

enmeshed and closely associated with the tracheal system of the abdomen, which contain oxyhaemoglobin.

In the case of *Chironomus* (the blood worm), which has been cited frequently as the only insect possessing hæmoglobin, the red fluid is free in the body cavity, and when the larva is punctured flows out at once. Rollet² in 1861 discovered hæmoglobin crystals in this pigmented material and Lankester³ in 1867 noted that it gives the characteristic absorption-spectrum of hæmoglobin—Cuenot⁴ 1891 who investigated the blood and lymphatic systems of many vertebrates and invertebrates is often cited in connection with the above case. A case more interesting and structurally more like the one I am reporting, is that of the larva of *Gastrophilus equi*. Berlese⁵ gives a discussion of the literature relating to the discovery and study of certain pink cells related to the tracheal system in these Bot fly larvae. He cites Vaney⁶ as showing that the red color of these "cellules tracheales" is due to hæmoglobin which he appears to have thought was secured in some manner from the host. Vaney found further that the hæmoglobin tended to disappear following the larval period. Both the above mentioned records are in the Diptera. We are pleased, therefore, to report the presence of oxyhaemoglobin in definite cell clusters in the free swimming Aquatic Hemipteron *Buena* and to suggest that it is, no doubt, present also in the closely allied genus, *Anisops*. Since these insects are not parasitic, the hæmoglobin is produced by them, and has a normal physiological function to perform.⁷

ON THE GENUS ELIDIPTERA (HOMOP.)

BY Z. P. METCALF,

N. C. State College, Raleigh, N. C.

In a recent number of the Canadian Entomologist (Vol. LIV:61) Mr. Muir calls attention to the fact that an examination of *Elidiptera callosa* Spin. from Trinidad, the logotype of the genus *Elidiptera* Spin., shows that our North American species assigned to *Elidiptera* by Van Duzee (Cat. N. A. Hemip. p. 726) do not belong to this genus. Muir says that certain species will "fit into *Argeleusa* Kirk. (*Argeleusa* Kirk.) and have a distinct median carina on the clypeus." However, I cannot agree that our Eastern North American species belong to *Argeleusa* which has the following characters that do not agree with our species. "Vertex basally distinctly angulately emarginate; not impressed; tibiae obscurely spined near the base," etc.

I do not believe that the median carina on the clypeus is a reliable character in this genus as some of our species (*opaca* Say) have a very distinct median carina, while other species (*slossoni* Van D. and *variegata* Van D.) have a fainter carina. In certain other species (*pallida* Say and *septentrionalis* Prov.) the median carina on the clypeus is almost wanting.

2—Rollett, A. Zur Kenntniss der Verbreitung des Haematin—Sitzungsb. Wien. Akad. XLIV, pp. 615-630. 1845.

3—Lankester, E. R. A contribution to the knowledge of Haemoglobin—Proc. Roy. Soc. XXI, pp. 70-81. 1873.

4—Cuenot. Etudes sur le sang et les glandes lymphatiques dans le série animale—Arch. Zool. exper. et gen. 1902.

5—Berlese, A. Gli Insetti pp. 769 and 822. 1909.

6—Vaney, C. Contribution à l'étude des larves et des métamorphoses des Diptères. Thèse de Lyon—Ann de l'Univ. de Lyon. Nouv. sér. 7.

7—A complete study of the histology and development of these interesting cells is under way.

In casting about for a name to take the place of *Elidiptera* we find that Amyot and Serville (Nat. Hist. Ins. Hemip. p. 526) propose *Helicoptera* on the basis that it expresses in more correct Greek the idea of the overlapping wings which Spinola tried to express by his name *Elidiptera*. They describe *Elidiptera cincticeps* Spin. only under *Helicoptera* and list *E. marginicollis* Spin., *E. advena* Spin. and *E. callosa* Spin. *E. cincticeps* might therefore be considered the type of the genus *Helicoptera* but according to Banks and Caudell, Entomological Code rule 105; "the type of a new generic name which by sign or language is clearly shown to be proposed to replace another valid generic name is the same as that of the genus replaced," and since, Entomological Code rule 86, emendations such as this are not permitted, *Helicoptera* becomes a straight synonym of *Elidiptera*. It is doubtful if *Helicoptera* with genotype *E. cincticeps* would be available anyhow, as Spinola states in the original description of *cincticeps* "En differe (from the other species of *Elidiptera*) par l'absence totale d'une arete mediane sur la face frontal."

With these points in mind, therefore, I propose the name *Epiptera* for this genus, which may be described as follows:

***Epiptera* new genus.**

Orthotype, *Falta opaca* Say.

This genus may be recognized by the narrow head with projecting vertex, by the rather long pronotum and overlapping wings.

Head narrow, not over half as wide as the pronotum; vertex projecting in front of the eyes, with carinated margins, median line sulcate, posterior margin broadly arched; frons and clypeus together about elliptical; frons narrowed above between the eyes widened gradually to near the clypeal margin and then contracted, laterally and medianly carinate; clypeus more than half as long as the frons; medianly and laterally carinate, the former sometimes faint; second joint of antennae terrete about three times as long as the first; basal knob of the flagellum rather distinct; flagellum short, about twice as long as the segments of the antennae; compound eyes elongate; ventral sinus inconspicuous; ocelli conspicuous, placed below the compound eyes anterior to the antennae; pronotum projecting triangularly between the compound eyes; the margins of this triangle carinate with these carinae extending almost to the posterior margins; posterior margin deeply triangularly notched with the anterior and posterior margins about parallel; the lateral lobe of the pronotum is quadrate nearly twice as long as broad; mesonotum tricarinate, nearly three times as long as the pronotum; legs simple; anterior femora and tibiae nearly equal; posterior tibiae approximately twice as long as the femora; with a single strong lateral tooth beyond the middle; basal joint of the posterior tarsi nearly twice as long as the second and third combined; claws strong; fore wings opaque, overlapping apically, venation distinct, subcosta and radius united basally; subcosta two with many accessory branches between it and costal margin; radius with a few similar branches; medius typical, four branched, some of which branch again before the apical margin; cubitus two branched, with several accessory veins before the apical margin; the cross veins connecting the branches of the various veins form a crenulate submarginal vein; second and third anals united about two-thirds of the distance from the base of the clavus; the common stem running to the apex of the clavus.

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