Annals and Magazine of Natural History

Series 4

ISSN: 0374-5481 (Print) (Online) Journal homepage: <http://www.tandfonline.com/loi/tnah10>

XXXIX.—Note on the genera Astacoides and Paranephrops

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To cite this article: Edward J. Miers (1876) XXXIX.—Note on the genera Astacoides and Paranephrops, Annals and Magazine of Natural History, 18:107, 412-413, DOI: [10.1080/00222937608682065](https://doi.org/10.1080/00222937608682065)

To link to this article: <http://dx.doi.org/10.1080/00222937608682065>

Published online: 15 Oct 2009.

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Suya khasiana, n. sp.
(fourteen examples compared),

- a. Has a general tinge of ferruginous throughout, which is particularly strong upon the forehead and wing ;
- b. Generally pure white on abdomen and centre of breast ;
- c. Thigh-coverts pure rufous ;
- d. The terminal white spots on the black feathers of the lower part of the neck are larger.

XXXIX.—*Note on the Genera Astacoides and Paranephrops.*

By EDWARD J. MIERS, Assistant in the Zoological Department, British Museum.

IN the 'Annals' for last month Professor J. Wood-Mason published a very interesting note "On the Mode in which the Young of the New-Zealand *Astacidae* attach themselves to the Mother." He states (p. 306) that he observed this peculiar mode of attachment in the young of "a female of *Astacoides zealandicus*," which, he adds in a footnote, "*= Paranephrops setosus*, Hutton;" and, in another footnote, he cites the genus *Paranephrops* of White as synonymous with *Astacoides* of Guérin-Ménéville. As it appears to me still uncertain to what species Professor Wood-Mason refers in his communication, the following observations may be of interest.

Guérin-Ménéville founded the genus *Astacoides*, in April 1839*, for a species of crayfish described as occurring very frequently in the rivers of Madagascar, to which he applied the name of *A. Goudotii*, after its discoverer M. Goudot. This species was noticed almost contemporaneously by M. Milne-Edwards†, and subsequently described at greater length and well figured by him‡, under the name of *A. madagascariensis*. Of this species, unfortunately, no specimens are in the collection of the British Museum; but the published descriptions and figure suffice, I think, to show that the genus is well characterized by its robust form, powerful anterior legs, with broad hands and short palm, and the position of the antennæ, which are inserted *beneath* the antennules and are furnished with a small or rudimentary basal scale.

In the genus *Paranephrops* of White§, as exemplified in

* *Revue Zoologique*, ii. p. 109 (1840).

† *L'Institut*, p. 152 (1839).

‡ *Archives du Muséum d'Histoire Naturelle*, ii. p. 35, pl. iii. figs. 1-5 (1841).

§ *Zoological Miscellany*, ii. p. 79 (1842).

the typical species *P. planifrons*, which is also the commonest species of the genus, the body is comparatively slender, the anterior legs elongated, with the palm more than twice as long as broad, and clothed externally with longitudinally seriate tubercles and spines; moreover the antennæ are inserted *externally* to the antennules, and are furnished with a very large basal scale, which is longer than the peduncle of the antennæ. It is true that in other species of both genera (as, for example, *Astacoides serratus*, Shaw, and *A. Franklinii*, Gray, from Australia, and *Paranephrops zealandicus*, White) the distinctive characteristics are somewhat less strongly marked; but, so far as the materials in the collection of the British Museum afford means of comparison, I can see no necessity for uniting the genera.

Professor Wood-Mason refers, I believe, to *Paranephrops zealandicus*, White*, in speaking of "*Astacoides zealandicus*;" but this species is certainly distinct from *P. setosus*, Hutton†. In *P. zealandicus*, of which the type specimens are in the British-Museum collection, the hands are clothed externally with tufts of hair arranged in longitudinal series, and are armed with spines only upon the superior margins, and the sides of the carapace are smooth. In *P. setosus* there are spines arranged seriatly upon the external surface as well as the upper margin of the hand, and the branchial and hepatic regions of the carapace are armed with numerous unequal conical spines. A specimen agreeing well with Hutton's description is in the National collection.

I may say in conclusion that a somewhat analogous mode of attachment has been observed among the Edriophthalmata, in the case of the young of *Arcturus*, by Sir J. G. Dalyell, whose account is quoted by Messrs. Spence Bate and Westwood in their 'History of the British Sessile-eyed Crustacea,' ii. p. 370. In this genus the young individuals affix themselves in clusters to the antennæ of the mother, clasping the peduncles of those organs with their prehensile three posterior pairs of pereopoda; and a specimen of *A. Baffini* actually exhibiting this mode of attachment is preserved in the collection of the British Museum. The young specimens are clustered chiefly on the underside of the antennæ, with the head pointing toward the body of the parent. In this instance no specially modified prehensile organ exists, nor, indeed, is such required.

* *Astacus zealandicus*, White, P. Z. S. 1847, p. 123, Ann. & Mag. Nat. Hist. ser. 2, i. p. 225 (1848); *Paranephrops zealandicus*, Miers, Zool. Ereth. & Terr., Crust. p. 4, pl. ii. fig. 2 (1874), Cat. New-Zeal. Crust. p. 73 (1876).

† Ann. & Mag. Nat. Hist. ser. 4, vol. xii. p. 402 (1873).