ACACIACORIS, A NEW GENUS OF ORTHOTYLINI OCCURRING IN MEXICO AND SOUTHWESTERN UNITED STATES (HEMIPTERA: MIRIDAE)

JOSEPH C. SCHAFFNER

Dept. Entomology
Texas Agr. Exp. Sta.
Texas A & M University
College Station, Texas.

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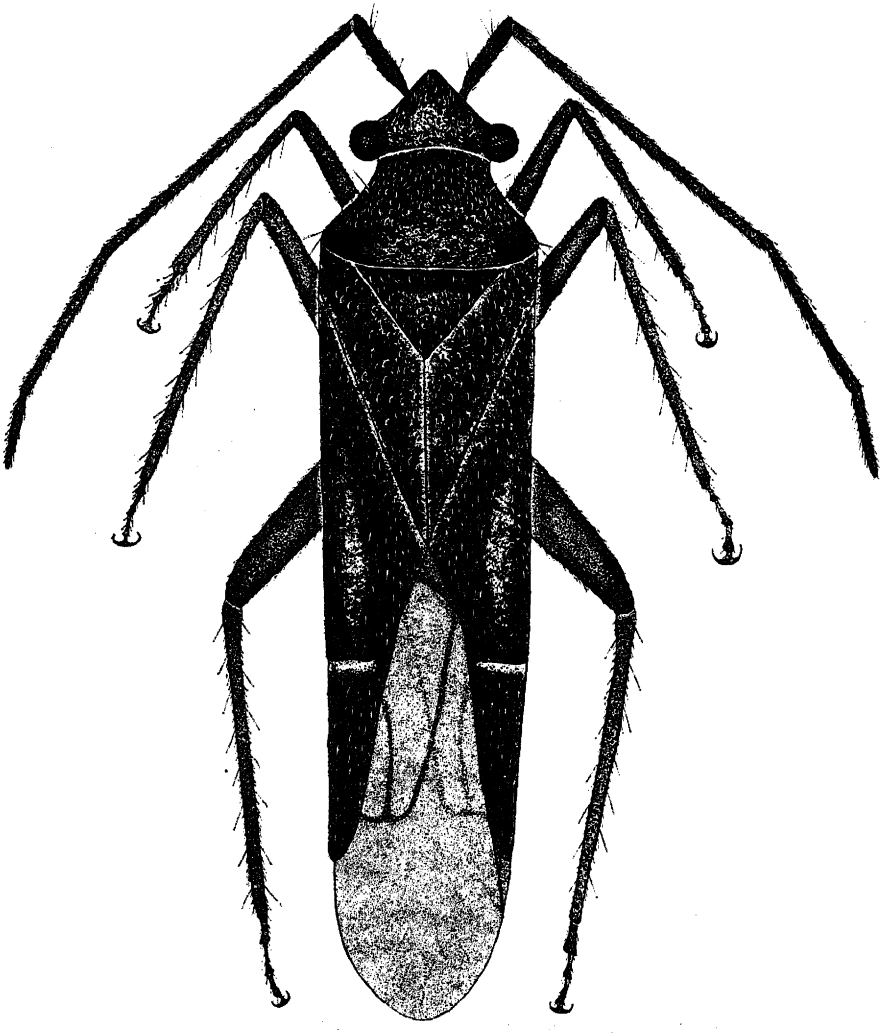


Fig. 1. *Acaciacoris xerophilus* (Schaffner)

It has become apparent that the concept of the genus *Heterocordylus* Fieber, as it has been applied to North American species does not constitute a monophyletic grouping.

Heterocordylus Fieber is a well known genus occurring in Europe, northern Africa, Asia and North America. The first species described from North America and assigned to this genus, *H. malinus* Reuter (1909), appears to be congeneric with European species available for study. Subsequently described species, *acaciae* Knight (1919) and *xerophilus* Schaffner (1967), from the southwestern United States and Mexico, differ in important morphological respects and should be removed from the genus. Therefore, the genus *Acaciacoris* is described in order to accomodate these two species and a third one described herein.

Material used in this study is from the collection of the Department of Entomology, Texas A&M University, College Station, Texas, USA. Representatives of the previously described species, *A. xerophilus* (Schaffner) and *A. acaciae* (Knight), have been deposited in the collections of the Instituto Nacional de Investigaciones Agrícolas, Chapingo, México and the Museo de Historia Natural de la Ciudad de México, Nuevo Bosque de Chapultepec, México, D. F. The illustrations were prepared by Mrs. M. K. Jordan.

Acaciacoris n. gen.

Orthotylinae, Orthotylini. Characterized by its medium size, dark piceous to black body coloration, impunctate surface, decumbent vestiture with both simple hairs and silvery flattened hairs, and in having the spiculi of male aedeagus ornately recurved.

Head wider than long, declivent, very finely reticulate; eyes located at rear of head, posterior margin of eyes straight; vertex flat, margined posteriorly; clypeus slightly recurved, weakly delimited from frons; gena pruinose; both simple and flattened hairs present. Antennal socket not reaching margin of eye, ventral margin below eye; antennal segment I almost as long or longer than vertex width but shorter than head width taken through eyes; segment II cylindrical, linear, more than 2 ½ times as long

as I; antennal segments III and IV slightly thickened but diameter less than I or II; vestiture short. Rostrum reaching midcoxae.

Pronotum impunctate, very finely reticulate, somewhat declivent; lateral margins rounded, not carinate; posterior corners rounded; calli obsolete; both short simple hairs and silvery flattened hairs present. Mesoscutum covered or nearly so. Scutellum slightly concave, impunctate. Hemelytra impunctate, very finely reticulate, curved downward laterally; embolium narrow, almost vertical; cuneus slightly curved downward externally, not deeply incised; vestiture decumbent, consisting of both short simple hairs and flattened hairs; membrane dark fuscous, conspicuously long on males, females brachypterous with membrane reaching approximately to end of abdomen. Legs elongate; femora with scattered short hairs; tibiae with appressed hairs and several rows of erect hairs about as long as diameter of tibia, also with rows of minute corrugations; tarsi long and slender, segment I shorter than II and III; claws with arolia of ortholynetype. Abdomen somewhat flattened; pruinose ventrally near base; both types of hairs present; spiculi of male aedeagus ornately recurved.

Type species of genus: *Acaciacoris xerophilus* (Schaffner).

Previously described members of this genus were placed in the genus *Heterocordylus* Fieber by Knight (1919) and Schaffner (1967). *Acaciacoris* differs from *Heterocordylus* by having the second antennal segment linear rather than incrassate, the clypeus is compressed laterally rather than broadly rounded, the vertex of the head is margined rather than carinate, the lateral margins of the pronotum are rounded rather than sharply carinate. The genitalia (Figs. 3-5). are distinct from those of *H. malinus* Reuter (Fig. 2). The genera resemble each other in general body form, especially the hemelytra which are curved downward laterally, and also in the type of vestiture. *Acaciacoris* is also very similar in general appearance to *Mayamiris* Knight & Schaffner. This latter genus, however, lacks the conspicuous flattened hairs.

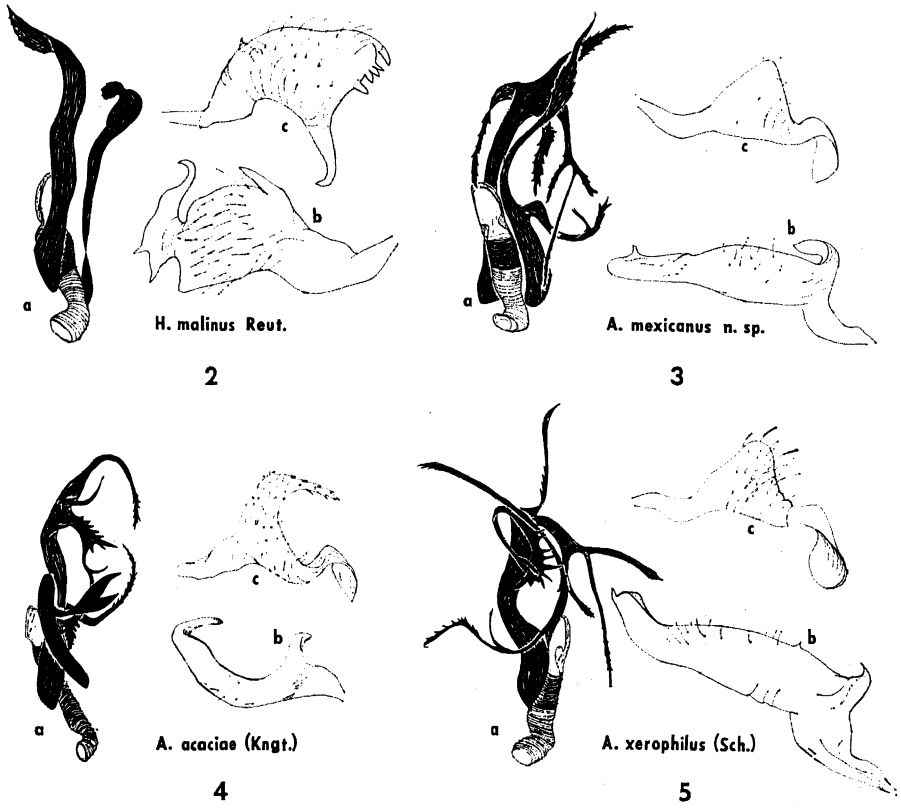
The host plants for *A. acaciae* and *A. xerophilus* are members of the genus *Acacia*.

Three species including one form described as new are assigned to the genus. The genus appears to be restricted to southwestern United States and Mexico.

Acaciacoris mexicanus n. sp.

Characterized by its dimensions and structure of the male genitalia.

General coloration dark piceous to black; trochanters and extreme apices



Figs. 2.5 Genital structures of males: a. aedeagus, b. right paramere, c. left paramere.

of coxae pale, femora brown to dark brown, tibiae varying from brown to dark piceous, usually darker apically.

Male (measurements of holotype given first followed by those of single paratype): Length, 6.24 mm and 5.64 mm; width, 1.54 mm and 1.56 mm. Head width through eyes, 1.18 mm (both); length, 0.42 mm and 0.38 mm; vertex width, 0.56 mm (both). Length of antennal segment I, 0.70 mm and 0.66 mm; II, 2.14 mm and 2.10 mm; III, 1.36 mm (both); IV, 0.60 mm and 0.66 mm. Pronotal length, 0.88 mm and 0.86 mm; width, 1.52 mm (both). Width of cuneus at base, 0.50 mm and 0.48 mm; length, 1.00 mm and 0.88 mm.

Morphological characteristics as given for genus; vestiture of body short. Genitalia as illustrated (Fig. 3).

Female unknown.

Holotype: male, MEXICO: Oaxaca, 2.8 mi. e. Matatlan, July 24, 1974, Clark, Murray, Ashe, Schaffner. Deposited in the Museo de Historia Natural de la Ciudad de México. *Paratype*: male, same data as holotype. Deposited in the collection of the Department of Entomology, Texas A&M University, College Station, Texas, U.S.A.

This species is very similar to *A. xerophilus* and is difficult to distinguish from it without using the male genitalic characters. The plant from which the specimens were taken was not noted.

Acaciacoris acaciae (Knight)

Heterocordylus acaciae Knight, 1919, pp. 111-112, original description;
Carvalho, 1958, p. 70, catalog; Schaffner, 1967, pp. 580-582,
description, key.

This distinctive species is easily recognized by its size, shape, vestiture and color as well as by the structure of the male genitalia.

Acaciacoris acaciae is the smallest member of the genus and is much broader in relation to the length than the other two forms. It is conspicuously more hirsute dorsally with both types of hairs being prominent. The hind femora are somewhat more incrassate than the other two species and are coral-colored except for the darkened areas at the extreme base and apex. In addition, the first antennal segment is about equal to the vertex width (male) or shorter (female), whereas the segment is longer than the vertex (both sexes) on the other forms. This species more closely resembles members of the genus *Heterocordylus* in overall appearance.

Knight (1919) reports collecting it from *Acacia constricta* Benth. and from "a white flowering *Acacia* (probably *A. farnesiana*)..." This latter species has yellow flowers, thus the tenative identification must be in error. I have collected this species from *A. constricta* at Santa Maria del Rio, San Luis Potosi (July) and a colleague took specimens from *Mimosa biuncifera* Benth, in Brewster Co., Texas (June). Specimens have albo been taken from Concepción del Oro, Zacatecas (April) and from near Cuencamé, Durango (Schaffner, 1967). The type locality for *A. acaciae* is near Valentine, Texas (Culberson Co).

The male genitalia are figured (Fig. 4).

Acaciacoris xerophilus (Schaffner)
(Figs. 1,5)

Heterocordylus xerophilus Schaffner, 1967, pp. 581-582, original description.

The collection of additional material of this species indicates some variation in color. *A. xerophilus* is dark brown to black in general coloration with the underside of the abdomen sometimes pale. The femora vary from light brown to almost black.

This species is very closely related to *A mexicanus* and the two forms can be separated most easily by the characteristic shape of the right parameres. The apex of the right clasper is sometimes variable in its dimensions but is never with a dorsal tooth or spine.

Specimens have been collected in large numbers from *Acacia constricta* Benth. in the state of Puebla near Tehuacan, Zapotitlan and Acatepec during the months of June and July.

The male genitalia are figured (Fig. 5).

Key to the species of *Acaciacoris*

1. Hind femora coral colored except for darkened areas at extreme base and apex, front and middle femora usually dark; first antennal segment as long as or shorter than width of vertex; length of males 4.90-5.20 mm, females 4.25-4.40 mm (southwestern U.S., southward to central Mexico) ..... *acaciae* (Knight)

   Hind femora brown to black, if lighter (females) then front and middle femora usually same color as hind femora; first antennal segment longer than width of vertex; length of males 5.20-6.25 mm, females 4.25-5.00 mm (southern Puebla and Oaxaca 2

2. Right paramere of male with small, blunt, dorsally-directed process near apex (fig. 3b); apex more or less rounded ..... *mexicanus* n. sp.

   Right paramere of male without small dorsally-directed process near apex (fig. 5b); apex with more or less pointed process ..... *xerophilus* (Schaffner)

ABSTRACT

A new genus, *Acaciacoris,* from México and southwestern United States, and a new species, *A. mexicanus,* from the state of Oaxaca are described.

Acaciacoris acaciae (Knight) and *A. xerophilus* (Schaffner) are transferred from the genus *Heterocordylus* Fieber. The male genitalia of the species are illustrated.

Resumen

Acaciacoris, un nuevo género de México y del sudoeste de los Estados Unidos y *A. mexicanus,* una nueva especie del estado de Oaxaca son descritos. *Acaciacoris acaciae* (Knight) y *A. xerophilus* (Schaffner) pertenecían al género *Heterocordylus* Fieber. Los genitales masculinos de las especies son ilustrados.

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