

PROTEPTERA, A NEW GENUS OF ACHILIDÆ
FROM BALTIC AMBER (HEMIPTERA,
FULGOROIDEA)

BY ROBERT L. USINGER

California Academy of Sciences

Through the kindness of Mr. Walter W. Kawecki, a former resident of the free city of Danzig but now in San Francisco, I have been able to examine a collection of insects preserved in Baltic Amber. The material was collected along the shores of the Baltic Sea between Danzig and Königsberg and the pieces of amber were polished by an amber worker in Danzig.

The collection contains a single specimen of a moderate-sized Fulgorid immediately suggestive of our familiar forest-dwelling genus *Epiptera* Metcalf (1922) (= *Elidiptera* Auct. part., nec Spinola, = *Helicoptera* Am. & Serv.). The specimen is beautifully preserved with the wings of the left side conveniently spread. Every detail of the under surface can be seen as readily as on a living specimen. The upper surface, however, is completely covered by a white cloud, as in many amber specimens. The apex of the front wing has been sharply broken off as if cut with a knife.

Evidently the family Achilidae has not previously been recorded from Baltic Amber. Scudder (1890) has doubtfully referred a single specimen (*Elidiptera regularis* Scudder) to this group from his Florissant material of Miocene age. However, the nine species of *Cixius* described from Baltic Amber by Germar and Berendt (1856) need to be reexamined with a view to their possible inclusion in the Achilidæ. This family, or subfamily as it was then called, was not proposed until ten years later when Stål (1866) monographed the group in his usual masterly way. Stål's classification has been confirmed and expanded by Muir's detailed genitalic studies which indicate that the extension of the claval vein to the apex of the clavus is a really signifi-

cant character in separating the Achilids from their nearest allies (Muir, 1930). The specimen before me may be placed with certainty in the Achilidæ as distinguished from the Cixiidæ in which the claval vein enters the commissure before the apex. Unfortunately details of claval venation are not sufficiently clear in the figures of Germar and Berendt although it would appear that *C. vitreus* is a Cixiid while *testudinarius* is an Achilid. In size the present specimen is closest to *C. sieboldii* but, as the under side is invisible in that species, while the upper surface of the specimen before me is obscured, a direct comparison is impossible. Under the circumstances it seems best to propose a new specific name in order to avoid any possible confusion as to the identity of the genotype.

Proteptera n. gen.

Similar to *Epiptera* Metcalf but with the vertex located distinctly in front of the eyes, its margins carinate and a longitudinal carina at middle; posterior margin of vertex concavely arcuate, subangulately so at middle, strongly, acutely produced postero-laterally and thus reaching or slightly surpassing level of anterior margins of eyes. Frons with its sides evenly arcuate, not abruptly narrowed between the eyes. Pronotum roundly projecting anteriorly between the compound eyes, the raised, carinate portion scarcely more than twice as broad as long.

Genotype: *Proteptera kaweckii*, n. sp.

Proteptera kaweckii n. sp.

A large, unicolorous species with very broad head, long pronotum, unicolorous frons, and very long rostrum.

Head three-fourths as wide, eyes included, as pronotum; vertex just twice as broad behind as long on median line; frons and clypeus together subelliptical, broadest a little before middle and attenuated posteriorly, about two and one-half times as long as greatest width, with a distinct longitudinal carina at middle. Rostrum reaching almost to tip of abdomen or, more precisely, to middle of subgenital plate. Antennæ rather prominent, over half as long as greatest width of frons; second segment over twice as long as first, the flagellum quite short, scarcely longer than main

portion of antennæ. Ocelli conspicuous as in *Epiptera*. Posterior margin of pronotum moderately, subangulately emarginate, the anterior and posterior margins laterally subparallel. Mesonotum one-fifth longer than width of head including eyes; disk obscured but with suggestions of three longitudinal carinæ. Legs more or less as in typical *Epiptera*, the front tibiæ one-sixth longer than femora. Posterior tibiæ two and one-half times as long as femora, each with a strong lateral tooth just beyond middle. Apices of hind tibiæ and first two tarsal segments beneath, each with a row of stout spines which are longest at the sides. First tarsal segment distinctly longer than second and third together. Venation on basal two-thirds of front wings precisely as in *Epiptera*, the wing broken off obliquely from beyond the apex of clavus to last of accessory subcostal branches.

Color rather uniformly dark brown, at least on the under side, with the under sides of the wings lighter and the ventral surface of the abdomen almost black.

Length 9.5 mm., greatest width approximately 3.5 mm.

This species will not fit in any of Kirkaldy's Australian genera (1906). It might fit the old definition of *Elidiptera* but certainly does not belong with the genotype, *callosa* Spinola, of that genus (see Muir, 1922). As noted elsewhere, it approaches Metcalf's recent genus *Epiptera* (1922) but differs in its anteriorly located vertex with a median longitudinal carina, non-constricted basal portion of frons between the eyes, very long pronotum, and somewhat longer tibiæ.

LITERATURE CITED

- Germer, E. F. and G. C. Berendt. 1856. Die im Bernstein befindlichen Organischen Reste der Vorwelt by G. C. Berendt, 1845-1856. Zweiter Band, I Abtheilung, Hemipteren und Orthopteren, pp. 12-16, Tab. I, figs. 18-25.
- Kirkaldy, G. W. 1906. Leaf-hoppers and their natural enemies (Pt. IX. Leaf-hoppers. Hemiptera). Rep. H. S. P. A. Exp. Sta., Div. Ent., 1:417-418.
- Metcalf, Z. P. 1922. On the genus *Elidiptera*. Can. Ent., 54: 263-264.
- Muir, F. 1922. On the genus *Elidiptera* Spin. Can. Ent., 54: 61.
1930. On the classification of the Fulgoroidea. Ann. Mag. Nat. Hist., (10) 6: 461-478.
- Scudder, S. H. 1890. The tertiary insects of North America. Rept. U. S. Geological Survey, 13: 297.
- Stål, C. 1866. Hemiptera Africana. Holmiae. 4: 181-186.