

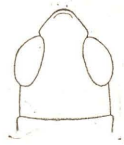
## TRYXALINÆ.

The connecting links between the subfamilies Oedipodinæ and Tryxalinæ are so numerous that it is difficult, indeed, to say to which subfamily some genera belong. The following characters define the subfamily Tryxalinæ:

The front of the head slopes obliquely, meeting the dorsum of the head, at the vertex, at an acute angle rather than in a curve. The antennæ are often flattened at their bases and pointed at their tips. The disk of the pronotum narrows slightly toward the front, while the prozona is not shorter than the metazona. The median carina is never crested nor cut by more than one sulcus, the lateral carinæ showing distinctly. The tegmina are more or less uniform in color, never banded in distinct patterns. The intercalary vein is generally wanting and many of the species possess both long and short winged forms. The wings are never brightly colored nor banded with black.

Key to the genera of *Tryxalinæ*.

- A. Foveolæ of the vertex present, visible from above. Face slightly receding. Antennæ thread-like. (See figure)
- B. Lateral carinæ of the pronotum distinct on the prozona. Vertex of the head with a median carina.
- C. Foveolæ of the vertex extending from the eye to the apex of the head. Tegmina either well developed or short. Insect slender, an inch or less in length.  
*Stenobothrus*. Page 10
- CC. Foveolæ of the vertex small, mere triangles in front of the eyes, not extending to the vertex of the head. Tegmina well developed. Insect robust, about an inch in length. *Mecostethus*. Page 11
- BB. Lateral carinæ indistinct on the front portion of the pronotum. Vertex of the head without a median carina. Foveolæ of the vertex each with its *sides* parallel. Hind tibia red, the lower apical spur on the inner side fully half as long again as the upper spur. Insect small, under an inch in length. *Ageneotettix*. Page 11
- AA. Foveolæ of the vertex absent, or if present not visible from above. Face decidedly receding. (See figure)
- B. Antennæ thread-like, slightly flattened at the base.
- C. Lateral carinæ of the pronotum parallel; median carina cut behind the middle by the principal sulcus. Head with the lateral carinæ of the vertex elevated; sulcate directly back of elevation, the dorsum convex. Median carina of the head absent. Eyes elongated ovals.  
*Dichromorpha*. Page 11
- CC. Lateral carinæ of the pronotum somewhat incurved, in front of the middle.
- D. Tegmina of the female seldom reaching to the tip of the abdomen. Head with the median carina indistinct; eyes oval. Median carina of the pronotum cut back of the middle by the principal sulcus. The hind tibiæ with the inner apical spurs about equal.  
*Chlocaltis*. Page 11



DD. Tegmina in either sex extending at least to the tip of the abdomen. Foveolæ of the vertex sometimes present but never well developed nor visible from above.

E. Head with median carinæ indistinct; antennæ filiform. Eyes oval. Insect small, less than an inch in length. Color variable but usually a yellow line extends back of the eye and down the lateral carina of the pronotum, beneath this line is a dark bar.

*Orphulella*. Page 12

EE. Median carina of the head distinct. Antennæ slightly flattened, nearly uniform in width, pointed at tip. Eyes elongate, each one ending near the vertex in a point. Hind femora long, extending beyond the tip of the abdomen and the wings. Hind tibiæ each armed on the outer margin with not less than 19 spines. Tegmina well developed, exceeding the abdomen in length. Insect an inch or more in length.

*Syrbula*. Page 12

BB. Antennæ very much flattened at their bases. Lateral carinæ of the pronotum parallel.

C. Hind margin of the pronotum truncate in both sexes. Insect greyish-brown in color. Neither tegmina nor hind femora in either sex extend beyond the tip of the abdomen. Hind tibiæ each with not less than 15 spines on the outer margin. Eyes elongate, small, not prominent viewed from above.

*Pseudopomala*. Page 12

CC. Hind margin of pronotum angulate in the male, rounded in the female. Insect green or greenish-brown in color. Tegmina extending to the tip, and hind femora extending beyond the tip of the abdomen. Hind tibiæ each with less than 15 spines on the outer margin. Eyes oblong and prominent.

*Tryxalis*. Page 13

#### STENOBOTHRUS (Fischer)

Two species belonging to this genus are recorded from the state. *Stenobothrus curtipennis* Harr., is the common form. Head with foveolæ of the vertex visible from above, the sides of the foveolæ being parallel. Tegmina uniform in color, but variable in length. Males with the sides of the pronotum conspicuously banded, the upper portion black, the lower portion light. The markings on the pronotum together with the presence of the foveolæ of the vertex, separate the males of this species from those of *Chlocaltis conspersa*, which they very closely resemble.

*Stenobothrus maculipennis* is rare. The foveolæ of the vertex are very shallow, broader toward the eyes than at the apex. Tegmina with the sides green, each marked with a row of equidistant quadrate black spots along the middle. Dorsum rust red. Tegmina always well developed.

MECO:

*Mecostethus lineatus* Scudder found in the state. Scudder reported as collected with from New England to Northern Indiana and from Cedar Point

The color is somewhat variable, dark, and directly above the dark line also extends from back of the hind tibiæ are yellow with The bases of the spines are black

AGENE

*Ageneotettix scudderi* Brun, is west of the Mississippi River, but on high sandy soil. This species though it seems possible for it

The insect is of a uniform dirty spots. The hind tibiæ are red,

DICHR

*Dichromorpha viridis* Scud., States. It lives on coarse, head collected in Michigan, but it is present the state.

The color of the insect is either a narrow black line extends back of the pronotum.

CHL

*Chlocaltis conspersa* Harr., is and streams bordered with un those of *Stenobothrus curtipennis* absent and the sides of the pronotum of the abdomen are solid black males, and are dirty brown in over the bodies and tegmina designated as var. *prima*.