NOTES ON SOME LESS COMMON GENERA OF TROPICAL CIXIIDAE

(HOMOPTERA)

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Microledrida Fowler

This genus was established for *asperata* from Guerrero in Mexico. *Fuscata* Van Duzee from California occurs in adjacent Sonora (M. F. 209, Dampf) and *fulva* Metcalf from Texas has been taken in Tamaulipas (Caldwell).

Microledrida virida n. sp.

Length 5 mm. Vertex green with three red incomplete transverse stripes; extreme apex yellow. Eyes with transverse black stripe across center. Pronotum next to vertex red; green caudad. Mesonotum yellowish to gray in center with the lateral compartments fuscous and including a black spot caudad next to the lateral carinae. Elytra clear; infuscate basad; a transverse fuscous stripe present across furcations of main veins; each apical cell with a diffused fuscous spot. Abdomen greenish.

Vertex produced, longer than mesonotum, with prominent median carina. Face extremely flat; no median carina present. Sutural margin of elytra with vertical thin plate-like projection at junction of anal vein.

Female holotype of this large species from Peten Lake, Guatemala, 11–12–25 (M. F. 734. Dampf).

Micrixia Fowler

Fowler erected this genus for the unique *costalis* from Mexico. With the addition of another species it becomes necessary to modify the original definition or erect a new genus that differs by veinational characters alone. It is my belief that these characters are more specific than generic in this case and by omitting the statement concerning the freak claval vein entering the suture at about the middle of the clavus accept the original definition which will then include the two species.

Micrixia nigra n. sp.

Length 3.2 mm. Black over all with carinae of vertex, all of pronotum, and legs smoky. Face not as narrowed as in *costalis*. Elytra with normal claval veins; medius not branched; two apical cells formed by medius and adjacent veins very long; only two subapical cells present, these formed by cubital and radial veins.

Female holotype from three miles north of Acapulco, Guerrero, 11–22–38 (Caldwell).

Diastrocixius n. gen.

Vertex deeply concave, notched caudad, carinate cephalad; sides almost parallel. Lateral carinae of vertex, frons, and clypeus greatly elevated, almost vertical above, oblique below. Frons widened to apex; median carina forked basad forming a transverse carina; median ocellus prominent. Carinae of clypeus evanescent toward apex. Caudal margin of pronotum parallel to caudal margin of vertex. Mesonotum tricarinate. Medius arising from base of subcostal-radial stock. Veins indistinctly punctate; stigma long, narrow. Hind tibiae without prominent spurs. Pygofers of female robust; ovipositor seemingly complete.

Type: *Diastrocixius thelyus* n. sp.

This genus resembles *Bothriocerodes* Fowler in general appearance but in most keys the male will run to *Cixius* from which it differs in having greatly elevated lateral carinae on the head and the two carinae between the crown and forehead are widely separated and not connected by a median carina. Fowler does not mention or show a double carinae on the forehead and in his

illustrations the lateral carinae are not as elevated as in the species before me; therefore I believe *Diastrocixius* is distinct from *Bothriocerodes*. Its true placement is probably in the tribe *Pintaliini* although the elytra are not as steep as in *Pintalia*.

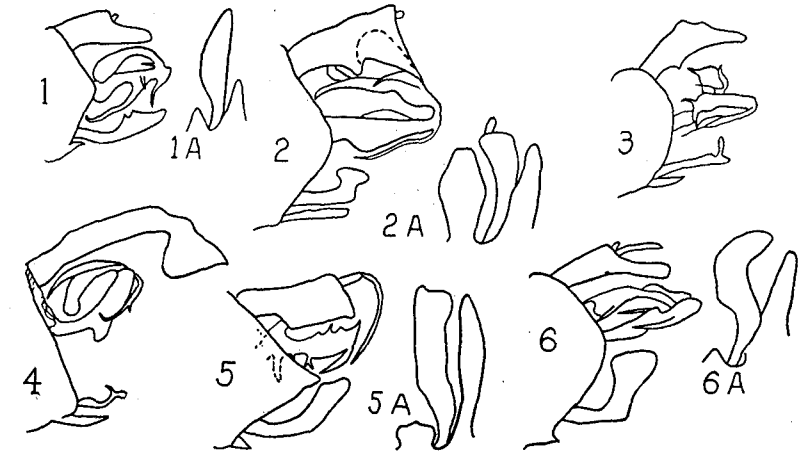
Diastrocixius thelyus n. sp.

(Figs. 1 and 1-A)

Length 6.5–7.5 mm. Eyes black, ocelli red; head and thorax yellow; abdomen sometimes red; legs yellow with apical tarsi smoky; elytra clear with yellow veins.

Median carina of frons short, visible only in basal third. Anal segment of male simple, short. Lateral margins of pygofers broadly obtuse caudad; medio-ventral process short, acute. Styles slender, lanceolate.

Male holotype, female holotype, and paratypes from Vergel, Chiapas, May and June, 1935 (M. F. 4268, 4253 and 4239), male paratype, Elzapote, Chiapas, 9–12–30 (M. F. 1821), and fifty female paratypes, Esmeralda, Chiapas, 11–18–30 (M. F. 1934 and 1937) (Dampf).



1. *Diastrocixius thelyus*. Profile of male genitalia.
1-A. Ventral aspect of right forcep and right central portion of male pygofer.
2. *Diastrocixius aurelus*. Same as 1.
2-A. Same as 1-A.
3. *Nymphocixia vanduzeei* Muir. Same as 1.
4. *Rhamphixius championi* Fowler. Same as 1.
5. *Diastrocixius apicatus*. Same as 1.
5-A. Same as 2-A.
6. *Pachyntheisa concinna* var. *striata*. Same as 1.
6-A. Same as 1-A.

Diastrocixius thelyus var. **basalis** n. var.

Length 8 mm. Color as in *thelyus thelyus* except base of elytra fuscous with this color continuing caudad between claval vein and sutural margin.

Holotype female from Finca Belem, Chiapas, 3–2–38, (M. F. 6497, Dampf).

Diastrocixius aurelus n. sp.

(Figs. 2 and 2-A)

Length 6.5 mm. Head and body yellow, elytra clear with yellow veins. Median carina of frons visible in basal two-thirds; basal fork acute.

Anal segment of male with subapical projection on ventral margins; right margin cut away before apex. Lateral margins of pygofers broadly rounded caudad; medio-ventral process extremely large, as long as styles, pyriform.

Male holotype from Bartica, British Guiana, 4–27–01 (Parish), in Osborn collection at Columbus, Ohio.

Diastrocixius apicatus n. sp.
(Figs. 5 and 5-A)

Length 6 mm. Vertex and thoracic dorsum orange; abdomen black above, venter yellow. Elytra mostly clear; stigmal spot dark with color extending up onto the disc; smoky band present subapically. Under wing with fuscous apex. Entire face narrow; frons not especially widened apically; median carina interrupted only by median ocellus. Anal segment of male constricted basad. Pygofers greatly produced caudad into acute flaps; medio-ventral process short, very broad. Styles large, long; sides roughly parallel. Aedeagus appears to have periandrium separated from penis except basad.

Holotype male, allotype female, and one male paratype from Coroica, Bolivia, in the H. Osborn collection at Columbus, Ohio; one male paratype in writer's collection.

Diastrocixius magnus n. sp.

Length 7.5 mm. Face yellow with lateral carinae broadly fuscous and median carinae of frons fuscous apically. Vertex black caudad and in center. Pronotum yellow with black dash behind either eye. Mesonotum fuscous. Elytra clear with dark veins; apex slightly infuscate; sutural margin fuscous to apex of clavus. Legs smoky. Face scarcely narrowed between the eyes; median carinae of frons distinct; basal fork almost flat. Vertex twice as broad as long. Hind tibiae with minute spurs.

Holotype female from Coroico, Bolivia, is in the H. Osborn collection at Columbus, Ohio.

Rhamphixius Fowler

Specimens of *championi* Fowler were taken in Chiapas (M. F. 1937) and Quintana Roo (M. F. 622, Dampf), and in Morelos (DeLong & Good) with *Crescentia alata* recorded as host plant.

The male is decidedly smaller than the female and is less highly colored. The illustration in the Biologia (Pl. 9, fig. 10) is similar to most males while most of the females have a much heavier and continuous black stripe around the elytra omitting the costal margin. The genital styles are much reduced in the males.

Male allotype and paratypes, Morelos, 19–22–41 (DeLong & Good). (Fig. 4.)

Nymphocixia Van Duzee

Ten specimens were collected in the Canal Zone, Panama, May, 1927, by H. Osborn. The coloration of these specimens is close to *unipunctata* Van Duzee in that the elytra are hyaline and fuscous with a fuscous V across the transverse veins. The male genitalia coincides with the description of *vanduzeei* Muir. (Fig. 3.)

Nymphocixia vanduzeei var. **floridensis** n. var.

Length 6 mm. Very heavily marked. Elytra mostly fuscous with a milky area extending from the commissural margin across to the stigma where it projects basad forming a somewhat broad V-shaped design. This specimen is larger and darker than *unipunctata* or *vanduzeei vanduzeei*.

Female holotype from Manatee Co., Florida, 1–4–25 (T. H. Hubbell), Osborn collection at Columbus, Ohio.

Pachyntheisa concinna var. **striata** n. var.
(Figs. 6 and 6-A)

Length 4–4.5 mm. The central semitransparent band is not interrupted in the middle of each elytra otherwise the color and marking are identical with *concinna concinna* Fowler. The male styles differ in appearance from those shown by Fowler (Pl. IV, fig. 3c), but this may be due to point of view or differences resulting from treatment with caustic.

Male holotype and female allotype from Tenancingo, Mexico, 10–22–33 (Plummer), paratypes from Mexico, D. F., 11–1–39 (DeLong).

THE HISTORY OF OHIO'S NORTHERNMOST COAL MINE

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The Zeil Pfouts farm, located 2.7 miles northwest of Burton Village in Geauga County, Ohio, is similar in appearance to many of the well kept farms in that vicinity. The Pfouts farm, however, has one distinction that is shared with no other farm in the vicinity for miles around; for between 40 and 60 years ago coal was mined from beneath its acres. This mine was unique in that it was the farthest north of any coal mine ever operated in Ohio. (See Figure 1.) The only other near coal mines, with the exception of an attempt to mine coal 2.15 miles southwest of Welshfield on the east side of the Cuyahoga River, are at least 15 miles farther south along the north-south line and being somewhat farther east or west are actually 25 or 30 miles distant.[2] These mines are in the vicinity of Tallmadge in Summit County, Palmyra in Portage County, and Vienna in Trumbull County.

Concrete evidences of past mining operations on the Pfouts farm have long since been almost completely obliterated. The mine buildings and equipment have been removed, the mine openings filled, and cultivated and pasture fields cover the former mine sites. A green meadow without an apparent trace of a mine opening or mine dump now extends over the site of the main shaft which was located approximately 100 feet west of the Pfouts house. Only small bits

[1]This historical account was written at the suggestion and with encouragement of Wilber Stout, State Geologist of Ohio.

The compilation of the historical data was made possible through the help of numerous persons in the Burton and nearby communities. The following persons have furnished information: Charles Burnett, Frank Davis, Lynn Mumford and nephew, Ben Owen, David Owen, Miss Margaret Owen, Zeil Pfouts, R. R. Phillips, Frank Taylor, Mrs. Ina Taylor, F. H. Thwing, and J. M. Zethmayr. J. J. Feicht, of Cleveland, gave a copy of the original lease, and Miss Annie Ashton, of Chardon, copied lease records at the Geauga County Courthouse.

Special acknowledgment is due Miss Bertha Buell and James Glasgow, who read and criticised the manuscript, J. R. Hickman, who aided in the preparation of the photographs, and Miss Anne Frankenberry, who did the typing.

[2]On November 26, 1943, I made an attempt to find the location of the coal prospect near Welshfield in Troy Township, Geauga County. Mr. Frank Taylor kindly directed me to the site, but in the limited time available I was unable to find any positive surface evidence of the attempted mining. The following are published references to this unsuccessful coal mine:

> "In Troy township, the Coal-measure sandstone is separated from the Conglomerate by the coal shales, which are, in places, very thin, and rarely exceed a thickness of six feet. In the southern part of the township, coal has been obtained in small quantities from a seam too thin to be profitably worked. Yet at this point it is probably thicker than in any other part of the county on the east side of the Cuyahoga."—Read, M. C., "Sketch of the Geology of Geauga County," *Report of Progress of the Geological Survey in 1870*, p. 466, Geol. Surv. Ohio (1871) and Read, M. C., "Geology of Geauga County," Geol. Surv. Ohio, Vol. I, Pt. I, p. 521 (1873).
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> "Evidences of the existence of coal were discovered in 1848–9 on land located in section sixteen, then belonging to Rensselaer Smith, now to Peter Davis. Jehu Brainard, a noted geologist then living in Cleveland, examined the premises, and decided that coal did not exist there in paying quantities. Mr. Smith was not satisfied with this decision, but went to Pennsylvania and procured a practical miner, to come and develop whatever might be found. A few bushels of coal were taken out, which were used by our blacksmiths, but after prospecting less than one hundred feet, the 'mine' came to an abrupt termination. The cavity is now abundantly supplied with excellent water of a very low temperature."—Chapman, William H., "Troy," *Pioneer and General History of Geauga County, Ohio* (Symposium), p. 623, published by the Historical Society of Geauga County (1880).