

1879. CLAUS, C.

Der Organismus der Phronimiden. Mit. 8 Tafeln. Wien, 1879.

Following Milne-Edwards, Claus here sets the Typhidæ or Platyscelidæ (*Hyperines anormales*), distinguished by a marked sexual dimorphism as well as by the zig-zag antennæ of the male, over against the Hyperina with normal antennæ. In the latter group he arranges, in three families, the Phronimidæ, Hyperidæ and Vibiliidæ. The Vibiliidæ are easily distinguished by the general form resembling the Gammaridæ, the small size of the head and eyes, as well by the short dilated anterior antennæ. The border line is less easily marked out between the other two families. He characterises them as follows:—

"Hyperidæ. Head of considerable size, more or less globular, with large pair of eyes, extending over almost the whole surface of the head. The antennæ in both sexes with multiarticulate peduncle, in the female without or with rudimentary, in the male with long multiarticulate, flagellum. Gnathopods frequently armed with weak clasper (Greifhand); the rest of the thoracal-limbs end with simple claw and are formed like one another (*Hyperia*), those of the fifth (*Themisto*), and sixth pair (*Cyllopus*, *Cystosoma*) are sometimes considerably elongated, those of the seventh or last pair only as an exception (*Cyllopus*) rudimentary."

"Phronimidæ. Head of considerable size, generally with strongly prominent snout, and divided pair of eyes extending over almost the whole surface of the head. The anterior antennæ with multiarticulate peduncle, in the female short and without flagellum, in the male long with multiarticulate flagellum. The antennæ of the second pair in the male like those of the Hyperidæ, in the female reduced to the coxal-joint coalescent with the cephalic integument and accompanied by the antennary gland. The thoracal legs partially (principally the fifth pair) armed with powerful chelæ (Greifzange), often of different form and size. Elongate backward directed liver-tubes absent from the stomach (am Magendarm fehlen)."

The Phorcinæ, Claus here says, are to be referred to the Typhidæ. The Phronimidæ he subdivides into two subfamilies thus:—

"1. *Phrosininae*. Form of body broad and compact. The three pairs of uropods broad-leaved with fin-like rami. Besides the powerfully developed fifth pair of legs of the peræon (*Primno* Guér.), generally also the third and fourth pairs (*Anchylomera* Edw. = *Hieraconyx* Guér.), as well as the sixth (*Phrosina* Risso = *Dactylocera* Latr.) armed with powerful claspers (Greifhand).

"2. *Phroniminæ*. Body slender and extended, with the last segment of the peræon elongate. The three pairs of uropods elongate stiliform, with narrow lanceolate rami. Thoracal legs extremely varied, those of the fifth pair [third peræopods] often armed with broad or more elongate (compound) chelæ."

The genus *Phronima*, Latr., is thus defined:—

"Körper gestreckt mit stark verjüngtem und langgezogenem Endsegment der Brust, mit drei Paar wohlentwickelter stilförmiger Uropoden. Kopf kurz, aber hoch mit sehr verlängerter Scheitelmundachse. Vorderantennen des Weibchens zweigliedrig. Basalglied des hinteren Antennenpaars im weiblichen Geschlecht kuglig gewölbt und mit kurzer Borste besetzt. Die Mandibeltaster fehlen auch dem Männchen. Unterlippe (Maxillarfusspaar) stark comprimirt, mit lanzettförmig zugespitzten Laden und conischer Zunge. Die beiden Gnathopodenpaare schwächtig, mit schwacher zusammengesetzter Greifhand, fünftes Beinpaar mit mächtiger (zusammengesetzter) Scheerenhand bewaffnet. Drei Paare von Kiemenschläuchen am 4., 5. u. 6. Thoracal segment."

*Phronimella*, Cls., is thus defined:—

"Körper sehr gestreckt, überaus pellucid, mit nur 2 Paar stilförmiger Uropoden. Kopf kurz,