

TWO NEW SPECIES OF ORTHOPTERA FROM TEXAS

H. F. STROHECKER
Kenyon College

Among the Orthoptera which I collected during a short stay at San Antonio in the summer of 1940 are thirty-two specimens of a *Melanoplus* which I have been unable to place in any described species. In size, color and genital characters it is nearest *M. flabellatus* (Scudder).

Melanoplus mastigiphallus sp. n.

(Figs. 1-3)

Type—*Male*, Bexar Co., Texas, August 11-17, 1940 (author's collection). Size medium or a little large for the short-winged species of the genus. Head slightly broader than the pronotum, the eyes large, prominent, their vertical diameter twice as long as the genal groove. Fastigium of the vertex with interocular space narrow, anteriorly strongly declivent and gradually expanded to the level of the lateral ocelli, its bounding ridges distinct but neither high nor abruptly formed, evanescent at the ocelli. The frontal costa is evenly continuous with the vertex, between the antennae about twice as wide as the interocular space, feebly sulcate below the ocellus, plane above it, its lateral ridges obsolete a short distance below the antennae. Pronotum, as seen from above, with subparallel sides; the anterior margin shows a very slight median emargination and the posterior margin is subangulately rounded. Median carina strongly developed on the metazone, barely perceptible on the posterior half of the prozone, but becoming more distinct anteriorly. Prozone one-fourth again as long as metazone. The lateral lobes are longer than deep with the posterior margin oblique and scarcely sinuate. Tegmina three-fifths as long as pronotum, slightly overlapping medially, their distal edges broadly and quite evenly rounded. Prosternal spine erect, blunt-conical. Interspace between mesosternal lobes a little longer than broad. Metasternal lobes subattinent. The supra-anal plate is about as long as broad, its sides somewhat roundly convergent to the apical fifth, there abruptly but not greatly narrowed, its apex slightly acute angulate. Furcula about as long as the last dorsal segment, flattened and with rounded apices. Cercus short and substyliform, abruptly narrowed from the base particularly by excision of the upper margin, obliquely truncate from both margins near the apex, which is acute angulate. The entire cercus is curved slightly *outward*.

There are no notable color differences between this and *M. flabellatus*. General color wood-brown, the abdomen lighter. Antennae orange-red. The lateral lobe of the pronotum has along its upper edge a wide, sharply bounded black bar, which is broadened posteriorly. The lower portion of the lateral lobe is ivory white and there is an oblique bar of

similar color on the metapleuron. Hind femora with the upper and outer faces lighter than the general body color; upper face with two ill-defined dark crossbars; the outer face shows a trace of a dark crossbar. Inner and lower faces flushed with orange-red in living specimens, fading after death, and with an incomplete dark bar near the middle and a broader, complete bar distal to this. Knees black. Hind tibiae deep glaucous with a light annulus just distal to the base and an outer series of eleven black spines. Length of body 20 mm., of pronotum 5 mm., of tegmen 3 mm., of hind femur 11 mm.

Allotype—Female, same data as type. Color as in type. Interocular space slightly broader than in male. Pronotum broadening slightly behind. From a single topotypic female of *flabellatus* the allotype of the present species may be distinguished by the posteriorly less divergent sides of the pronotum and the broadly, rather than narrowly rounded tegmina. Length of body 26 mm., of pronotum 5.8 mm., of tegmen 5 mm., of hind femur 13.5 mm.

In addition to the type and allotype fifteen males and fifteen females bearing the same data have been examined. All these have been designated paratypes and specimens will be deposited in the collections of Morgan Hebard, B. B. Fulton and the University of Michigan.

This form may be shown eventually to intergrade with *flabellatus* (Scudder) but the males differ from those of *flabellatus* topotypes in the supra-anal plate, cerci and penis. In *flabellatus* the endoparameres project vertically while in *mastigiphallus* they curve cephalad and laterad.

The specimens were collected from the ground in a growth of *Quercus fusiformis* Small, *Diospyros texana* Scheele and *Juniperus virginiana* L.¹ Other Orthoptera occurring in the same environment were *M. glaucipes* (Scudder) (scarce), *Phaulotettix compressus* Scudder, *Rhabdotettix concinnus* Sc. and *Megaphasma dentricus* (Stål).³

I am of the opinion that the specimens described below represent a new species.

*Dichopetala seeversi*² sp. n.

(Figs. 4-6)

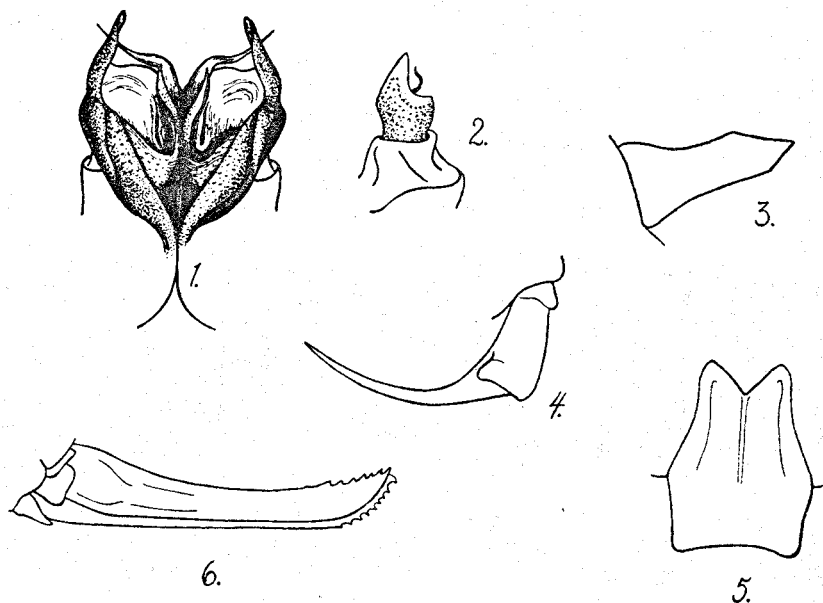
Type—Male, Bexar Co., Texas, August 11-17, 1940. Apparently nearest *D. gladiator* Rehn & Hebard. Form rather elongate and slender for the genus, subcylindrical. Fastigium of vertex compressed, lamellate anteriorly, separated from the facial fastigium. Eyes prominent, elliptical, their short diameter about equal to that of the basal antennal joint. Dorsum of pronotum with the lateral carinae obsolete

¹Plant determinations by C. V. Morton.

²Named for Dr. Charles H. Seevers.

³*Phaedrotettix dumicola* (Sc)

except for their slight development on the metazone; anterior and posterior margins truncate. The dorsum of the pronotum is given a clepsydral appearance by a light, arcuate line along each side. Lateral lobes almost twice as long as deep. Tegmina about one-fourth shorter than pronotum, their apices entirely rounded. Last dorsal segment with posterior margin truncate. Cercus with basal portion short, its outer edge almost straight. The lobe of the cercus is dorsal in position and, seen from the rear, markedly conchate; beyond this lobe the cercus is continued, almost at right angles to the basal portion, as an evenly tapering, aciculate tooth. So long is this distal tooth that, with the cerci in normal position, it extends almost across the width of the last



1. *Melanoplus mastigiphallus* sp. n. penis of male, caudal view. 2. Same, right, lateral view. 3. *M. mastigiphallus* left cercus of male. 4. *Dichopetala seeversi* sp. n. right cercus of male, dorsal view. 5. *Dichopetala seeversi* subgenital plate of male. 6. *Dichopetala seeversi* ovipositor of female.

abdominal segment. Subgenital plate strongly produced, evenly v-excised at apex. Legs long and slender.

General color, in life, apple green. Dorsum of pronotum and antennae ochraceous. Tegmina green with the lateral area of the dorsal portion seal brown. Dorsum of abdomen yellow-green with a broad seal-brown stripe along either side. Hind femora apple-green without the apical ochraceous flush which is shown by some other species. Proximal half of outer face of hind femur with dots and short, transverse bars of black. Hind tibiae green in basal half, infuscated apically. All the tarsi black. Length of body 18 mm., of pronotum 4 mm., front femur 10 mm., middle femur 11 mm., hind femur 23 mm.

Allotype—*Female*, same data as type.

This specimen, which I take as the allotype, resembles *D. emarginata* Brunner in the structure of the ovipositor and subgenital plate and *gladiator* Rehn & Hebard in the proportions of the body and legs. Head and pronotum as in the male type. Ovipositor long, its lower margin almost straight, strongly arcuate only at the tip, upper margin evenly and slightly arcuate. The upper margin bears eight teeth (including a minute proximal one) and the lower margin has nine teeth. These are blunter than in a specimen of *emarginata* at hand. The subgenital plate is entirely divided with its lateral pieces aciculate at their apices. Color as in male except that the brown stripes along the sides of the abdominal dorsum are broken into pairs of triangles on each segment and the hind tibiae are not infuscated. Length of body 21 mm., of pronotum 6 mm., of front femur 11 mm., of middle femur 12 mm., of hind femur 26 mm., of ovipositor (dorsal line) 10 mm.

Beside the type and allotype my collection contains a single paratypic female. All these specimens were taken on *Colubrina texensis* Gray.¹ *D. castanea* was the only other species of the genus present.