

Mediaeval interpretation was as the larva of a Pyralid moth, the *ips* of Aristotle, *convolvulus* of Pliny, *volucra* of Columnella, *involvulus* of Plautus. These beasts were principally known to the Romans from those which webbed up the grape leaves. We can catch a vague clue from the wording in Jeremiah, LI, 27, where it is called "rough." This might mean hairy. In Revelations, IX, 3, a highly allegorical passage, there is mentioned locusts having power like scorpions, shaped like horses, teeth like lions, and "hair as the hair of women." The Arabs keep this as a popular superstition, having several words to describe a hairy locust. If any word in the Old Testament, sometimes regarded as meaning some kind of Orthopterous crop pest, might be properly a lepidopterous larva it is surely this *jelek*, a hairy caterpillar commending itself to the simple early observers as such, no other description being so terse and applicable.

As *solam* occurs once only, it can be judged only by the context as a flying, creeping thing, permissible as food, and mentioned in Orthopterous company. All commentators agree in placing it as a *Gryllus* or locustid.

The last of the words possibly meaning a locustid is the *tzaltzal*, mentioned only in Deuteronomy, XXVIII, 42, "all thy trees and fruit shall the locust consume." The onomatopœa of the name suggest the orthopteron, but one wonders why a new name for something so like the *arbeh* or *gob*. The Chaldean Targum translates as *zebub*, the general term for insect.

KEY FOR THE SPECIFIC IDENTIFICATION OF THE FEMALES OF THE DIPTEROUS GENUS HYDROTÆA FOUND IN NORTH AMERICA.

BY J. R. MALLOCH, Urbana, Ill.

The key presented herewith includes all species of *Hydrotæa* which have been recorded as occurring in North America with the exception of *bispinosa* Zetterstedt, and *cressoni* Malloch. I have seen no examples of *bispinosa* from this country. A specimen in our collection so named by Coquillett, is *metatarsata*

Stein, female. The record of the occurrence of *bispinosa* in North America requires confirmation. The female of *cressoni* Malloch is unknown.

I have included *scambus* Zetterstedt in the key, basing the record upon a female specimen taken at Grant, Colorado, July 13, 1916 (E. C. Jackson).

The male of this species was not included in my key to this sex in a previous paper in this BULLETIN,* as I did not then know of its occurrence in this country. The male will run down to caption 3 in that key and may be separated from *occulta* by the bare eyes and from both *occulta* and *acuta*, the two species in the caption, by the curved hind femora and by the tibiæ, the latter being thin to about the middle and then suddenly thickened, with a strong apically curved thorn at the beginning of the thickened part, and the anterior surface furnished with a series of long bristly hairs.

This species is rare in Europe and not heretofore recorded from North America. Although I have seen only the female, the species is so characteristic that there is little doubt as to its identity.

It may be of interest to record the occurrence of *militaris* Meigen in British Columbia. This European species was recorded by Stein from the eastern states.

The females of this genus may be separated from those of Phaoniinæ by the following combination of characters: Frons broad, occupying at least one third the head-width; orbits more or less glossy, well differentiated, with at least the anterior supra-orbital bristle directed forward (except in my specimen of *ciliata*); interfrontal cruciate bristles well developed; cheeks almost linear; mesonotum with 4 pairs of postsutural dorso-centrals; sternopleura with 2 bristles (1:1); apical abdominal segment without thorns; legs with few bristles; sixth vein incomplete.

The most closely related genera so far known to occur in this country are *Ophyra* and *Pogonomyia*. The latter has conspicuously bristled tibiæ and much stronger prealar bristle; the former has the ocellar triangle carried well beyond the cruciate bristles

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(*leucostoma*), the anterior 2 pairs of postsutural dorso-centrals much more reduced in size, and the pteropleura pubescent.

KEY TO SPECIES.

1. Halteres yellow 2
 Halteres black 3
2. Fore tibia with an antero-ventral bristle; glossy blue-black species with apical dorsal abdominal segment white pruinose,
 ciliata Fabricius.
 Fore tibia without an antero-ventral bristle; dull black or yellowish species, without conspicuous white pruinoscence on apical segment 2a
- 2a. Opaque grayish black species with black legs and palpi, *irritans* Fallen. Thorax gray, abdomen yellowish at base; legs and palpi yellow,
 succeedens Stein.
3. Mid tibia with a strong ventral bristle about middle 4
 Mid tibia without ventral bristle 5
4. Fore and mid tibiæ each with a short antero-dorsal bristle; hind femora with a series of short hairs at base and apex and 2 long fine hairs, one at one third and the other at two thirds from base; ventral bristle on mid tibia much beyond middle. *militaris* Meigen.
 Fore and mid tibiæ without antero-dorsal bristle; hind femora without the above-mentioned hairs; ventral bristle on mid tibia before middle *scambus* Zetterstedt.
5. Mid tibiæ with a bristle on anterior side 6
 Mid tibia without a bristle on anterior side 8
6. Mid tibia with 2 bristles and a series of short setulæ on antero-dorsal surface; dorsum of thorax opaque gray with 3 broad brownish vittæ *palaestrica* Meigen.
 Mid tibia with 1 bristle on antero-dorsal surface; dorsum of thorax shining, distinctly quadrivittate anteriorly 7
7. Ocellar triangle grayish, the region immediately surrounding ocelli polished black; mid femora without long bristles at base ventrally,
 dentipes Fabricius.
 Ocellar triangle shining black, only the posterior lateral angles gray pruinose; mid femora with several long bristles on antero- and postero-ventral surface at base *houghi* Malloch.
8. Hind tibia with 1 bristle near apex on postero-dorsal surface; ocellar triangle, unless abraded, with dense gray pruinoscence so that it appears almost entirely opaque *armipes* Fallen.
 Hind tibia with a bristle at or beyond middle on postero-dorsal surface in addition to the one near apex 9
9. Presutural acrostichals consisting of 2-3 pairs of short stout bristles and a few interspersed short setulæ 10
 Presutural acrostichals consisting of from 4 to 6 series of short setu-

- lae, the posterior 3-4 on each side sometimes stronger than the others 12
10. Ocellar triangle opaque or subopaque, nowhere polished; acrostichal bristles long and slender, the interspersed hairs rather numerous and regular *meteorica* Linné.
 Ocellar triangle polished, acrostichal bristles short and stout, the interspersed hairs sparse and irregular 11
11. Large species, 4.5 mm. in length; mid tibia with 3 posterior bristles; hind tibia with 3-4 antero-ventral bristles..... *occulta* Meigen.
 Smaller species, 3.5-4 mm. in length; mid tibia normally with 2 bristles; hind tibia with 2 antero-ventral bristles..... *acuta* Stein.
12. Ocellar triangle glossy only on a small space in front of ocelli; mid tibia with 2 posterior bristles; mid tarsi slender, basal joint about 10 times as long as its diameter, the ventral surface with short closely placed subdepressed bristles..... *unispinosa* Stein.
 Ocellar triangle almost entirely polished; mid tibia normally with 3 posterior bristles; mid tarsi moderately stout, basal joint about 8 times as long as its diameter, the ventral bristles long, rather widely separated and suberect..... *metatarsata* Stein.

A NEW TIGER-BEETLE FROM TEXAS.

BY WM. T. DAVIS, New Brighton, Staten Island, N. Y.

In the summer of 1917 I received a tiger-beetle from Tascosa, Oldham Co., Texas, collected by Miss Mildred McGill, that was new to my collection. It also proved to be new to Mr. Charles W. Leng and to Mr. Edward D. Harris. Mr. Harris compared the insect with specimens in his extensive collection and concluded that it belonged near *Cicindela roseiventris* Chevrolat from Mexico, but was not that species, nor was it like his series of the subspecies *mexicana* Klug. *Cicindela belti* Bates from Costa Rica is a synonym of *mexicana*, according to Dr. Walther Horn. Another subspecies of *mexicana* is *linearis* W. Horn, also from Costa Rica. In the description of this insect it is stated that the margins of the female elytra are much dilated at middle; markings composed of exceedingly fine lines, but not reduced. In the three males and three females from Tascosa, the latter have the elytra slightly dilated at the middle, and the markings, while fine are reduced, as will be seen by the accompanying illustration of the type. A more detailed description of this insect is as follows:



Malloch, John Russell. 1918. "Key for the specific identification of the females of the Dipterous genus *Hydrotaea* found in North-America." *Bulletin of the Brooklyn Entomological Society* 13, 30–33.

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