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A NEW GENUS OF MALAYAN CAPSIDAE (RHYNCHOTA) FROM ARECA PALM.

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The Capsid described in the present paper came under observation in Malaya some years ago but was not then specifically determined. Mr. W. E. China, of the British Museum (Natural History), was kind enough recently to examine it, and came to the conclusion that a new genus should be erected to contain it. Specimens were returned to me by Sir Guy Marshall, Director of the Imperial Institute of Entomology, along with some notes made by Mr. China which would be of use in the preparation of the diagnosis of the new genus.

I am greatly indebted to Mr. China for his assistance and to Sir Guy Marshall for affording me the opportunity of describing the genus.

Types and paratypes have been deposited in the British Museum and paratypes in the Selangor Museum, Kuala Lumpur, F.M.S. Additional paratypes are to be found in the collections of the Entomological Division, Department of Agriculture, S.S. and F.M.S.

Family CAPSIDAE.

Subfamily HETEROTOMINAE.

Parasthenaridea, gen. nov.

Antennae about as long as body; segment 1 as long as anteocular portion of head, cylindrical, thicker apically than basally; segment 2 four times as long as 1, feebly thickened towards apex; segments 3 and 4 slender, 3 half as long as 2, 4 two-thirds as long as 2. Eyes large. Head (including eyes) about twice as broad as long, moderately deflexed; from the side shorter than height at base; vertex between the eyes somewhat flattened and with the basal margin carinate; clypeus moderately rounded; rostrum reaching apex of posterior coxae. Pronotum somewhat flattened, about twice as broad as long at its widest part, its sides broadly rounded and basal margin feebly sinuate. Scutellum triangular, its base feebly raised and not entirely covered by pronotum. Hemielytra with the membrane extending beyond the apex of abdomen, smaller membrane cell triangular. Wings with a hamus in basal cell. Legs: hind femora moderately incrassate; tarsi with a bilobate arolium, the apices of which are truncate and widely divergent.

Mr. China who examined this new genus kindly sent the writer the following observations.

This new genus belongs to the subfamily HETEROTOMINAE in which the arolia are large, membranous and usually convergent at apices. It is allied to *Sthenaridea*, Reut. (Ent. Tidskr. 5, p. 197, 1884) but differs in the much shorter antennae and in the presence of a hamus in the hind wing cell. Furthermore, there is a close resemblance with *Sthenarus* (PHYLINAE, in which the arolia are bristle-like), but it differs in the presence of large divergent arolia.

Parasthenaridea arecae sp. n. (fig. 1).

Colour: segment 1 of antennae dark ferruginous; segment 2 dark ochreous with the apical third ferruginous; segments 3 and 4 testaceous. Eyes dark purplish brown. Head, body, corium and legs olivaceous; corium subhyaline, legs pale olivaceous; membrane hyaline, very faintly infumate in the basal costal angle and faintly iridescent. Wings hyaline, iridescent, venation testaceous. Body ovate, shining; eyes from the side sub-reniform; facets convex. Antennae: segment 1 with a few moderately robust and moderately long sub-erect setae and short recumbent setae; remaining segments with short, forwardly directed subrecumbent setae. Head, pronotum, corium and abdomen ventrally moderately densely setose, the setae on corium arising from punctures. Tibiae armed with numerous forwardly directed spines.





Fig. 1. Parasthenaridea arecae, sp. n.: a, adult; b, elytron; c, wing; d, head from front; e, head from side; f, left paramere; g, right paramere; h, ovipositor; i, apex of tarsus from above; j, apex of tarsus from side.

Length, head and body, 32.20 mm., 93.20 mm., hemielytra, 32.30 mm., 92.60 mm.; width across base of pronotum, 31.00 mm., 91.20 mm.

Described from a long series taken mostly by Mr. H. T. Pagden of the Department of Agriculture, S.S. and F.M.S.

Notes on Developmental Stages.

P. arecae is an abundant insect and has been found, up to the present, exclusively on the inflorescence of the Areca palm (*Areca catechu*, L.). In view of the fact that

before it begins to produce flowers the Areca palm has attained a height which renders observation of insects associated with its inflorescence a difficult procedure, investigations in the field have not yet been carried out. Hence it is not definitely known whether *P. arecae* is of economic importance or not. Nevertheless, after having kept a number of both larvae and adults under laboratory conditions for some time, the impression was gained that they feed exclusively on the flower stalks. Whether serious damage is caused, which would result in the premature fall of flowers, is uncertain.



Fig. 2. Parasthenaridea arecae, sp. n.: **a**, fourth instar larva; **b**, ova; **c**, part of inflorescence of Areca catechu, L., showing site chosen for oviposition.

The ova, which are approximately 1 mm. in length, are deposited under a female flower calyx and in that situation are invisible (fig. 2). After the emergence of the larva, however, the greater part of the empty and flattened chorion may be seen protruding from under the calyx. In shape, the ova are cylindrical, feebly curved, and compressed at the opercular end. The margin of the opercular rim is narrow, but enlarged at opposite sides to form a triangular projection. The colour is pale ochreous, with the opercular end narrowly suffused with ferruginous and the opercular rim white. They are deposited either singly or in batches, the greatest number observed in a single batch being nine.

As regards the larvae, they are closely similar both in colour and in shape throughout the course of development with the exception that rudiments of the hemielytra begin to appear in the 3rd instar. The colour of the 4th instar larva (fig. 2) is as follows :—Eyes dark ferruginous; head, thorax and rudimentary hemielytra dark olivaceous. Abdomen green. Segment 1 of antennae dark ferruginous; segment 2 ochreous with a narrow suffusion basally and a broad suffusion apically ferruginous; apical segments testaceous. Setae on antennae pale ferruginous, on thorax and rudimentary hemielytra fulvous, on abdomen dark ferruginous. In the previous instars the colour of the head and body is green rather than olivaceous.