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XXV.—*A new River-crab from the Transvaal.*

By W. T. CALMAN, D.Sc.

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A RIVER-CRAB recently sent for determination by Dr. E. Warren, of the Natal Museum, Pietermaritzburg, appears to be sufficiently interesting to merit brief description.

Potamon (Potamonautes) warreni, sp. n.

Description.—Resembling very closely *P. perlatum* (Milne-Edwards), but having the antero-lateral margin of the carapace armed with a series of about eight curved spiniform teeth. The first tooth stands at the end of the postfrontal ridge; the following teeth diminish in size (not quite regularly) from before backwards, passing into a line of granules that curves on to the dorsal surface. The surface of the carapace and limbs is rather smoother than in most specimens of *P. perlatum*, the postfrontal ridge, the margin of the front, and the upper margin of the orbit are nearly smooth, but the lower margin of the orbit is rather strongly toothed.

Measurements.—

	mm.
Length of carapace	50
Greatest breadth of carapace	70
Width of front between orbits	23.5
Walking-leg of second pair (not fully extended)	85
Meropodite of second walking-leg	30 × 11

Occurrence.—“Potchefstroom, Dr. Cawston, December 1917.” 1 ♀ carrying young (holotype). Brit. Mus.

Remarks.—It is possible that the specimen described above may only deserve to rank as a varietal form of *P. perlatum*, since it appears to differ from typical specimens of that species only in the armature of the antero-lateral margins of the carapace. This character, however, is so conspicuous, and has been accorded such importance in the classification of the family, that it seems advisable to call attention to it by a specific name.

I have examined, for the purpose of comparison, a considerable series of *P. perlatum* from various localities in South Africa, and in all the specimens the antero-lateral margins are either finely granular or minutely denticulate, the granules or denticles being not only very much smaller but also much more numerous than the conspicuous teeth of

the present species. Only in one instance is there anything suggestive of a transition from the one type to the other; this is in the case of three specimens from an unspecified locality in the Transvaal, in which the junction of the post-frontal ridge with the antero-lateral margin is produced in a small blunt tooth, behind which, however, the margin is only obscurely granulated.

On any of the current schemes of classification for the family Potamonidæ this species would be generically or subgenerically separated from *P. perlatum*. Its antero-lateral teeth are quite as well developed as in *P. niloticum* (M.-E.), the genotype of *Acanthothelphusa*, Ortman. This name



Potamon (Potamonantes) warreni, sp. n., holotype.
Outline of one-half of carapace from above.

was proposed for a subgenus of *Potamon*, afterwards merged in *Parathelphusa* by Miss Rathbun, accorded generic rank by Alcock, and now included as a subgenus of *Hydrothelphusa* by Bouvier (C. R. Acad. Sci. clxv. 1917, p. 620), owing its separation in each case mainly to these antero-lateral teeth. I believe, however, that *Acanthothelphusa* cannot be maintained—at all events, on the ground of this character alone. Just as *P. warreni* is intimately related to its geographical neighbour *P. perlatum*, so there is at least a hint that *P. niloticum* may be related, though less closely, to some of the river-crabs of East Africa. A comparison with *P. johnstoni*

(Miers), for example, shows a similarity in the disposition of the grooves of the carapace, particularly in the marked transverse branchial groove (or posterior branch of the cervical), which suggests that the nearest relatives of *P. niloticum* need not be sought for in distant parts even of the same continent.

If this be so, a similar argument applies with greater force to attempts that have been made to trace a connexion between the African Potamonidæ and those of the New World. Ortmann suggested that the South-American Pseudothelphusinæ were linked to the Old-World river-crabs by this same *Acanthothelphusa nilotica*. This conclusion was disproved by Alcock, who showed that the affinities of the Pseudothelphusinæ were with the Gecarcinucinae, a group which probably does not occur in Africa at all. Bouvier now suggests (C. R. Acad. Sci. clxv. 1917, pp. 617 & 753) that the African *Acanthothelphusa* (with *Erimetopus*) forms a transition to the other American subfamily, the Trichodactylinae. Here, again, the argument is greatly weakened if it can be shown that the essential characters of *Acanthothelphusa* have been acquired independently in different parts of Africa by various groups of *Potamonantes*; nor am I yet convinced, any more than were Ortmann or Alcock, that the Trichodactylinae are Potamonidæ at all.

XXVI.—*On the Papuan, Melanesian, and North-Australian Species of the Genus Rana.* By G. A. BOULENGER, F.R.S.

(Published by permission of the Trustees of the British Museum.)

HAVING recently undertaken a much-needed revision of the south-easternmost representatives of the large genus *Rana*, I feel able, thanks to the extensive material accumulated in the British Museum since the publication of the 'Catalogue of Batrachians' in 1882, to offer for consideration new views on the delimitation of the species and on their synonymy, as well as an attempt at a better classification of them.

The species fall under three groups, which may be regarded as natural subgenera:—

1. *Rana*, s. str., represented by one species only, *R. gruniens*, Daud., a close ally of the widely distributed *R. macrodon*, D. & B., from which it differs in the absence of tooth-like processes in the lower jaw and in the shorter tibia.