

NEW WESTERN DELTOCEPHALINE LEAFHOPPERS

DOROTHY J. KNULL

Department of Zoology and Entomology, The Ohio State University, Columbus 10, Ohio

Three *Psammotettix*, one *Sorhoanus* and allotypes of two *Orocastus* are described. Types are to be deposited in the Collection of The Ohio State University unless other deposition is mentioned.

I am grateful to Dr. David A. Young, Jr., of the U. S. National Museum for sending a paratype of *Psammotettix excavatus* (Oman) for The Ohio State University Collection, and for other assistance.

Orocastus aurarius Knull

Figure 6

Described from ♂s. ♀ cream-colored with dark arcs on face, arc either side of apex of head extending to black ocelli, eyes dark gray, a pair of median broad longitudinal stripes on pronotum faintly indicated, veins pale, clearly outlined with fuscous. ♀ segment as illustrated.

Length: 4 mm.

Allotype ♀, Davis Mts., Tex., Aug. 2, 1937, 2 specimens, Aug. 2, 1940; 1, Culberson Co., Tex., Aug. 29, 1940; 1, El Paso Co., Tex., Aug. 30, 1940; 5, Chiricahua Mts., Ar., Aug. 28, 1940, D. J. and J. N. Knull, Collectors.

Orocastus omani Knull

Figure 5

♀s similar in coloring and general appearance to those of *O. aurarius*, with dark markings sometimes more pronounced. Last ventral segment with median lobe broader, as illustrated.

Length: 4 mm.

From Arizona, collected by D. J. and J. N. Knull: allotype ♀ and 4 specimens. Types, Patagonia Mts., Aug. 7, 1950; 17, Aug. 20, 1940; 1 Tumacacori Mts., Aug. 21, 1940; 1, Huachuca Mts., Aug. 19, 1950; 1, Tucson, Aug. 27, 1938.

Psammotettix dentatus n. sp.

Figures 12, 13

A long, slender, dark species, unique in dentation of aedeagus.

♂.—Ground color cream with tan markings. Vertex as long as pronotum, shorter than width between eyes, bluntly rectangular, with eyes a little broader than pronotum. Elytra greatly exceeding tip of abdomen.

Anterior margin of vertex with pair of oblique black dashes at apex and a dot just below and anterior to pale ocellus, a tan cloud either side on center of disk and a pair of dashes either side at base. Pronotum with six broad tan longitudinal stripes. Elytra hyaline with pale veins and some irregular darkening in cells, especially apical cells. Dorsum of abdomen black, venter black with yellow edges. Face dark brown with pale arcs and streak down middle; clypeus dark in middle, remainder pale.

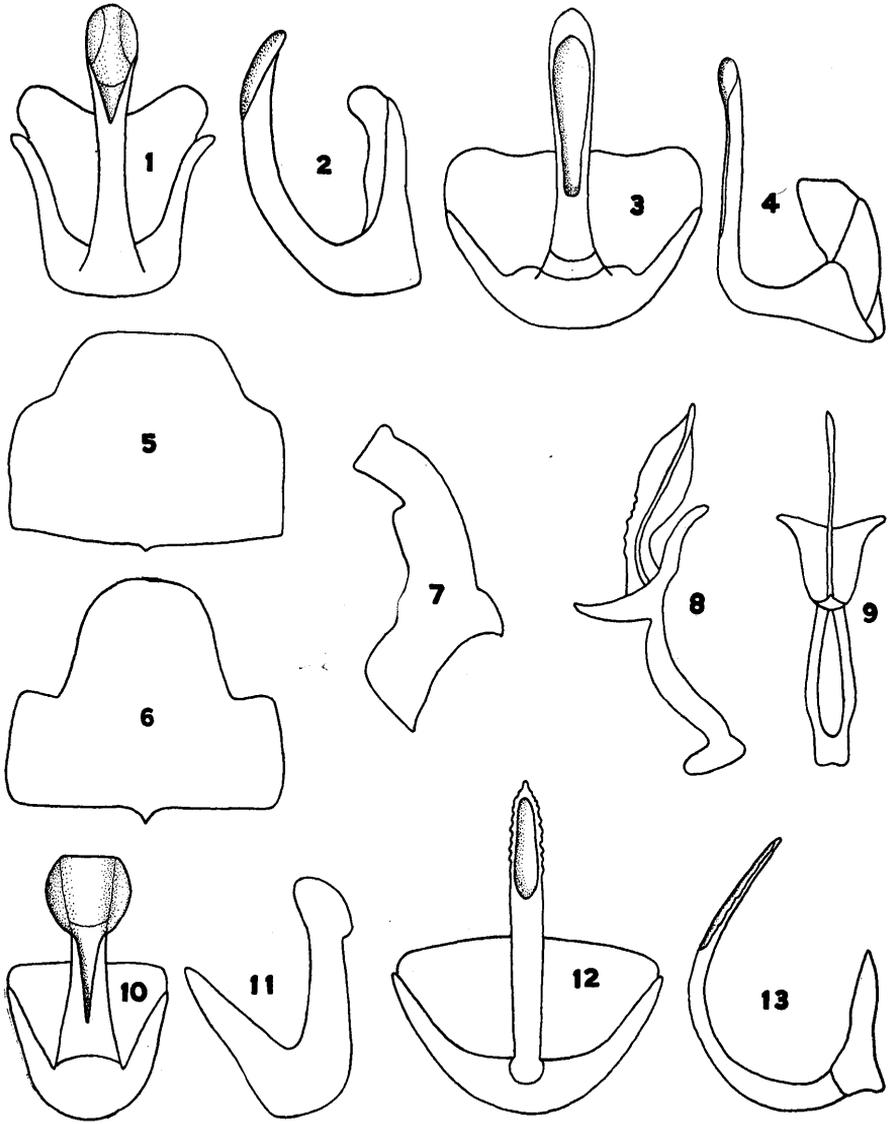
Valve large, more rounded than in other *Psammotettix*, exceeded by pale pointed plates by three-tenths of its length, base of aedeagus protruding distinctly beyond plates and pygofer. Aedeagus as figured with characteristic dentation.

♀.—Last ventral segment as long as preceding, slightly emarginate on median third.

Length: ♂ and ♀ 3.8 mm.

Taken in northern California by D. J. and J. N. Knull. ♂ holotype, allotype, 7 ♂ and 2 ♀ paratypes, Quincy, June 25, 1948; 1 ♂ and 1 ♀ Forest Glen, June 19, 1941; and Chester: 1 ♂ and 1 ♀, June 12, 1941; 1 ♂ and 4 ♀, June 23, 1948; 8 ♀, June 25, 1951; 3 ♀, July 1, 1951; 1 ♀, July 11, 1951.

In the long narrow form of aedeagus this species shows some affinity to *Psammotettix attenuens* (DeLong and Davidson).



D.J.K.

- 1, 2. *Psammotettix revae* n. sp. Ventral and lateral view of aedeagus.
 3, 4. *Psammotettix ferratus* (Del. & Dav.). Ventral and lateral view of aedeagus.
 5. *Orocastus omani* Knull. ♀ last ventral segment.
 6. *Orocastus aurarius* Knull. ♀ last ventral segment.
 8, 9. *Sorhoanus fidus* n. sp. Style, lateral and ventral view of aedeagus.
 10, 11. *Psammotettix obesus* n. sp. Ventral and lateral view of aedeagus.
 12, 13. *Psammotettix dentatus* n. sp. Ventral and lateral view of aedeagus.

***Psammotettix obesus* n. sp.**

Figures 10, 11

A strikingly marked, robust small species with stubby aedeagus.

♂.—Head shorter than space between eyes, as long as pronotum, bluntly angled, with eyes a little wider than pronotum. Ground color cream with the following brown markings: vertex, median small apical triangle with pale center, below apex on either side two broad, irregular, somewhat X-shaped spots, and at base a pair of narrow, elongate stripes, outer longer; eyes brown; pronotum with six broad longitudinal stripes; scutellum, a median spot; elytra mottled, cells across middle more embrowned forming very irregular saddle, apical cells and lower part of median antepical also dark; below, face dark with fine pale transverse arcs; dorsum and venter black with segments narrowly yellow-margined, showing some red toward lateral margins.

Valve large, characteristic of genus, exceeded by plates by two-thirds its length, plates joined half their length beyond valve then diverging sharply to triangular points, space between them forming an equilateral triangle; connectives of aedeagus and pygofer exceeding plates only slightly. Aedeagus illustrated.

♀.—Lighter in color throughout, but pattern distinct, sides of ovipositor dark. Last ventral segment a little longer than preceding, almost truncate, but with shallow excavation on median third and faint sinuation either side. A rounded translucent spot over base of ovipositor, surrounded by darkened area.

Length: ♂ and ♀ 3 mm.

♂ holotype, allotype, 2 ♂ paratypes, Grand Teton National Park, Wyoming, July 14, 1939, D. J. and J. N. Knull.

***Psammotettix revae* n. sp.**

Figures 1, 2

Small, pale, robust species related in form of aedeagus to *Psammotettix cephalotes* (H.S.).

♂.—Head bluntly rectangular, as long as pronotum, not as long as width between eyes; ground color cream with light brown markings as follows: a pair of small triangles below apex, an arc below each black ocellus, a square spot behind each apical triangle and a pair of dashes either side of base; eyes gray brown; pronotum gray discally because of dark coloring underneath; scutellum pale. Elytra pale creamy subhyaline with sparse brown markings outlining some irregularly, scarcely covering tip of abdomen. Front brown with pale arcs and median strip, sutures black, venter and dorsum dark with sides broadly pale, and genital segments also pale. Valve and plates typical of genus, exceeded a little by base of aedeagus and pygofer.

♀.—Last ventral segment as long as preceding, parallel-margined, usually quite convex, which may make it appear excavated.

Length: ♂, 2.9 mm; ♀, 3.2 mm.

Described from a series of specimens taken in South Dakota by Dr. H. C. Severin. ♂ holotype, allotype, 12 ♂ and 33 ♀ paratypes, Reva Alkali Flats, Sept. 8, 1948; 14 ♂ and 24 ♀, Reva, Sept. 8, 1948; 2 ♂, Springfield, Sept. 13, 1948; and 1 ♂, Buffalo, Sept. 10, 1948. Paratypes sent to Dr. Severin.

***Sorhoanus fidus* n. sp.**

Figures 7, 8, 9

Cream colored, sharp-headed, elytra with short apical cells, not quite covering tip of abdomen.

Head acutely rectangular, as long as width between eyes, longer than pronotum; face tan with light arcs, eyes dark brown, ocelli black, pronotum darker; elytra hyaline with golden veins, not quite covering pygofer. Dorsum dark to pygofer, venter light below thorax, darker in ♂.

Plates in ♂ narrowed on outer half to half basal width, with pointed, divergent apices, almost as long as pygofer. Inner genitalia illustrated. Last ventral segment in ♀ about twice as long at middle as preceding, incised almost half its depth, segment produced gently from sides, sub-truncate, with small tooth either side of incision; median incised area including teeth covered by black pentagonal mark.

Length: ♂, 3.3 mm; ♀, 3.7 mm.

Holotype ♂ and allotype, Gillespie Co., Texas, May 7, 1946, collected by D. J. and J. N. Knull.

Dr. P. W. Oman upon examining these specimens placed the species near *S. orientalis* (DeLong and Davidson), however the sharply pointed head will distinguish it at once from most members of the genus.

SELECTED REFERENCES

- China, W. E.** 1939. Additions to the British Homoptera. *Entomologist's Monthly Mag.*, 75: 50-52.
- DeLong, D. M., and R. H. Davidson.** 1935. Some new North American species of Deltocephaloid Leafhoppers. *Can. Ent.*, 67: 164-172.
- Herrich-Schaffer, G. A. W.** 1834. Deutschlands Insecten, Faun. Germ., 124: 6.
- Knull, D. J.** 1951. Eight new leafhoppers from the United States. *Ohio Jour. Sci.*, 51: 179-83.
- Ribaut, H.** 1925. Sur Quelques Deltocephales du Groupe *D. striatus* (L.) Then., *Bull de la Soc. d'Histoire Naturelle de Toulouse*, 53: 5-22.
- Wagner, W.** 1947. Neue deutsche Homopteren und Bemerkungen über schon bekannte Arten. *Verhandl. des Ver. für naturw. Heimatforschung zu Hbg. Bd.*, 29: 76-77. *Gal. 26, Journal of Science*, November, P-964
-