naturhistorisches Museum, Basel, Switzerland;
SMF	Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany;
ZSIK	Crustacea Section, Zoological Survey of India, Kolkata, India;
ZSI-WRC	Zoological Survey of India, Western Regional Centre, Pune, India.

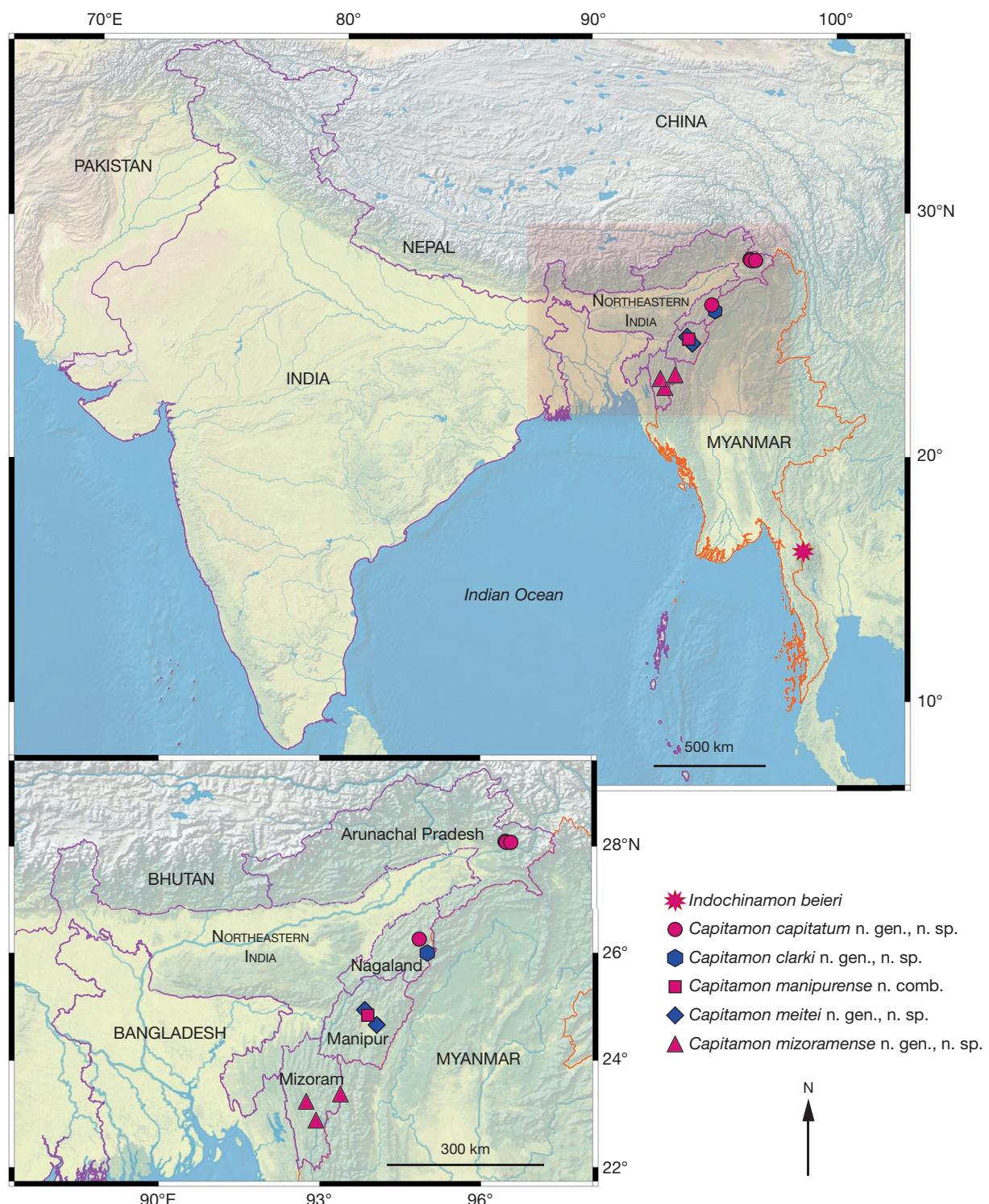


FIG. 1. — Map showing Myanmar, India, northeastern India, and distribution of *Indochinamon beieri* (Pretzmann, 1966) and the species of *Capitamon* n. gen.

#### Other abbreviations

alt.	altitude;
CH	carapace height;
CL	carapace length;
CW	carapace width;
FW	frontal width;

G1	
G2	
leg.	
s2-s8	
s2/s3-s7/s8	

male first gonopod;  
male second gonopod;  
legit, collector;  
thoracic sternites 2 to 8, respectively;  
suture between thoracic sternites 2 and 3  
to sternites 7 and 8, respectively.

## SYSTEMATICS

Superfamily POTAMOIDEA Ortmann, 1896

Family POTAMIDAE Ortmann, 1896

Subfamily POTAMISCINAE Bott, 1970

(*sensu* Yeo & Ng 2004)

Genus *Indochinamon* Yeo & Ng, 2007

TYPE SPECIES. — *Potamon villosum* Yeo & Ng, 1998, by original designation; gender neuter.

*Indochinamon beieri* (Pretzmann, 1966)

(Figs 2; 3; 4)

*Potamon beieri* Pretzmann, 1966a: 5; b: 301, pl. 4, figs 13-15 (in part).

*Potamiscus (Ranguna) rangoonensis* — Bott 1966: 481, fig. 15 [not *Potamon (Potamon) rangoonensis* Rathbun, 1904].

*Ranguna (Ranguna) rangoonensis* — Bott 1970: 163, pl. 38, fig. 35; pl. 47, fig. 31 [not *Potamon (Potamon) rangoonensis* Rathbun, 1904].

*Potamiscus andersonianus* — Brandis 2000: 68 (in part) [not *Telphusa andersoniana* Wood-Mason, 1871].

*Indochinamon beieri* — Yeo & Ng 2007: 283 (list). — Ng et al. 2008: 163 (list). — Ng & Win Mar 2018: 49 (list). — Pati et al. 2020: 704 (list).

TYPE MATERIAL. — Holotype. Myanmar • ♂ (29.3 × 23.6 mm); Kayin state: Myawaddy district: “Sukli” [Su Ka Li], eastern side of Dawna Hills, near Myanmar-Thailand border; [c. 16°9'18"N, 98°35'52"E]; alt. 366 m; no date; F. H. Gravely leg.; NHM 1934.1.15.1 (“Exch: Indian Museum” “9770/10”).

OTHER MATERIAL. — Myanmar • ♀ (31.3 × 25.2 mm); same data as for holotype; NHM 1934.1.15.2 (“Exch: Indian Museum” “9770/10”).

DIAGNOSIS. — Carapace ovate, broader than long (CW/CL = 1.3), relatively low (CH/CW = 0.4); dorsal surface gently convex in frontal view; anterolateral margins cristate, with distinct granules; front with broad anterior margin (FW/CW = 0.3); epigastric cristae well-developed, rugose, anterior to postorbital cristae, separated from postorbital cristae by short groove; postorbital cristae well-developed, relatively sharp, not reaching lateral margin; external orbital angle triangular, outer margin short; epibranchial tooth low, blunt; cervical grooves shallow, narrow, discontinuous, not reaching to level of postorbital cristae; epibranchial region with closely spaced granules; suborbital margin joining with supraorbital margin; epistome posterior margin with well-developed, triangular median tooth (Fig. 2A-C). Third maxilliped exopod with short flagellum, shorter than width of merus (Fig. 3A). Chelipeds rugose, subequal, carpus with prominent, narrow, triangular inner distal major tooth and low subbasal tooth (Figs 2A; 3C). Ambulatory legs short, stout, with short setae on margins (Fig. 2A). Male s2/s3 deep, reaching lateral margins; male s3/s4 indiscernible (Figs 2D; 3D). Male sternopleonal cavity long, reaching to imaginary line joining medial part of cheliped coxae (Figs 2D; 3D). Male pleon relatively narrow; pleonal somite 6 trapezoidal, broader than long (proximal width c. 1.8 × medial length), longer than pleonal somite 5, with almost straight lateral margins (Figs 2D; 3B). Male telson triangular, slightly longer than pleonal somite 6, relatively narrow (proximal width c. 1.2 × medial length), with gently concave lateral margins (Figs 2D; 3B). G1 slender, with ultimate article gently curved

outwards at angle of about 25° from longitudinal axis, tip blunt, reaching pleonal locking structure; ultimate article relatively slender, short, c. 0.3 × combined length of flexible zone and penultimate article, subcylindrical, distally abruptly narrow, lacking dorsal flap, penultimate article relatively slender, gently sinuous (Figs 3D, E; 4A-C). G2 long, c. 1.2 × length of G1; ultimate article long, c. 0.6 × length of penultimate article (Figs 3F; 4D). Female pleon together with telson broadly ovate (Fig. 3G). Vulvae on s6 positioned close to each other, ovate, opening mesially, relatively small, occupying 0.6 × length of s6, touching s5/s6, some distance from s4/s5, laterally partially covered by protruding sternal cover, visible in ventral view (Fig. 3H).

GEOGRAPHICAL DISTRIBUTION. — *Indochinamon beieri* is known only from the type locality, i.e., Su Ka Li, eastern side of Dawna Hills, Myawaddy district, Kayin state, Myanmar (Fig. 1).

### REMARKS

Pretzmann (1966a: 5, 6), during his visit to the NHM between 1963 and 1964, briefly diagnosed a new species, *Potamon beieri*, from a single male specimen (23.5 mm CL) from “Sukli, Dawane Hills, 1200 ft., 1934 coll.”, characterizing it by a G1 that was described as follows: “Gonopoden schlank, Subterminalglied am Ende fast rechtwinkelig nach außen abgewinkelt. Terminalglied setzt diese Richtung fort. Innenkante stark ausgebuchtet, so daß der Umriß des Gonopoden an einen Vogelkopf erinnert. Innenkante des Subterminalgliedes dicht behaart bis zur Hälfte, Außenkante mit einer Reihe langer Borsten.” [Gonopods slender, subterminal segment angled outwards almost at right angles at tip. Terminal member continues this direction. Inner edge strongly bulged, so that the outline of the gonopod resembles a bird's head. Inner edge of subterminal segment densely haired up to halfway, outer edge with a row of long bristles.] (translation ours). No figures or catalogue number was provided in the original publication. Pretzmann (1966b: 301, pl. 4, figs 12-15) subsequently described the species in greater detail with figures of the specimen and its supposed G1. The G1 figured (Pretzmann 1966b: pl. 4, fig. 12) matches his original description (Pretzmann 1966a: 5, 6). No catalogue number was provided by Pretzmann (1966b), but the figures he provided of the dorsal, frontal and ventral views of the specimen (see Pretzmann 1966b: pl. 4, figs 13-15) perfectly match a male specimen in a jar with the catalogue number NHM 1934.1.15.1-2, which also contains a female (31.3 × 25.2 mm) collected at the same time. There are no labels inside the bottle indicating the specimen(s) was examined by Pretzmann or that the male is a type. This male specimen, measuring 29.3 × 23.6 mm agrees well in the measurements, and has a distinctive small round scar on the right side of the cardiac region (Fig. 2A, C; also see Pretzmann 1966b: pl. 4, fig. 15). As such, we have no doubt this is the specimen Pretzmann (1966a, b) designated and figured as the holotype male specimen of *Potamon beieri*. We here select the catalogue number NHM 1934.1.15.1 for the holotype male of *Potamon beieri*, with the number NHM 1934.1.15.2 assigned to the female. The female specimen is not a type as it was not mentioned by Pretzmann (1966a, b). The type locality of the specimen should be “Sukli” [Su Ka Li], eastern side of Dawna Hills (not Dawane Hills), and in the original label, it states that this site is near the Myanmar-Thailand border.



FIG. 2. — *Indochinamon beieri* (Pretzmann, 1966), holotype ♂ (29.3 × 23.6 mm) (NHM 1934.1.15.1): **A**, overall dorsal view; **B**, frontal view of cephalothorax; **C**, dorsal view of cephalothorax; **D**, s1-s7, pleonal somites 4-6, and telson. Not to scale.

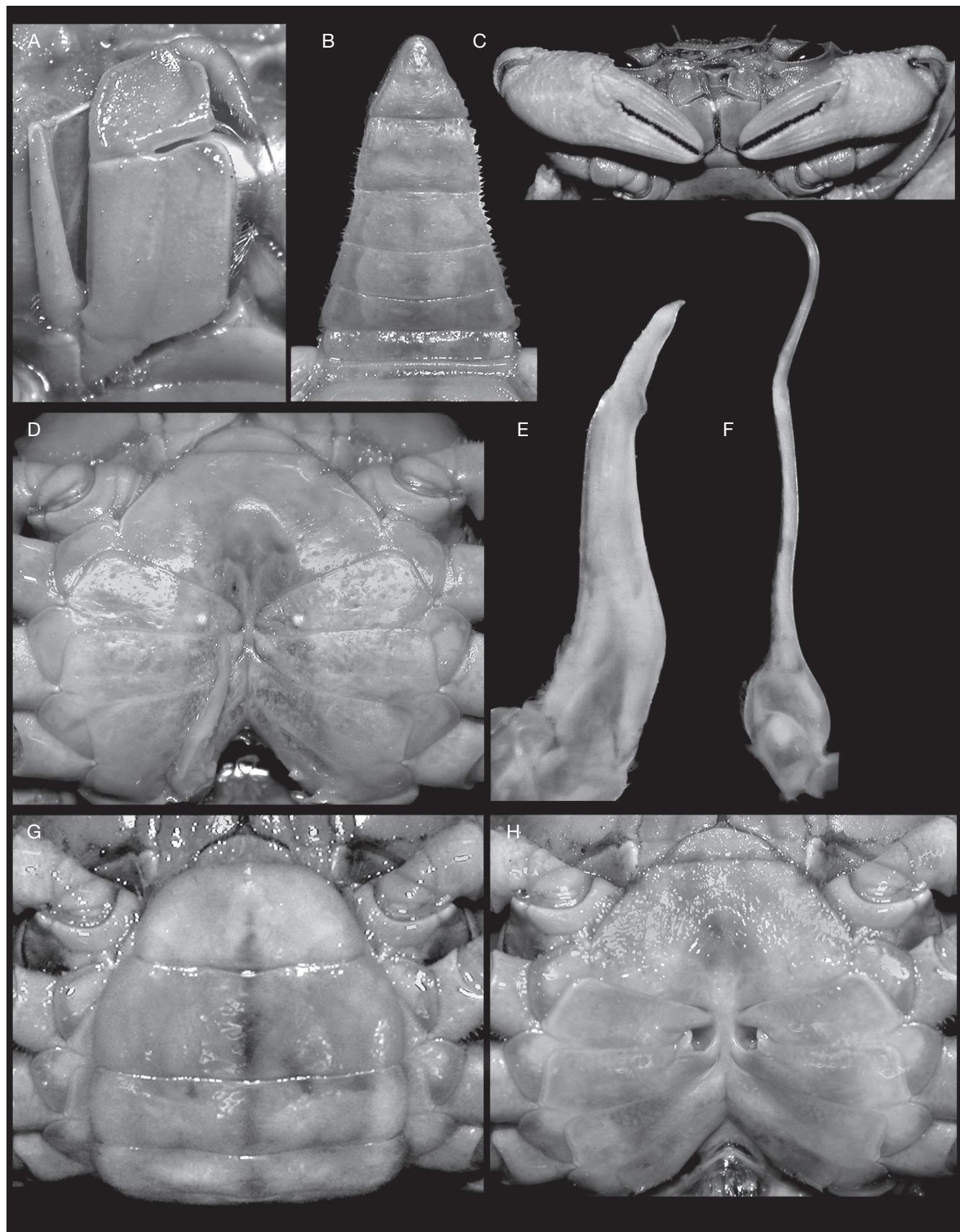


Fig. 3. — *Indochinamon beieri* (Pretzmann, 1966), holotype ♂ (29.3 × 23.6 mm) (NHM 1934.1.15.1) (A–F), ♀ (31.3 × 25.2 mm) (NHM 1934.1.15.2) (G, H): A, right third maxilliped; B, pleon and telson; C, chela (outer view); D, s1–s8 showing right G1 *in situ*; E, left G1 (ventral view); F, left G2; G, pleonal somites 4–6 and telson; H, s1–s8 showing vulvae. Not to scale.

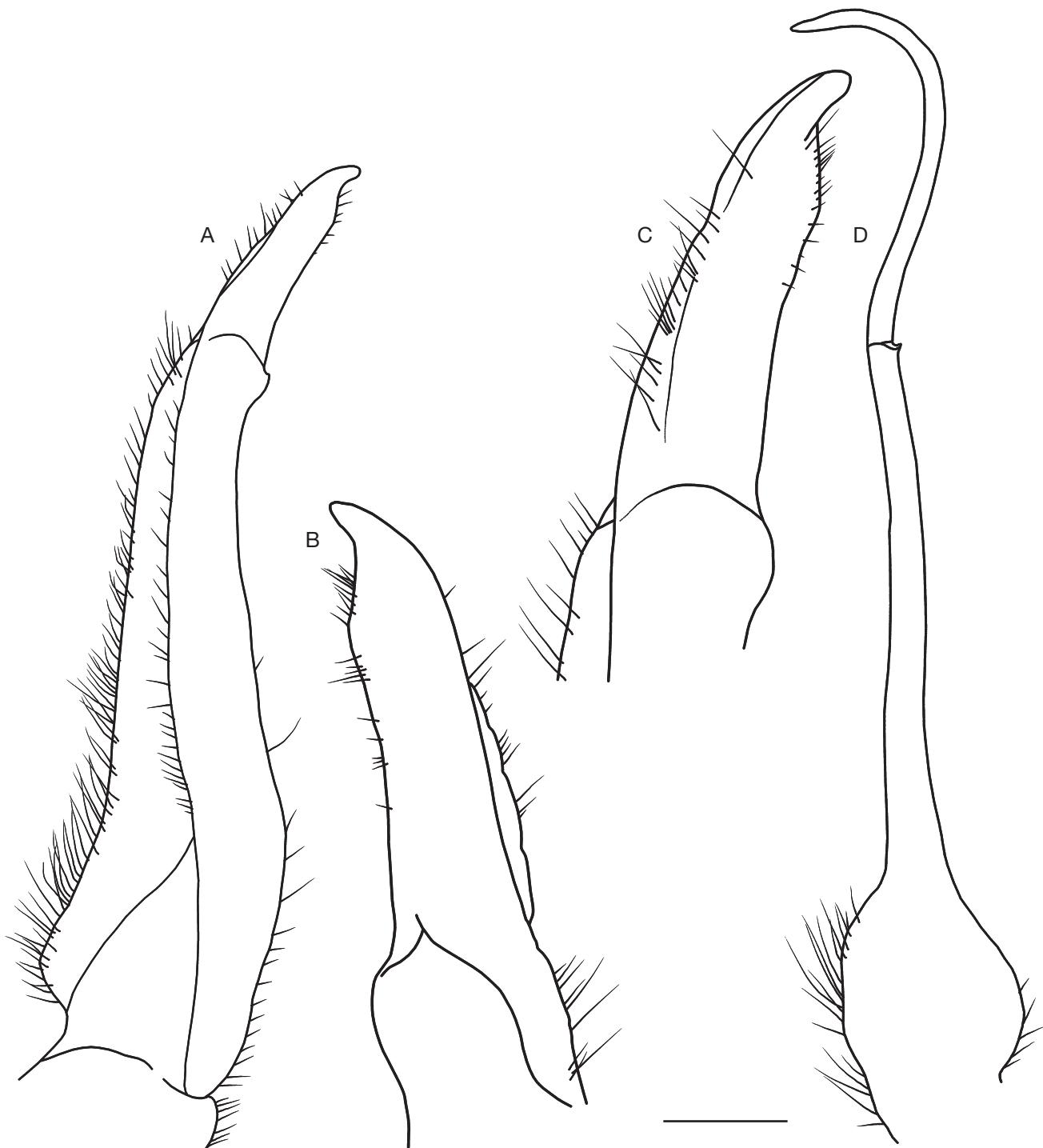


FIG. 4. — *Indochinamon beieri* (Pretzmann, 1966), holotype ♂ (29.3 × 23.6 mm) (NHM 1934.1.15.1): **A**, left G1 (ventral view); **B**, left G1 ultimate article (dorsal view); **C**, left G1 ultimate article (ventral view); **D**, left G2. Scale bar: A, D, 1 mm; B, C, 0.5 mm.

Pretzmann (1966b: 303, pl. 5, figs 16-18) also figured a specimen of “*Potamon andersonianum andersonianum*” (dorsal, frontal and ventral views only, no G1) in his paper treating specimens from NHM, but no data was provided. The species, however, was not even mentioned by Pretzmann (1966b) in the main text. We are certain this specimen is the one now catalogued in the NHM as “*Potamon andersonianum andersonianum*” under the catalogue number NHM 1909.5.1.1. Alcock

(1910: 35) had originally identified this specimen as “*Potamon (Potamon) andersonianum* var. *rangoonense*”, who listed four males and two females under the “Indian Museum” [ZSIK] catalogue number 4115/4 from an unknown locality collected by “Captain Butler”. One of these male specimens was gifted to NHM and was catalogued as “1909.5.1.1”. The labels with the NHM specimen indicate it was determined by “A. Alcock”, “ex 4115/4” and presented by the Indian Museum, and the lo-

cality was stated as "Burma" [present day Myanmar]. The same specimen (NHM 1909.5.1.1) was later examined and listed as "*Potamon beieri*" by Brandis (2000: 75) as being collected from Myanmar. Specimen NHM 1909.5.1.1, however, is unlikely to have been collected from Myanmar. The collector, "Captain Butler", was almost certainly the Permanent Official assigned by the Lieutenant-Governor of Bengal in 1869 to manage Nagaland in northeastern India (see Johnstone 1896; Bhatia 2004), and likely the specimen was obtained from Nagaland instead. The specimen Pretzmann (1966b: pl. 5, figs 16–18) figured matches NHM 1909.5.1.1 in all respects.

The problem with the identity of *Potamon beieri* is that the G1 figured by Pretzmann (1966b: pl. 4, fig. 12) does not belong to the holotype. The actual G1 of the holotype of *Potamon beieri* (NHM 1934.1.15.1) is more slender and much straighter, with the ultimate article cylindrical and gently curved outwards (not bent at almost right angle to the penultimate article) (Figs 3E; 4A–C). The G1 he figured (Pretzmann 1966b: pl. 4, fig. 12), actually belongs to NHM 1909.5.1.1 (Fig. 8C). Although the left G1s of both specimens had been detached and placed in separate vials in their respective jars (leading to the possibility they had been accidentally misplaced), it is fortunate that the right G1s are still attached to the specimens (Figs 3D; 8E) and confirm our interpretation. Pretzmann (1966a, b), therefore, had confused the G1s of the two specimens. This observation is also aligned with the discussion earlier that specimen NHM 1909.5.1.1 was likely to have been collected from Nagaland or its environs rather than Myanmar; all the species we have seen with this distinctive form of G1 have been from that area.

The incorrect G1 figured by Pretzmann (1966b) for *Potamon beieri* has caused substantial confusion in the identity of this species. Brandis (2000) discussed the taxonomy of this species, identified three specimens each from Assam (SMF 2807), Naga Hills (NMB 951a) and Myanmar (NHM 1909.5.1.1). Brandis (2000) followed Pretzmann (1966a, b) in characterizing the species as one with a sharply bent G1 ultimate article and provided figures for the SMF 2807 male specimen, including its G1 (see Brandis 2000: pl. 10, fig. 2a–c). Brandis (2000: 78) observes: "Especially characteristic for *P. beieri* is the terminal joint of the G1. Here a true torsion of the terminal joint turns the whole joint at 180° in relation to the subterminal joint. Due to this torsion the original dorsal side appears ventrally. This special character does not occur in any other potamid crab as far as known. It must have a special function in copulation process that only could be studied with live specimens." Brandis (2000) noted that Bott (1966: 481, fig. 15; 1970: 163, pl. 38, fig. 35; pl. 47, fig. 31) – who also provided figures for the SMF 2807 male specimen – had misidentified the species as "*Ranguna rangoonense* (Rathbun, 1904)". Türkay & Naiyanetr (1987), while citing Pretzmann (1966b: pl. 4, fig. 12), observed that the G1 of the SMF 2807 male specimen is very similar to that of *Potamon beieri*, with only difference in the angle between the ultimate and penultimate articles. Türkay & Naiyanetr (1987) argued that the said difference could be due to size differences and treated the SMF 2807 specimen as *Ranguna beieri* (Pretzmann, 1966), or possibly as *Potamon (Potamon) pruinatum* Alcock, 1909. *Potamon (Potamon) pruinatum* is entirely different from *Potamon beieri*

or SMF 2807 specimen in G1 structure, and the species has already been assigned to *Stelomon* Yeo & Naiyanetr, 2000 (see Yeo & Naiyanetr 2000: 1630, fig. 3c). Neither Türkay & Naiyanetr (1987) nor Brandis (2000) correctly identified *Potamon beieri* as they were referring to the G1 described or illustrated in Pretzmann (1966a, b), which belonged to the NHM 1909.5.1.1 specimen and was not that of the holotype (NHM 1934.1.15.1). In fact, Brandis (2000: 68, 71) incorrectly included the NHM 1934.1.15.1–2 specimens from "Sukli" under "*Potamiscus andersonianus* (Wood-Mason, 1871)". Recently, Mitra (2017) identified several specimens from Mizoram state of northeastern India as *I. beieri*. Those specimens from Mizoram also differ in G1 morphology from that of the holotype of *Potamon beieri*.

All the confusion regarding the identity of *Potamon beieri* was probably because the NHM 1934.1.15.1 specimen was not properly labelled as a type in the first place. The incorrect G1 figure in Pretzmann (1966b: pl. 4, fig. 12) is another major reason for the previous misunderstanding of what the species is. The actual identities of these misidentified specimens are now revealed. The NMB 951a male specimen from Naga Hills has already been referred to *Ranguna rangoonensis* (Rathbun, 1904) by Ng & Yeo (2023). The NHM 1909.5.1.1 male probably from Nagaland, the SMF 2807 male from Assam and the specimens examined by Mitra (2017) from Mizoram are all assigned herein to a new genus, *Capitamon* n. gen. (see Remarks for *Capitamon* n. gen.).

In the G1 structure, *I. beieri* s. str. most closely resembles *I. andersonianum* (Wood-Mason, 1871) [Yunnan, southwestern China], *I. chinghungense* (Dai, Song, He, Cao, Xu & Zhong, 1975) [Yunnan, southwestern China], *I. gengmaense* (Dai, 1995) [Yunnan, southwestern China], *I. khinpyae* Ng & Win Mar, 2018 [northern Myanmar], *I. kimboiense* (Dang, 1975) [northern Vietnam], *I. orleani* (Rathbun, 1904) [northern Vietnam], *I. phongnha* Naruse, Nguyen & Yeo, 2011 [central Vietnam], and *I. prolatum* (Brandis, 2000) [northern Thailand] due to the relatively shorter and slenderer ultimate article (Figs 3E; 4A–C; see Yeo & Ng 1998: fig. 2i; Dai 1999: figs 86 (4); 98 (4); Brandis 2000: pl. 13, fig. 2c; Naruse et al. 2011: figs 3b; 9b; Ng & Win Mar 2018: fig. 4b; unpublished data on *I. andersonianum*). *Indochinamon beieri* is nevertheless distinguished from all the above species mainly by the gently curved ultimate article, i.e., curved outwards at an angle of about 25° from longitudinal axis of the G1 (Figs 3E; 4A) (vs G1 ultimate article relatively strongly bent at an angle of about 45–60° from longitudinal axis; see Yeo & Ng 1998: fig. 2i; Dai 1999: figs 86 (4); 98 (4); Brandis 2000: pl. 13, fig. 2c; Naruse et al. 2011: figs 3b; 9b; Ng & Win Mar 2018: fig. 4b; unpublished data on *I. andersonianum*). In addition, *I. beieri* can be also distinguished from all of them, except for *I. khinpyae*, by the abruptly narrow tip of the G1 ultimate article (Figs 3E; 4A–C; see Ng & Win Mar 2018: fig. 4b) (vs G1 ultimate article with a gradually narrow tip; see Yeo & Ng 1998: fig. 2i; Dai 1999: figs 86 (4); 98 (4); Brandis 2000: pl. 13, fig. 2c; Naruse et al. 2011: figs 3b; 9b; unpublished data on *I. andersonianum*). *Indochinamon beieri* can still be differentiated from *I. khinpyae* by the relatively slender penultimate article of the G1 (Figs 3E; 4A–C) (vs G1 penultimate article relatively stouter; see Ng & Win Mar 2018: fig. 4b).

Genus *Capitamon* n. gen.

(Figs 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17)

[urn:lsid:zoobank.org:act:4E204ABF-5B88-4A72-A41E-44571B31469C](http://urn.lsid:zoobank.org:act:4E204ABF-5B88-4A72-A41E-44571B31469C)

TYPE SPECIES. — *Capitamon capitatum* n. sp., by present designation; gender neuter.

DIAGNOSIS. — Carapace ovate, broader than long ( $CW/CL = 1.3\text{--}1.4$ ), relatively low ( $CH/CW = 0.4\text{--}0.5$ ); dorsal surface smooth except for epigastric cristae, postorbital cristae, epibranchial region and lateral surfaces; anterolateral margins cristate, with distinct granules; front with broad anterior margin ( $FW/CW = 0.3$ ); epigastric cristae well-developed, rugose, anterior to postorbital cristae, separated from postorbital cristae by short groove; postorbital cristae well-developed, relatively sharp, not reaching lateral margin; external orbital angle triangular, with short outer margin; epibranchial tooth low, blunt; cervical grooves deep, narrow; epibranchial region with closely spaced granules; suborbital margin not joining with supraorbital margin; epistome posterior margin with well-developed, triangular median tooth (Figs 5A, B; 8A; 9A, C; 12A, B; 15A, B; see Pati *et al.* 2020: figs 1a; 2a, b). Antennae shorter than eye stalk; antennules long, folded in longitudinally broad fossae (Figs 5B; 9C; 12B; 15B; see Pati *et al.* 2020: fig. 2b). Mandibular palp with three articles; terminal article simple, undivided (Figs 6A; 13A; 16A). First, second maxilliped each with long flagellum on exopod (Figs 6A; 13A; 16A). Third maxilliped exopod slender, lacking flagellum or with relatively shorter flagellum (shorter than merus width) (Figs 6B; 9B; 13B; 16B; see Pati *et al.* 2020: fig. 2c). Chelipeds rugose; carpus with prominent, sharp, triangular inner distal major tooth and low subbasal tooth (Figs 5A; 6C; 8A; 9E; 12A; 13C; 15A; 16C; see Pati *et al.* 2020: fig. 1a). Ambulatory legs short, stout, with short setae on margins (Figs 5A, C; 8A; 12A, C; 15A, C; see Pati *et al.* 2020: fig. 1a). Male s2/s3 deep, reaching lateral margins; male s3/s4 indiscernible or with shallow groove; male s7/s8 interrupted by longitudinal medial groove of s7 and s8, lacking transverse ridge (Figs 5C; 6D; 8B, E; 12C; 13D; 15C; 16D; see Pati *et al.* 2020: figs 1b; 2e). Pleonal locking mechanism with prominent tubercle on posterior submedial part of s5 (Figs 6D; 8E; 13D; 16D; see Pati *et al.* 2020: fig. 2e). Male sternopleonal cavity long, reaching to imaginary line joining medial part of cheliped coxae (Figs 5C; 6D; 8B, E; 12C; 13D; 15C; 16D; see Pati *et al.* 2020: figs 1b; 2e). Male pleon relatively broad; pleonal somite 6 trapezoidal, broader than long (proximal width  $c. 1.9\text{--}2.2 \times$  medial length) (Figs 5C; 6E; 8B; 9D; 12C; 13E; 15C; 16E; see Pati *et al.* 2020: figs 1b; 2d). Male telson triangular, slightly longer than pleonal somite 6 (Figs 5C; 6E; 8B; 9D; 12C; 13E; 15C; 16E; see Pati *et al.* 2020: figs 1b; 2d). G1 moderately stout, with ultimate article strongly bent outwards at angle of about  $60\text{--}110^\circ$  from longitudinal axis, tip acute, not reaching pleonal locking structure; flexible zone large; ultimate article stout, short,  $c. 0.35 \times$  combined length of flexible zone and penultimate article, with distinct, narrow to broadly triangular dorsal flap, entire structure resembling bird's head in shape; penultimate article sinuous (Figs 6D, F; 7A, C-E; 8C, E; 10A, B, D; 11A, C-E; 13D, F; 14A, C-E; 16D, F; 17A, C-E; see Pati *et al.* 2020: figs 2e; 4a-d; 5a-c). G2 longer than G1; ultimate article long,  $c. 0.5\text{--}0.6 \times$  length of penultimate article (Figs 6F, G; 7B, D; 8C, D; 10A, C; 11B, D; 13F, G; 14B, D; 16F, G; 17B, D; see Pati *et al.* 2020: figs 4a, e; 5a, d). Female pleon together with telson broadly ovate (Figs 6H; 13H; 16H; see Pati *et al.* 2020: fig. 3b). Vulvae on s6 positioned close to each other, ovate, opening mesially, longitudinally broad, large, occupying  $0.5\text{--}0.6 \times$  length of s6, touching s5/s6, almost reaching s4/s5 (Figs 6I; 13I; 16I; see Pati *et al.* 2020: fig. 3c).

ETYMOLOGY. — All the known congeners of the new genus have an ultimate article of the male first gonopod that resembles a bird's head. The genus name is therefore derived from *caput*, Latin for head, in arbitrary combination with the genus name *Potamon*. The gender of the generic name is neuter.

GEOGRAPHICAL DISTRIBUTION. — *Capitamon* n. gen. is currently known from northeastern India, with its nominal species recorded from Arunachal Pradesh, Manipur, Mizoram and Nagaland states (Fig. 1).

## REMARKS

*Capitamon* n. gen. is undoubtedly a potamiscine genus (*sensu* Yeo & Ng 2004), with the s7/s8 being interrupted by the longitudinal medial groove of s7 and s8, and lacking a transverse ridge (Figs 6D; 8E; 13D; 16D; see Pati *et al.* 2020: fig. 2e). *Capitamon* n. gen. can be differentiated from other potamiscine genera by the flagellum on the third maxilliped exopod being relatively shorter (shorter than the width of the merus) or altogether absent, and significantly, the "bird's head-like" ultimate article of the G1, which is short, relatively stout, strongly bent outwards at an angle of about  $60\text{--}110^\circ$  from longitudinal axis of the G1 and possesses a distinct dorsal flap (Figs 6F; 7A, C-E; 8C; 10A, B, D; 11A, C-E; 13F; 14A, C-E; 16F; 17A, C-E; see Pati *et al.* 2020: figs 4a-d; 5a-c). As compared to that of *Capitamon* n. gen., the flagellum on the third maxilliped exopod is relatively longer (equal to or longer than the width of the merus), and the dorsal flap on the G1 ultimate article is absent or relatively low in *Indochinamon* (cf. Ng & Win Mar 2018). The well-developed epigastric and postorbital cristae of *Capitamon* n. gen. (Figs 5A; 8A; 9A; 12A; 15A; see Pati *et al.* 2020: figs 1a; 2a) are also useful to distinguish it from other potamiscine genera with similar conditions of the G1 and the flagellum on the third maxilliped exopod. For example, *Gempala* Ng & Ahmad, 2016, from Peninsular Malaysia has a superficially similar short, relatively stout and strongly bent G1 ultimate article with a distinct dorsal flap in addition to the absence of the flagellum on the third maxilliped exopod (see Ng & Ahmad 2016: fig. 7a, e). *Capitamon* n. gen. cannot be confused with *Gempala*, however, because its epigastric and postorbital cristae are well-developed (Figs 6A; 8A; 9A; 12A; 15A; see Pati *et al.* 2020: figs 1a; 2a) (vs poorly developed; see Ng & Ahmad 2016: fig. 3a); the dorsal flap on G1 ultimate article is comparatively low (Figs 6F; 7A, C-E; 8C; 10A, B, D; 11A, C-E; 13F; 14A, C-E; 16F; 17A, C-E; see Pati *et al.* 2020: figs 4a-d; 5a-c) (vs conspicuously high; see Ng & Ahmad 2016: fig. 7e); and G1 penultimate article is relatively stouter (Figs 6F; 7D, E; 8C; 10A; 11D, E; 13F; 14D, E; 16F; 17D, E; Pati *et al.* 2020: figs 4a, d; 5a, c) (vs relatively slender; see Ng & Ahmad 2016: fig. 7e).

Among the Indian potamiscines, *Abormon* Mitra, Pati & Ng, 2021, and *Teretamon* Yeo & Ng, 2007, also have a G1 ultimate article with a distinct dorsal flap (see Yeo & Ng 2007: fig. 13d; Absar *et al.* 2017: fig. 3a; Mitra 2017: fig. 116; Mitra *et al.* 2018: fig. 4a; 2021: figs 3a; 7a; Mitra & Pati 2021: fig. 4a). *Capitamon* n. gen., however, is differentiated from *Abormon* and *Teretamon* mainly by the well-developed epigastric and postorbital cristae (Figs 5A;

8A; 9A; 12A; 15A; see Pati *et al.* 2020: figs 1a; 2a) (vs epigastric and postorbital cristae poorly developed; see Yeo & Ng 2007: fig. 13a; Absar *et al.* 2017: fig. 2a; Mitra 2017: fig. 58; Mitra *et al.* 2018: fig. 2a; 2021: figs 2a; 6a; Mitra & Pati 2021: fig. 2a), and the relatively shorter G1 ultimate article (Figs 6F; 7D, E; 8C; 10A; 11D, E; 13F; 14D, E; 16F; 17D, E; see Pati *et al.* 2020: figs 4a, d; 5a, c) (vs G1 ultimate article relatively longer; see Yeo & Ng 2007: fig. 13d; Absar *et al.* 2017: fig. 3a; Mitra 2017: fig. 116; Mitra *et al.* 2018: fig. 4a; 2021: figs 3a; 7a; Mitra & Pati 2021: fig. 4a). Moreover, the crabs of *Capitamon* n. gen. are relatively large in size (adult CW > 40 mm) than those of *Abormon* (adult CW < 15 mm; see Mitra *et al.* 2021) and *Teretamon* (adult CW < 27 mm; see Yeo & Ng 2007; Absar *et al.* 2017; Mitra 2017; Mitra *et al.* 2018; Mitra & Pati 2021; Pan *et al.* 2021).

Some Indian species of *Potamiscus* Alcock, 1909 [*P. chizami* Pati, 2021, *P. mima* Pati, 2021, and *P. takedai* Pati, Mitra & Ng, 2020], like *Capitamon* n. gen., possess well-developed epigastric and postorbital cristae (Figs 5A; 8A; 9A; 12A; 15A; see Pati *et al.* 2020: figs 1a, c; 2a, f; Pati 2021: fig. 2a, g) in addition to a distinct but low dorsal flap on the G1 ultimate article (Figs 6F; 7A, C-E; 8C; 10A, B, D; 11A, C-E; 13F; 14A, C-E; 16F; 17A, C-E; see Pati *et al.* 2020: figs 4a-d, f-i; 5a-c, e-g; Pati 2021: fig. 3a, b, e, f). *Capitamon* n. gen., however, is immediately differentiated from *Potamiscus chizami* and *Potamiscus mima* by the low carapace (Figs 5B; 9C; 12B; 15B; see Pati *et al.* 2020: fig. 2b) (vs carapace conspicuously high; see Pati 2021: fig. 2b, h) and the short ultimate article of the G1 (Figs 6F; 7D, E; 8C; 10A; 11D, E; 13F; 14D, E; 16F; 17D, E; see Pati *et al.* 2020: figs 4a, d; 5a, c) (vs G1 ultimate article elongated; see Pati 2021: fig. 3a, e). On the other hand, *Capitamon* n. gen. can easily be confused with *Potamiscus takedai* due to several characters in common, including the low carapace (CH/CW = 0.4-0.5) (Figs 5B; 9C; 12B; 15B; see Pati *et al.* 2020: fig. 2b, g), the well-developed epigastric and postorbital cristae (Figs 5A; 8A; 9A; 12A; 15A; see Pati *et al.* 2020: figs 1a; 2a, f), the deep male s2/s3 reaching lateral margins (Figs 5C; 6D; 8B, E; 12C; 13D; 15C; 16D; see Pati *et al.* 2020: figs 1b, d; 2e, j), the relatively broader male pleon with a broader pleonal somite 6 (Figs 5C; 6E; 8B; 9D; 12C; 13E; 15C; 16E; see Pati *et al.* 2020: figs 1b, d; 2d, i), the moderately stout G1 with short, stout, strongly bent ultimate article (Figs 6F; 7A, C-E; 8C; 10A, B, D; 11A, C-E; 13F; 14A, C-E; 16F; 17A, C-E; see Pati *et al.* 2020: figs 4a-d, f-i; 5a-c, e-g), the longer G2 (Figs 6F, G; 7B, D; 8C, D; 10A, C; 11B, D; 13F, G; 14B, D; 16F, G; 17B, D; see Pati *et al.* 2020: figs 4a, e, f, j; 5a, d, e, h), and the ovate, closely located vulvae touching the s5/s6 and almost reaching the s4/s5 (Figs 7I; 13I; 16I; see Pati *et al.* 2020: fig. 3c, f). *Capitamon* n. gen. is nevertheless separated from *Potamiscus takedai* by the narrow to broadly triangular dorsal flap on the G1 ultimate article (Figs 6F; 7A, C-E; 8C; 10A, B, D; 11A, C-E; 13F; 14A, C-E; 16F; 17A, C-E; see Pati *et al.* 2020: figs 4a, b; 5a, b) (vs G1 ultimate article with a semicircular dorsal flap; see Pati *et al.* 2020: figs 4f, g; 5e, f), and the

transversely broader and relatively small vulvae, occupying 0.5-0.6 times the length of the s6 (Figs 6I; 13I; 16I; see Pati *et al.* 2020: fig. 3c) (vs vulvae longitudinally broader and relatively large, occupying 0.8 times the length of the s6; see Pati *et al.* 2020: fig. 3f).

The specimens with “bird’s head-like” ultimate article of the G1, hitherto incorrectly referred to *Potamon beieri*, *Ranguna beieri*, *Potamiscus beieri* (Pretzmann, 1966), or *Indochinamon beieri* by previous workers (see Remarks for *Indochinamon beieri*) actually belong to different species of *Capitamon* n. gen. The NHM 1909.5.1.1 male specimen probably from Nagaland illustrated in Pretzmann (1966b: pl. 4, fig. 12; pl. 5, figs 16-18) is assigned here to a new species, *C. clarki* n. gen., n. sp. The specimens of *I. beieri* from Mizoram recorded in Mitra (2017) is recognized in the present study as *C. mizoramense* n. gen., n. sp. The SMF 2807 male specimen from Assam reported in Bott (1966: fig. 15; 1970: pl. 38, fig. 35; pl. 47, fig. 31) and Brandis (2000: pl. 10, fig. 2a-c) is similar to *Capitamon mizoramense* n. gen., n. sp. in G1 structure, but its dorsal flap on the ultimate article is comparatively low and broadly triangular (vs comparatively high and narrowly triangular; Figs 16F; 17A, C-E). As the SMF 2807 male could not be examined in this study, we are not sure about its conspecificity with *C. mizoramense* n. gen., n. sp. Furthermore, *Indochinamon manipurensis* from Manipur is also assigned to *Capitamon* n. gen. since it has a distinct dorsal flap on the G1 ultimate article that resembles a bird’s head (Fig. 11A, C-E; see Pati *et al.* 2020: figs 4a-d; 5a-c). In addition, two more new species of *Capitamon* n. gen. are recognized herein, i.e., *C. capitatum* n. gen., n. sp. and *C. meitei* n. gen., n. sp.

*Capitamon* n. gen. currently has five nominal species: *C. capitatum* n. gen., n. sp. (type species); *C. clarki* n. gen., n. sp.; *C. manipurensis* (Alcock, 1909) n. comb.; *C. meitei* n. gen., n. sp.; and *C. mizoramense* n. gen., n. sp.

### *Capitamon capitatum* n. sp.

(Figs 5; 6; 7)

[urn:lsid:zoobank.org:act:66331159-75CC-4D8E-B15A-B65CCD51A361](https://urn.ncbi.nlm.nih.gov/doi/10.15462/zoobank.66331159-75CC-4D8E-B15A-B65CCD51A361)

TYPE MATERIAL. — Holotype. India • ♂ (49.5 × 37.3 mm); Nagaland: Tuensang district: Konya; 26°15'36"N, 94°51'35"E; alt. 1660 m; 20.VII.2017; Khampong leg.; ZSI-WRC C.2400.

Paratypes. India • 2 ♂ (47.7 × 36.1 mm, 47.3 × 35.7 mm), 2 ♀ (49.6 × 38.4 mm, 45.1 × 34.9 mm); same data as for holotype; ZSI-WRC C.2401.

OTHER MATERIAL. — India • ♂, 2 ♀; Arunachal Pradesh: Anjaw district: Manchila; 28°5'20"N, 96°27'32"E; alt. 931 m; 22.XI.2022; S. D. Gurumayum leg.; ZSI-WRC C.2402 • ♂, ♀; Arunachal Pradesh: Anjaw district: Khupa, Hayuliang; 28°4'26"N, 96°28'58"E; alt. 690 m; 23.XI.2022; S. D. Gurumayum leg.; ZSI-WRC C.2403 • 5 ♂, 5 ♀; Arunachal Pradesh: Anjaw district: Knyao Stream, Hayuliang; 28°4'15"N, 96°34'8"E; alt. 677 m; 24.XI.2022; S. D. Gurumayum leg.; ZSI-WRC C.2404.

DIAGNOSIS. — Carapace ovate, broader than long (CW/CL = 1.4), relatively low (CH/CW = 0.4); epigastric cristae well-developed, rugose; postorbital cristae well-developed, relatively sharp, straight in dorsal view; external orbital angle triangular, with short outer margin, c. 2 × inner margin; epibranchial tooth low, blunt, posi-



FIG. 5. — *Capitamon capitatum* n. gen., n. sp., holotype ♂ (49.5 × 37.3 mm) (ZSI-WRC C.2400): **A**, overall dorsal view; **B**, frontal view of cephalothorax; **C**, overall ventral view. Scale bars: A, C, 20 mm; B, 10 mm.

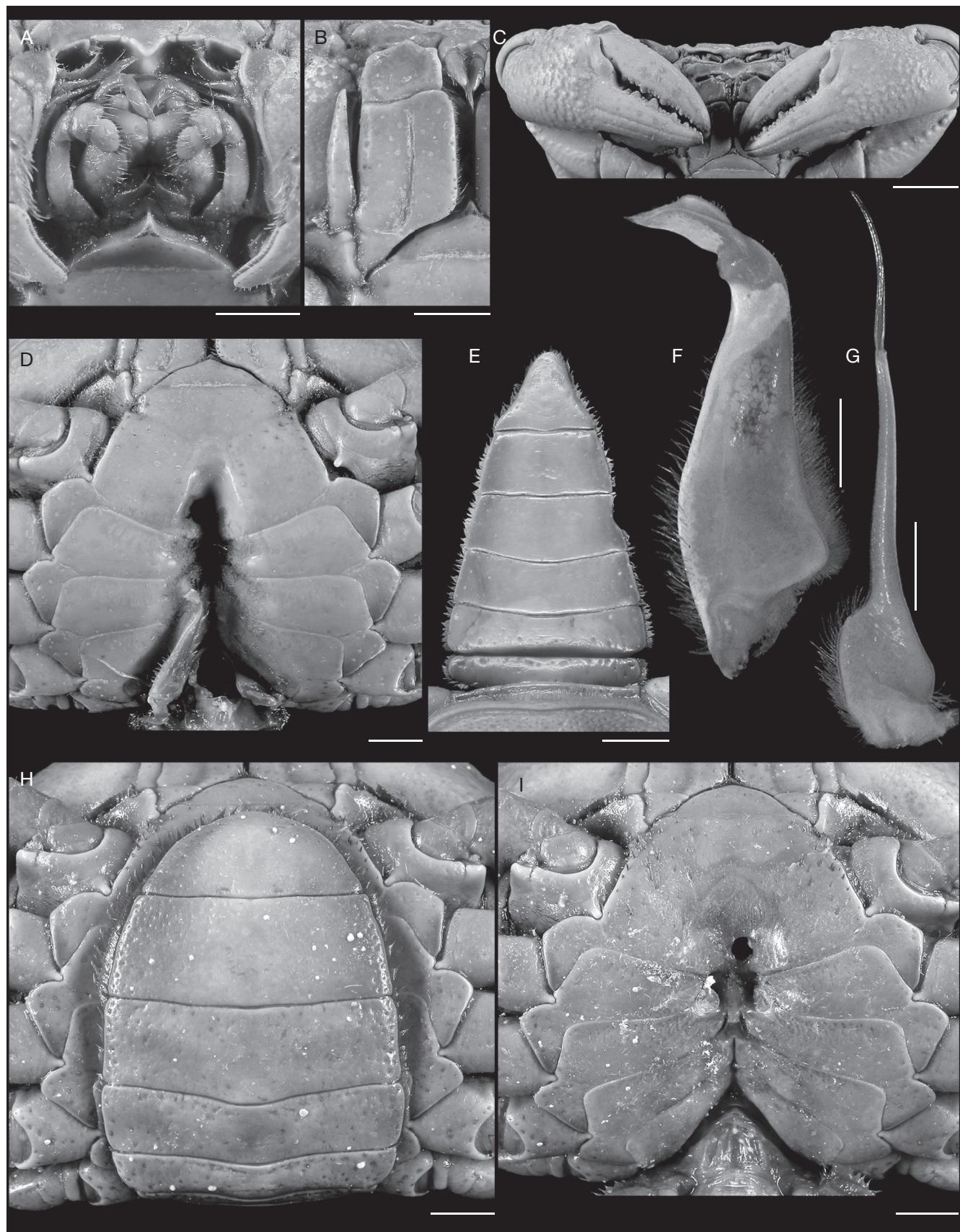


FIG. 6. — *Capitamon capitatum* n. gen., n. sp., holotype ♂ (49.5 × 37.3 mm) (ZSI-WRC C.2400) (A–G), paratype ♀ (49.6 × 38.4 mm) (ZSI-WRC C.2401) (H, I); A, mouthparts; B, right third maxilliped; C, chela (outer view); D, s1-s8 showing right G1 *in situ*; E, pleon and telson; F, left G1 (dorsal view); G, left G2; H, pleon somites 3-6 and telson; I, s1-s8 showing vulvae. Scale bars: A, B, D, E, H, I, 5 mm; C, 10 mm; F, G, 2 mm.

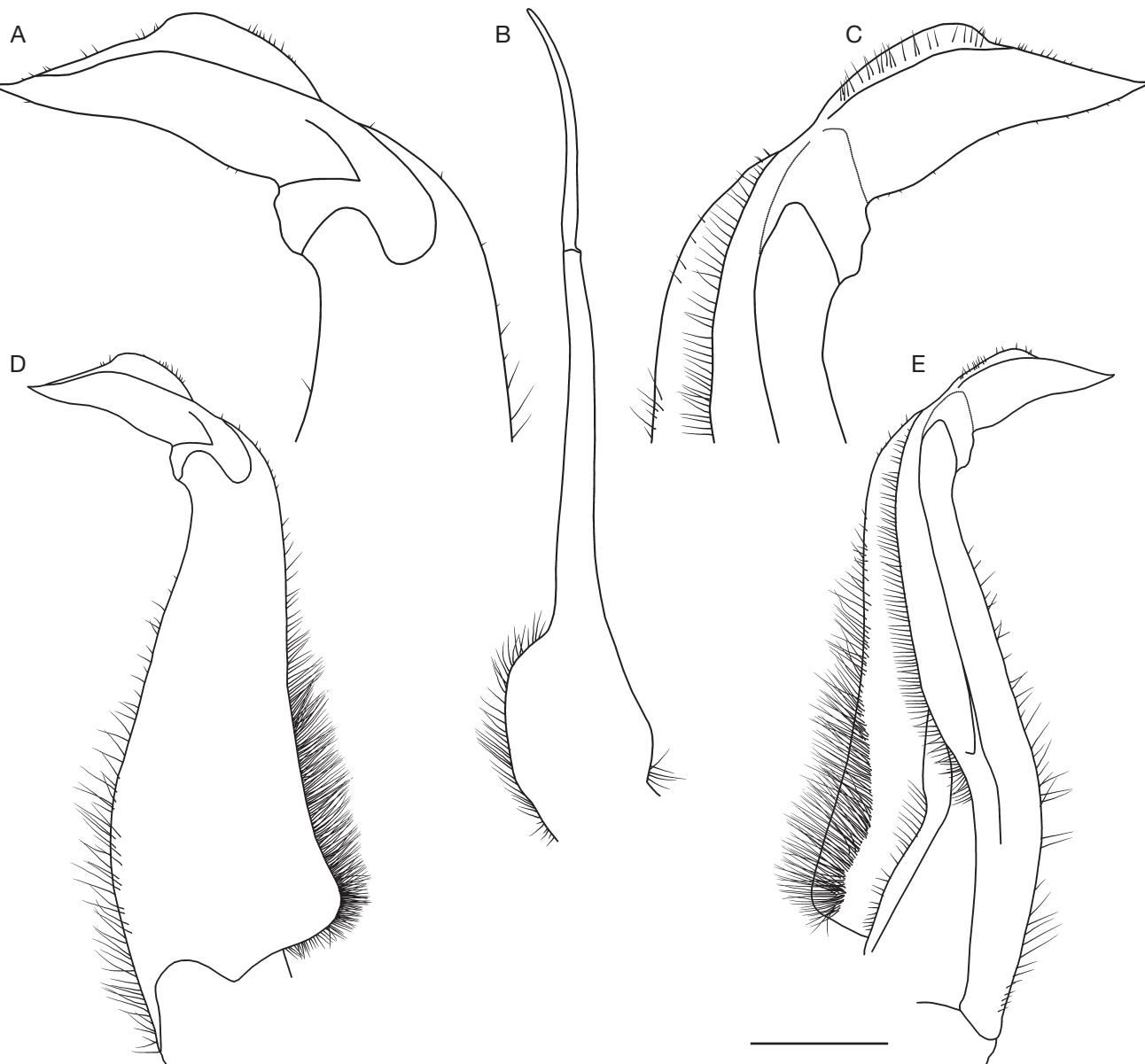


Fig. 7. — *Capitamon capitatum* n. gen., n. sp., holotype ♂ (49.5 × 37.3 mm) (ZSI-WRC C.2400): A, left G1 ultimate article (dorsal view); B, left G2; C, left G1 ultimate article (ventral view); D, left G1 (dorsal view); E, left G1 (ventral view). Scale bar: A, C, 1 mm; B, D, E, 2 mm.

tioned above level of postorbital cristae; cervical grooves continuous, reaching to level of postorbital cristae; epistome posterior margin with well-developed, triangular median tooth, outer parts sloping downwards laterally (Fig. 5A, B). Third maxilliped exopod lacking flagellum or with vestigial flagellum (Fig. 6B). Chelipeds rugose, unequal, inner distal tooth on carpus relatively broad (Figs 5A, C; 6C). Male s3/s4 shallow, running from sternopleonal cavity to lateral edges of sternum (Figs 5C; 6D). Male pleonal somite 6 relatively broader (proximal width c. 2.0 × medial length), equal in length to pleonal somite 5, with almost straight lateral margins (Figs 5C; 6E). Male telson relatively broader (proximal width c. 1.3 × medial length), with strongly concave lateral margins (Figs 5C; 6E). G1 ultimate article relatively less strongly bent at angle of about 75° from longitudinal axis, with sinuous outer margin, dorsal flap relatively low, broadly triangular (Figs 6F; 7A, C-E). G2 c. 1.1 × length of G1; ultimate article long, c. 0.5 × length of penultimate article (Figs 6F, G; 7B, D). Vulvae later-

ally completely covered by protruding sternal cover, invisible in ventral view (Fig. 6I).

**ETYMOLOGY.** — The specific epithet is an adjective in the Latin nominative singular meaning having a head, referring the head-like ultimate article of the male first gonopod of the type species.

**GEOGRAPHICAL DISTRIBUTION.** — *Capitamon capitatum* n. gen., n. sp. is known only from Arunachal Pradesh and Nagaland states of northeastern India (Fig. 1).

#### REMARKS

*Capitamon capitatum* n. gen., n. sp. is unique among the nominal species of the genus because of the straight postorbital cristae in dorsal view (Fig. 5A) (vs postorbital cristae oblique in dorsal view; Figs 8A; 9A; 12A; 15A; see Pati *et al.* 2020: figs 1a; 2a) and the vestigial or missing flagellum on

the third maxilliped exopod (Fig. 6B) (vs flagellum on the third maxilliped exopod relatively longer, equal to or more than half the width of the merus; Figs 9B; 13B; 16B; see Pati et al. 2020: fig. 2c).

The G1 ultimate article of *C. capitatum* n. gen., n. sp. is similar in structure to that of *C. clarki* n. gen., n. sp. in that it is bent at an angle of about 75° from longitudinal axis of the G1, with the dorsal flap being relatively low and broadly triangular (Figs 6F; 7A, C-E; 8C; 10A, B, D). The outer margin of the G1 ultimate article, however, is sinuous in *C. capitatum* n. gen., n. sp. (Figs 6F; 7A, C-E), whereas the outer margin of the said structure is straight in *C. clarki* n. gen., n. sp. (Figs 8C; 10A, B, D). The following differences between them can also be noted: the carapace is relatively low ( $CH/CW = 0.4$ ) in *C. capitatum* n. gen., n. sp. (Fig. 5B) against the relatively high carapace ( $CH/CW = 0.5$ ) in *C. clarki* n. gen., n. sp. (Fig. 9C); the male pleonal somite 6 is equal in length to the pleonal somite 5 in *C. capitatum* n. gen., n. sp. (Figs 5C; 6E) against the longer male pleonal somite 6 than the pleonal somite 5 in *C. clarki* n. gen., n. sp. (Figs 8B; 9D); and the lateral margins of the male telson is strongly concave in *C. capitatum* n. gen., n. sp. (Figs 5C; 6E) against the gently concave lateral margins of the male telson in *C. clarki* n. gen., n. sp. (Figs 8B; 9D).

*Capitamon clarki* n. sp.  
(Figs 8; 9; 10)

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*Potamon beieri* – Pretzmann 1966b: 301, pl. 4, fig. 12; pl. 5, figs 16–18 [not *Potamon beieri* Pretzmann, 1966].

*Potamiscus beieri* – Brandis 2000: 75 (in part) [not *Potamon beieri* Pretzmann, 1966].

TYPE MATERIAL. — Holotype. ♂ (42.1 × 32.9 mm); “Burma” [probably from Nagaland, India]; [ $c. 26^{\circ}0'0''N, 95^{\circ}0'0''E$ ]; [alt. c. 1200 m]; no date; Captain Butler leg.; NHM 1909.5.1.1 (“Presd: Indian Museum” “4115/4”).

DIAGNOSIS. — Carapace ovate, broader than long ( $CW/CL = 1.3$ ), relatively high ( $CH/CW = 0.5$ ); epigastric cristae well-developed, rugose; postorbital cristae well-developed, relatively sharp, oblique in dorsal view; external orbital angle triangular, with short outer margin, c. 2 × inner margin; epibranchial tooth low, blunt, positioned above level of postorbital cristae; cervical grooves continuous, reaching to level of postorbital cristae; epistome posterior margin with well-developed, triangular median tooth, outer parts sloping downwards laterally (Figs 8A; 9A, C). Third maxilliped exopod with short flagellum, equal to half width of merus (Fig. 9B). Chelipeds rugose, subequal, inner distal tooth on carpus relatively broad (Figs 8A; 9E). Male s3/s4 shallow, running from sternopleonal cavity to lateral edges of sternum (Fig. 8B, E). Male pleonal somite 6 relatively narrower (proximal width c. 1.9 × medial length), longer than pleonal somite 5, with almost straight lateral margins (Figs 8B; 9D). Male telson relatively broader (proximal width c. 1.3 × medial length), with gently concave lateral margins (Figs 8B; 9D). G1 ultimate article relatively less strongly bent at angle of about 75° from longitudinal axis, with straight outer margin, dorsal flap relatively low, broadly triangular (Figs 8C; 10A, B, D). G2 c. 1.2 × length of G1; ultimate article long, c. 0.5 × length of penultimate article (Figs 8C, D; 10A, C).

ETYMOLOGY. — The species is named after English carcinologist Dr Paul Clark, the curator of Crustacea in the NHM, whose help with the collections was important in helping the authors solve the confusion with *I. beieri*. The species name is conceived as a noun in the genitive singular.

GEOGRAPHICAL DISTRIBUTION. — The precise geographical distribution of *C. clarki* n. gen., n. sp. is not known (see Remarks for *I. beieri*). The species is possibly originated from Nagaland state of northeastern India (Fig. 1).

REMARKS

*Capitamon clarki* n. gen., n. sp. has a relatively high carapace ( $CH/CW = 0.5$ ) (Fig. 9C) among the nominal species of the genus with the relatively low carapace ( $CH/CW = 0.4$ ) (Figs 5B; 12B; 15B; see Pati et al. 2020: fig. 2b). While *C. clarki* n. gen., n. sp. most resembles *C. capitatum* n. gen., n. sp. in the structure of the G1 ultimate article (see Remarks for *C. capitatum* n. gen., n. sp.), *C. clarki* n. gen., n. sp. also resembles *C. manipurens* n. comb. as both have a G1 ultimate article with the straight outer margin and the relatively low, broadly triangular dorsal flap (Figs 8C; 10A, B, D; 11A, C-E; see Pati et al. 2020: figs 4a-d; 5a-c). The G1 ultimate article, however, is little more strongly bent at an angle of about 75° from longitudinal axis of the G1 in *C. clarki* n. gen., n. sp. (Figs 8C; 10A), while it is little less strongly bent at an angle of about 60° from longitudinal axis of the G1 in *C. manipurens* n. comb. (Fig. 11D, E; see Pati et al. 2020: figs 4a, d; 5a, c). *Capitamon clarki* n. gen., n. sp. can be also distinguished from *C. manipurens* n. comb. by the shallow male s3/s4, running from the sternopleonal cavity to the lateral edges of the sternum (Fig. 8B, E) (vs male s3/s4 indiscernible except for two short lateral clefts; see Pati et al. 2020: figs 1b; 2e), and the relatively broader male telson, proximal width c. 1.3 times the medial length, with the lateral margins gently concave (Figs 8B; 9D) (vs male telson relatively narrower, proximal width c. 1.2 times the medial length, with the lateral margins strongly concave; see Pati et al. 2020: figs 1b; 2d).

*Capitamon manipurens* (Alcock, 1909) n. comb.  
(Fig. 11)

*Potamon (Potamon) andersonianum* var. *manipurens* Alcock, 1909: 244; 1910: 35, pl. 14 fig. 68.

*Potamon andersonianum* – Bott 1970: 142 (in part) [not *Telphusa andersoniana* Wood-Mason, 1871].

*Potamiscus andersonianus* – Brandis 2000: 68 (in part) [not *Telphusa andersoniana* Wood-Mason, 1871].

*Indochinamon manipurens* – Yeo & Ng 2007: 283 (list). — Ng et al. 2008: 163 (list). — Ng & Win Mar 2018: 49 (list). — Pati et al. 2020: 706.

TYPE MATERIAL. — Lectotype. India • ♂ (39.9 × 30.0 mm); Manipur state: Manipur Hills; [ $c. 24^{\circ}50'41''N, 93^{\circ}54'14''E$ ]; [c. alt. 986 m]; no date; H. H. Godwin-Austen leg.; ZSIK C.6923/3.

Paralectotype. India • ♀ (40.1 × 30.4 mm); same data as for lectotype; ZSIK C.6923/3.

DIAGNOSIS. — Carapace ovate, broader than long ( $CW/CL = 1.3$ ), relatively low ( $CH/CW = 0.4$ ); epigastric cristae well-developed, rugose; postorbital cristae well-developed, relatively sharp, oblique



FIG. 8. — *Capitamon clarki* n. gen., n. sp., holotype ♂ (42.1 × 32.9 mm) (NHM 1909.5.1.1): A, overall dorsal view; B, s1-s7, pleonal somites 4-6, and telson; C, left G1 (ventral view); D, left G2; E, s1-s8 showing right G1 *in situ*. Not to scale.

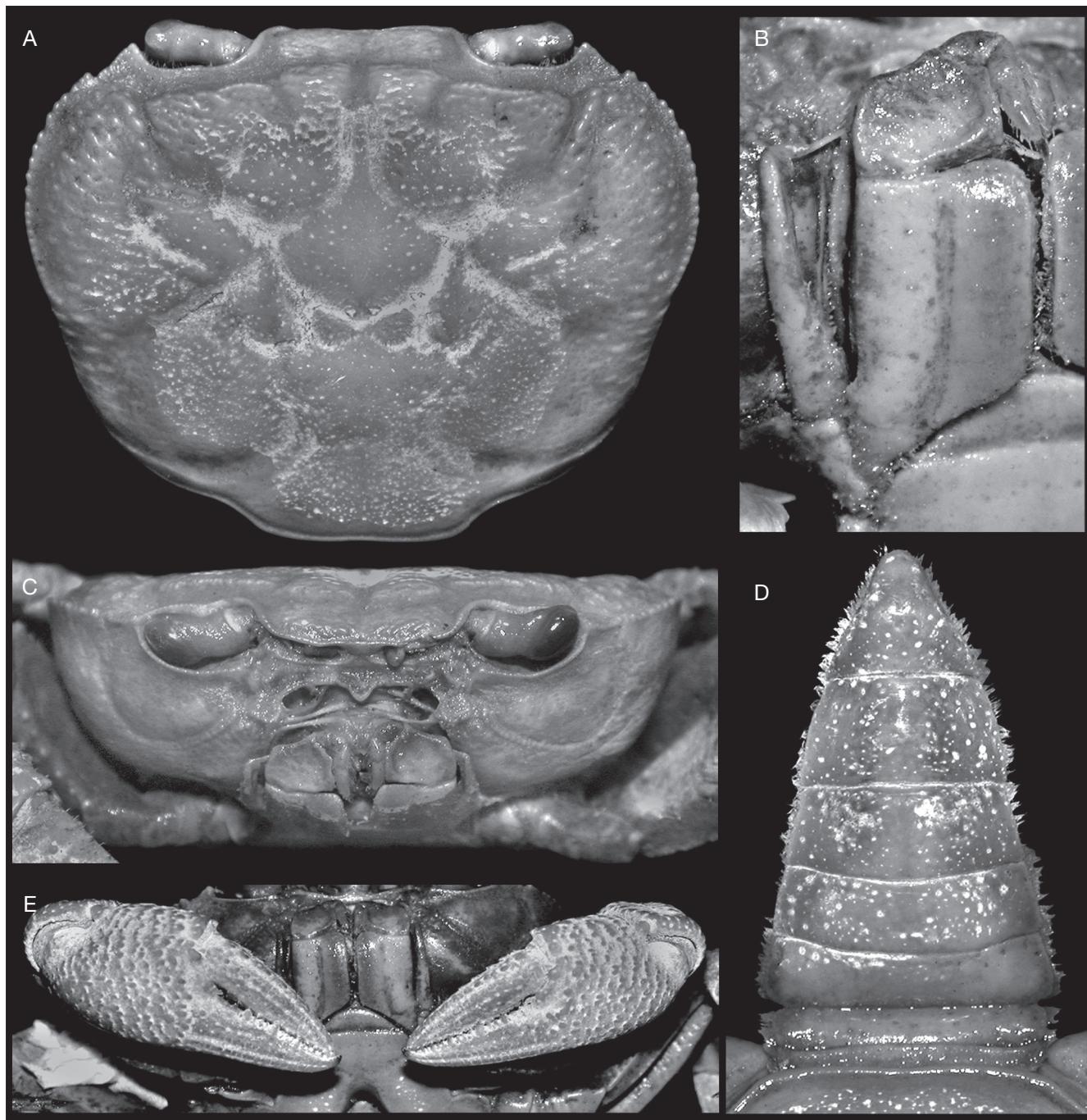


FIG. 9. — *Capitamon clarki* n. gen., n. sp., holotype ♂ (42.1 × 32.9 mm) (NHM 1909.5.1.1): **A**, dorsal view of cephalothorax; **B**, right third maxilliped; **C**, frontal view of cephalothorax; **D**, pleon and telson; **E**, chela (outer view). Not to scale.

in dorsal view; external orbital angle triangular, with short outer margin, c. 2 × inner margin; epibranchial tooth low, blunt, positioned above level of postorbital cristae; cervical grooves discontinuous, not reaching to level of postorbital cristae; epistome posterior margin with well-developed, triangular median tooth, outer parts sloping downwards laterally (see Pati et al. 2020: figs 1a; 2a, b). Third maxilliped exopod with short flagellum, shorter than width of merus (see Pati et al. 2020: fig. 2c). Chelipeds rugose, unequal, inner distal tooth on carpus relatively broad (see Pati et al. 2020: fig. 1a). Male s3/s4 indiscernible except for two short lateral clefts (see Pati et al. 2020: figs 1b; 2e). Male pleonal somite 6 relatively broader (proximal width c. 2.0 × me-

dial length), longer than pleonal somite 5, with almost straight lateral margins (see Pati et al. 2020: figs 1b; 2d). Male telson relatively narrower (proximal width c. 1.2 × medial length), with strongly concave lateral margins (see Pati et al. 2020: figs 1b; 2d). G1 ultimate article relatively less strongly bent at angle of about 60° from longitudinal axis, with straight outer margin, dorsal flap relatively low, broadly triangular (Fig. 11A, C-E; see Pati et al. 2020: figs 4a-d; 5a-c). G2 c. 1.3 × length of G1; ultimate article long, c. 0.5 × length of penultimate article (Fig. 11B, D; see Pati et al. 2020: figs 4a, e; 5a, d). Vulvae laterally partially covered by protruding sternal cover, visible in ventral view (see Pati et al. 2020: fig. 3c).

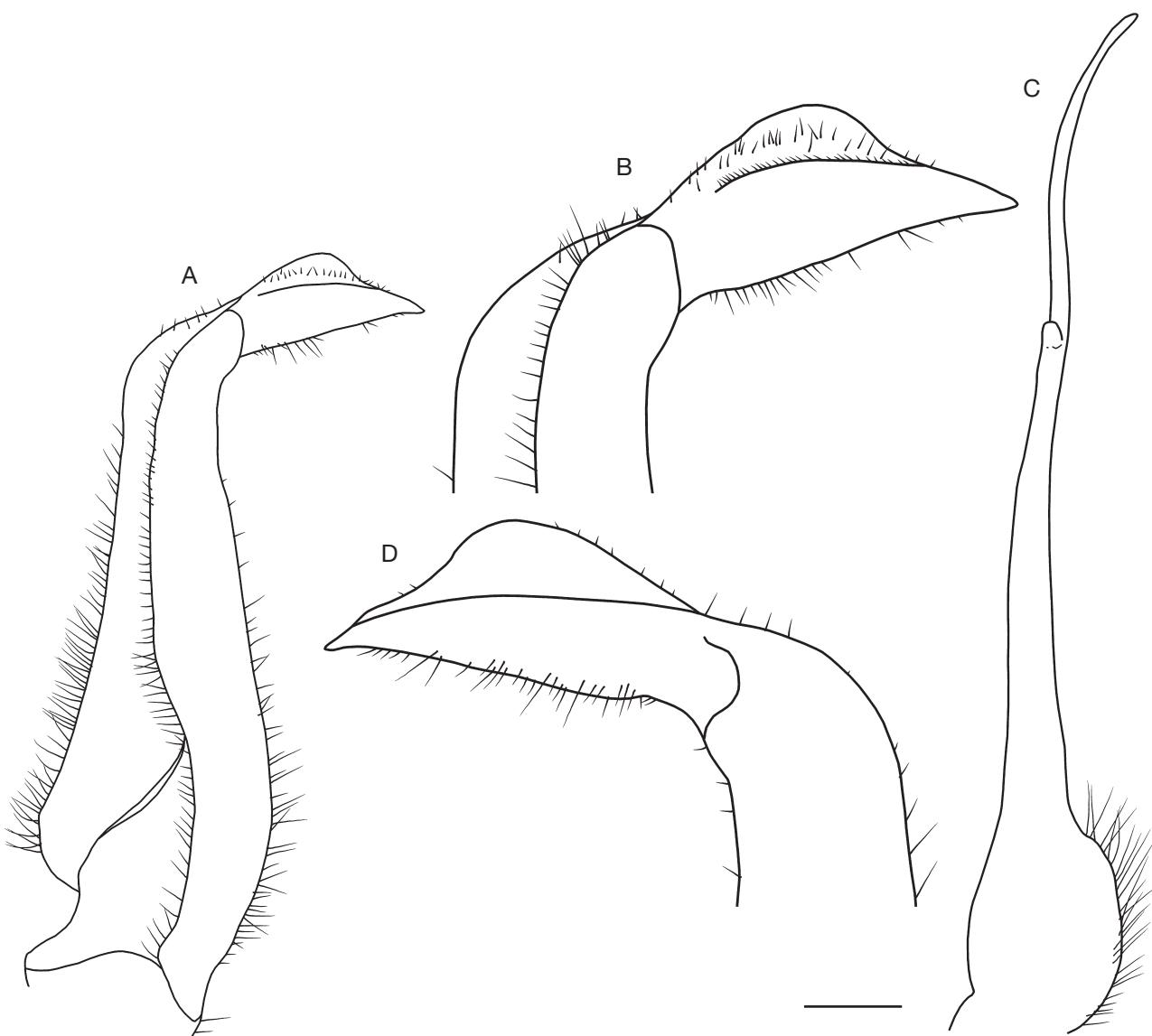


FIG. 10. — *Capitamon clarki* n. gen., n. sp., holotype ♂ (42.1 × 32.9 mm) (NHM 1909.5.1.1): **A**, left G1 (ventral view); **B**, left G1 ultimate article (ventral view); **C**, left G2; **D**, left G1 ultimate article (dorsal view). Scale bar: A, C, 1 mm; B, D, 0.5 mm.

GEOGRAPHICAL DISTRIBUTION. — *Capitamon manipurensis* n. comb. is known only from Manipur state of northeastern India (see Pati *et al.* 2020) (Fig. 1).

#### REMARKS

*Capitamon manipurensis* n. comb. can easily be distinguished from the nominal species of the genus by the relatively narrower male telson, proximal width c. 1.2 times the medial length (see Pati *et al.* 2020: figs 1b; 2d) (vs male telson relatively broader, proximal width c. 1.3–1.4 times the medial length; Figs 5C; 6E; 8B; 9D; 12C; 13E; 15C; 16E) and the relatively less strongly bent G1 ultimate article, which is bent at an angle of about 60° from longitudinal axis of the G1 (Fig. 11D, E; see Pati *et al.* 2020: figs 4a, d; 5a, c) (vs G1 ultimate article relatively more strongly bent at an angle of about 75–110° from longitudinal axis of the G1; Figs 6F; 7D, E; 8C; 10A; 11D, E; 13F; 14D, E; 16F;

17D, E). Otherwise, *C. manipurensis* n. comb. is most similar to *C. capitatum* n. gen., n. sp. and *C. clarki* n. gen., n. sp. as their G1 ultimate article has the relatively low and broadly triangular dorsal flap (Figs 6F; 7A, C–E; 8C; 10A, B, D; 11A, C–E; see Pati *et al.* 2020: figs 4a–d; 5a–c).

#### *Capitamon meitei* n. sp. (Figs 12; 13; 14)

[urn:nbn:se:zoobank.org:act:109C2D01-A922-4EE1-ABCE-710D7E91F2F2](https://urn.nbn.se/resolve?urn=urn:nbn:se:zoobank.org:act:109C2D01-A922-4EE1-ABCE-710D7E91F2F2)

TYPE MATERIAL. — Holotype. India • ♂ (51.7 × 38.8 mm); Manipur state: Thoubal district: Yairipok; 24°39'53"N, 94°3'50"E; alt. 784 m; 24.XI.2018; Thangpurba Devi leg.; ZSI-WRC C.2405. Paratypes. India • ♂ (39.9 × 30.4 mm), ♀ (36.0 × 27.4 mm); Manipur state: Kangpokpi district: Leimakhong; 24°56'31"N, 93°50'27"E; alt. 884 m; 27.V.2019; Thangpurba Devi leg.; ZSI-WRC C.2406.

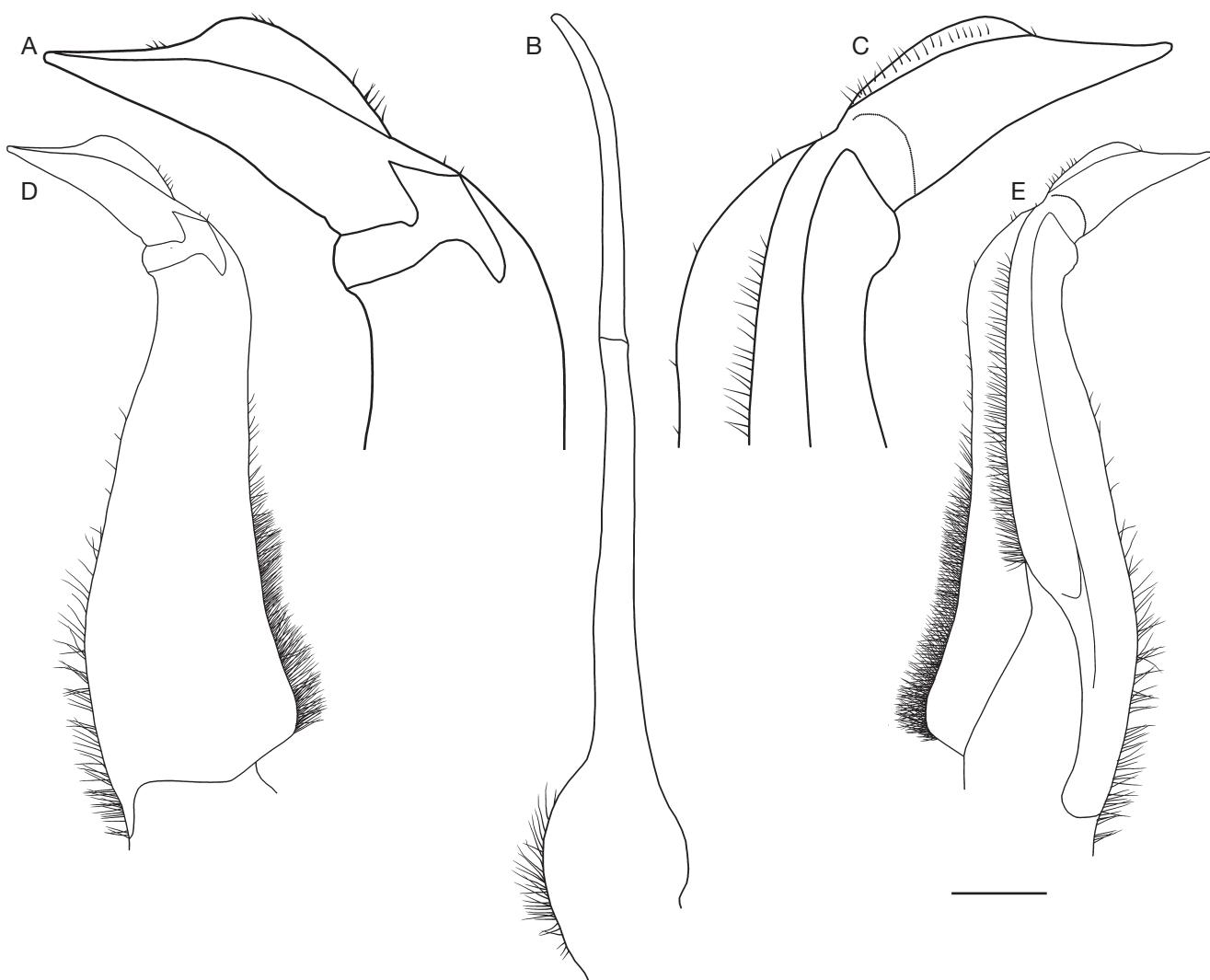


FIG. 11. — *Capitamon manipurensis* (Alcock, 1909) n. comb., lectotype ♂ (39.9 × 30.0 mm) (ZSIK C.6923/3): A, left G1 ultimate article (dorsal view); B, left G2; C, left G1 ultimate article (ventral view); D, left G1 (dorsal view); E, left G1 (ventral view). Scale bar: A, C, 0.5 mm; B, D, E, 1 mm.

**DIAGNOSIS.** — Carapace ovate, broader than long (CW/CL = 1.3–1.4), relatively low (CH/CW = 0.4); epigastric cristae well-developed, rugose; postorbital cristae well-developed, relatively sharp, oblique in dorsal view; external orbital angle triangular, with short outer margin, c. 2 × inner margin; epibranchial tooth low, blunt, positioned above level of postorbital cristae; cervical grooves continuous, reaching to level of postorbital cristae; epistome posterior margin with well-developed, triangular median tooth, outer parts sloping downwards laterally (Fig. 12A, B). Third maxilliped exopod with short flagellum, shorter than width of merus (Fig. 13B). Chelipeds rugose, unequal in adult males, inner distal tooth on carpus relatively broad (Figs 12A, C; 13C). Male s3/s4 indiscernible (Figs 12C; 13D). Male pleonal somite 6 relatively broader (proximal width c. 2.1–2.2 × medial length), equal in length to pleonal somite 5, with convex lateral margins (Figs 12C; 13E). Male telson relatively broader (proximal width c. 1.3–1.4 × medial length), with gently to strongly concave lateral margins (Figs 12C; 13E). G1 ultimate article relatively less strongly bent at angle of about 75° from longitudinal axis, with sinuous outer margin, dorsal flap relatively high, narrowly triangular (Figs 13F; 14A, C–E). G2 c. 1.2 × length of G1; ultimate article long, c. 0.5 × length of penultimate article (Figs 13G; 14B, D). Vulvae laterally completely covered by protruding sternal cover, invisible in ventral view (Fig. 13I).

**ETYMOLOGY.** — The species name, *meitei*, means Manipuri, the people/language of Manipur. The name is used as a Latin noun in apposition.

**GEOGRAPHICAL DISTRIBUTION.** — *Capitamon meitei* n. gen., n. sp. is known only from Manipur state of northeastern India (Fig. 1).

#### REMARKS

Among the nominal species of the genus, *C. meitei* n. gen., n. sp. most resembles *C. mizoramense* n. gen., n. sp. mainly by the G1 ultimate article, which has a sinuous outer margin, and the relatively high and narrowly triangular dorsal flap (Figs 13F; 14A, C–E; 16F; 17A, C–E). *Capitamon meitei* n. gen., n. sp. is nevertheless differentiated from *C. mizoramense* n. gen., n. sp. by the relatively less strongly bent G1 ultimate article, which is bent at an angle of about 75° from longitudinal axis of the G1 (Figs 13F; 14D, E) (vs G1 ultimate article more strongly bent at an angle of about 110° from longitudinal axis of the G1; Figs 16F; 17D, E). In addition, the vulvae are completely covered laterally by the protruding sternal cover and invisible in the ventral view

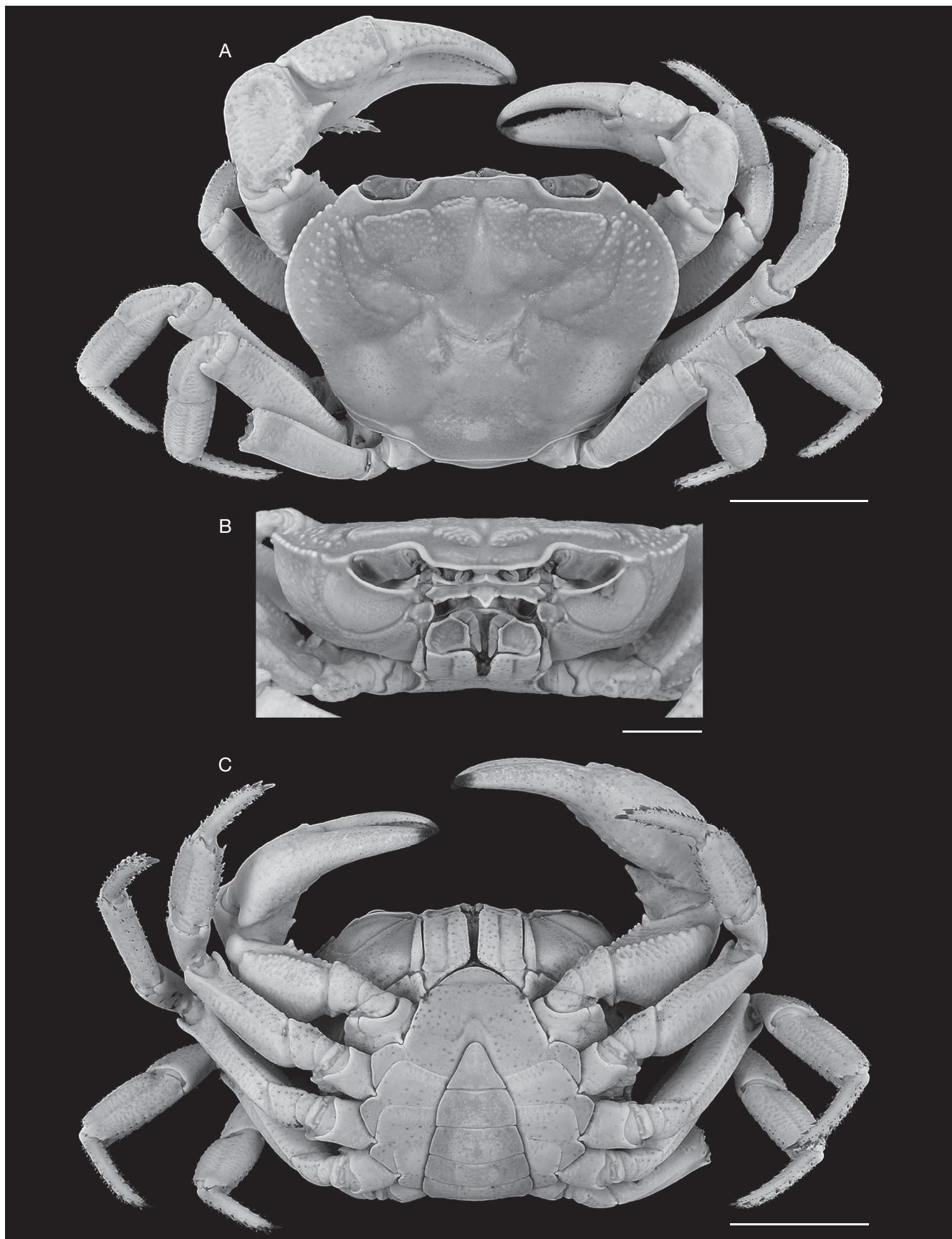


FIG. 12. — *Capitamon meitei* n. gen., n. sp., holotype ♂ (51.7 × 38.8 mm) (ZSI-WRC C.2405): A, overall dorsal view; B, frontal view of cephalothorax; C, overall ventral view. Scale bars: A, C, 20 mm; B, 10 mm.

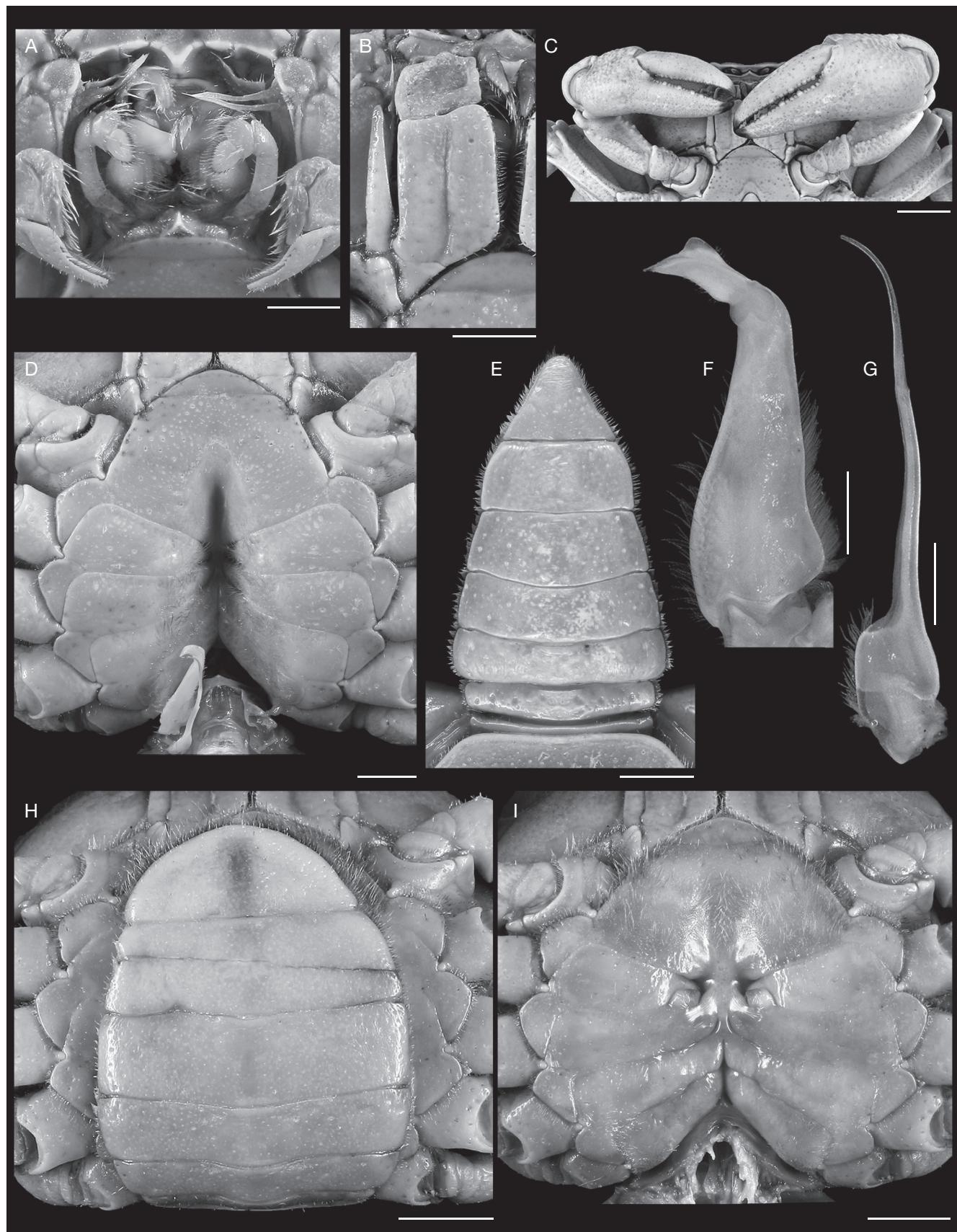


FIG. 13.—*Capitamon meitei* n. gen., n. sp., holotype ♂ (51.7 × 38.8 mm) (ZSI-WRC C.2405) (A–G), paratype ♀ (36.0 × 27.4 mm) (ZSI-WRC C.2406) (H, I): A, mouth-parts; B, right third maxilliped; C, chela (outer view); D, s1-s8 showing right G1 *in situ*; E, pleon and telson; F, left G1 (dorsal view); G, left G2; H, pleonal somites 3-6 and telson; I, s1-s8 showing vulvae. Scale bars: A, B, D, E, H, I, 5 mm; C, 10 mm; F, G, 2 mm.

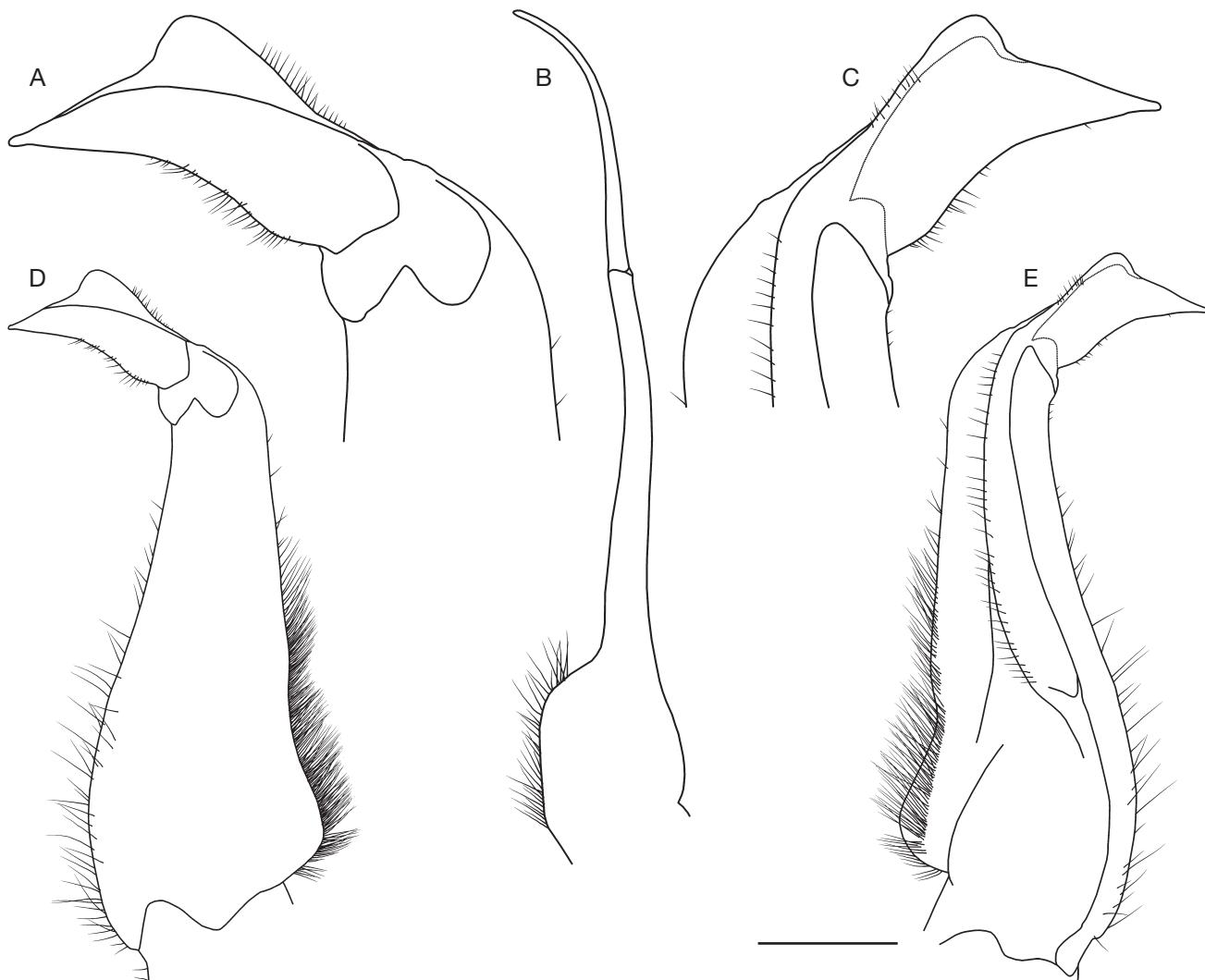


FIG. 14. — *Capitamon meitei* n. gen., n. sp., holotype ♂ (51.7 × 38.8 mm) (ZSI-WRC C.2405): **A**, left G1 ultimate article (dorsal view); **B**, left G2; **C**, left G1 ultimate article (ventral view); **D**, left G1 (dorsal view); **E**, left G1 (ventral view). Scale bar: A, C, 1 mm; B, D, E, 2 mm.

in *C. meitei* n. gen., n. sp. (Fig. 13I), whereas the vulvae are partially covered laterally by the protruding sternal cover and visible in the ventral view in *C. mizoramense* n. gen., n. sp. (Fig. 16I).

#### *Capitamon mizoramense* n. sp. (Figs 15; 16; 17)

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*Indochinamon beieri* — Mitra 2017: 23, figs 49–51; 71; 113–115 [not *Potamon beieri* Pretzmann, 1966].

TYPE MATERIAL. — Holotype. India • ♂ (46.3 × 35.7 mm); Mizoram state: Champhai district: Zokhawthar, c. 2 km from Indo-Myanmar International Border, collected from small stream connected to Tiau River; 23°21'53"N, 93°23'9"E; alt. 728 m; 23.IX.2013; S. Mitra leg.; ZSIK C.6122/2A.

Paratypes. India • ♂ (31.4 × 24.9 mm), ♀ (51.3 × 37.6 mm); same data as for holotype; ZSIK C.6122/2B • 7 ♂ (largest male, 60.0 × 44.6 mm), 4 ♀ (largest female, 52.0 × 39.6 mm); Mizoram

state: Lunglei district: Tui-pui village, collected from small stream connected to Tui-pui River; 22°52'47"N, 92°56'9"E; alt. 228 m; 24.IX.2013; S. Mitra leg.; ZSIK C.6131/2 • 5 ♂ (largest male, 37.5 × 29.2 mm), 4 ♀ (largest female, 37.7 × 28.8 mm); Mizoram state: Serchhip district: near Vantawng waterfalls, about 9 km from Thenzawl market, collected from small water channel; 23°14'2"N, 92°45'3"E; alt. 720 m; 26.IX.2013; S. Mitra leg.; ZSIK C.6125/2.

DIAGNOSIS. — Carapace ovate, broader than long (CW/CL = 1.3), relatively low (CH/CW = 0.4); epigastric cristae well-developed, rugose; postorbital cristae well-developed, relatively sharp, oblique in dorsal view; external orbital angle triangular, with short outer margin, c. 2 × inner margin; epibranchial tooth low, blunt, positioned above level of postorbital cristae; cervical grooves discontinuous, not reaching to level of postorbital cristae; epistome posterior margin with well-developed, triangular median tooth, outer parts sloping downwards (Fig. 15A, B). Third maxilliped exopod with short flagellum, shorter than width of merus (Fig. 16B). Chelipeds rugose, unequal, inner distal tooth on carpus relatively narrow (Figs 15A, C; 16C). Male s3/s4 indiscernible except for two short lateral clefts (Figs 15C; 16D). Male pleonal somite 6 relatively broader (proximal width c. 2.1 × medial length), equal in length to pleonal somite 5, with gently convex lateral margins (Figs 15C; 16E). Male telson relatively broader (proximal width c. 1.3 × medial length), with concave lateral margins

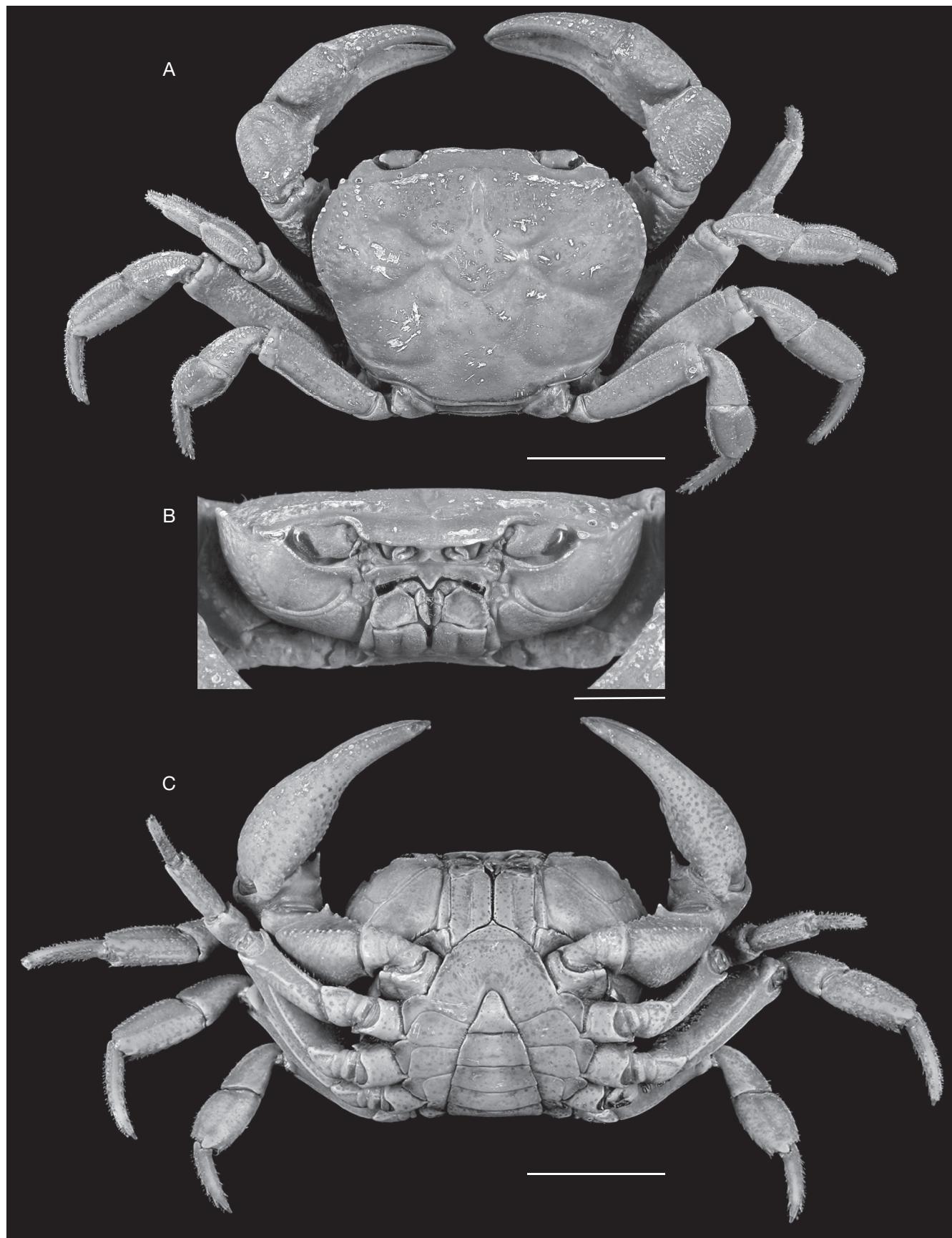


FIG. 15. — *Capitamon mizoramense* n. gen., n. sp., holotype ♂ (46.3 × 35.7 mm) (ZSIK C.6122/2A): **A**, overall dorsal view; **B**, frontal view of cephalothorax; **C**, overall ventral view. Scale bars: A, C, 20 mm; B, 10 mm.

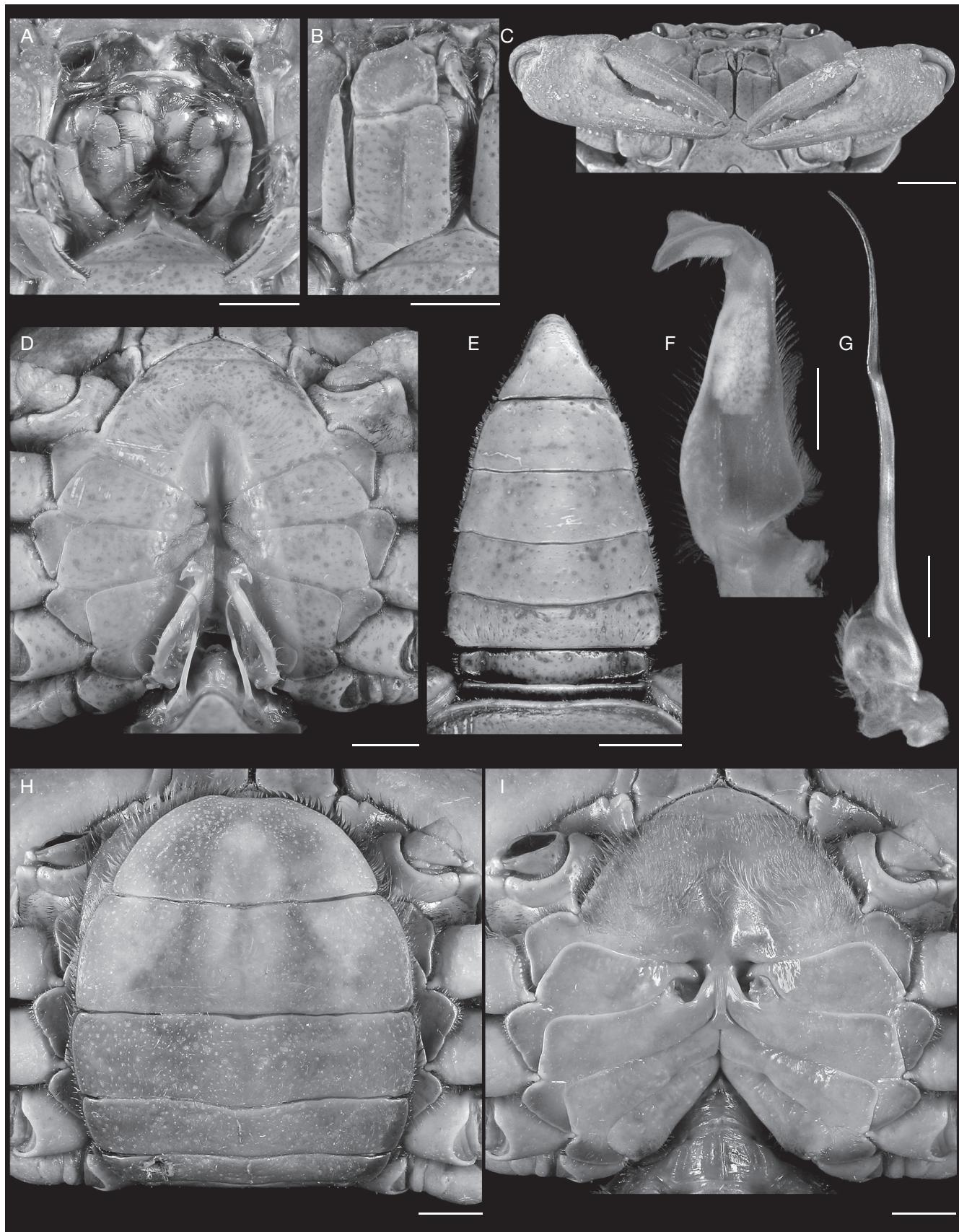


FIG. 16. — *Capitamon mizoramense* n. gen., n. sp., holotype ♂ (46.3 × 35.7 mm) (ZSIK C.6122/2A) (A-G), paratype ♀ (51.3 × 37.6 mm) (ZSIK C.6122/2B) (H, I). A, mouthparts; B, right third maxilliped; C, chela (outer view); D, s1-s8 showing right G1 *in situ*; E, pleon and telson; F, left G1 (dorsal view); G, left G2; H, pleon somites 3-6 and telson; I, s1-s8 showing vulvae. Scale bars: A, B, D, E, H, I, 5 mm; C, 10 mm; F, G, 2 mm.



FIG. 17. — *Capitamon mizoramense* n. gen., n. sp., holotype ♂ (46.3 × 35.7 mm) (ZSIK C.6122/2A): **A**, left G1 ultimate article (dorsal view); **B**, left G2; **C**, left G1 ultimate article (ventral view); **D**, left G1 (dorsal view); **E**, left G1 (ventral view). Scale bar: A, C, 1 mm; B, D, E, 2 mm.

(Figs 15C; 16E). G1 ultimate article relatively more strongly bent at angle of about 110° from longitudinal axis, with sinuous outer margin, dorsal flap relatively high, narrowly triangular (Figs 16F; 17A, C-E). G2 c. 1.3 × length of G1; ultimate article long, c. 0.6 × length of penultimate article (Figs 16F, G; 17B, D). Vulvae laterally partially covered by protruding sternal cover, visible in ventral view (Fig. 16I).

**ETYMOLOGY.** — The specific epithet refers to Mizoram state in northeastern India, where the new species is found.

**COLOUR IN LIFE.** — Crabs are olive green or brown, with paler ventral side and blood red joints of chelipeds (see Mitra 2017: fig. 71).

**ECOLOGICAL NOTES** (modified from Mitra 2017). — *Capitamon mizoramense* n. gen., n. sp. is a hill stream crab that prefers rocky habitats. This species is very common in the Champhai district of Mizoram. Local fishermen catch these crabs at night and sell them alive in the early morning for food. The population of this species may decline in the near future if these crabs are over-harvested.

**GEOGRAPHICAL DISTRIBUTION.** — *Capitamon mizoramense* n. gen., n. sp. is known only from Mizoram state of northeastern India (Fig. 1).

#### REMARKS

*Capitamon mizoramense* n. gen., n. sp. is unique among congeners due to the G1 ultimate article, which is relatively more strongly bent at an angle of about 110° from longitudinal axis of the G1, and possesses the relatively high and narrowly triangular dorsal flap (Figs 16F; 17A, C-E). The remaining nominal species of *Capitamon* n. gen. have a G1 ultimate article relatively less strongly bent at an angle of about 60–75° from longitudinal axis of the G1 (Figs 6F; 7D, E; 8C; 10A; 11D, E; 13F; 14D, E; see Pati et al. 2020: figs 4a, d; 5a, c). *Capitamon mizoramense* n. gen., n. sp. shares the following features of the G1 with *C. meitei* n. gen., n. sp.: sinuous outer margin of the G1 ultimate article and the relatively high, narrowly triangular dorsal flap on the G1 ultimate article (Figs 13F; 14A, C-E; 16F; 17A, C-E). Other features of G1 and vulvae, however, distinguish them (see Remarks for *C. meitei* n. gen., n. sp.).

***Capitamon* aff. *mizoramense***

*Potamiscus (Ranguna) rangoonensis* – Bott 1966: 481, fig. 15 (part) [not *Potamon (Potamon) rangoonensis* Rathbun, 1904].

*Ranguna (Ranguna) rangoonensis* – Bott 1970: 163, pl. 38, fig. 35; pl. 47, fig. 31 (part) [not *Potamon (Potamon) rangoonensis* Rathbun, 1904].

*Ranguna beieri* – Türkay & Naiyanetr 1987: 391 (list) [not *Potamon beieri* Pretzmann, 1966].

*Potamiscus beieri* – Brandis 2000: 75, pl. 10, fig. 2a-c (in part) [not *Potamon beieri* Pretzmann, 1966].

MATERIAL EXAMINED. — None.

DIAGNOSIS. — Carapace ovate, broader than long (CW/CL = 1.4); epigastric cristae well-developed, rugose; postorbital cristae well-developed, relatively sharp, oblique in dorsal view; external orbital angle triangular, with short outer margin, c. 2 × inner margin; epibranchial tooth low, blunt, positioned above level of postorbital cristae; cervical grooves continuous, reaching to level of postorbital cristae (see Brandis 2000: pl. 10, fig. 2a). Chelipeds rugose, unequal, inner distal tooth on carpus relatively broad (see Brandis 2000: pl. 10, fig. 2a). G1 ultimate article relatively more strongly bent at angle of about

110° from longitudinal axis, with sinuous outer margin, dorsal flap relatively low, broadly triangular (see Brandis 2000: pl. 10, fig. 2b, c).

## REMARKS

The male specimen (SMF 2807) of an unknown species of *Capitamon* n. gen. reported by Bott (1966, 1970) and Brandis (2000) also possesses a G1 ultimate article as strongly bent as that of *C. mizoramense* n. gen., n. sp. The dorsal flap on the G1 ultimate article of the SMF 2807 male, however, is relatively low and broadly triangular (see Brandis 2000: pl. 10, fig. 2b, c) against the relatively high and narrowly triangular dorsal flap of *C. mizoramense* n. gen., n. sp. (Figs 16F; 17A, C-E). In addition, the cervical grooves of the SMF 2807 male are continuous, which reach to the level of the postorbital cristae (see Brandis 2000: pl. 10, fig. 2a); whereas those of *C. mizoramense* n. gen., n. sp. are not continuous and do not reach to the level of the postorbital cristae (Fig. 15A). The SMF 2807 male specimen has some affinities with *C. mizoramense* n. gen., n. sp., but it is certainly not that species. The said SMF material is a distinct species of *Capitamon* n. gen. but is not described here as we could not access the actual material during this study. Fresh specimens of this species will also need to be collected.

KEY TO SPECIES OF *CAPITAMON* N. GEN.

1. G1 ultimate article completely bent at angle of about 110° from longitudinal axis of G1 (Figs 16F; 17D, E; see Brandis 2000: pl. 10, fig. 2c) ..... 2
- G1 ultimate article relatively less bent at angle of about 60–75° from longitudinal axis of G1 (Figs 6F; 7D, E; 8C; 10A; 11D, E; 13F; 14D, E; see Pati *et al.* 2020: figs 4a, d; 5a, c) ..... 3
2. Cervical grooves discontinuous, not reaching to level of postorbital cristae (Fig. 15A); G1 ultimate article with relatively high, narrowly triangular dorsal flap (Figs 16F; 17A, C-E) ..... *C. mizoramense* n. gen., n. sp. [INDIA: Mizoram].
- Cervical grooves continuous, reaching to level of postorbital cristae (see Brandis 2000: pl. 10, fig. 2a); G1 ultimate article with relatively low, broadly triangular dorsal flap (see Brandis 2000: pl. 10, fig. 2b, c) ..... *C. aff. mizoramense* [INDIA: Assam].
3. Male pleonal somite 6 equal in length to pleonal somite 5 (Figs 5C; 6E; 12C; 13E); G1 ultimate article with sinuous outer margin (Figs 6F; 7A, C-E; 13F; 14A, C-E) ..... 4
- Male pleonal somite 6 longer than pleonal somite 5 (Figs 8B; 9D; see Pati *et al.* 2020: figs 1b; 2d); G1 ultimate article with straight outer margin (Figs 8C; 10A, B, D; 11A, C-E; see Pati *et al.* 2020: figs 4a-d; 5a-c) ..... 5
4. Postorbital cristae straight in dorsal view (Fig. 5A); third maxilliped exopod lacking flagellum or with vestigial flagellum (Fig. 6B); male s3/s4 shallow, running from sternopleonal cavity to lateral edges of sternum (Figs 5C; 6D); male pleonal somite 6 with almost straight lateral margins (Figs 5C; 6E); G1 ultimate article with relatively low, broadly triangular dorsal flap (Figs 6F; 7A, C-E) ..... *C. capitatum* n. gen., n. sp. [INDIA: Arunachal Pradesh and Nagaland].
- Postorbital cristae oblique in dorsal view (Fig. 12A); third maxilliped exopod with short flagellum, more than half width of merus (Fig. 13B); male s3/s4 indiscernible (Figs 12C; 13D); male pleonal somite 6 with convex lateral margins (Figs 12C; 13E); G1 ultimate article with relatively high, narrowly triangular dorsal flap (Figs 13F; 14A, C-E) ..... *C. meitei* n. gen., n. sp. [INDIA: Manipur].
5. Carapace relatively low, CH/CW = 0.4 (see Pati *et al.* 2020: fig. 2b); male s3/s4 indiscernible except for two short lateral clefts (see Pati *et al.* 2020: figs 1b; 2e); male telson relatively narrower, proximal width c. 1.2 × medial length, with strongly concave lateral margins (see Pati *et al.* 2020: figs 1b; 2d); G1 ultimate article relatively less strongly bent at angle of about 60° from longitudinal axis (Fig. 11D, E; see Pati *et al.* 2020: fig. 4a, d; 5a, c) ..... *C. manipurensis* (Alcock, 1909) n. comb. [INDIA: Manipur].
- Carapace relatively high, CH/CW = 0.5 (Fig. 9C); male s3/s4 shallow, running from sternopleonal cavity to lateral edges of sternum (Fig. 8B, E); male telson relatively broader, proximal width c. 1.3 × medial length, with gently concave lateral margins (Figs 8B; 9D); G1 ultimate article relatively more strongly bent at angle of about 75° from longitudinal axis (Figs 8C; 10A) ..... *C. clarki* n. gen., n. sp. [INDIA: Nagaland?].

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