

Tribe III. AMPHIPODA HYPERINA.

Head not coalesced with the first segment of the peræon.

Peræon generally of seven distinct segments; the number not unfrequently reduced by the more or less complete coalescence of the first two, rarely of more than two.

Pleon of five distinct segments severally carrying appendages, the fifth segment¹ being formed by the coalescence of two segments, and with rare exceptions carrying two pairs of appendages, sometimes being itself in coalescence with the telson.

Eyes two, almost always very large,² each eye sometimes subdivided into an upper and a lower group of ocelli, with distinct pigment-masses, the upper group sometimes widely separated externally from the lower (*Phronima*, *Phronimella*), at other times contiguous with it (*Platyscelus*, *Thyropus*).

Antennæ, two pairs; the lower pair often obsolete in the female, rarely rudimentary in the male (*Cystisoma*); the upper pair without accessory flagellum.³

Maxillipeds, with a single inner plate, and a pair of outer plates, rarely the three plates coalesced (*Paraphronima*); without palps.⁴

The limbs of the *Peræon* of very diversified pattern in different genera, and sometimes in the individual animal; the side-plates generally small; the *Gnathopods* subordinate in size to some or all of the *Peræopods*.

Pleopods generally having on the inner margin of the peduncle two, rarely more than two, small coupling spines, and on the first joint of the inner ramus one, but never more than one, cleft spine, which is very rarely absent (*Cystisoma*, *Dairella*).

From the Amphipoda known as the "Normal Hyperina," a large group has been separated under the title of "Anomalous Hyperina," designated Platyscelidæ by Claus. The two salient peculiarities of this group consist in the generally zigzag-folded lower antennæ of the adult male and the widened first joints of the third and of the fourth peræopods, these laminar joints being more or less adapted to act as opercula. The family of the "Hypérines" was instituted by Milne-Edwards in 1830. For the definition which its author gave of it in 1840, see Note on Milne-Edwards, 1840 (p. 185). For Dana's definition of the equivalent Hyperidea, see Note on Dana, 1852 (p. 256). For a definition of the Hyperina by Claus, see Note on Claus (trans. by Sedgwick), 1884 (p.

¹ Dana sometimes, but with doubtful accuracy, figures the fifth and sixth segments as separate, and of *Dithyrus faba* he says—"the suture between the fifth and sixth is distinct." Bovallius finds these segments separate in some species of *Vibilia*.

² In *Lanceola* very small.

³ *Hyperiopsis*, Sars, is a doubtful exception, since it is not clear that the genus belongs to this group.

⁴ The suggestion has been made that the outer plates correspond with the palps of the other two tribes, but that would imply that the joint which elsewhere develops the outer plates was lost in the Hyperina, and there is the further objection that these plates are never in any way palpiform, while their general shape, and to some extent their armature, corresponds with that of the outer plates elsewhere.