

ON TWO SPECIES OF TERRESTRIAL CRABS OF
THE GENUS *DROMOTHELPHUSA* NAIYANETR, 1992
(CRUSTACEA: DECAPODA: BRACHYURA: POTAMIDAE)
FROM THAILAND

Phaibul Naiyanetr

ABSTRACT. - Full descriptions and figures of two species of terrestrial potamid crabs from Thailand, *Dromothelphusa namuan* (Naiyanetr, 1993), and *D. nayung* (Naiyanetr, 1993), are provided. Comparisons with its closest congener, *D. phrae* (Naiyanetr, 1984) are also provided.

INTRODUCTION

In an abstract of a paper presented at a meeting in Frankfurt, Germany in 1993, Naiyanetr (1993) discussed the taxonomy of two new species of Thai terrestrial crabs of the genus *Potamon* s. lato. Both species were named (*Potamon namuan* and *Potamon nayung*), and the short diagnoses provided in the abstract are sufficient by the provisions of the International Code of Zoological Nomenclature (1985) (Article 11) to make both names available.

The present note serves to provide complete descriptions of the two species and detailed illustrations to aid in their identification. A reappraisal of their taxonomy also requires their transfer to the genus *Dromothelphusa* Naiyanetr, 1992 (*vide* Ng & Naiyanetr, 1993).

Specimens are deposited in the Chulalongkorn University Museum of Zoology (CUMZ), Department of Biology, Bangkok, Thailand; Zoological Reference Collection (ZRC), Department of Zoology, National University of Singapore; Senckenberg Naturforschenden Gesellschaft (SMF), Frankfurt, Germany; and the Nationaal Natuurhistorisch Museum (former Rijksmuseum van Natuurlijke Historie, RMNH), Leiden, The Netherlands. The abbreviations cb. and cl. are used for the carapace width and length respectively.

TAXONOMY

Dromothelphusa namuan (Naiyanetr, 1993)

(Fig. 1)

Potamon namuan Naiyanetr, 1993: 44.

Material examined. - Holotype - male (cb. 51.5 mm, cl. 40.0 mm) (ZRC), King Amphoe Na Muan, Nan Province, northern Thailand, coll. Preecha Charaenphukdi, 21.x.1991.

Paratypes - 1 male (RMNH), 1 male, 1 female (CUMZ), same data as holotype.

Diagnosis. - Carapace squarish, dorsal surface convex transversely and longitudinally. Anterolateral crests granular; anterolateral regions with numerous large, rounded granules; postorbital crests gently but distinctly sinuous; postfrontal regions (between frontal margin and epigastric crests) granular but not forming any distinct ridges. Cervical grooves shallow, H-shaped gastro-cardiac grooves distinct but shallow. Exopod of third maxilliped with vestigial flagellum. Male abdomen triangular, lateral margins of sixth segment convex, length of sixth and seventh segments approximately equal. Male first gonopod curved outwards; outer distal part of penultimate segment (at junction with ultimate segment) distinctly swollen; ultimate segment slender, with broad, semi-circular dorsal lobe; apex slightly bent upwards.

Etymology. - The name is derived from the type locality, King Amphoe Na Muan, and is used as a noun in apposition.

Remarks. - See **Remarks** for *Dromothelphusa nayung*, new species.

Dromothelphusa nayung (Naiyanetr, 1993)

(Fig. 2)

Potamon nayung Naiyanetr, 1993: 44.

Material examined. - Holotype - male (cb. 44.0 mm, cl. 35.0 mm) (ZRC), Ban Phoem, King Amphoe Na Yung, Udon Thani Province, northeastern Thailand, coll. P. Naiyanetr, 15.iii.1992.

Paratypes - 1 female (ZRC), 1 male, 1 female (RMNH), 1 male, 1 female (SMF), 9 males, 2 females (CUMZ), same data as holotype.

Diagnosis. - Carapace squarish, dorsal surface convex transversely and longitudinally. Anterolateral crests granular; anterolateral regions with numerous large, rounded granules; postorbital crests straight; postfrontal regions (between frontal margin and epigastric crests) granular, larger granules forming a distinct transverse ridge on each region. Cervical grooves deep, H-shaped gastro-cardiac grooves very distinct, deep. Exopod of third maxilliped with short flagellum which reaches to approximately one-third width of merus. Male abdomen triangular, lateral margins of sixth segment convex, length of seventh segment slightly longer than length of sixth segment. Male first gonopod curved outwards, ultimate segment slender, with small, semi-circular dorsal lobe; apex straight, not bent.

Etymology. - The name is derived from the type locality, King Amphoe Na Yung, and is used as a noun in apposition.

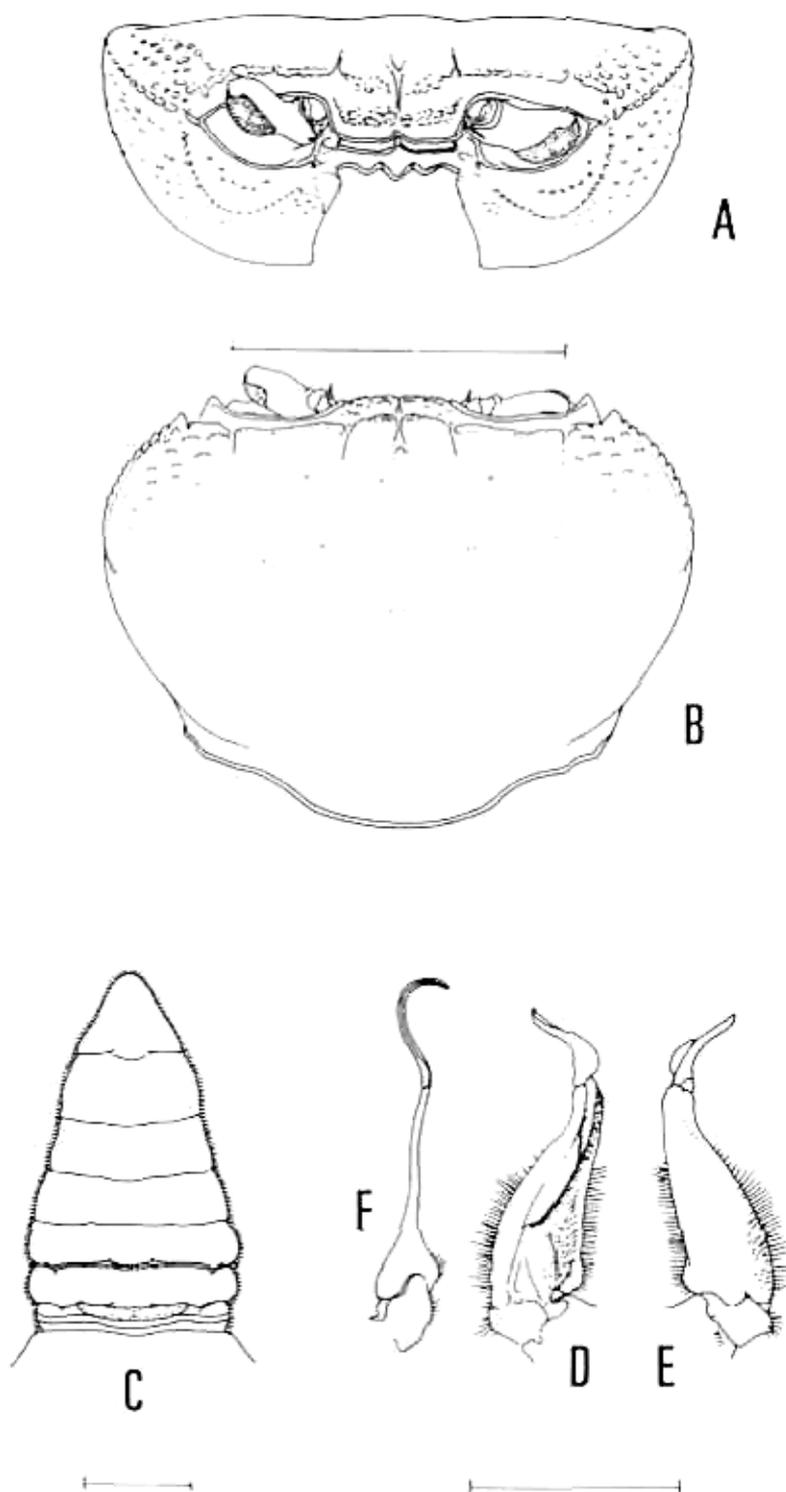


Fig. 1. *Dromothelphusa namuan*, new species. Holotype male, cb. 51.5 mm, cl. 40.0 mm (ZRC). A, frontal view of carapace; B, dorsal view of carapace; C, abdomen; D, male second gonopod; E, right male first gonopod (ventral view); F, right male first gonopod (dorsal view). Scales: A, B = 30 mm; C-F = 10 mm.

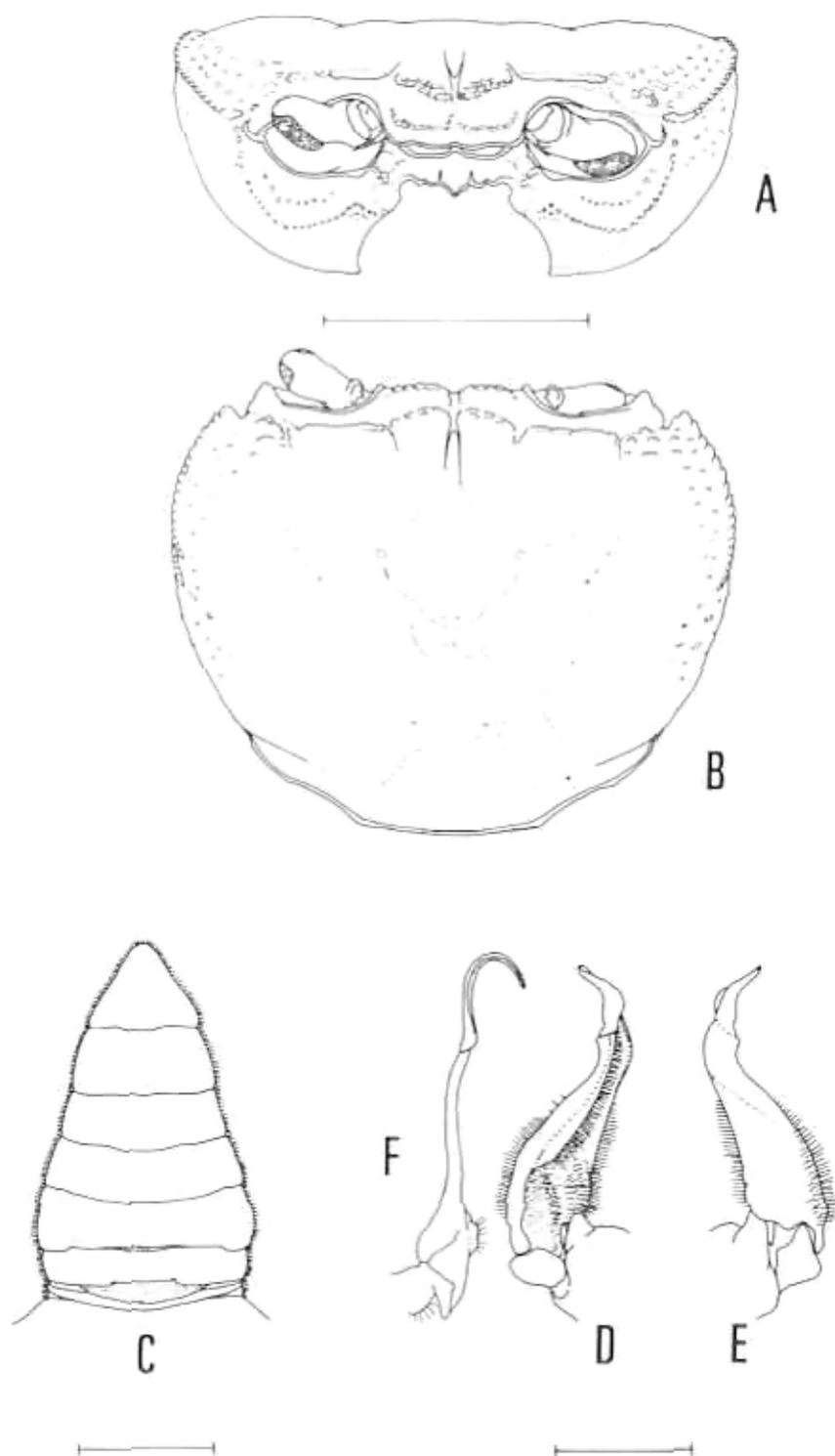


Fig. 2. *Dromothelphusa nayung*, new species. Holotype male, cb. 44.0 mm, cl. 35.0 mm (ZRC). A, frontal view of carapace; B, dorsal view of carapace; C, abdomen; D, male second gonopod; E, right male first gonopod (ventral view); F, right male first gonopod (dorsal view). Scales: A, B = 20 mm; C = 10 mm; D-F = 5 mm.

Table 1. Differences between *Dromothelphusa phrae*, *D. namuan* and *D. nayung*

	<i>D. phrae</i>	<i>D. namuan</i>	<i>D. nayung</i>
Postorbital crests	sinuous, not strongly cristate	sinuous, not strongly cristate	straight, strongly cristate
Postfrontal region	no distinct transverse ridge visible	no distinct transverse ridge visible	granules forming very distinct transverse ridges
Cervical grooves	shallow	shallow	deep
H-shaped gastro-cardiac grooves	deep	shallow	deep
Exopod of third maxilliped	flagellum vestigial	flagellum vestigial	flagellum short, reaching to about one-third width of merus
Male first gonopod	outer distal margin of penultimate segment swollen; dorsal fold on ultimate segment broad, distal part long	outer distal margin of penultimate segment not swollen, dorsal fold on ultimate segment broad, distal part very long	outer distal margin of penultimate segment swollen; dorsal fold on ultimate segment short, distal part long

Remarks. - The two new species, *Dromothelphusa namuan* and *D. nayung*, are most closely allied to *D. phrae* (Naiyanetr, 1984), from Phrae in Nan Province in northern Thailand, especially with regards to their carapaces, abdomens and gonopods. The three species however, differ in the form of the postorbital crests, postfrontal region, depth of the cervical and H-shaped gastro-cardiac grooves, length of the flagellum on the exopod of the third maxillipeds and structure of the male first gonopods (Table 1).

ACKNOWLEDGEMENTS

The author is grateful to Dr. P. K. L. Ng for his help with the manuscript and comments regarding the generic placement of the species. Comments by Prof. Dr. L. B. Holthuis on the manuscript are also appreciated. Mr. Priyawut Vatcharanond kindly prepared the figures of the new species.

LITERATURE CITED

International Commission of Zoological Nomenclature, 1985. *International Code of Zoological Nomenclature*. Third Edition. Adopted by the XX General Assembly of the International Union of Biological Sciences. International Trust for Zoological Nomenclature, in association with the British Museum (Natural History), London, 338 pp.

Naiyanetr, P., 1984. *Ranguna phrae*, a new species of land crab of Thailand. *Seminar on Wildlife of Thailand, Fac. Forest.*, Kasetsart Univ., Bangkok, 5: 231.

Naiyanetr, P., 1992. *Demanietta sirikit* n. sp., a new freshwater crab from Thailand (Decapoda, Brachyura, Potamidae). *Crustaceana*, Leiden, 62(2): 113-120, Pl. 1.

Naiyanetr, P., 1993. Two new species of terrestrial crabs of the genus *Potamon* Savigny, 1816 from Thailand (Decapoda: Potamidae). In: Abstract Volume, *International Senckenberg Symposium: Crustacea Decapoda*, Frankfurt am Main, Germany, October 18-22, 1993, p. 44.

Ng, P. K. L. & P. Naiyanetr, 1993. *New and recently described freshwater crabs (Crustacea: Decapoda: Brachyura: Potamidae, Gecarcinucidae and Parathelphusidae) from Thailand*. *Zool. Verh.*, Leiden, 284: 1-117, figs. 1-68.