# NEW TEXAN FULGORIDAE<sup>1</sup> (HOMOPTERA)

JOHN S. CALDWELL Ohio State University

### Cixius chisosus n. sp.

Length 6 mm. Resembling apicatus Fowler in form, marking, and coloration of elytra but with vertex extending beyond the eyes as in

flavo-brunneus.

Vertex deeply excavate caudad, obtusely angled cephalad, less than twice as wide as median length. Face in profile evenly convex. Male pygofers with deep narrow opening; median projection short, pointed. Styles slender throughout, appearing as high-heeled rather long-toed boots. Dorsal membrane long, narrow, recurved into a broadened scoop.

Pale tawny throughout. Elytra not banded but with apices brokenly

and heavily darkened.

Male holotype, Chisos Mts., Texas, VII-9-36.

## Cixius knulli n. sp.

Length of male, 5.5 mm.; female, 6.2 mm. Resembling chisosus

except for darker appearance and banded elytra.

Male pygofers with shallower notch than chisosus and the sides more oblique; median projection short, rounded. Styles excavate basally with broad projections meeting at midlength; the apices broad, flexed outward, slightly recurved. Dorsal membrane extremely long, narrow, scarcely broadened apically with the apex reflexed. Female ovipositor long and slender.

Head and body tawny. Elytra yellowish with a broad transverse band basally and across the middle; apices extremely and solidly

darkened.

Male holotype, female allotype, and paratypes from Davis Mts., Texas, VIII-21-36 and one paratype, VI-2-37.

The writer names this species in honor of his friend, Dr. Josef N. Knull.

#### Oliarus nigravittus n. sp.

Length 8 mm.; width 3 mm. Resembling sonoitus Ball in size and form but lighter in general color and the elytra has a longitudinal stripe.

Vertex as broad as long; median carina present for full length.

Face light brown; profile more curved than aridus Ball.

Male pygofers deeply and broadly notched, truncate laterally; median projection with slender apex. Styles of same form and appearance as in pima Kirk.

No. 6

Vertex, face, and median tablet of mesonotum tawny, rest of body blackish. Elytra milky with a sub-basal, narrow, black band not reaching costal margin but continued very narrowly caudad along commissural margin and terminating at the anal vein. Cross veins and furcation of longitudinal veins with black spots.

Male holotype, Uvalde, Texas, VIII-4-37. Paratype, V-23-35.

## Oliarus lobatus n. sp.

Length of male, 7 mm.; female, 8.2 mm. Somewhat resembling

pima Kirk in general appearance.

Vertex longer than broad; lateral margins elevated; median carina present for basal third; caudal margin deeply notched. Frons much narrowed between eyes, about equal in length to clypeus. Mesonotum distinctly five carinae.

Male pygofers evenly, obliquely truncate laterally; ventral opening deep, broad; median projection long, broad, suddenly narrowed apically. Styles much longer than pygofers; apical portion greatly enlarged producing a large, flat, lateral lobe. Dorsal membrane broadly notched apically with a pointed projection on either side of notch.

General color blackish fuscous. Frons darker than clypeus. Forewing whitish-hyaline in both sexes; black punctations on veins very large; infuscation of cross-veins in female very broad, sometimes fused

together.

Male holotype, Davis Mts., Texas, VIII-36; female allotype, Davis Mts., Texas, VI-36; paratypes, Davis Mts., Texas, and Hauchauca Mts., Ariz., 1936 and 1937.

## Oecleus bilineatus n. sp.

Length of male, 4.5 mm.; female, 5 mm. Resembling decens Stål by having the vertex closed caudad and approaching campestris Ball in cephalic width of vertex but differing from both in elytra structure and color and in having the mesonotum black with two yellow stripes.

Vertex triangular, exceeding eyes by half its width; in profile about right angled with face which is angled in front of the eyes. Elytra appearing long, narrow, hyaline; commissure twice interrupted with black; veins dark brown, darkening apically, feebly pustulate; costal vein scarcely thickened; nodal cell at least twice as long as broad.

Black throughout; carinae of front, vertex, and pronotum light;

mesonotum with intermediate carinae straw yellow.

Female holotype and paratype, and male allotype from Davis Mts., Texas, VII-6-36.

#### Acanalonia hadesensis n. sp.

Length of male, 3.9 mm.; female, 4.7 mm.; forewing of male, 3.5 mm.; female, 4.4 mm.; width of forewing of male, 2.6 mm.; female, 3.2 mm.

Head scarcely produced beyond eyes; vertex equal to or less than length of pronotum, caudal margin concave, lateral margins slightly divergent; front upright with lateral margins gently bulged basally, median carina prominent. Forewing with costal margin strongly

<sup>&</sup>lt;sup>1</sup>Types are in the Ohio State Collection. All 1936 material was collected by Dr. J. N. Knull, and the 1937 material by both Dr. and Mrs. Knull.

rounded, apical margin gently convex; reticulations scarcely visible; longitudinal veins with few branches. Last ventral segment of female with a deep, broad, semicircular notch.

Head, thorax, legs, and abdomen straw yellow; forewings pale green

deepening in color apically.

Female holotype, male allotype, Devil's River, Texas, VII-2-36.

## Flatoides fecalfuscus n. sp.

Length of male, 10 mm.; female, 11 mm. Slightly darker in appearance than fuscus Van Duzee and differentiated by the presence of a single preapical spine on the hind tibiae.

Vertex broader than long, rounded cephalad. Frons emarginate apically. Clypeus little longer than broad, flat. First and second antennal segments about equal. Hind tibiae with one spine before apex.

Last ventral segment of male broadly but shallowly excavate caudad. Styles contacting for basal third thence divergent to apex, these margins gently sinuate; apices each with one large spine projecting inward; whole style much shorter than in fuscus. Dorsal membrane long, narrow, recurved.

Female with last and penultimate segments deeply and almost squarely notched. Pygofers short, broadly rounded, with heavy teeth.

Anal segment long, very broad.

Dirty grey throughout with vein darkening to blackish.

Male holotype, Davis Mts., Texas, VIII-2-37; female allotype, Davis Mts., Texas, VI-14-36, and paratypes from the Davis and Chisos Mts., Texas, and Hauchauca Mts., Arizona.

#### An Intimate Glimpse of a Naturalist

Edward Wilson is probably best known to people in this country as a South Polar explorer, one of the outstanding men in the expeditions led by Captain Scott. This book tells not only of his two expeditions to the South Pole with Captain

Scott, but also of his earlier life.

The character and ability of Wilson are well summed up by one of his friends (p. 213): "Here was an artist of first-rate ability as to technique, who drew only truth, and refused to let his imagination guide his pencil. . . . He was a passionate lover of birds, yet could steel himself to kill them for his scientific work. He was deeply religious, yet had the rare ability to keep his religion out of sight; ceaselessly at work himself, he did not demand an equal energy from his fellows. One had glimpses in him . . . of the missionary yet without that arrogance which presumes to teach others."

This book is made up largely of Wilson's diaries, letters, and notes, and of comments about him by his friends. It is illustrated with 17 color plates and 50 drawings in black and white, covering a variety of subjects, all by Wilson. The twelve chapters cover his life from his first diaries, his life in medical school, his travels in Norway and Switzerland, his work in England, and his two South Polar

expeditions.

The book gives a vivid impression of this charming and versatile naturalist. The chapters on the polar expeditions are particularly fascinating. The book is interesting, informative, and inspirational, and should appeal to anyone interested in the biographies of naturalists.—D. J. Borror.

Edward Wilson: Nature Lover, by George Seaver. xi+221 pp. New York, E. P. Dutton & Co., Inc. \$3.00.