

Fig. 107. *Lygocoris canadensis*

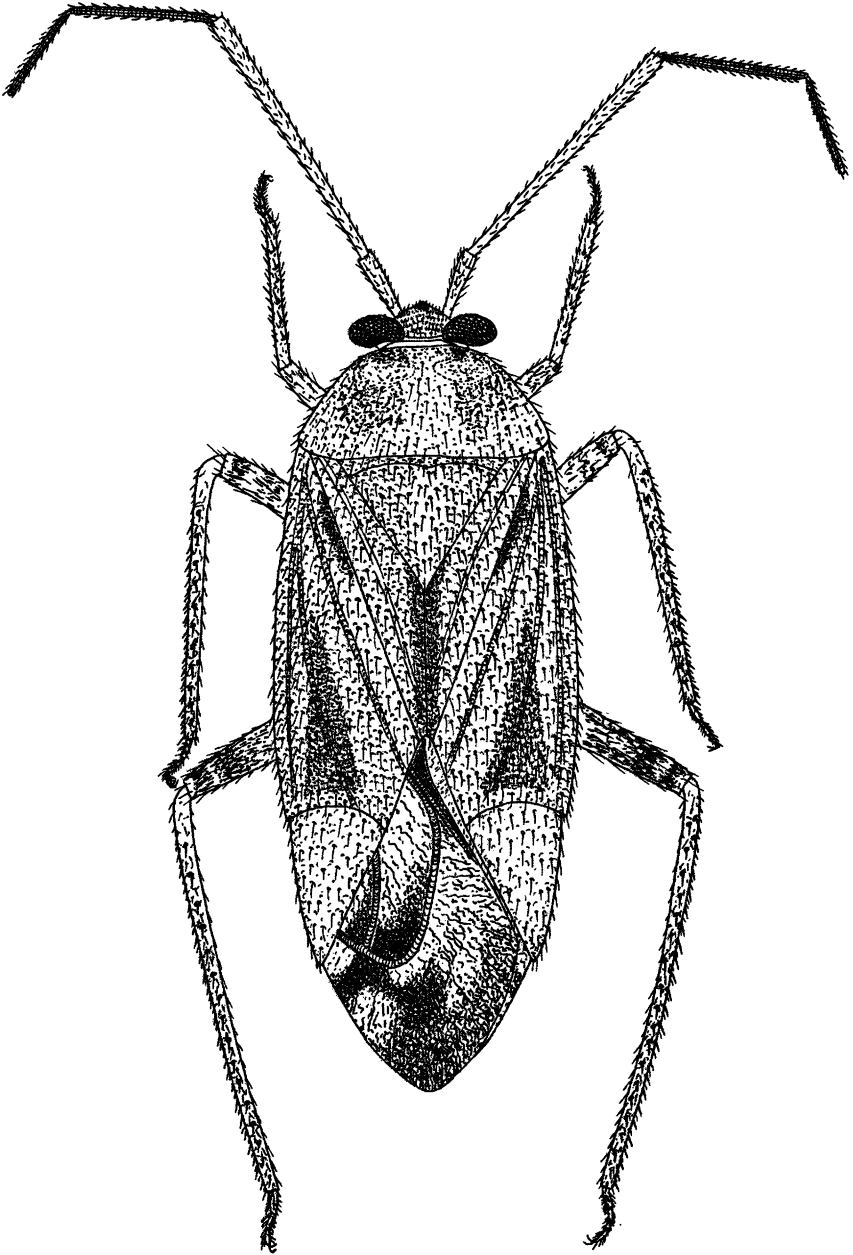


Fig. 108. *Lygocoris atritylus*

**Habitat.** Collected on *Salix* spp.

**Distribution.** Northeastern States, Eastern Canada, British Columbia; Prairie Provinces (Map 46).

*Lygocoris contaminatus* (Fallén)

Figs. 100, 109; Map 47

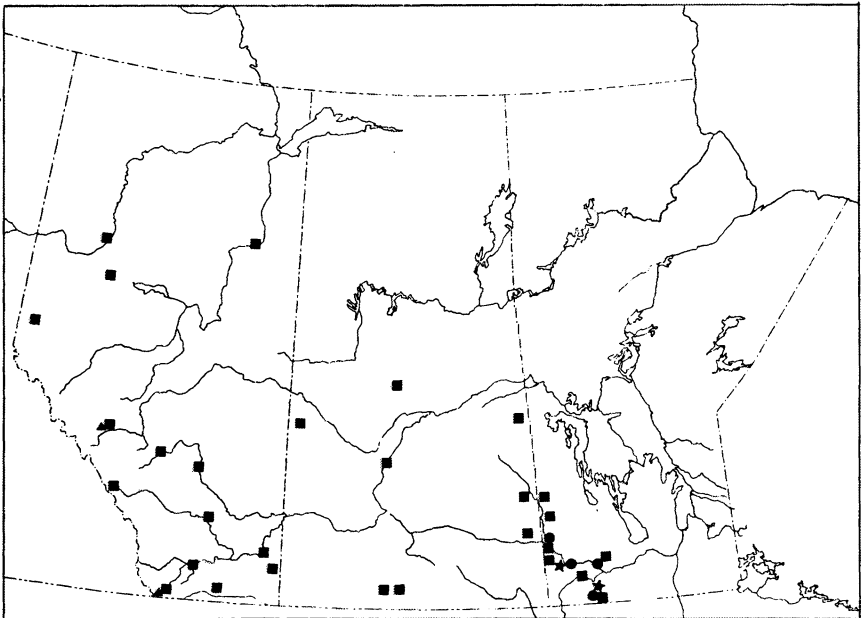
*Lygaeus contaminatus* Fallén, 1807:76.

*Lygus confusus* Knight, 1917b:606.

*Lygocoris contaminatus*: Southwood & Leston, 1959:280.

Length 5.25–5.95 mm; width 2.10–2.24 mm. Head yellowish green, clypeus often brownish. Pronotum yellowish green. Hemelytra yellowish green, inner corium with fuscous patch at apex. Legs greenish yellow, spines on tibiae brownish with distinct brown spots.

**Remarks.** This species is distinguished by the fuscous patch at the apex of corium, by the brown spots at the bases of spines on the tibiae (Fig. 109), and by the genital claspers (Fig. 100).



Map 47. Collection localities for *Lygocoris contaminatus* (▲), *L. omnivagus* (●), *L. communis* (■), and *L. quercalbae* (★).

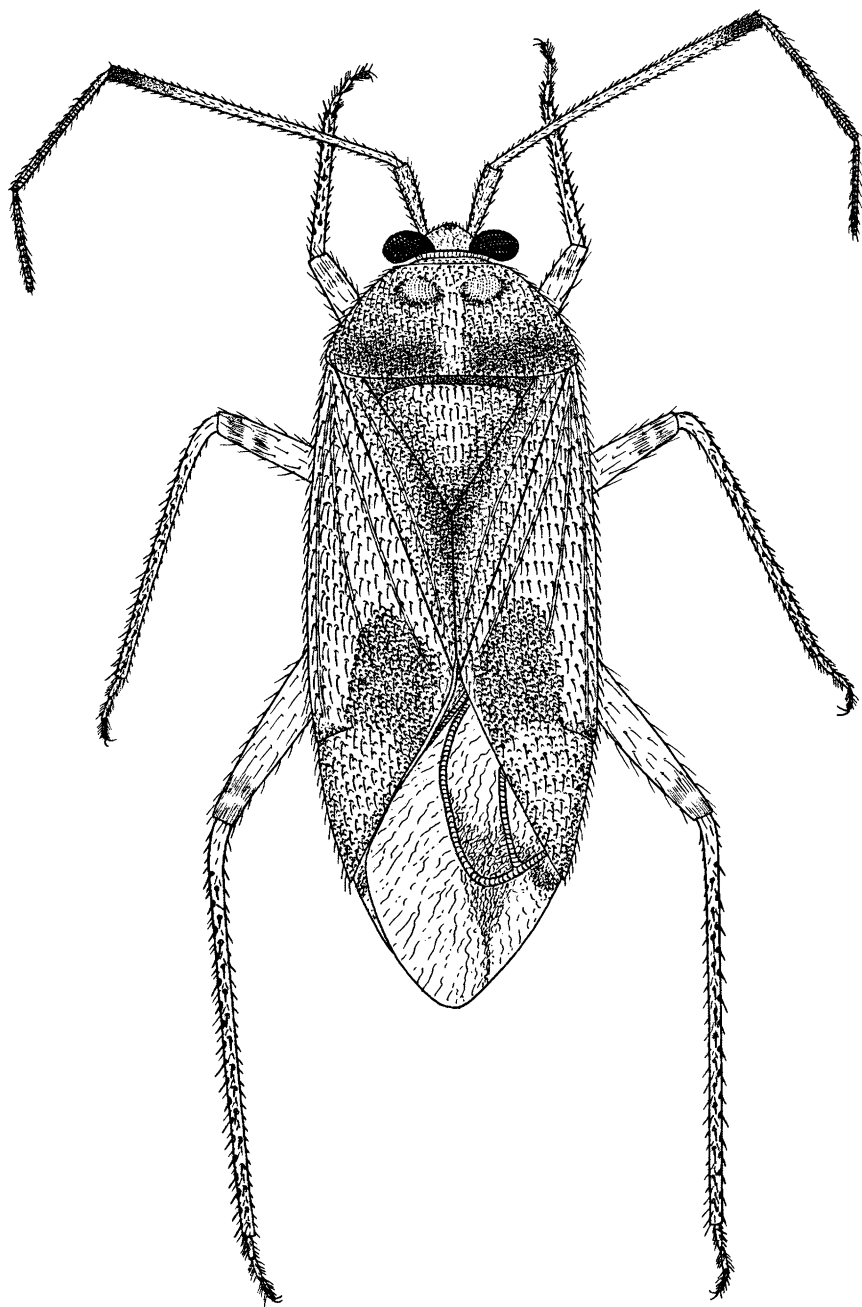


Fig. 109. *Lygocoris contaminatus*

**Habitat.** Collected on *Alnus tenuifolia*.

**Distribution.** Alaska, northeastern States, Yukon, Eastern Canada, British Columbia; Alberta (Map 47).

*Lygocoris omnivagus* (Knight)

Figs. 101, 110; Map 47

*Lygus* (*Neolygus*) *omnivagus* Knight, 1917a:627.

*Lygocoris omnivagus*: Carvalho, 1959:144.

Length 4.90–5.60 mm; width 2.10–2.45 mm. Head yellowish brown. Pronotum yellowish brown, usually darker behind callus. Hemelytra strongly marked with brown especially on clavus and on apical half of corium.

**Remarks.** This species is distinguished by the color pattern on the hemelytra (Fig. 110), and by the genital claspers (Fig. 101).

**Habitat.** Collected on a great variety of trees and shrubs.

**Distribution.** Eastern States, Eastern Canada; Manitoba (Map 47).

*Lygocoris communis* (Knight)

Figs. 102, 111; Map 47

*Lygus communis* Knight, 1916: 346.

*Lygocoris communis*: Carvalho, 1959:141.

Length 5.11–5.95 mm; width 2.10–2.66 mm. Head brown, frons usually marked with transverse reddish lines. Pronotum yellowish green, rays reddish brown. Hemelytra dark reddish brown.

**Remarks.** This species is distinguished by the reddish lines on the frons, by the rays on the pronotum (Fig. 111), and by the genital claspers (Fig. 102).

**Habitat.** Collected on a great variety of trees and shrubs.

**Distribution.** Alaska, transcontinental in North America; Prairie Provinces (Map 47).

*Lygocoris quercalbae* (Knight)

Figs. 103, 112; Map 47

*Lygus* (*Neolygus*) *quercalbae* Knight, 1917a:624.

*Lygocoris quercalbae*: Carvalho, 1959:145.

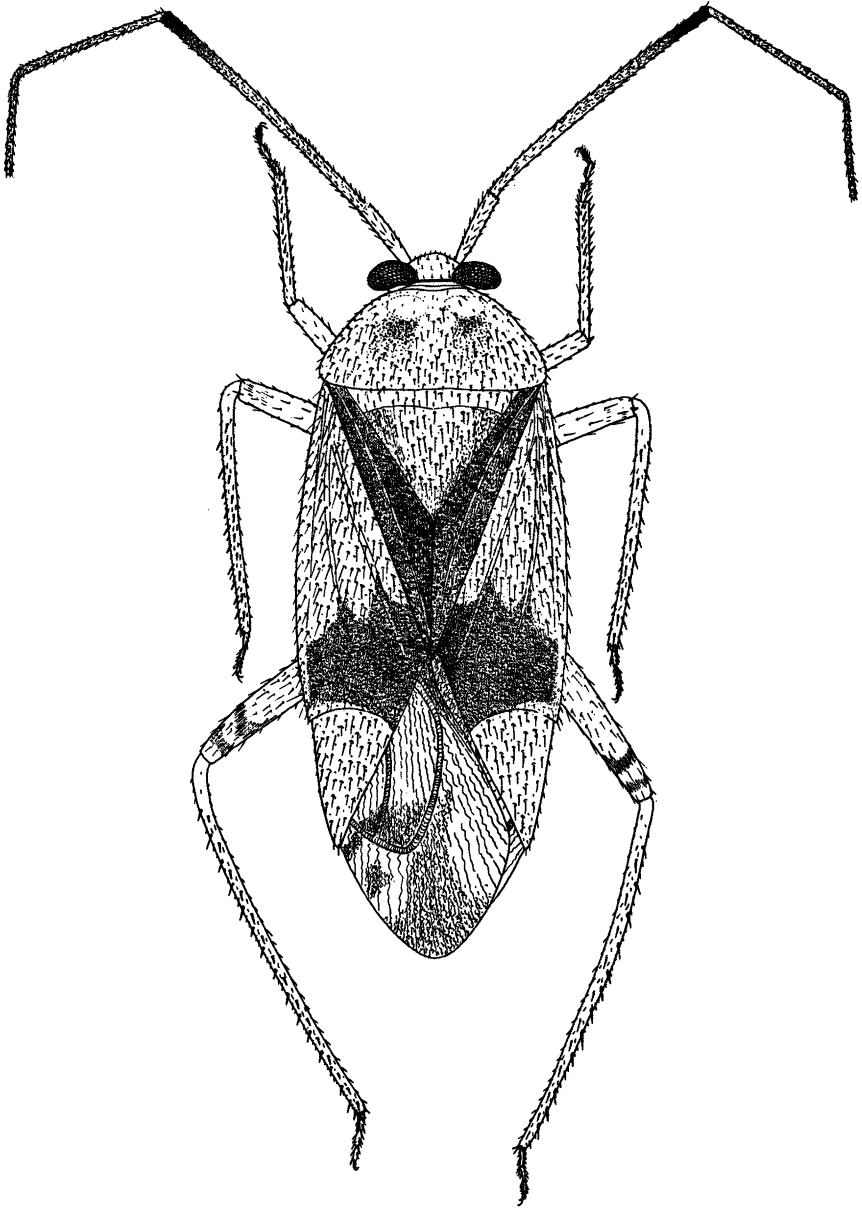


Fig. 110. *Lygocoris omnivagus*

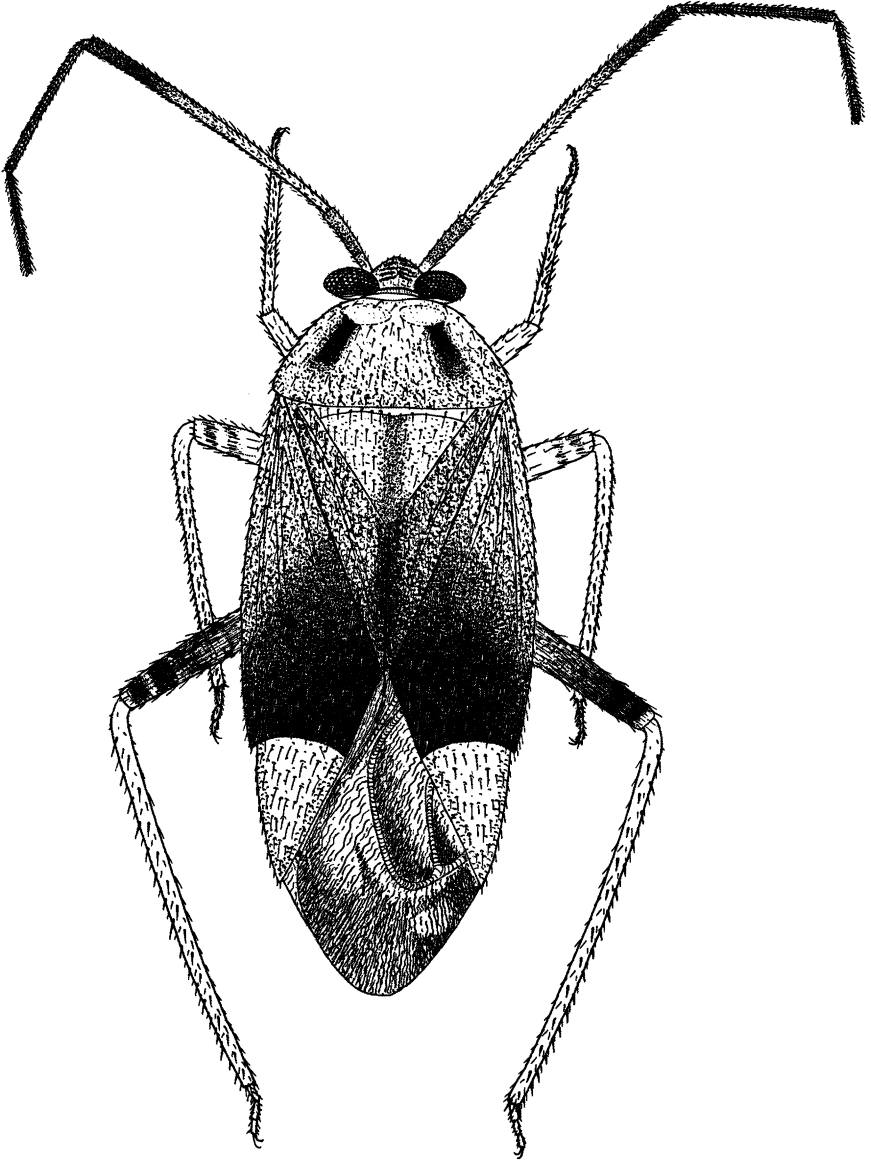


Fig. 111. *Lygocoris communis*

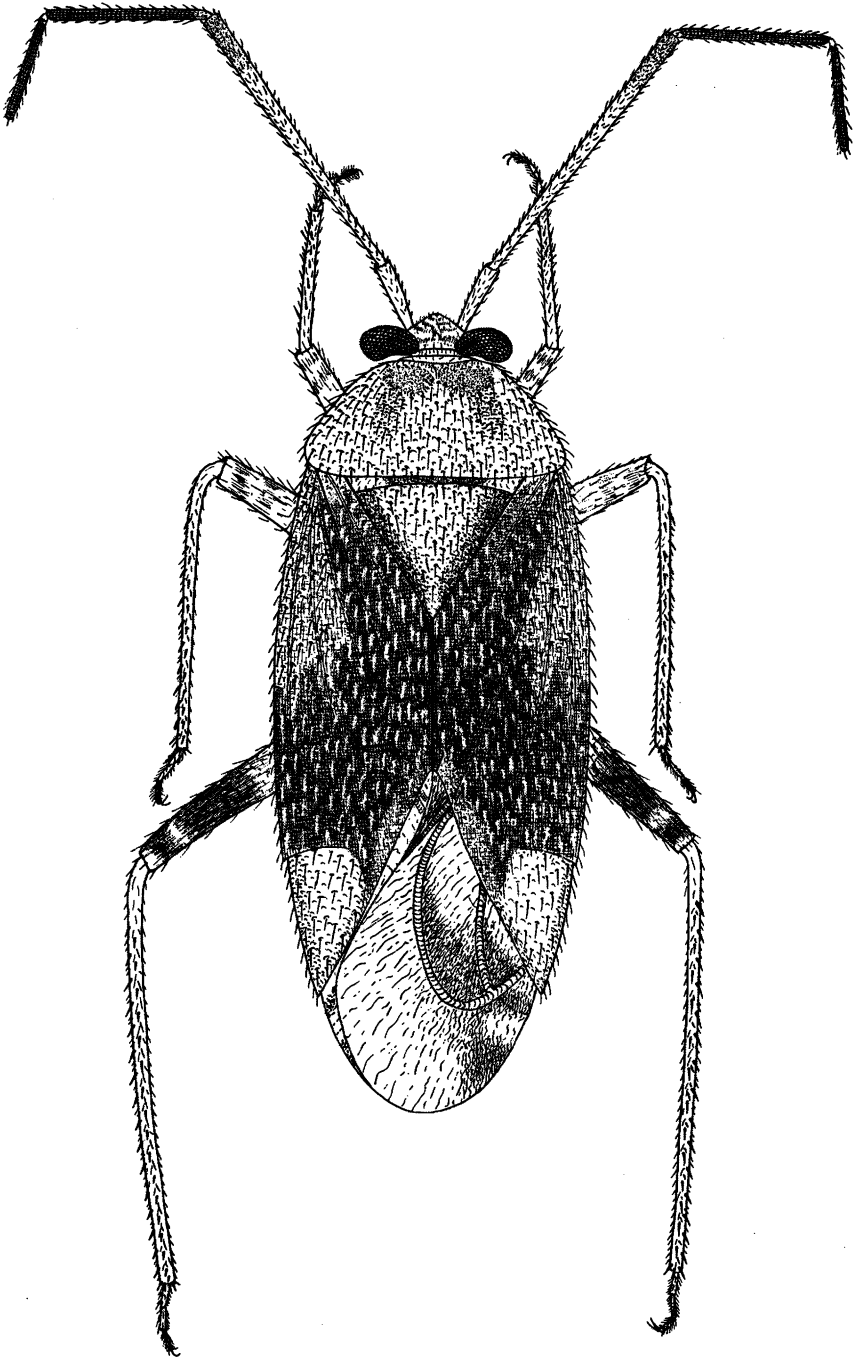


Fig. 112. *Lygocoris quercalbae*



Length 4.76–5.74 mm; width 2.10–2.59 mm. Head light yellowish brown marked with reddish tinge. Pronotum yellowish brown marked with red; callus often brown. Hemelytra yellowish brown, apical half of corium dark brown tinged with red.

**Remarks.** This species is distinguished by the reddish markings on the head and pronotum, by the brown calli (Fig. 112), and by the genital claspers (Fig. 103).

**Habitat.** Collected on *Quercus macrocarpa*.

**Distribution.** Northeastern States, Eastern Canada; Manitoba (Map 47).

### Genus *Metriorrhynchomiris* Kirkaldy

Glabrous, black, or black and red species. Head oblique, carina between eyes absent. Second antennal segment incrassate. Pronotum and hemelytra shiny, almost smooth and glabrous. Ventral surface black; femora black, tibiae palish.

Three species are now included in this genus, but *dislocatus* alone has 13 varietal names. Two of these varieties, *goniphorus* and *nigritus* occur in the Prairie Provinces.

#### *Metriorrhynchomiris dislocatus* (Say)

Fig. 113; Map 48

*Capsus dislocatus* Say, 1832:21.

*Horcias dislocatus* Reuter, 1909:41.

*Metriorrhynchomiris dislocatus*: Carvalho & Jurberg, 1974:50.

Length 5.88–6.44 mm; width 2.87–3.36 mm. Head black, frons pale. Pronotum black, often red along margins. Scutellum black. Hemelytra black, often red along wide costal margin including cuneus (Fig. 100).

**Remarks.** This species was formerly placed in *Horcias* Distant. It is distinguished by the glabrous and shiny appearance, and by the black or black and red color.

**Habitat.** Collected on a great variety of herbaceous plants.

**Distribution.** Northeastern and North Central States, Texas, Ontario, Quebec; now known to occur in the Prairie Provinces (Map 48).

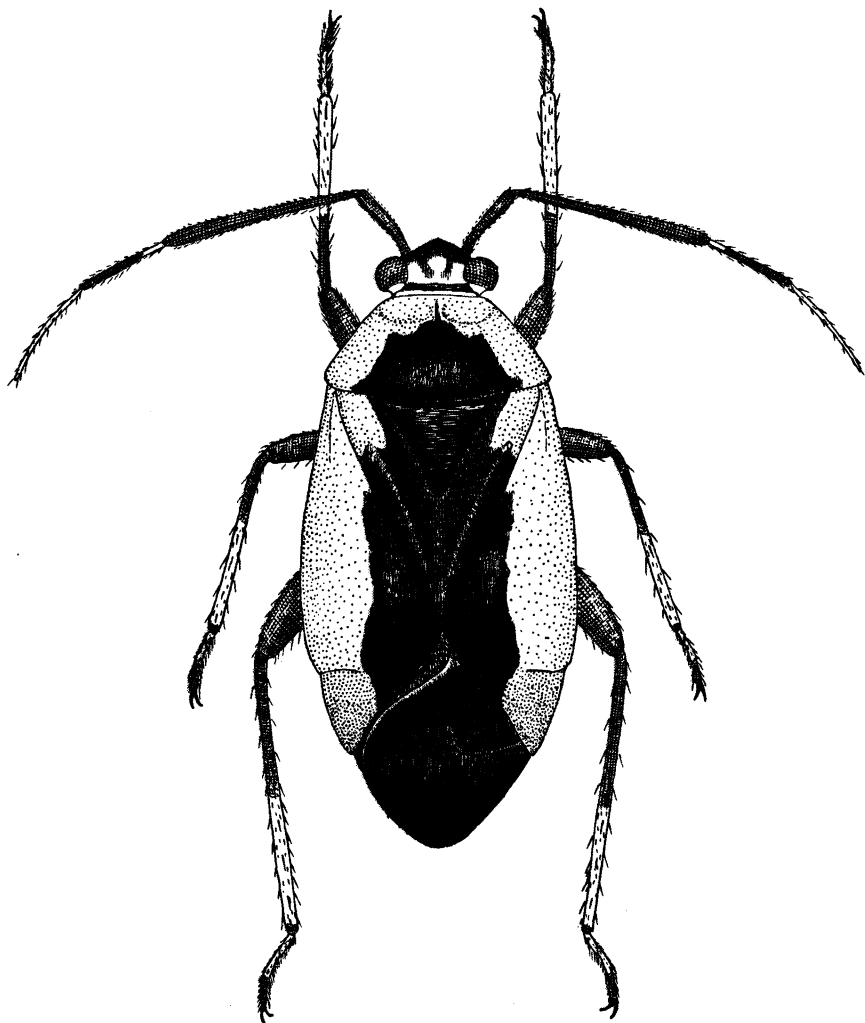
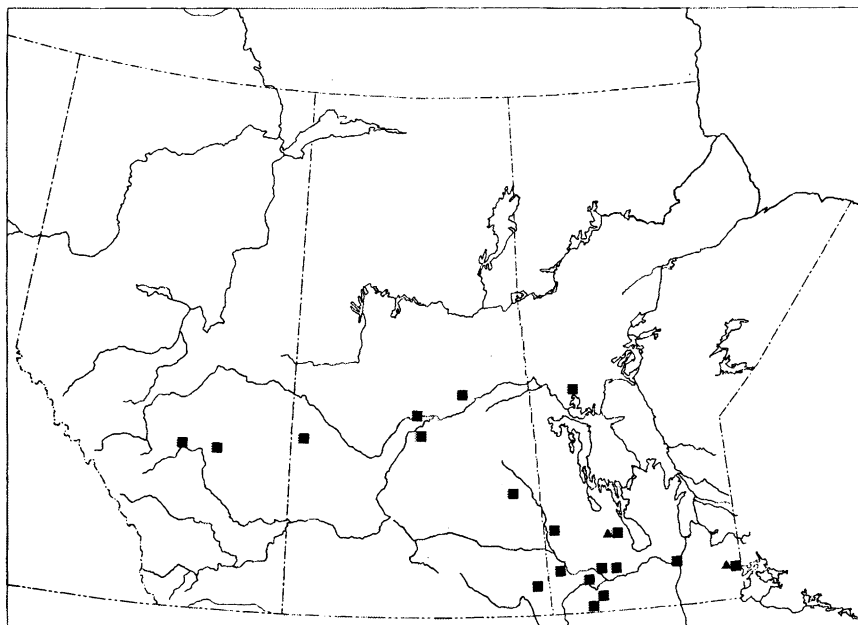


Fig. 113. *Metriorrhynchomiris dislocatus*

### Genus *Stenotus* Jakovlev

Elongate, green and black, pubescent species. Head oblique, frons weakly striate, eyes large, carina between them absent. Rostrum extending beyond hind coxae. Pronotum finely punctate, lateral margins rounded. Hemelytra finely punctate, densely pubescent. Legs with short, black hairs.

One species occurs in North America. It was probably introduced from Europe.



Map 48. Collection localities for *Metriorrhynchomiris dislocatus* (■) and *Stenotus binotatus* (▲).

*Stenotus binotatus* (Fabricius)

Map 48

*Lygaeus binotatus* Fabricius, 1794:172.

*Stenotus binotatus*: Reuter, 1888:636.

Length 5.95–6.44 mm; width 1.82–2.10 mm. Head mostly green, clypeus and often part of frons black; first antennal segment pale with short, black hairs. Pronotum, scutellum, and hemelytra green or yellowish; males with black stripe extending from each callus to base of cuneus, not as pronounced in female. Ventral surface green, legs pale, first segment of hind tarsus longer than third.

**Remarks.** This species is distinguished by the two black stripes.

**Habitat.** Collected on grasses.

**Distribution.** Transcontinental in USA, Ontario, Quebec, British Columbia; now known to occur in Manitoba (Map 48).

## Genus *Phytocoris* Fallén

Elongate, parallel species. Head oblique, short; lora inflated; eyes large and prominent, carina between them absent. Pronotum impunctate, side margins rounded, calli inconspicuous. Hemelytra variable in color, pubescence generally of two types, appressed, sericeous pubescence, mixed with erect, longer hairs. Legs long, slender.

The genus is very large and the species are often difficult to identify. In many cases only the males may be identified with certainty by using the genital structures.

Approximately 220 species are known from North America, 20 occur in the Prairie Provinces.

### Key to species of *Phytocoris*

1. Species yellow; genital claspers (Fig. 115) ..... *laevis* (Uhler) (p. 166)  
Species not yellow ..... 2
2. First antennal segment thickened (Fig. 114), as thick as front femur ..... 3  
First antennal segment slender, not as thick as front femur ..... 5
3. Apex of second antennal segment black; genital claspers (Fig. 116) .....  
..... *lasiomerus* Reuter (p. 167)  
Second antennal segment yellow ..... 4
4. Pubescence on first antennal segment black; head and first antennal segment  
yellow with red markings; genital claspers (Fig. 117) .....  
..... *pallidicornis* Reuter (p. 169)  
Pubescence on first antennal segment pale; head and first antennal segment  
grayish with brown markings; genital claspers (Fig. 118) .....  
..... *validus* Reuter (p. 169)
5. First antennal segment much shorter than head width ..... 6  
First antennal segment as long as or longer than head width ..... 9
6. Apex of corium with clump of pale spots; pronotum with distinct brown  
submargin; scutellum uniformly pale; genital claspers (Fig. 119) .....  
..... *stellatus* Van Duzee (p. 171)  
Apex of corium without clump of pale spots; pronotum without distinct brown  
submargin; scutellum mostly reddish brown ..... 7
7. Brown species; rostrum 2.80 mm or longer; genital claspers (Fig. 120) .....  
..... *listi* Knight (p. 172)  
Reddish species; rostrum 2.10 mm or shorter ..... 8
8. Scutellum uniformly reddish brown; vein on wing membrane uniformly reddish;  
genital claspers (Fig. 121) ..... *pinicola* Knight (p. 173)  
Scutellum with apical one third pale; vein on wing membrane pale at apex;  
genital claspers (Fig. 122) ..... *consersipes* Reuter (p. 173)
9. Second antennal segment without pale bands ..... 10  
Second antennal segment with pale bands ..... 14
10. First antennal segment and pronotum mostly black; hind tibia black, with two  
pale rings; genital claspers (Fig. 123) ..... *alpinus* Kelton (p. 173)  
First antennal segment and pronotum mostly pale ..... 11
11. Species reddish brown; genital claspers (Fig. 124) .. *michiganae* Knight (p. 174)  
Species black or brown ..... 12

- |   |                                     |
|---|-------------------------------------|
| 12. Tubercle at base of left clasper broadly rounded, (Fig. 125) .....        | <i>albertae</i> Knight (p. 175)     |
| Tubercle at base of left clasper erect .....                                  | 13                                  |
| 13. Tubercle at base of right clasper rounded, inconspicuous (Fig. 126) ..... | <i>brimleyi</i> Knight (p. 175)     |
| Tubercle at base of right clasper erect, prominent (Fig. 127) .....           | <i>dreisbachi</i> Knight (p. 177)   |
| 14. Second antennal segment with pale band at base and middle .....           | 15                                  |
| Second antennal segment with pale band only at base .....                     | 16                                  |
| 15. Tubercle at base of left clasper long, slender (Fig. 128) .....           | <i>conspurcatus</i> Knight (p. 178) |
| Tubercle at base of left clasper absent (Fig. 129) .....                      | <i>borealis</i> Knight (p. 179)     |
| 16. Left clasper with long and slender basal projection (Fig. 130) .....      | <i>erectus</i> Van Duzee (p. 179)   |
| Left clasper with small basal projection .....                                | 17                                  |
| 17. Right clasper slender, basal projection absent (Fig. 131) .....           | <i>brooksi</i> Kelton (p. 180)      |
| Right clasper with prominent basal projection .....                           | 18                                  |
| 18. Right clasper with rounded basal projection (Fig. 132) ..                 | <i>salicis</i> Knight (p. 183)      |
| Right clasper with pointed basal projection .....                             | 19                                  |
| 19. Left clasper with triangular basal projection (Fig. 133) .....            | <i>neglectus</i> Knight (p. 183)    |
| Left clasper with rounded basal projection (Fig. 134) .....                   | <i>onustus</i> Van Duzee (p. 184)   |

*Phytocoris laevis* (Uhler)

Fig. 115; Map 49

*Callodemus laevis* Uhler, 1895:33.

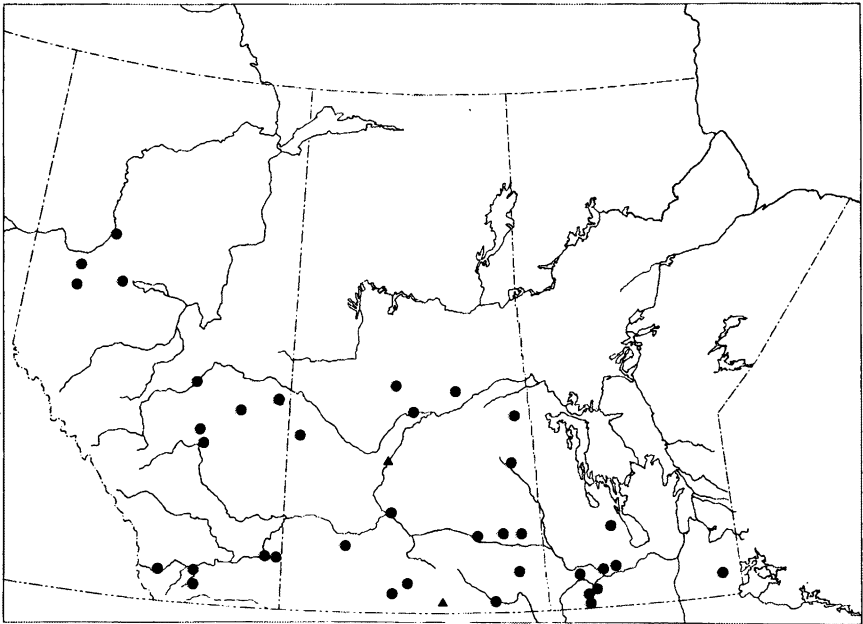
*Phytocoris laevis*: Reuter, 1909:14.

Length 7.00–8.40 mm; width 2.24–2.45 mm. Head yellow. Rostrum 2.52–2.59 mm long. First antennal segment slender, almost as long as width of pronotum at base. Pronotum and scutellum yellow, spot above each callus and two spots at apex of scutellum brown. Hemelytra yellow; inner clavus, apical corium, and tip of cuneus marked with orange; pubescence short, golden. Legs yellow, femora often spotted with brown.

**Remarks.** This is the only yellow species in the Prairie Provinces. The females are smaller than the males. The frons is elevated, giving the head its blunt appearance. The jugum bears a short tubercle. Male genital segment without tubercles; genital claspers (Fig. 115).

**Habitat.** Collected by sweeping prairie vegetation, and at light.

**Distribution.** Colorado; now known to occur in Saskatchewan (Map 49).



Map 49. Collection localities for *Phytocoris laevis* (▲) and *P. lasiomerus* (●).

*Phytocoris lasiomerus* Reuter

Figs. 114, 116; Map 49

*Phytocoris lasiomerus* Reuter, 1909:34.

*Phytocoris scrupeus* Provancher, 1887:108.

Length 7.35–8.05 mm; width 2.10–2.24 mm. Head yellowish brown marked with red. Rostrum 3.22–3.50 mm long. First antennal segment thickened with long, black bristles. Second antennal segment pale, apical one fourth black. Pronotum, scutellum, and hemelytra pale, often with reddish tinge; pubescence silvery, recumbent, mixed with erect hairs. Legs pale, femora often marked with reddish tinge.

**Remarks.** This species is distinguished by the thickened first antennal segment and by the black apex of the second segment (Fig. 114). The genital claspers (Fig. 116) are distinctive.

**Habitat.** Collected on herbaceous plants; probably predaceous.

**Distribution.** Transcontinental in northern USA, Ontario, Quebec; now known to occur in the Prairie Provinces (Map 49).

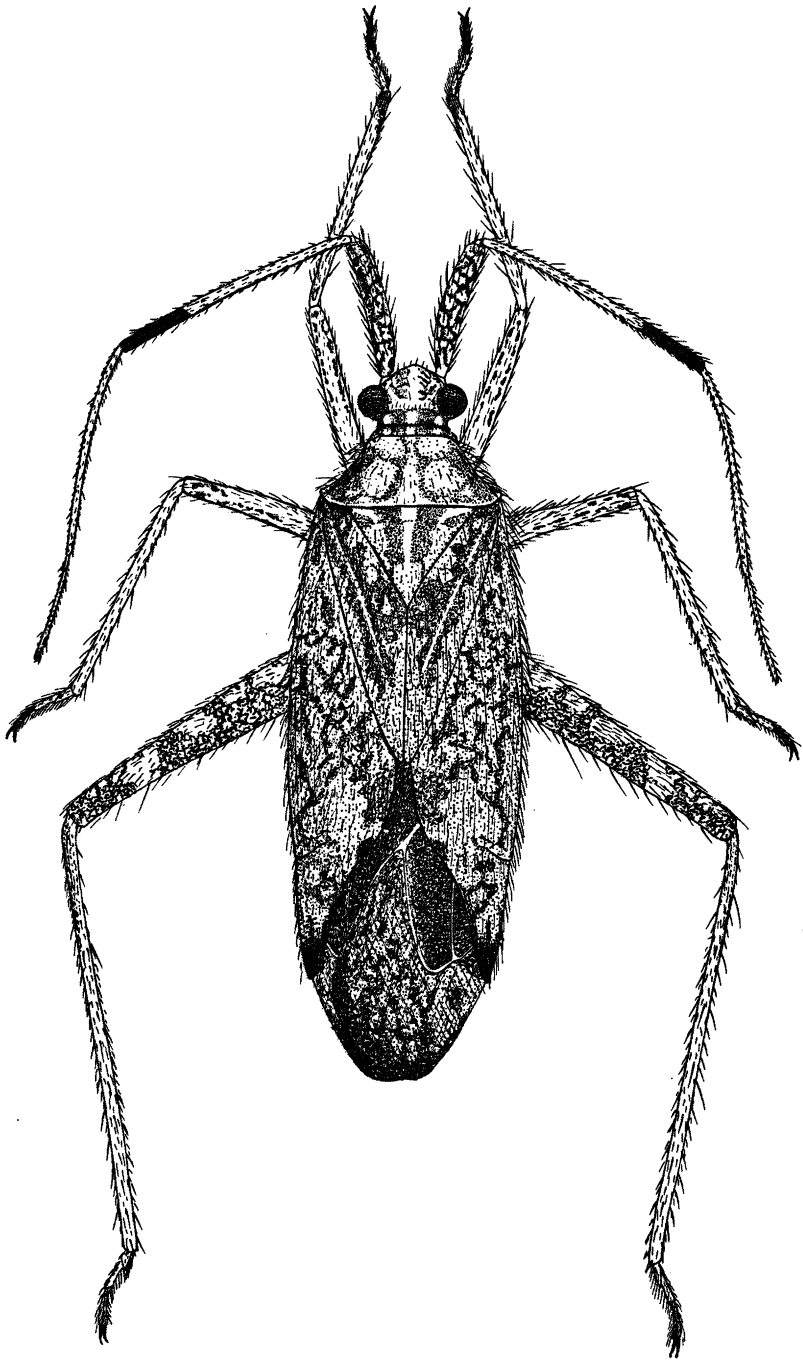


Fig. 114. *Phytocoris lasiomerus*

*Phytocoris pallidicornis* Reuter

Fig. 117; Map 50

*Phytocoris pallidicornis* Reuter, 1875c:69.

Length 6.72–7.00 mm; width 1.96–2.24 mm. Head yellow marked with red. Rostrum 2.94–3.15 mm long. First antennal segment yellow, thickened, marked with red, pubescence black, long, dense; second segment pale yellow. Pronotum and scutellum pale, often marked with reddish brown. Hemelytra pale marked with reddish brown; pubescence silvery, recumbent. Legs pale, femora marked with reddish brown.

**Remarks.** This species resembles *lasiomerus* and the two are found in similar habitats. It is easily separated from *lasiomerus* by the unicolorous second antennal segment and by the absence of a tubercle at the base of the left clasper. The genital claspers (Fig. 117) are distinctive.

**Habitat.** Collected on herbaceous plants; probably predaceous.

**Distribution.** Transcontinental in northern USA, Quebec, British Columbia; Alberta, now known to occur in Saskatchewan and Manitoba (Map 50).

*Phytocoris validus* Reuter

Fig. 118; Map 50

*Phytocoris validus* Reuter, 1909:31.

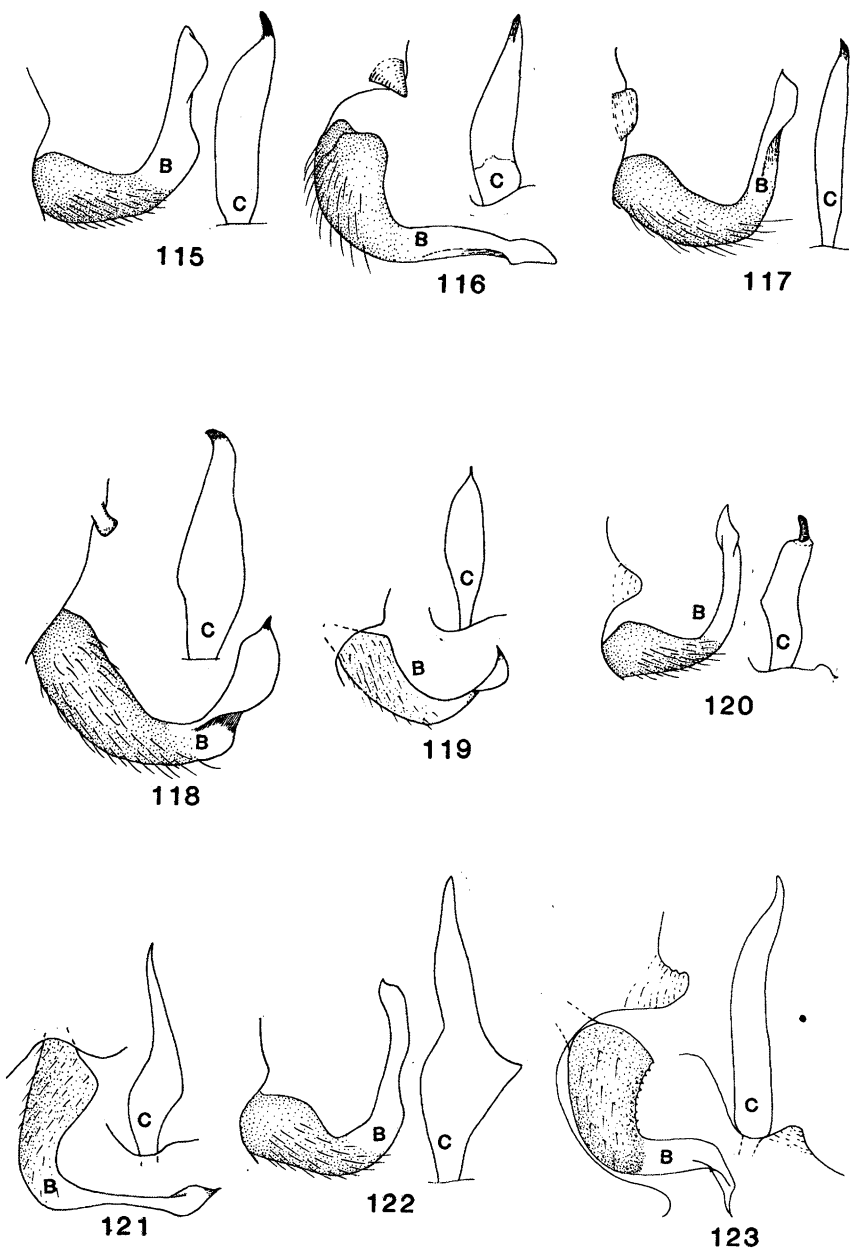
Length 6.30–6.65 mm; width 1.68–1.96 mm. Head grayish marked with brown. Rostrum 2.66–2.80 mm long. First antennal segment thickened, grayish marked with brown, pubescence pale, long and erect only on inner surface; second segment pale. Pronotum and scutellum gray marked with brown. Hemelytra gray, lightly marked with brown; pubescence silvery, appressed. Legs gray, femora marked with brown.

**Remarks.** Females are brachypterous and the hemelytra do not extend beyond the abdomen. The tubercle above the base of the left clasper is prominent, and the genital claspers (Fig. 118) are distinctive.

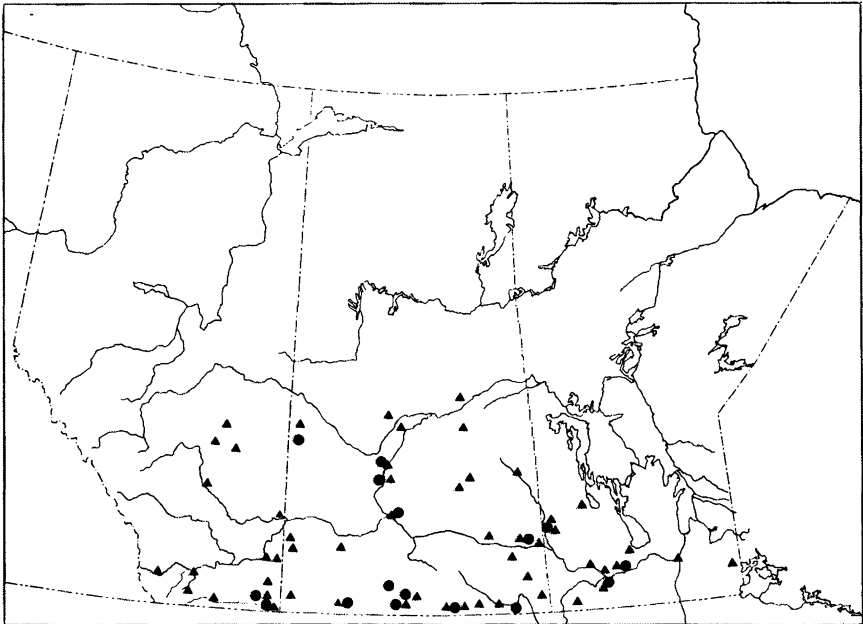
**Habitat.** Collected on herbaceous plants; probably predaceous.

**Distribution.** Colorado; now known to occur in the Prairie Provinces (Map 50).





Figs. 115–123. Male claspers of *Phytocoris* spp. 115, *laevis*; 116, *lasiomerus*; 117, *pallidicornis*; 118, *validus*; 119, *stellatus*; 120, *listi*; 121, *pinicola*; 122, *conspersipes*; 123, *alpinus*.



Map 50. Collection localities for *Phytocoris pallidicornis* (▲) and *P. validus* (●).

*Phytocoris stellatus* Van Duzee

Fig. 119; Map 51

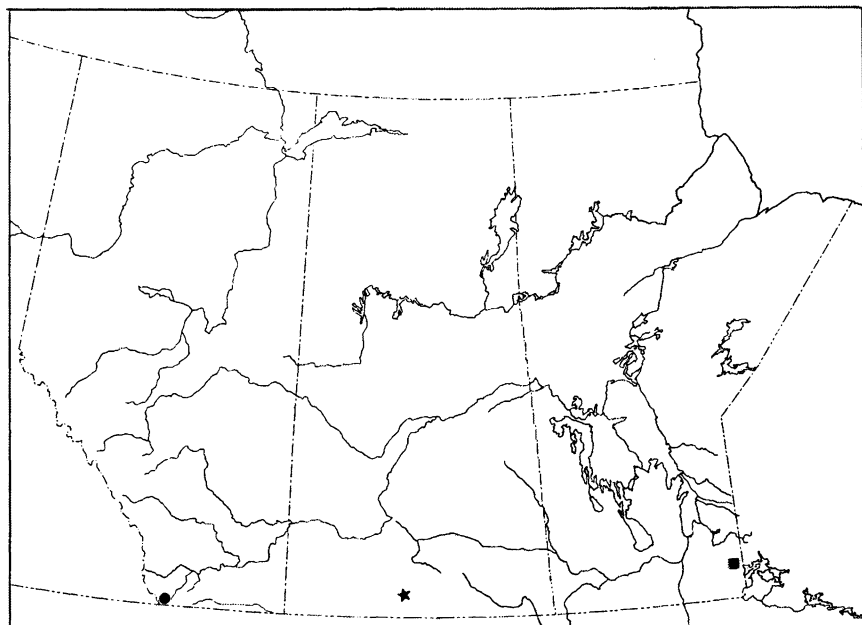
*Phytocoris stellatus* Van Duzee, 1920:350.

Length 5.60–6.30 mm; width 1.96–2.10 mm. Head marked with reddish brown. Rostrum 2.10–2.24 mm long. First antennal segment shorter than head width, pubescence long and erect on inner surface; second segment brown. Pronotum marked with reddish brown, submargin brown. Scutellum pale, often marked with two brown spots near apex. Hemelytra reddish, often with two pale areas on corium, one near middle and one near apex; pubescence silvery, mixed with erect, black hairs. Legs marked with red.

**Remarks.** This species is distinguished by the short and slender first antennal segment and by the genital claspers (Fig. 119).

**Habitat.** Collected on *Pinus contorta*; predaceous on aphids.

**Distribution.** California, British Columbia; now known to occur in Alberta (Map 51).



Map 51. Collection localities for *Phytocoris stellatus* (●), *P. listi* (★), and *P. pinicola* (■).

*Phytocoris listi* Knight

Fig. 120; Map 51

*Phytocoris listi* Knight, 1928a:30.

Length 5.18–5.46 mm; width 1.54–1.70 mm. Head grayish marked with brown. Rostrum 2.80–2.94 mm long. First antennal segment shorter than head width. Pronotum grayish brown. Scutellum dark brown, basal angles and apex pale. Hemelytra gray marked with brown; pubescence silvery, mixed with erect, black hairs. Tibiae pale banded with black.

**Remarks.** This species is distinguished by the short first antennal segment, by the grayish brown color, by the long rostrum, and by the genital claspers (Fig. 120).

**Habitat.** Unknown.

**Distribution.** Colorado, South Dakota; now known to occur in Saskatchewan (Map 51).

*Phytocoris pinicola* Knight

Fig. 121; Map 51

*Phytocoris pinicola* Knight, 1920:59.

Length 4.34–4.90 mm; width 1.68–1.75 mm. Head marked with red. Rostrum 1.96–2.10 mm long. First antennal segment shorter than head width, pubescence long and erect on inner surface; second segment brown. Pronotum and scutellum reddish brown. Hemelytra with reddish tinge; pubescence silvery, recumbent, intermixed with slanting, brown hairs. Legs tinged with red.

**Remarks.** This species and *stellatus* are similar in appearance, but may be separated from each other by the genital claspers (Fig. 121).

**Habitat.** Collected on *Pinus banksiana*; predaceous on aphids.

**Distribution.** Northeastern States, Missouri, Mississippi; now known to occur in Manitoba (Map 51).

*Phytocoris conspersipes* Reuter

Fig. 122; Map 52

*Phytocoris conspersipes* Reuter, 1909:22.

Length 4.76–4.90 mm; width 1.68–1.82 mm. Head marked with red. Rostrum 1.82–1.96 mm long. First antennal segment short, pubescence on inner surface erect; second segment black. Pronotum with reddish tinge. Scutellum marked with red, apex pale. Hemelytra marked with red; pubescence silvery, mixed with erect, black hairs. Legs marked with red.

**Remarks.** This species and *pinicola* are similar in color and appearance, but are separated by the genital claspers (Fig. 122).

**Habitat.** Collected on *Pinus banksiana* and *P. contorta*.

**Distribution.** Eastern States, Ontario; now known to occur in the Prairie Provinces (Map 52).

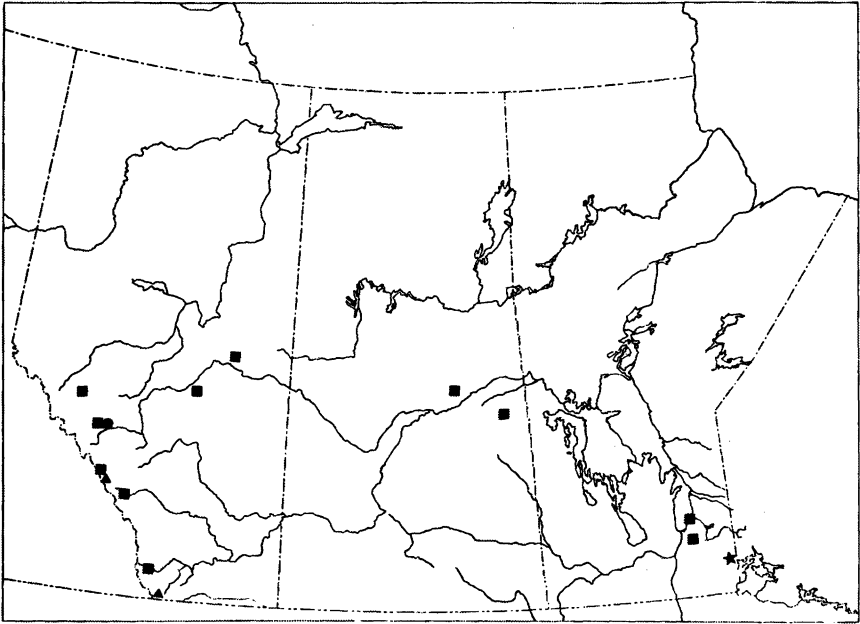
*Phytocoris alpinus* Kelton

Figs. 123, 135; Map 52

*Phytocoris alpinus* Kelton, 1979a:689.

Length 8.68–8.96 mm; width 2.61–2.80 mm. Head mostly black, vertex partly pale; frons faintly striate. Rostrum 3.50–3.64 mm long. Antennae

black, first segment with few pale spots. Pronotum black, median line between calli often pale. Scutellum black, basal angles, median line, and apex often pale. Hemelytra mostly black, corium with several pale patches, cuneus pale at base (Fig. 135); pubescence silvery, appressed, intermixed with slanting, black hairs. Coxae pale; femora pale irrorate with black; tibiae black, hind tibia with two pale rings.



Map 52. Collection localities for *Phytocoris conspersipes* (■), *P. alpinus* (▲), *P. michiganae* (★), and *P. albertae* (●).

**Remarks.** This is the darkest species encountered in the *junceus* Knight group. It is distinguished by the black antennae and pronotum, by the biannulate hind tibia, and by the prominent tubercles on the genital segment (Fig. 123).

**Habitat.** Collected on *Pinus contorta*.

**Distribution.** Alberta (Map 52).

### *Phytocoris michiganae* Knight

Fig. 124; Map 52

*Phytocoris michiganae* Knight, 1974:128.

Length 7.35–8.05 mm; width 2.24–2.38 mm. Head light yellowish brown, clypeus and jugs marked with red. Rostrum 3.22–3.50 mm long.

First antennal segment mostly pale, lightly marked with brown, ventral surface with longitudinal brown line; second segment light brown, apex dark brown; terminal segments black. Pronotum light reddish brown. Scutellum reddish brown, basal angles, median line, and apex white. Hemelytra light reddish brown; corium with three white spots, one near base, one at center, and one near apex; cuneus pale on basal half, reddish brown on apical half; pubescence silvery, mixed with longer black hairs. Legs pale, femora irrorate with reddish brown; tibiae pallid.

**Remarks.** This is the most reddish brown species of the group. The tubercles at the bases of claspers are prominent (Fig. 124).

**Habitat.** Collected on *Pinus banksiana*.

**Distribution.** Michigan; now known to occur in Manitoba (Map 52).

*Phytocoris albertae* Knight

Fig. 125; Map 52

*Phytocoris albertae* Knight, 1974:131.

Length 8.68–9.10 mm; width 2.66–2.80 mm. Head mostly black, vertex with few pale areas. Rostrum 3.64–3.78 mm long. Antennae mostly black, first segment with several pale spots. Pronotum pale at middle, lateral margins and basal submargin black. Scutellum black, basal angles and median line often pale. Hemelytra fuscous white with irregular patches of black; cuneus tinged with red on basal half; pubescence silvery, appressed, intermixed with slanting, black hairs. Coxae pale, femora irrorate with brown, hind femur often with subapical pale band; tibiae fuscous to black, hind tibia often with two pale rings.

**Remarks.** This species closely resembles *alpinus*, but is not as dark, and the tubercle at the base of left clasper is different (Fig. 125). It was originally included in the series with *junceus*, but Knight (1974) showed that the Nordegg specimens were distinct species.

**Habitat.** Collected on *Picea glauca*.

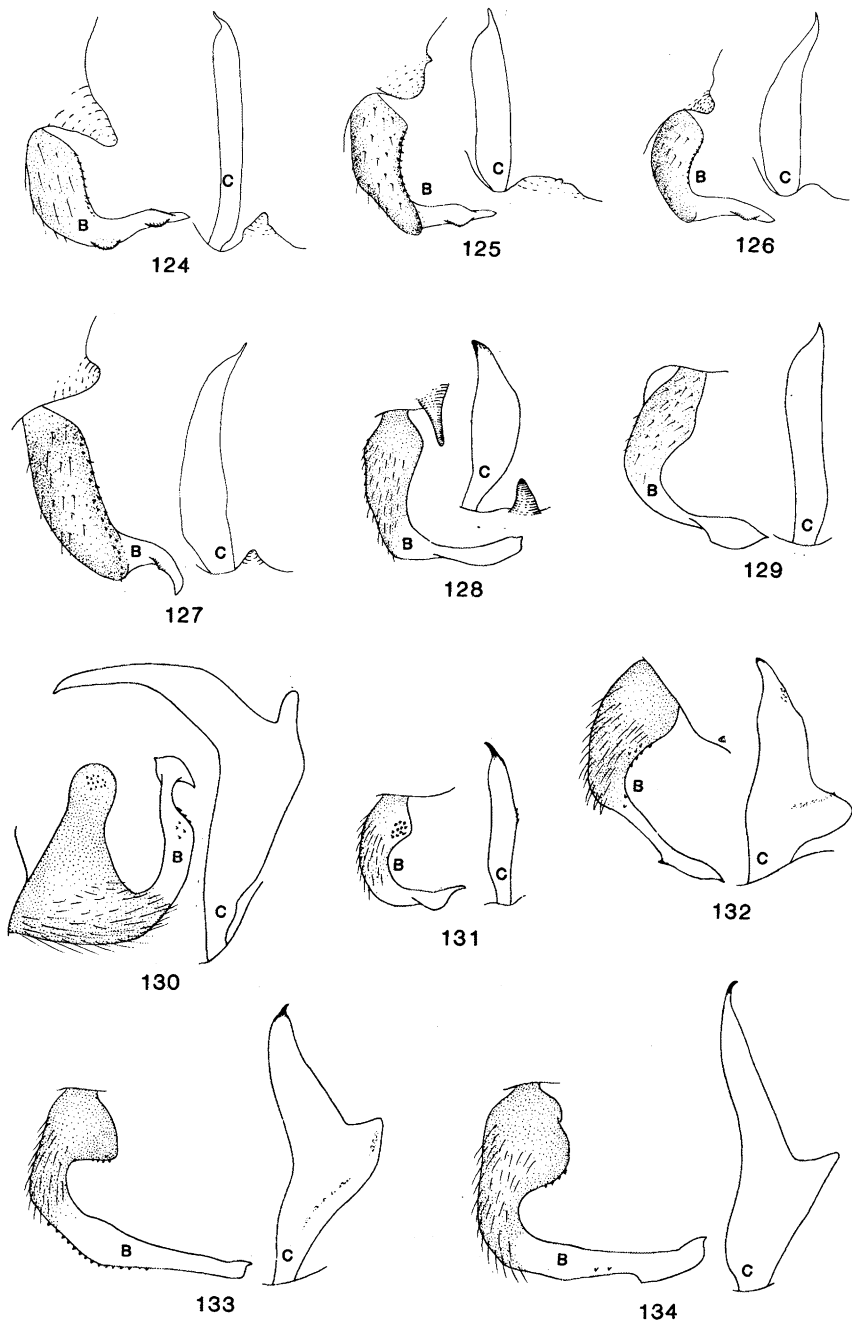
**Distribution.** Alberta (Map 52).

*Phytocoris brimleyi* Knight

Fig. 126; Map 53

*Phytocoris brimleyi* Knight, 1974:130.

Length 7.42–7.84 mm; width 2.52–2.66 mm. Head pale yellow, frons, clypeus, lora, and juga red or black. Rostrum 3.36–3.64 mm long. First



Figs. 124–134. Male claspers of *Phytocoris* spp. 124, *michiganae*; 125, *albertae*; 126, *brimleyi*; 127, *dreisbachi*; 128, *conspurcatus*; 129, *borealis*; 130, *erectus*; 131, *brooksi*; 132, *salicis*; 133, *neglectus*; 134, *onustus*.

antennal segment pale, ventral surface with broken longitudinal brown stripe; second segment mostly pale, tip fuscous; terminal segments black. Pronotum light yellowish brown, lateral margins and subbasal margin brown. Scutellum brown, lateral angles, median line, and apex pale. Hemelytra mostly brown with irregular patches of white, cuneus tinged with red. Legs pallid, femora irrorate with reddish brown.

**Remarks.** This species resembles *michiganae*, but is more brownish, and the left tubercle is short and rounded (Fig. 126).

**Habitat.** Collected on *Picea glauca*.

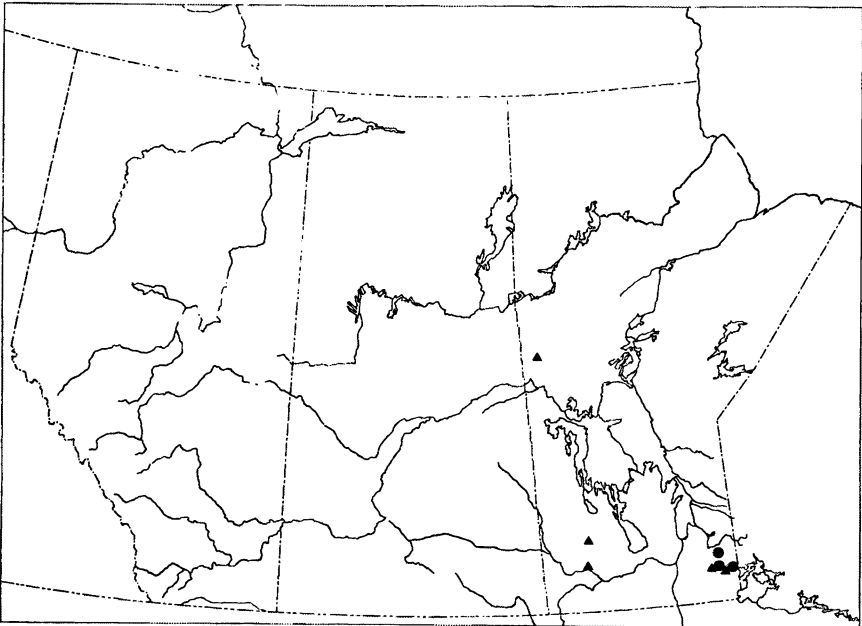
**Distribution.** Ontario; now known to occur in Manitoba and Alberta (Map 53).

*Phytocoris dreisbachi* Knight

Fig. 127; Map 53

*Phytocoris dreisbachi* Knight, 1974:125.

Length 7.42–7.56 mm; width 2.38–2.59 mm. Head mostly black, area between eyes yellowish. Rostrum 3.43–3.64 mm long. First antennal seg-



Map 53. Collection localities for *Phytocoris brimleyi* (▲) and *P. dreisbachi* (●).



ment pallid, lightly marked with brown, ventral surface with longitudinal brown line; second and terminal segments brown to black. Pronotum pallid, lateral margins and subbasal margin dark brown. Scutellum dark brown, lateral margins and apex white. Hemelytra dark brown, with pale mottling; corium with three irregular white spots, one near base, one at center, and one near apex; cuneus pallid on basal half; pubescence silvery, mixed with longer erect hairs. Legs pallid; femora reticulate with brown.

**Remarks.** This species closely resembles *brimleyi*, but differs in having a broader tubercle at the base of the left clasper (Fig. 127). This tubercle is similar to that of *alpinus*, but the latter has uniformly black pronotum.

**Habitat.** Collected on *Pinus banksiana* in Manitoba, and on *P. contorta* in Alberta.

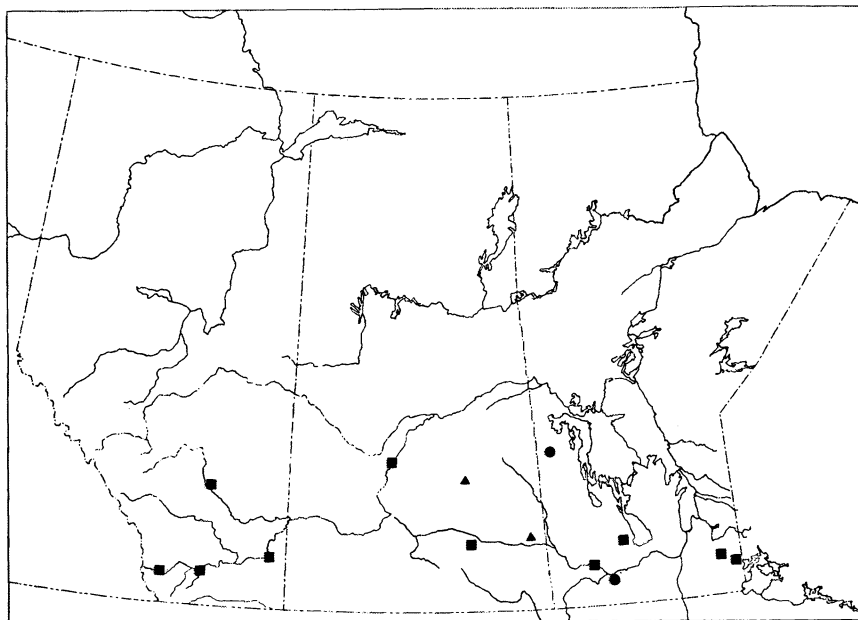
**Distribution.** Michigan; now known to occur in the Prairie Provinces (Map 53).

*Phytocoris conspurcatus* Knight

Fig. 128; Map 54

*Phytocoris conspurcatus* Knight, 1920:61.

Length 5.74–5.95 mm; width 2.17–2.31 mm. Head gray marked with brown and reddish brown. Rostrum 2.66–2.80 mm long. First antennal



Map 54. Collection localities for *Phytocoris conspurcatus* (■), *P. borealis* (●), and *P. erectus* (▲).

segment with long, erect, white hairs; second segment with white band at base and middle. Pronotum gray, subbasal margin often black. Hemelytra gray marked with brown; pubescence sericeous, white and black, mixed with slanting, black hairs. Legs marked with brown.

**Remarks.** The banded second antennal segment, and the long and slender tubercle at the base of left clasper (Fig. 128) readily distinguish this species.

**Habitat.** Collected on *Salix* spp.; predaceous on aphids.

**Distribution.** Northeastern and North Central States, Mississippi, Ontario, British Columbia; now known to occur in the Prairie Provinces (Map 54).

*Phytocoris borealis* Knight

Fig. 129; Map 54

*Phytocoris borealis* Knight, 1926c:158.

Length 6.44–6.80 mm; width 2.24–2.38 mm. Head marked with black, lower half of face white. Rostrum 2.80–2.90 mm long. First antennal segment with erect, white hairs; second segment with white band at base and middle. Pronotum marked with black. Hemelytra mostly marked with black; pubescence white, matted, intermixed with black, slanting hairs. Legs marked with black.

**Remarks.** This species resembles *conspurcatus*, but lacks the black, sericeous pubescence on the hemelytra, and the tubercle near the base of left clasper is absent (Fig. 129).

**Habitat.** Unknown.

**Distribution.** New York, Ontario; now known to occur in Manitoba (Map 54).

*Phytocoris erectus* Van Duzee

Fig. 130; Map 54

*Phytocoris erectus* Van Duzee, 1920:345.

Length 5.46–5.88 mm; width 1.96–2.24 mm. Head marked with brown and black. Rostrum 2.52–2.66 mm long. First antennal segment with several long, pale hairs; second antennal segment with pale band at base. Pronotum light brown, subbasal margin dark brown. Hemelytra brown, apex of corium with diagonal dark brown bar; pubescence silvery, appressed, intermixed with slanting, darker hairs. Legs marked with brown.

**Remarks.** This species lacks the pale, middle band on the second antennal segment, and the tubercle at the base of the left clasper is absent. The left clasper (Fig. 130) has a long, basal projection.

**Habitat.** Collected on *Salix* spp.; predaceous on aphids.

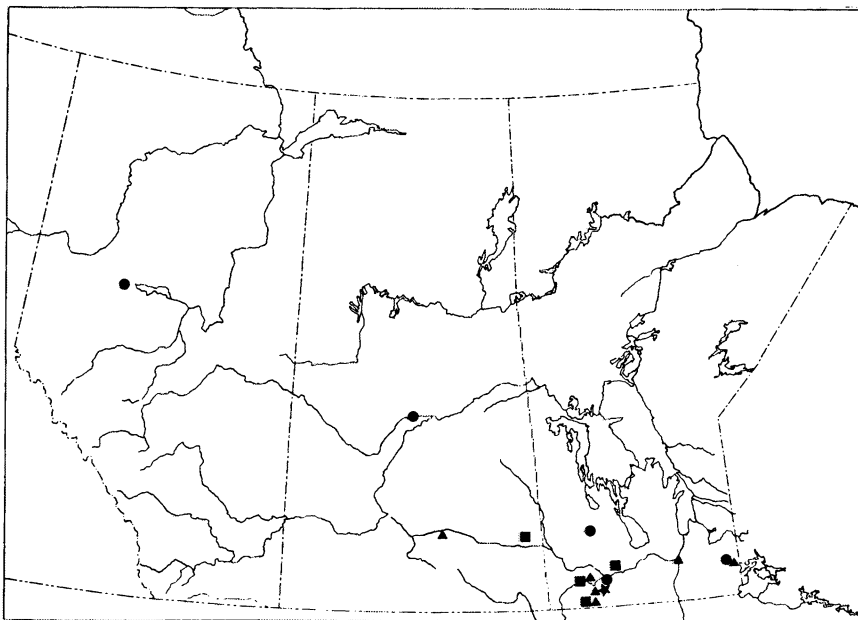
**Distribution.** Northeastern and Central States, Ontario, Quebec; now known to occur in Saskatchewan (Map 54).

*Phytocoris brooksi* Kelton

Figs. 131, 136; Map 55

*Phytocoris brooksi* Kelton, 1979a:689.

Length 5.46–5.67 mm; width 1.89–2.10 mm. Head marked with red and brown. Rostrum 2.52–2.66 mm long. First antennal segment with several long, white bristles; second segment brown or black with pale band at base. Pronotum brown, calli often marked with red. Hemelytra marked with brown or black; pubescence silvery, intermixed with slanting, black hairs. Ventral surface white, pleura and side of abdomen black. Legs spotted with brown.



Map 55. Collection localities for *Phytocoris brooksi* (■), *P. salicis* (▲), *P. neglectus* (●), and *P. onustus* (★).

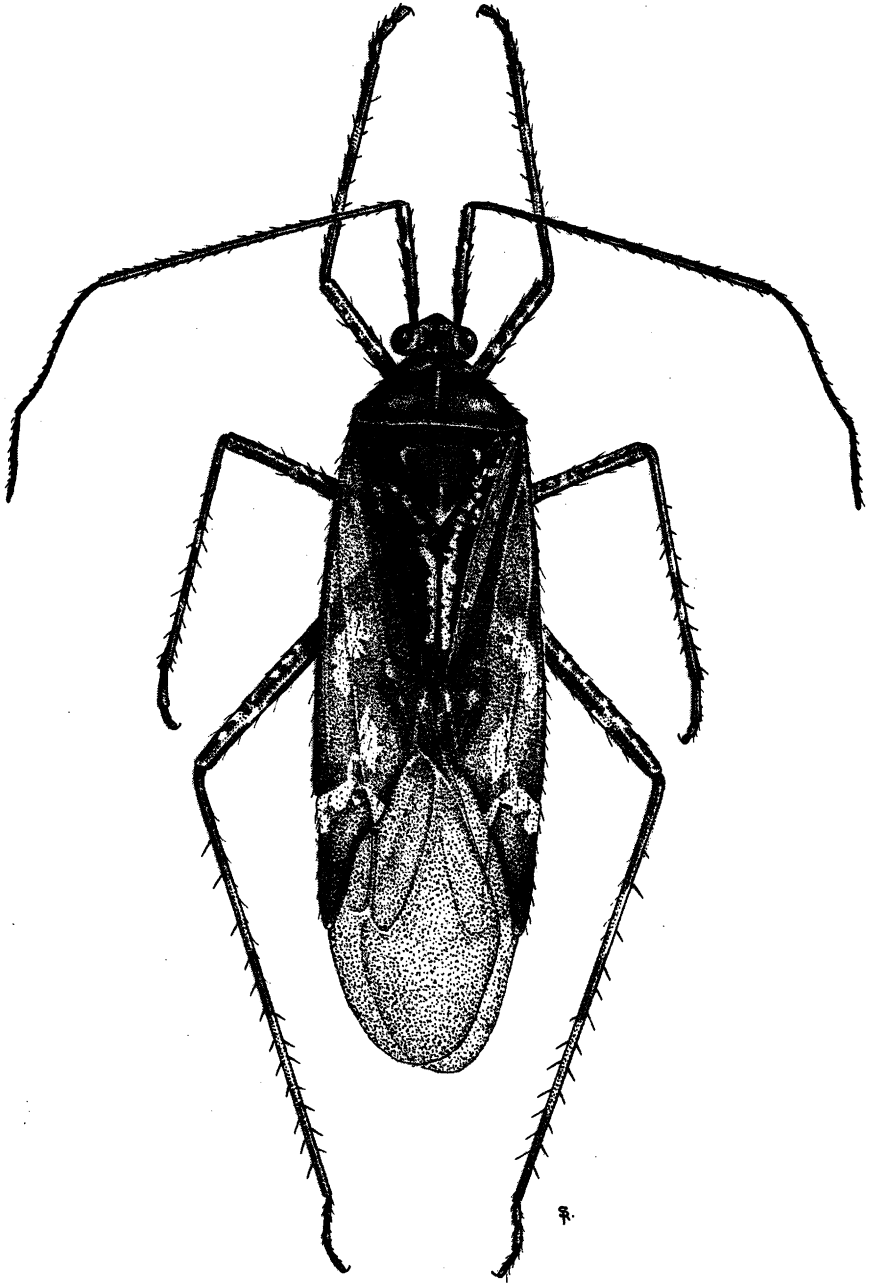


Fig. 135. *Phytocoris alpinus*

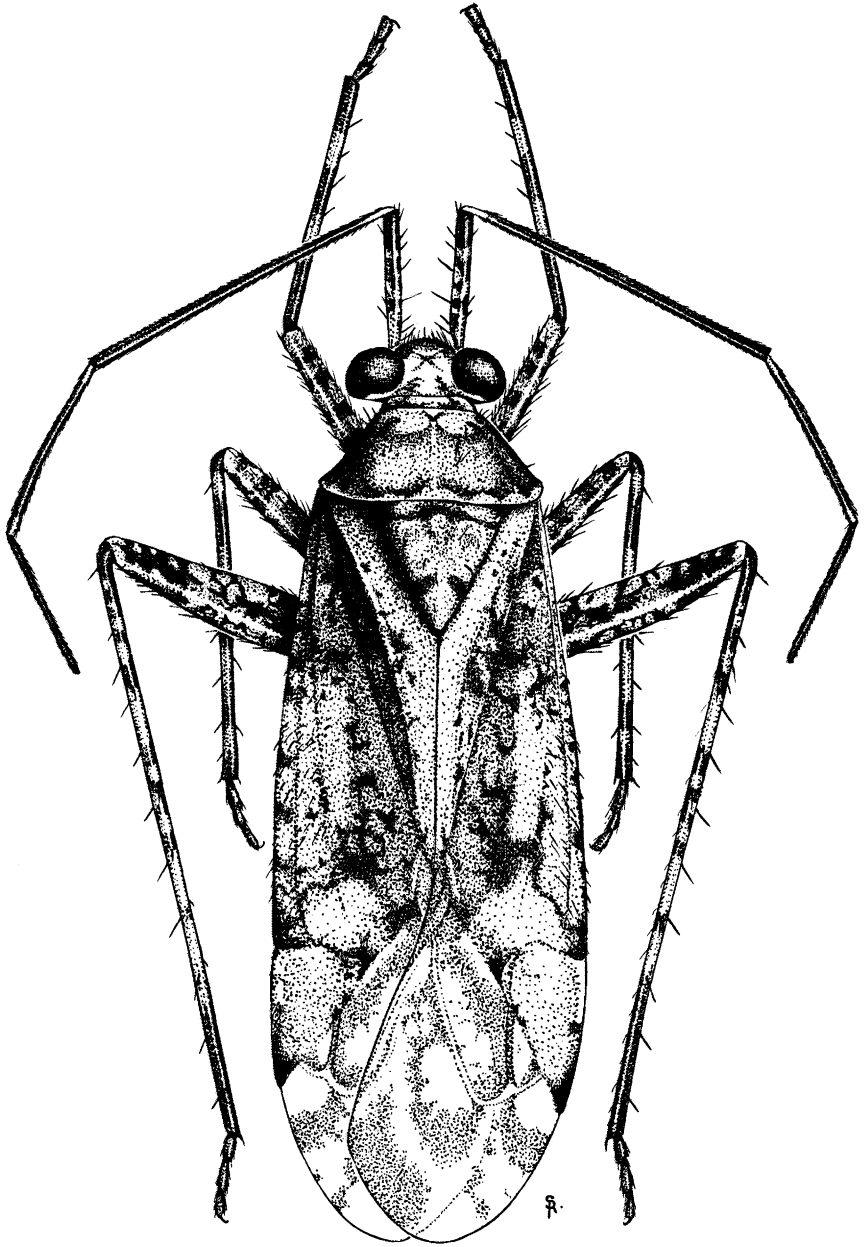


Fig. 136. *Phytocoris brooksi*

**Remarks.** This species is distinguished by the pale band at the base of second antennal segment (Fig. 136), and by the slender, right clasper (Fig. 131).

**Habitat.** Collected on *Quercus macrocarpa*; predaceous on aphids.

**Distribution.** Saskatchewan and Manitoba (Map 55).

*Phytocoris salicis* Knight

Fig. 132; Map 55

*Phytocoris salices* Knight, 1920:56.

Length 5.60–6.16 mm; width 2.10–2.38 mm. Head marked with brown. Rostrum 2.59–2.80 mm long. First antennal segment spotted with brown, bristles on inner surface white, long; second segment with pale band at base. Pronotum marked with brown. Hemelytra brown; pubescence silvery, intermixed with slanting, golden hairs. Legs marked with brown, coxae pale.

**Remarks.** This species is distinguished by the pale band at the base of second antennal segment, by the tiny tubercle near the base of left clasper, and by the broad and rounded basal projection on the right clasper (Fig. 132).

**Habitat.** Collected on *Salix* spp.; predaceous on aphids.

**Distribution.** Eastern and Central States, Ontario; now known to occur in Manitoba and Saskatchewan (Map 55).

*Phytocoris neglectus* Knight

Fig. 133; Map 55

*Phytocoris neglectus* Knight, 1920:54.

Length 6.16–6.58 mm; width 2.10–2.38 mm. Head brown marked with darker brown. Rostrum 2.80–2.94 mm long. First antennal segment spotted with black, bristles on inner surface white, long; second segment with pale band at base. Pronotum brown, subbasal margin darker brown with clumps of silvery pubescence. Hemelytra brown; pubescence silvery, appressed, mostly in small clumps, intermixed with slanting, darker hairs. Legs marked with brown, coxae usually pale.

**Remarks.** This species is distinguished by the pale band at the base of second antennal segment, and by the broad and triangular basal projection on the left clasper (Fig. 133).

**Habitat.** Collected on *Picea glauca* and *Abies balsamea*; predaceous on aphids.

**Distribution.** Eastern half of USA, Ontario; now known to occur in the Prairie Provinces (Map 55).

*Phytocoris onustus* Van Duzee

Fig. 134; Map 55

*Phytocoris onustus* Van Duzee, 1920:344.

Length 7.00–7.28 mm; width 2.38–2.52 mm. Head marked with black. Rostrum 2.94–3.08 mm long. First antennal segment spotted with brown, bristles on inner surface white, long; second segment with pale band at base. Pronotum brown, subbasal margin black, interrupted by pale spaces. Hemelytra brown, outer margin of apex darker brown, inner apex pale; pubescence silvery, appressed, intermixed with slanting, black hairs. Legs marked with brown, coxae pale.

**Remarks.** This species is distinguished by the pale band at the base of second antennal segment, and by the sharp, triangular projection on the right clasper (Fig. 134).

**Habitat.** Unknown.

**Distribution.** Northeastern States, Georgia, Illinois, Ontario; now known to occur in Manitoba (Map 55).

### Genus *Adelphocoris* Reuter

Elongate, robust, pubescent species. Head oblique, frons smooth, carina between eyes absent, vertex with shallow longitudinal groove. Rostrum extending to hind coxae. Pronotum finely punctate, rugose, lateral margins rounded. Hemelytra punctate, densely pubescent. Dorsolateral margin of genital segment with short, sharp tubercle.

Three species occur in North America, and all are found in the Prairie Provinces; one of them an introduced European species.

### Key to species of *Adelphocoris*

1. Dorsal surface greenish yellow, pronotum usually with pair of black spots, scutellum with two brown lines ..... *lineolatus* (Goeze) (p. 185)  
Dorsal surface brown or reddish ..... 2
2. Hemelytra brown, costal margin yellow ..... *rapidus* (Say) (p. 186)  
Hemelytra brown, costal margin and cuneus red, or hemelytra yellow or red .....  
..... *superbus* (Uhler) (p. 187)

*Adelphocoris lineolatus* (Goeze)

Map 56

*Cimex lineolatus* Goeze, 1778:267.

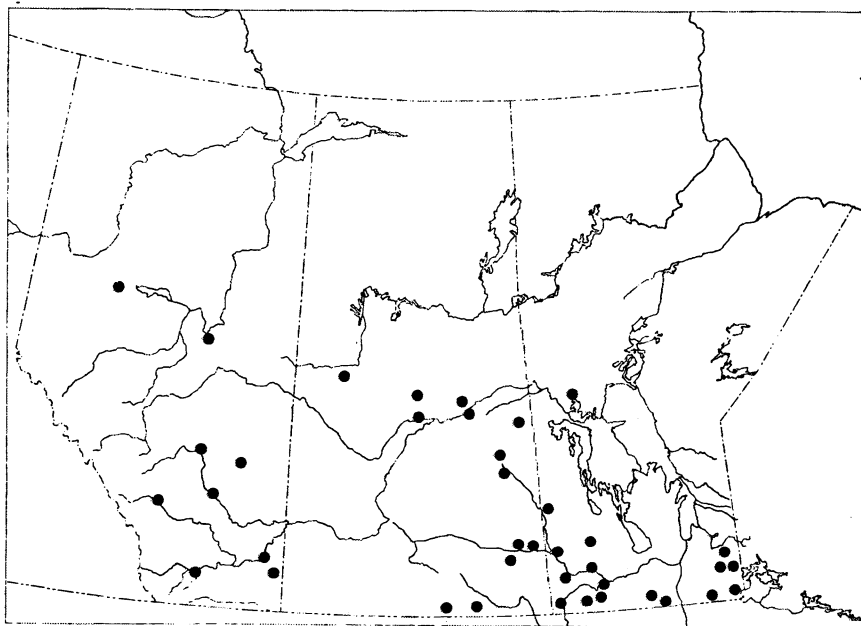
*Adelphocoris lineolatus*: Reuter, 1896:222.

Length 7.00–9.10 mm; width 2.52–3.08 mm. Head and pronotum yellowish green, pronotum often with two black spots behind calli. Scutellum yellowish green with two brown lines. Hemelytra greenish yellow, clavus and triangular area on apical half of corium often fuscous. Ventral surface yellowish green; legs green; femora spotted with black.

**Remarks.** This species was introduced from Europe. It is distinguished by the greenish yellow color and by the black spotting on the femora.

**Habitat.** Collected on *Medicago sativa*, *Melilotus* spp., *Trifolium* spp., and on other herbaceous plants.

**Distribution.** North Central States, Eastern Canada; Prairie Provinces (Map 56).



Map 56. Collection localities for *Adelphocoris lineolatus*.



*Adelphocoris rapidus* (Say)

Map 57

*Capsus rapidus* Say, 1832:20.

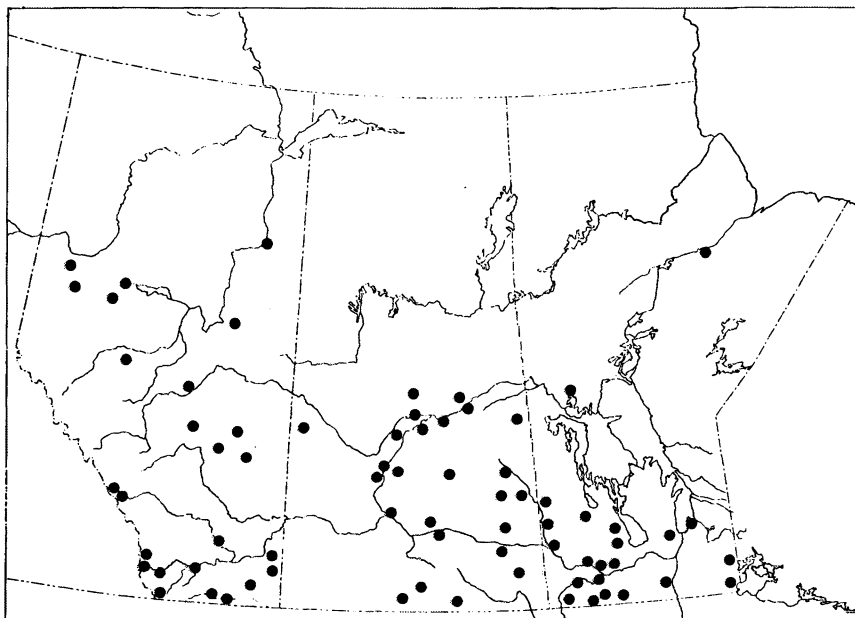
*Adelphocoris rapidus*: Van Duzee, 1908:113.

Length 6.65–8.05 mm; width 2.66–3.08 mm. Head reddish brown, clypeus darker brown. Pronotum yellowish brown, basal half often with two large, brown spots. Hemelytra brown, costal margin yellow. Ventral surface reddish brown; legs lighter brown.

**Remarks.** The color of this species varies considerably. The brown spots on the pronotum may be absent. The hemelytra may be diffuse brown with no demarkation from the yellow costal margin and the darker clavus and corium.

**Habitat.** Collected on many herbaceous plants.

**Distribution.** Widespread in USA, Eastern Canada; Prairie Provinces (Map 57).



Map 57. Collection localities for *Adelphocoris rapidus*.

*Adelphocoris superbus* (Uhler)

Map 58

*Calocoris superbus* Uhler, 1875:838.

*Adelphocoris superbus*: Tucker, 1907:60.

Length 6.65–8.26 mm; width 2.59–3.08 mm. Head red, clypeus darker red. Pronotum red, seldom with two brown spots as in *rapidus*. Hemelytra red, median portion and scutellum often darker. Ventral surface red; femora red, tibiae lighter red.

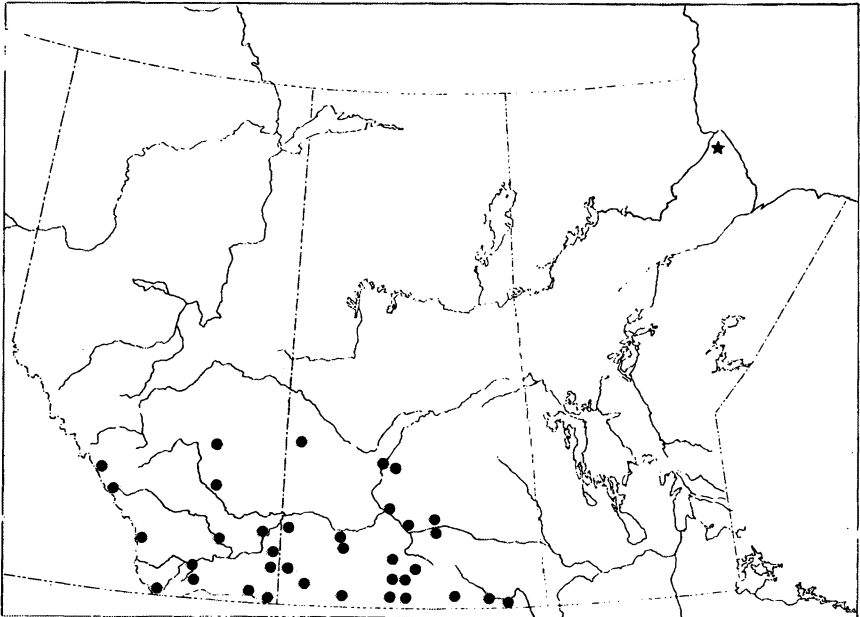
**Remarks.** Although this species and *rapidus* are structurally similar, they are strikingly different in color.

**Habitat.** Collected on *Glycyrrhiza lepidota*, *Monarda fistulosa*, *Lupinus* spp., and *Medicago sativa*.

**Distribution.** North Central and western States; Saskatchewan and Alberta (Map 58).

Genus *Calocoris* Fieber

Elongate, reddish brown, pubescent species. Head oblique, frons smooth, carina between eyes absent, vertex smooth. Rostrum extending to



Map 58. Collection localities for *Adelphocoris superbus* (●) and *Calocoris fulvomaculatus* (★).

hind coxae. Pronotum smooth, lateral margins rounded. Hemelytra very finely punctate, densely pubescent. Ventral surface mostly black, legs pale, spotted with black.

Seven species are known from North America, two of these are Holarctic in distribution. *Calocoris norvegicus* occurs in British Columbia and Eastern Canada. *C. fulvomaculatus* occurs in northern Canada and Alaska.

*Calocoris fulvomaculatus* (De Geer)

Map 58

*Cimex fulvomaculatus* De Geer, 1773:294.

*Calocoris fulvomaculatus*: Fieber, 1861:253.

Length 6.16–7.00 mm; width 2.24–2.66 mm. Head mostly black or reddish brown, two spots on vertex between eyes often pale. Second antennal segment long, slender. Pronotum reddish brown to black. Hemelytra reddish brown to black, cuneus pale or reddish. Genital segment with small tubercle on left dorsal margin.

**Remarks.** This species is distinguished by the reddish brown color, by the long second antennal segment, by the smooth pronotum, and by the spotted legs.

**Habitat.** Unknown.

**Distribution.** Alaska, Yukon, British Columbia; now known to occur in Manitoba (Map 58).

Subfamily Orthotylinæ Van Duzee

In North America this is the second largest subfamily with 55 genera and approximately 500 species. Most of the species are phytophagous.

The following are the subfamily characteristics: 1) large, free parempodia converging at apices; 2) small and depressed pronotal collar; 3) male genitalia basically with flexible ductus seminis, with or without spicula.

In the Prairie Provinces the subfamily is represented by 3 tribes, 24 genera, and 87 species.

Key to tribes of Orthotylinæ

1. Compact, black species with silvery, sericeous pubescence; head dorsoventrally elongated; hind femur saltatorial (Fig. 137) ..... **Halticini** (p. 189)

- Elongate or oval species, if black, without sericeous pubescence; head not as above; hind femur not saltatorial ..... 2
2. Hemelytra without transverse bands of silvery, sericeous pubescence ..... **Orthotylini** (p. 194)
- Hemelytra with transverse bands of silvery, sericeous pubescence (Fig. 138) ..... **Pilophorini** (p. 274)

## Tribe Halticini

In the Prairie Provinces the tribe is represented by two genera and six species.

### Key to genera of Halticini

1. Eyes pedunculate (Fig. 139); dull black species; second antennal segment shorter than width of pronotum at base ..... **Labops** Burmeister (p. 189)
- Eyes not pedunculate; shiny species; second antennal segment longer than width of pronotum at base ..... **Halticus** Hahn (p. 194)

### Genus *Labops* Burmeister

Black, compact, pubescent species. Head vertical, eyes protruding outwards beyond anterior angles of pronotum, carina between them distinct. Pronotum subrectangular, lateral margins rounded. Hemelytra pruinose, dimorphic, in brachypterous forms wing membrane absent. Ventral surface with sericeous pubescence.

The genus was revised by Slater (1954) recording nine species from North America; five occur in the Prairie Provinces.

### Key to species of *Labops*

1. Pubescence short, sparse; broad, pale costal margin interrupted by black at middle of corium ..... **verae** Knight (p. 190)
- Pubescence long, dense; narrow, pale costal margin not interrupted ..... 2
2. Hind tibia black or brownish black ..... 3
- Hind tibia partly reddish brown or yellow ..... 4
3. Jugum greatly inflated in males, less so in females; jugum with dense hair ..... **hesperius** Uhler (p. 191)
- Jugum not inflated; jugum with sparse, short hair ..... **brooksi** Slater (p. 191)
4. Clypeus with prominent clump of white hair; frons black; hind tibia not pilose ..... **tumidifrons** Knight (p. 192)
- Clypeus without prominent hair; frons with pale median line; hind tibia strongly pilose ..... **hirtus** Knight (p. 192)

*Labops verae* Knight

Map 59

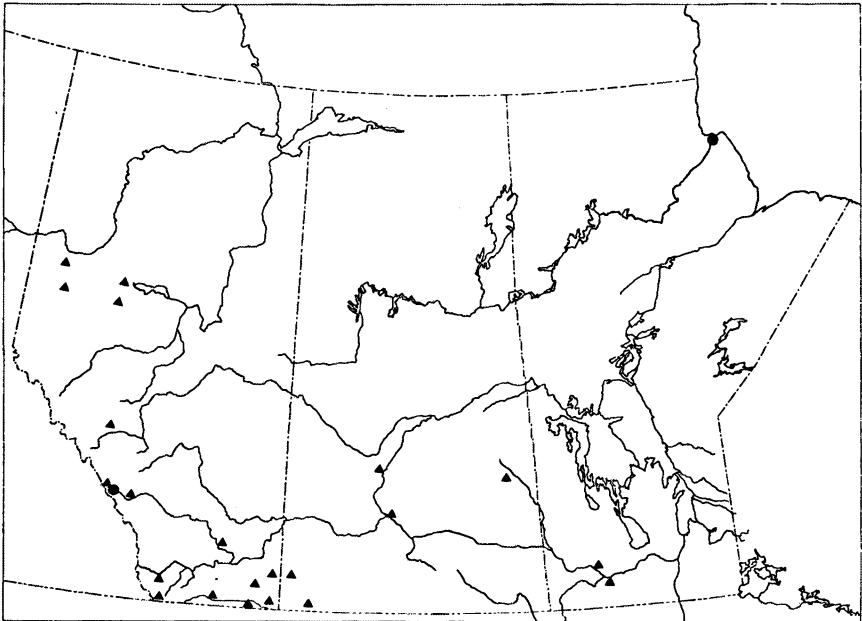
*Labops verae* Knight, 1929d:214.

Length 3.36–3.78 mm; width 1.61–1.82 mm. Head black, apical half of clypeus, jugum, margin along eye, and carina next to eye often pale or reddish. Rostrum 1.40–1.54 mm long. Antennae black, second antennal segment reddish. Pronotum and scutellum black. Hemelytra black, basal half and apical margin of corium pale; pubescence short. Ventral surface black, legs mostly black, tibiae reddish. Brachypterous.

**Remarks.** This species is distinguished by the almost glabrous appearance, by the reddish second antennal segment and tibiae, and by the color pattern on the hemelytra.

**Habitat.** Unknown.

**Distribution.** Washington, Northwest Territories, British Columbia; Alberta, now known to occur in Manitoba (Map 59).



Map 59. Collection localities for *Labops verae* (●) and *L. hesperius* (▲).

*Labops hesperius* Uhler

Map 59

*Labops hesperius* Uhler, 1872:416.

Length 3.92–4.20 mm; width 1.68–2.24 mm. Head black, yellow areas similar to those of *brooksi*, jugum greatly inflated in males, less so in females. Rostrum 1.54–1.68 mm long. Antennae black. Pronotum and scutellum black. Hemelytra similar to *brooksi* in color and pubescence. Ventral surface and legs mostly black, hind tibia mostly pale. Macropterous and brachypterous forms.

**Remarks.** This species is distinguished by the greatly inflated jugum.

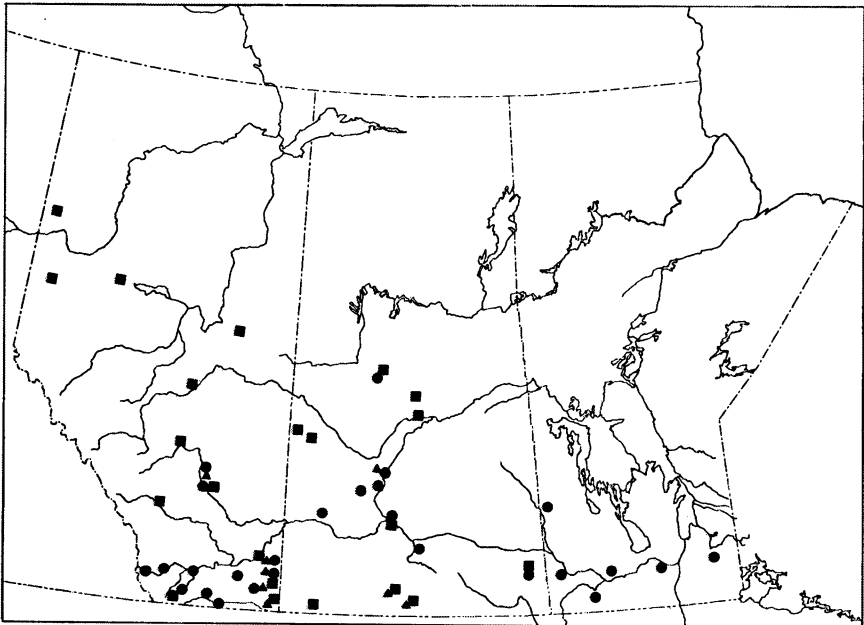
**Habitat.** Collected on *Agropyron cristatum*, range grasses, and *Rosa arkansana*.

**Distribution.** Transcontinental in USA, Northwest Territories, Ontario, Quebec, British Columbia; Alberta, Manitoba, now known to occur in Saskatchewan (Map 59).

*Labops brooksi* Slater

Map 60

*Labops brooksi* Slater, 1954:64.



Map 60. Collection localities for *Labops brooksi* (●), *L. tumidifrons* (▲), and *L. hirtus* (■).

Length 3.91–4.83 mm; width 1.75–2.13 mm. Head black, tip of clypeus, jugum, short median line on frons, base of lorum and area under eye, and spot next to eye on top yellow. Rostrum 1.40–1.47 mm long. Antennae black. Pronotum and scutellum black. Hemelytra black, costal margin pale; pruinose; pubescence long, slanting. Ventral surface and legs mostly black. Males macropterous, females brachypterous.

**Remarks.** This species is distinguished by the flattened jugum and the black hind tibia.

**Habitat.** Collected on grasses.

**Distribution.** British Columbia; Prairie Provinces (Map 60).

*Labops tumidifrons* Knight

Map 60

*Labops tumidifrons* Knight, 1922:259.

Length 3.08–4.20 mm; width 1.19–1.68 mm. Head black, jugum, area beneath eye, and spot next to eye on top yellow. Rostrum 0.98–1.12 mm long. Antennae black. Pronotum and scutellum black. Hemelytra black, costal margin pale; pruinose; pubescence long, semierect. Ventral surface black, tibiae often pale. Males macropterous, females macropterous and brachypterous.

**Remarks.** This is a small species with no pale area on the frons. The clypeus has long, dense pubescence.

**Habitat.** Collected on range grasses.

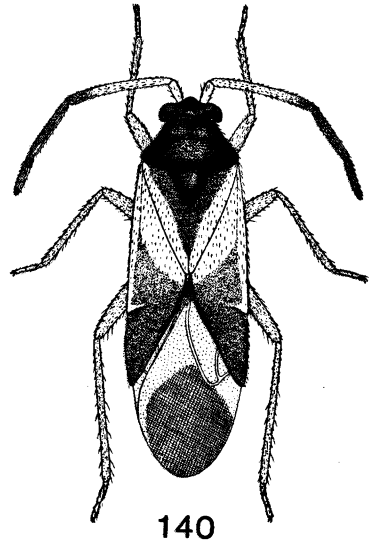
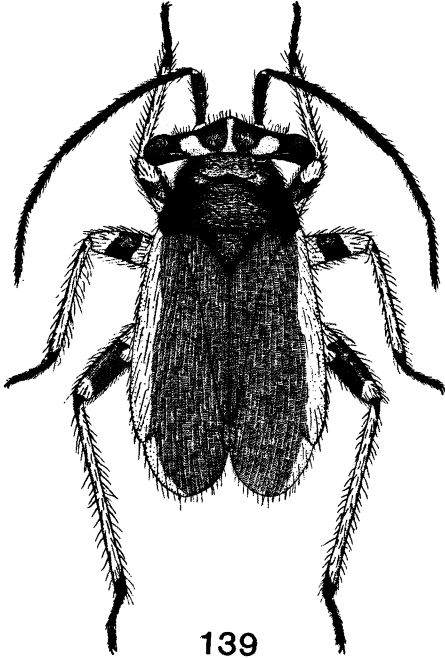
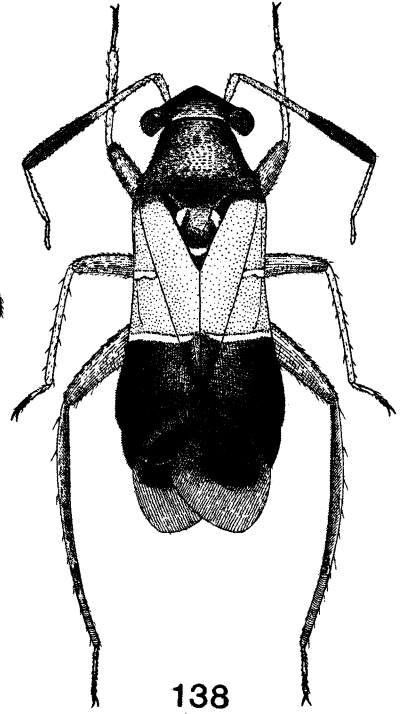
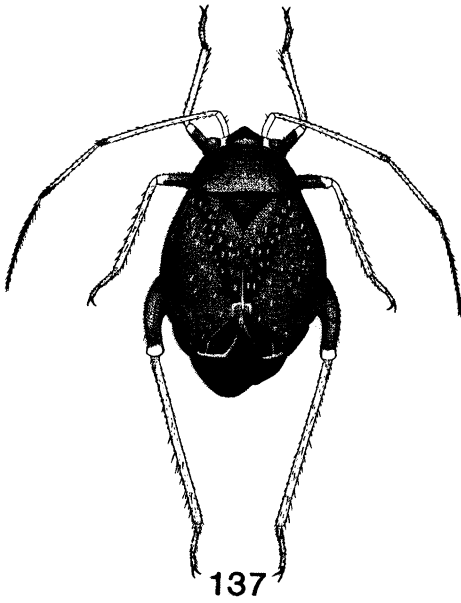
**Distribution.** South Dakota, British Columbia; Alberta, now known to occur in Saskatchewan (Map 60).

*Labops hirtus* Knight

Fig. 139; Map 60

*Labops hirtus* Knight, 1922:258.

Length 3.50–5.60 mm; width 1.82–2.38 mm. Head black, shiny, jugum, base of lorum, spot under eye, longitudinal median line on frons, and crescent mark next to eye on top yellow. Scales absent. Rostrum 1.40–1.54 mm long. Antennae black. Pronotum and scutellum black. Hemelytra black, costal margin yellow; pruinose; pubescence pale, erect, long, dense. Ventral surface black, legs mostly pale, tibiae pilose. Brachypterous and macropterous forms.



Figs. 137–140. Adult Miridae. 137, *Halticus intermedius*; 138, *Pilophorus piceicola*; 139, *Labops hirtus*; 140, *Ceratocapsus geminatus*.



**Remarks.** This species is readily distinguished by the pale median line on the frons, by the long, dense pubescence on the hemelytra, and by the pilose tibiae (Fig. 139).

**Habitat.** Collected on range grasses.

**Distribution.** Northeastern and northwestern States, Ontario, Quebec, British Columbia; Alberta, now known to occur in Saskatchewan (Map 60).

## Genus *Halticus* Hahn

Short, oval, black, shiny species. Head vertical, dorsoventrally elongated, carina sharp, eyes overlap front margin of pronotum. Second antennal segment longer than basal width of pronotum. Pronotum trapeziform, smooth, lateral margins sharply angled, basal margin convex. Hemelytra with patches of sericeous pubescence. Femora black, hind femur saltatorial, tibiae pale.

Three species are known from North America, one occurs in the Prairie Provinces.

### *Halticus intermedius* Uhler

Fig. 137; Map 61

*Halticus intermedius* Uhler, 1904:360.

Length 2.94–3.15 mm; width 1.82–2.10 mm. Head reddish, clypeus and frons black. Rostrum 0.98–1.12 mm long. Antennae pale, terminal segments often brown. Pronotum and scutellum black. Hemelytra black, shiny, widest in the middle; pubescence short, black, intermixed with patches of sericeous hairs (Fig. 137). Ventral surface black, tibiae pale. Macropterous.

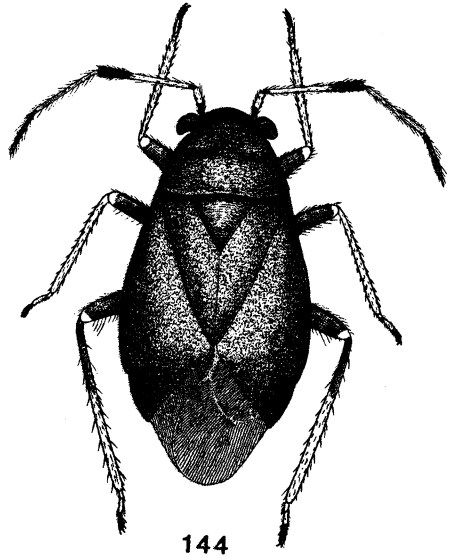
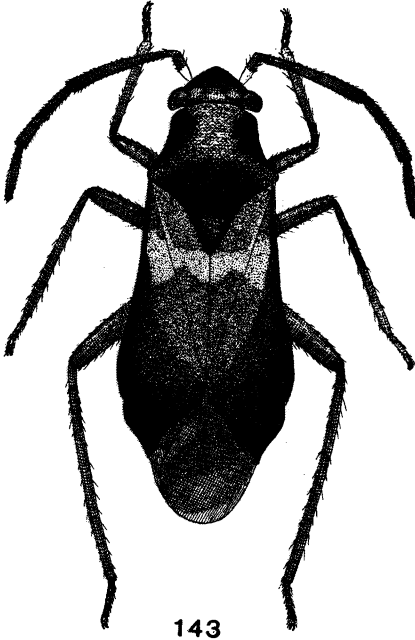
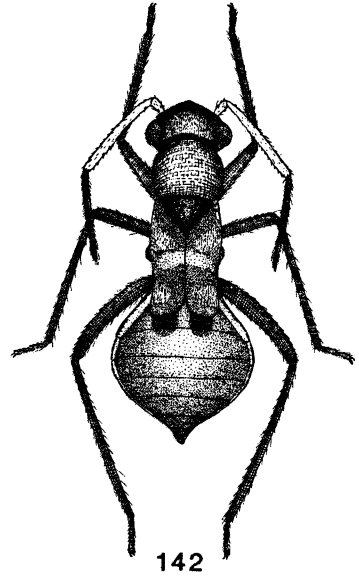
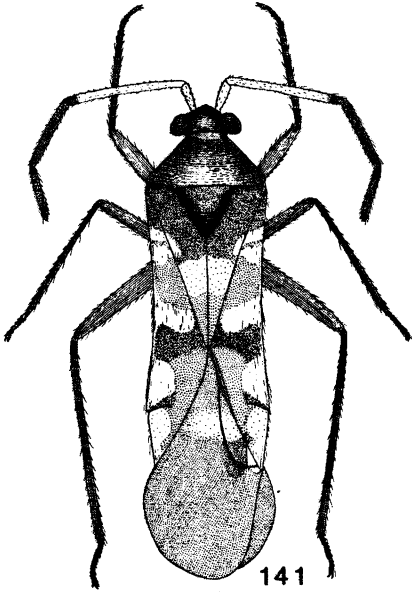
**Remarks.** This species is readily distinguished by the black color, by the vertical head, by the clumps of sericeous pubescence, and by the saltatorial hind femora.

**Habitat.** Collected on *Anemone canadensis*.

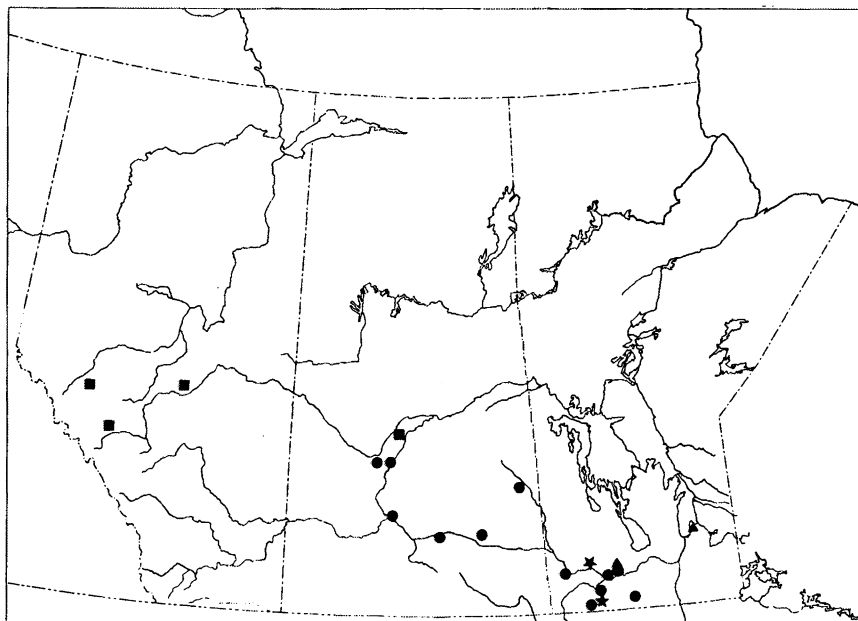
**Distribution.** Eastern and Central States, Ontario; now known to occur in Manitoba and Saskatchewan (Map 61).

## Tribe Orthotylini

In the Prairie Provinces the tribe is represented by 20 genera and 24 species.



Figs. 141–144. Adult Miridae. 141, *Sericophanes heidemanni*, male; 142, *S. heidemanni*, female; 143, *Schaffneria davisi*; 144, *Slaterocoris stygicus*.



Map 61. Collection localities for *Halticus intermedius* (●), *Ceratocapsus pilosulus* (▲), *C. digitalis* (★), and *C. drakei* (■).

### Key to genera of Orthotylini

1. Antennal segments thickened, all nearly of equal thickness (Fig. 140) ..... 2  
    Second antennal segment incrassate, third segment thinner than apex of second (Fig. 144) ..... 4
2. Hemelytra without distinct pollinose, silvery bands (Fig. 140) ..... *Ceratocapsus* Reuter (p. 197)  
    Hemelytra with distinct pollinose, silvery markings (Figs. 141, 143); females apterous (Fig. 142) ..... 3
3. Cuneus and corium not polished; clavus with white spot at middle (Fig. 141); females apterous (Fig. 142) ..... *Sericophanes* Reuter (p. 211)  
    Cuneus and apical half of corium polished; clavus without white spot (Fig. 143)..... *Schaffneria* Knight (p. 212)
4. Compact, black species; costal margins of hemelytra convex (Fig. 144) ..... *Slaterocoris* Wagner (p. 214)  
    Not compact, black species; hemelytra straight ..... 5
5. Hemelytra with black scales, intermixed with regular pubescence (Figs. 145, 146) ..... 6  
    Hemelytra without black scales ..... 8
6. Pronotum behind calli and base of scutellum with patches of black scales (Fig. 145) ..... *Ilacora* Reuter (p. 217)  
    Pronotum and scutellum without patches of black scales (Fig. 146) ..... 7
7. First antennal segment much longer than vertex between eyes; species more than 5.0 mm in length; second antennal segment longer than width of pronotum at base ..... *Ilacorella* Reuter (p. 221)

First antennal segment shorter than width of vertex between eyes; species less than 4.9 mm in length; second antennal segment equal to or shorter than width of pronotum at base .....	<i>Brooksetta</i> Kelton (p. 221)
8. Lateral margins of pronotum carinate .....	9
Lateral margins of pronotum angulate or rounded .....	10
9. Genal suture extending from antennal socket directly to eye (Fig. 49); carina between eyes with stiff, black bristles (Fig. 50) ....	<i>Hadronema</i> Uhler (p. 225)
Genal suture extending from antennal socket below eye (Fig. 51); carina between eyes without stiff bristles .....	<i>Lopidea</i> Uhler (p. 231)
10. Head subvertical, vertex wide; genal suture extending from antennal socket below eye (Fig. 52) .....	<i>Labopidea</i> Uhler (p. 237)
Head oblique or subhorizontal, if subvertical, genal suture extending from antennal socket directly to eye .....	11
11. Pronotum and hemelytra with sericeous pubescence, intermixed with simple hairs .....	12
Pronotum and hemelytra with simple hairs .....	16
12. Hemelytra with black and silvery, sericeous pubescence, intermixed with simple, black hairs .....	<i>Noctuocoris</i> Knight (p. 246)
Hemelytra with silvery, sericeous pubescence only, intermixed with simple hairs .....	13
13. Head horizontal; vertex wide; genal suture extending from antennal socket below eye (Fig. 51) .....	<i>Labopidicola</i> Kelton (p. 244)
Head oblique; vertex narrow; genal suture extending from antennal socket directly to eye (Fig. 49) .....	14
14. Carina between eyes absent .....	<i>Parthenicus</i> Reuter (p. 247)
Carina between eyes present .....	15
15. Large robust species .....	<i>Hesperocapsus</i> Knight (p. 249)
Slender, narrow species (Fig. 148) .....	<i>Melanotrichus</i> Reuter (p. 251)
16. First antennal segment with black longitudinal lines (Fig. 149) .....	<i>Reuteria</i> Puton (p. 259)
First antennal segment without black longitudinal lines .....	17
17. Head nearly vertical; (Figs. 150–153) .....	18
Head oblique .....	20
18. Hemelytra pale green .....	<i>Fieberocapsus</i> Carvalho & Southwood (p. 259)
Hemelytra with some black .....	19
19. Cuneus as long as width of head, or longer; females often brachypterous (Figs. 150–153).....	<i>Mecomma</i> Fieber (p. 261)
Cuneus much shorter than width of head, only as long as width of vertex plus eye; females macropterous (Fig. 154) .....	<i>Cyrtorhinus</i> Fieber (p. 262)
20. Small, delicate species, eyes near middle of head (Fig. 155) .....	<i>Diaphnocoris</i> Kelton (p. 263)
Large, robust species, eyes near anterior angles of pronotum (Fig. 156) .....	<i>Orthotylus</i> Fieber (p. 265)

### Genus *Ceratocapsus* Reuter

Elongate or oval species. Head oblique, basal margin overlaps apical portion of pronotum; eyes prominent, carina between them distinct. Antennae stout, of nearly equal thickness throughout. Pronotum trapeziform, smooth or punctate, lateral margins rounded, calli indistinct. Hemelytra smooth or punctate, glabrous or pubescent, variable in color. Males macropterous, females often brachypterous.

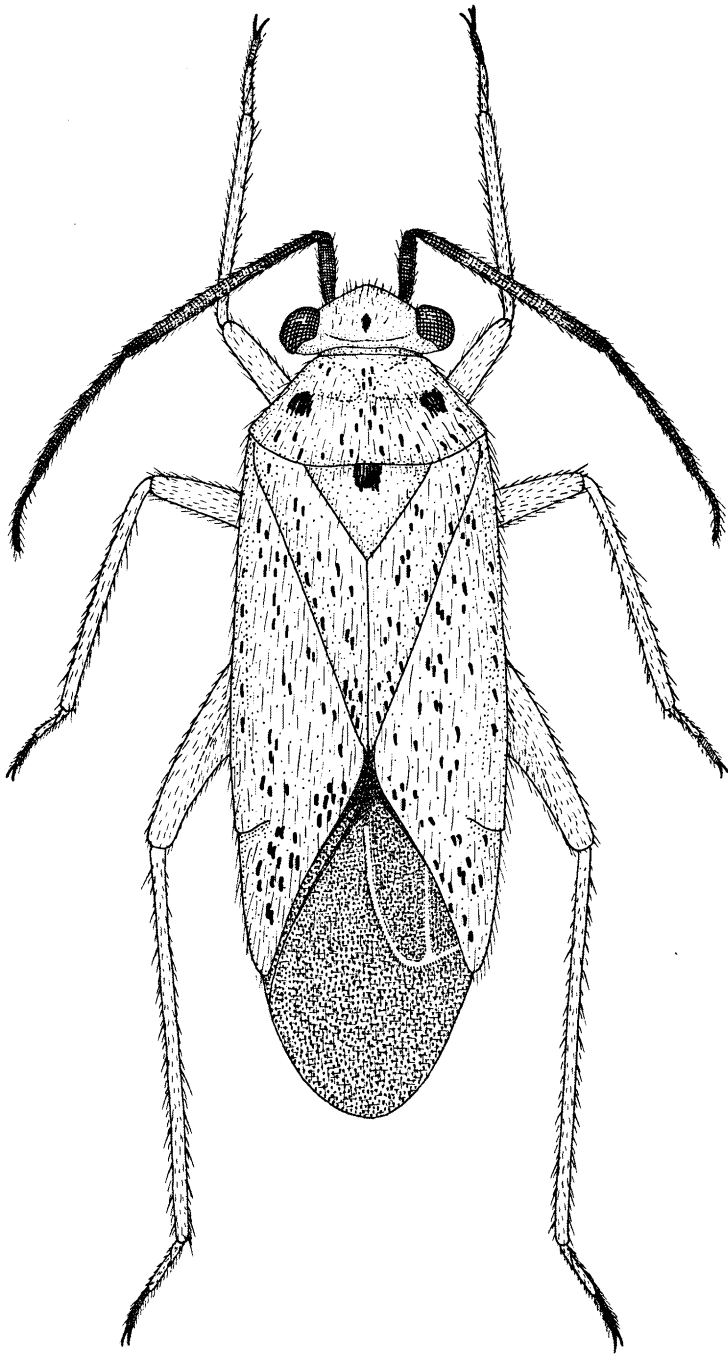


Fig. 145. *Ilacora albifrons*

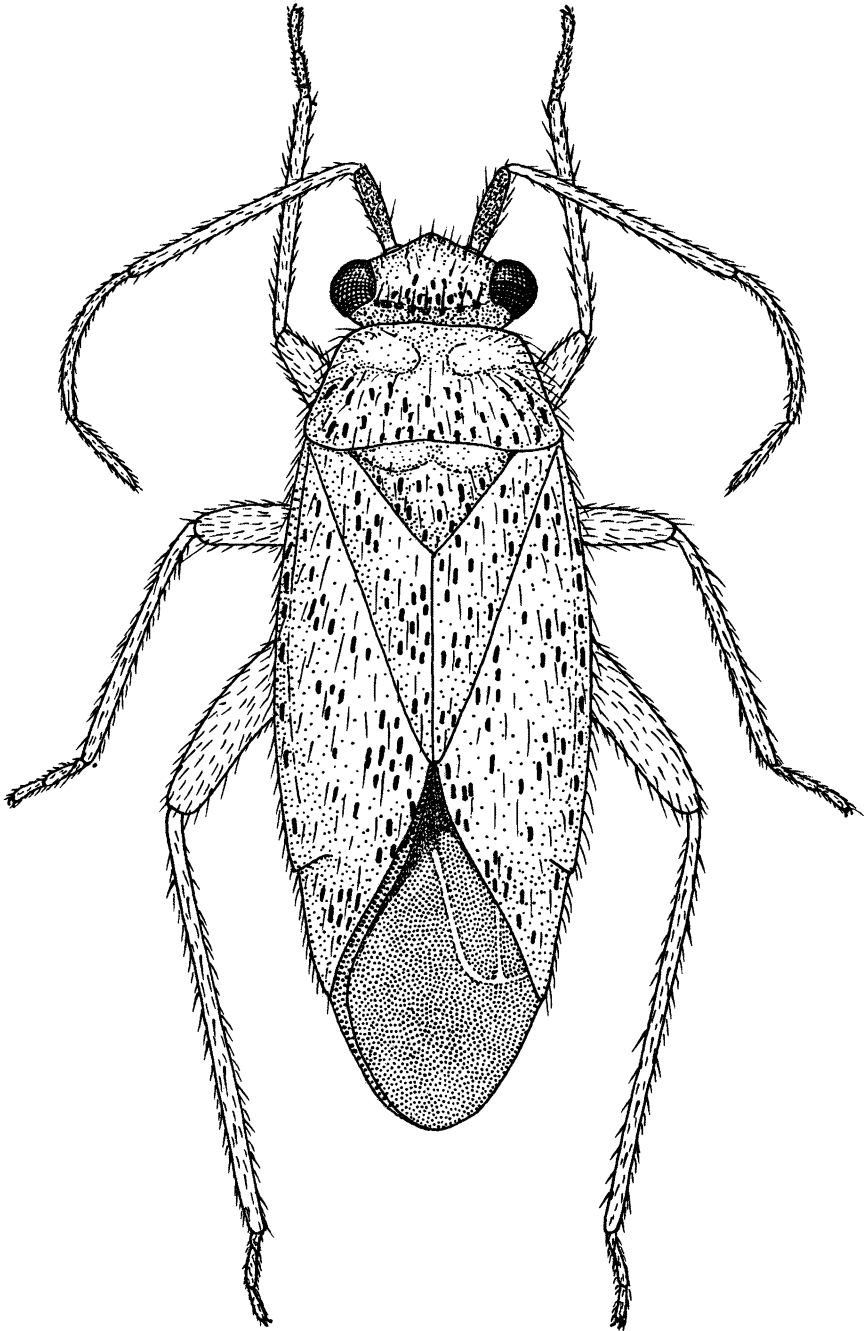


Fig. 146. *Brooksetta inconspicua*

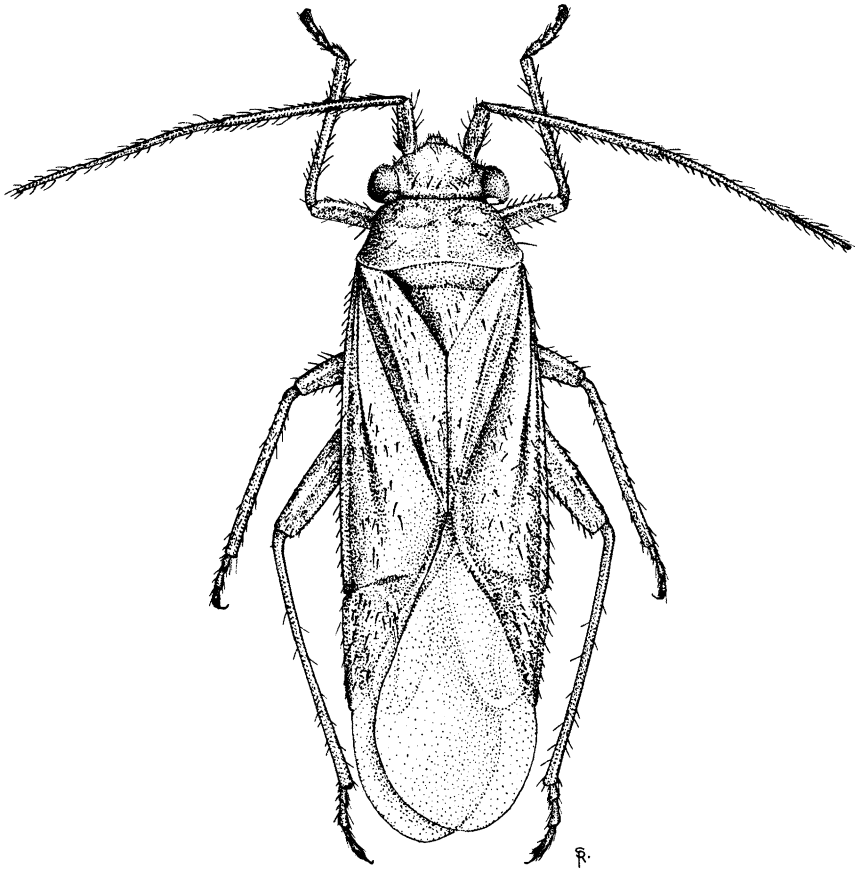


Fig. 147. *Labopidicola idahoensis*

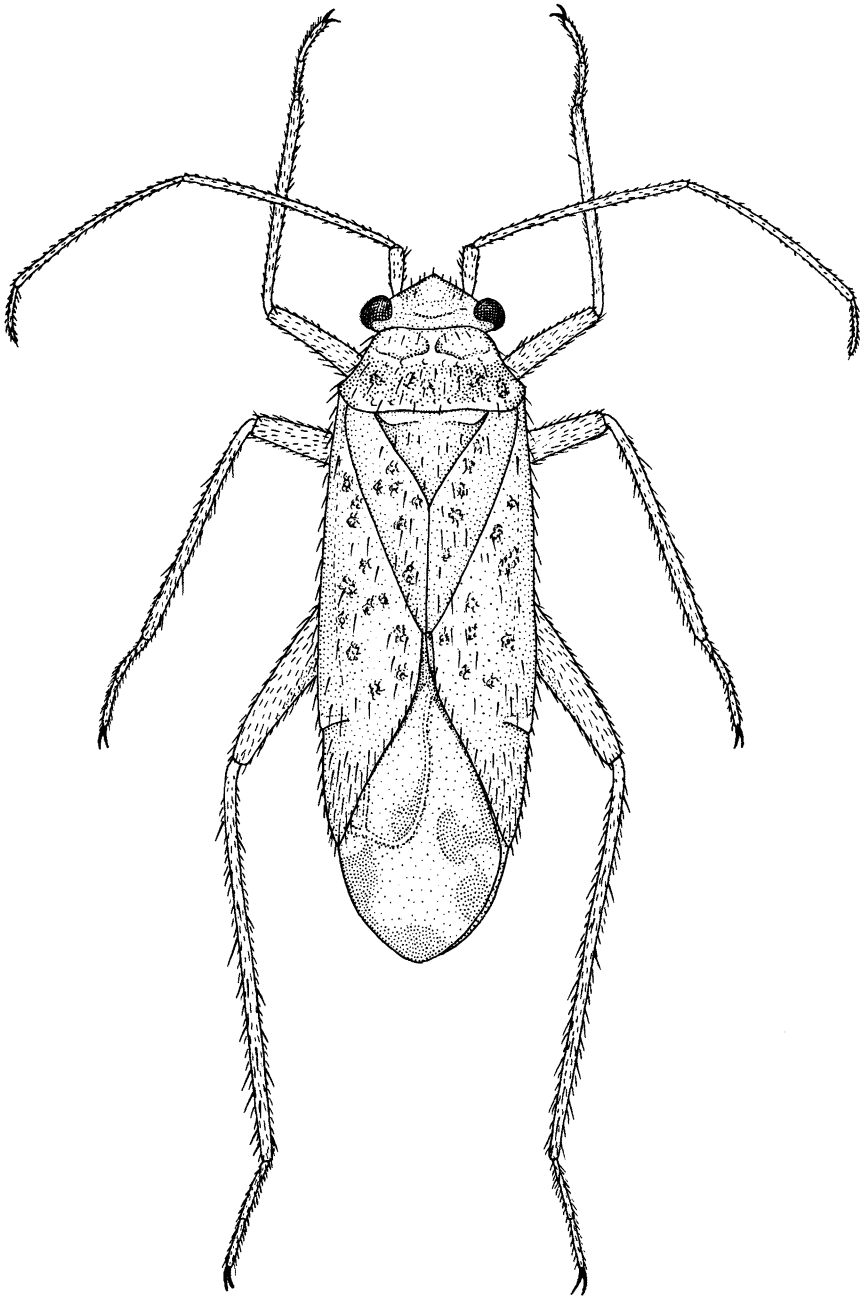


Fig. 148. *Melanotrichus coagulatus*



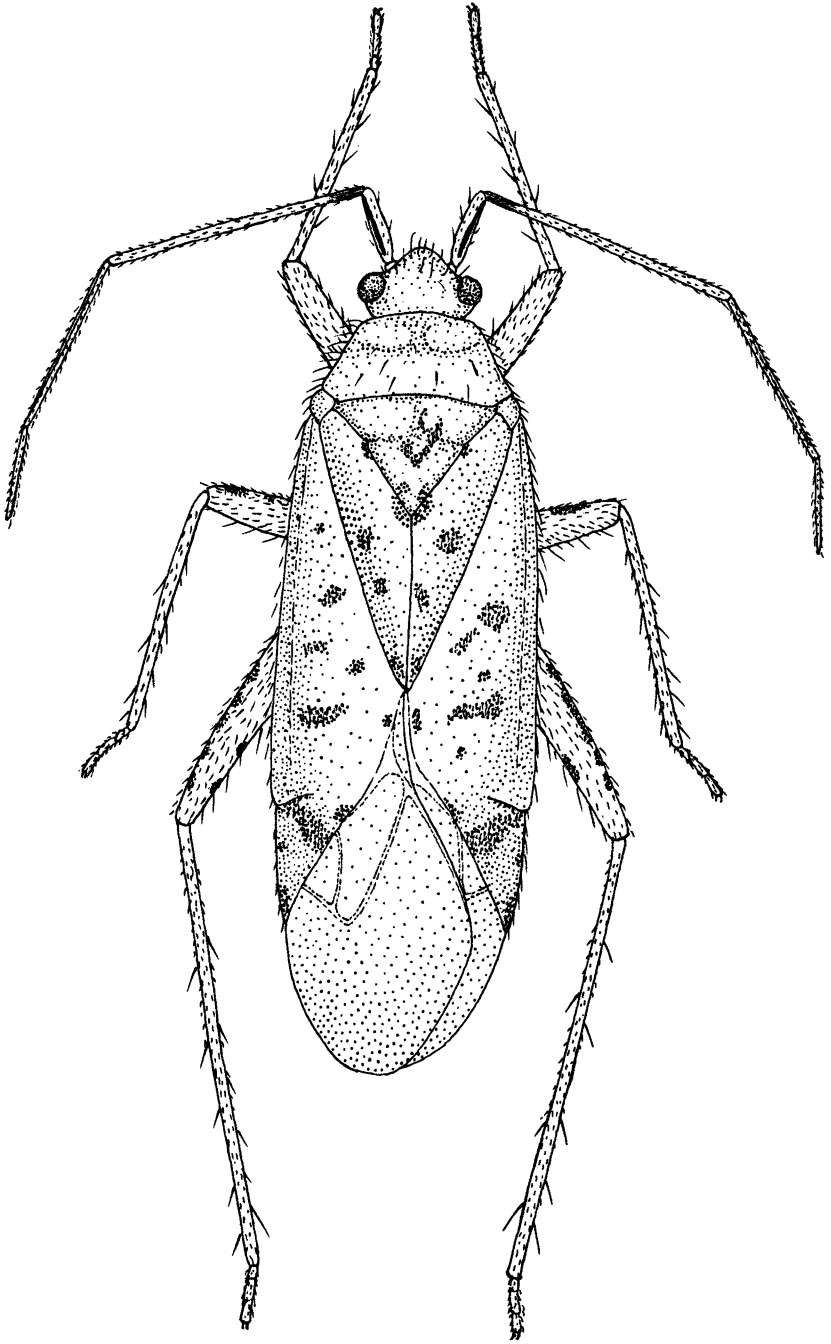


Fig. 149. *Reuteria querci*

Approximately 59 species are known from North America, six occur in the Prairie Provinces.

### Key to species of *Ceratocapsus*

1. Hemelytra with wide, pale, transverse band just beyond tip of scutellum; genital claspers (Fig. 157) ..... *pilosulus* Knight (p. 203)  
Hemelytra without pale, transverse band ..... 2
2. Pronotum and hemelytra distinctly punctate, each puncture black ..... 3  
Pronotum and hemelytra not distinctly punctate ..... 4
3. Short, robust species; cuneus colored as corium; pubescence long, dense, intermixed with shorter reclining hairs; genital claspers (Fig. 158) .....  
..... *digitulus* Knight (p. 205)  
Elongate, slender species; hemelytra with long, sparse, pilose hairs, intermixed with short, sericeous hairs; head, cuneus, and legs reddish; genital claspers (Fig. 159) ..... *drakei* Knight (p. 205)
4. Large, robust species; head light to dark brown, pronotum and scutellum dark brown; hemelytra light to dark brown; almost glabrous with few, long, pilose hairs; genital claspers (Fig. 160) ..... *modestus* (Uhler) (p. 205)  
Slender species; hemelytra with short, appressed pubescence ..... 5
5. Femur and tibia reddish; second antennal segment 1.12–1.26 mm long; pubescence on hemelytra short; genital claspers (Fig. 161) .....  
..... *geminatus* Knight (p. 209)  
Femur and tibia yellow or brown; second antennal segment 1.40–1.54 mm long; pubescence on hemelytra long; genital claspers (Fig. 162) .....  
..... *nigrocephalus* Knight (p. 209)

#### *Ceratocapsus pilosulus* Knight

Fig. 157; Map 61

*Ceratocapsus pilosus* Knight, 1923b:526.

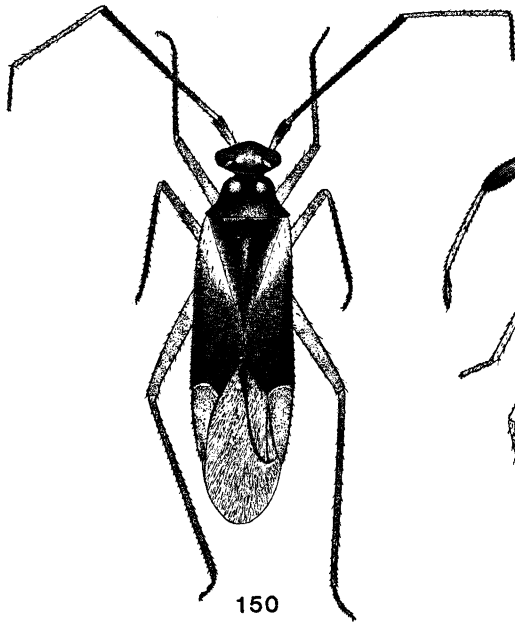
*Ceratocapsus pilosulus* Knight, 1930b:198.

Length 3.22–3.50 mm; width 1.33–1.61 mm. Head, pronotum, and scutellum brown. Eyes hairy. Terminal antennal segments reddish. Hemelytra with wide, pale, transverse band. Pubescence on dorsum pilose, intermixed with appressed, silvery hairs. Legs reddish.

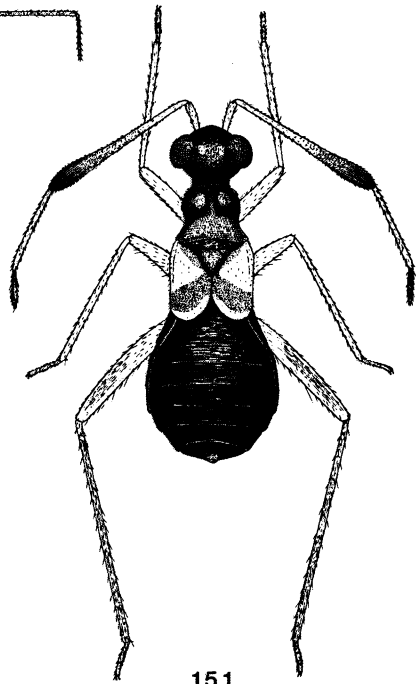
**Remarks.** This is the only species of the genus in the Prairie Provinces with banded hemelytra. The genital claspers (Fig. 157) are distinctive.

**Habitat.** Collected on *Quercus macrocarpa*.

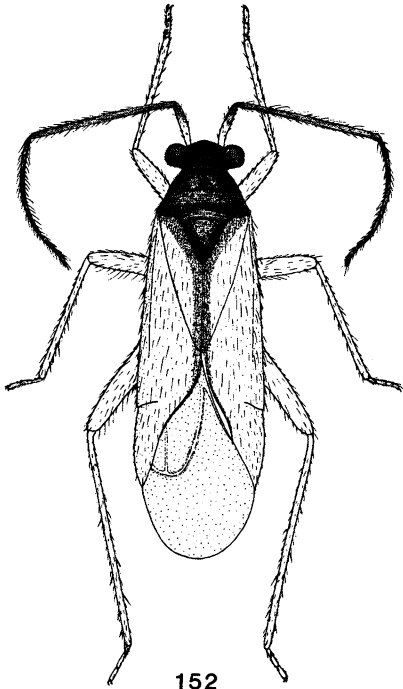
**Distribution.** Northeastern and Central States, Ontario; now known to occur in Manitoba (Map 61).



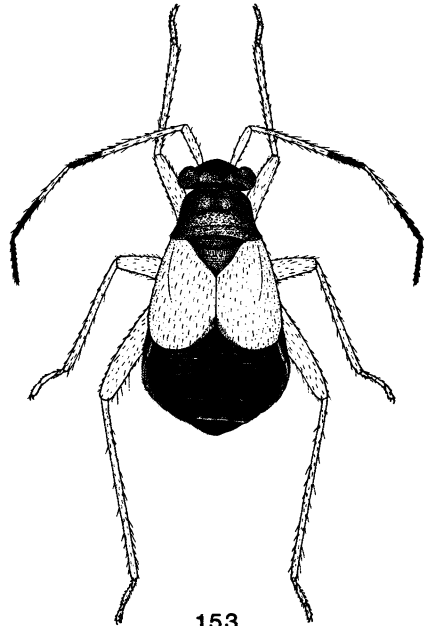
150



151



152



153

Figs. 150–153. Adult Miridae. 150, *Mecomma angustatum*, male; 151, female; 152, *M. gilvipes*, male; 153, female.

*Ceratocapsus digitulus* Knight

Fig. 158; Map 61

*Ceratocapsus digitulus* Knight, 1923b:533.

Length 3.50–3.85 mm; width 1.61–1.82 mm. Head, pronotum, scutellum, and hemelytra brown. Eyes hairy. First and second antennal segments pale, first segment with red bar near base. Pubescence on dorsum dense, slanting, intermixed with appressed, sericeous hairs. Hemelytra and pronotum punctate. Legs pale.

**Remarks.** This is the only robust and brown, densely pubescent species in the Prairie Provinces. The pronotum and hemelytra are punctate. The genital claspers (Fig. 158) are distinctive.

**Habitat.** Collected on *Salix interior*.

**Distribution.** Eastern and Central States, Ontario; now known to occur in Manitoba (Map 61).

*Ceratocapsus drakei* Knight

Fig. 159; Map 61

*Ceratocapsus drakei* Knight, 1923b:533.

Length 4.55–5.04 mm; width 1.54–1.68 mm. Head usually red. First antennal segment and basal half of second pale, terminal segments brown. Pronotum, scutellum, and hemelytra brown, cuneus reddish. Pronotum and hemelytra punctate. Pubescence on dorsum pilose, intermixed with sericeous, appressed hairs. Legs reddish.

**Remarks.** This slender species has punctate pronotum and hemelytra. The genital claspers (Fig. 159) are distinctive.

**Habitat.** Unknown.

**Distribution.** New York; Alberta, now known to occur in Saskatchewan (Map 61).

*Ceratocapsus modestus* (Uhler)

Fig. 160; Map 62

*Melinna modesta* Uhler, 1887:69.

*Ceratocapsus modestus*: Smith, 1910:161.

Length 4.34–4.55 mm; width 1.68–1.89 mm. Head light to dark brown. Antennae brown. Pronotum and scutellum dark brown. Hemelytra light to dark brown. Pronotum and hemelytra impunctate, sparsely pilose, other pubescence short. Legs brown.

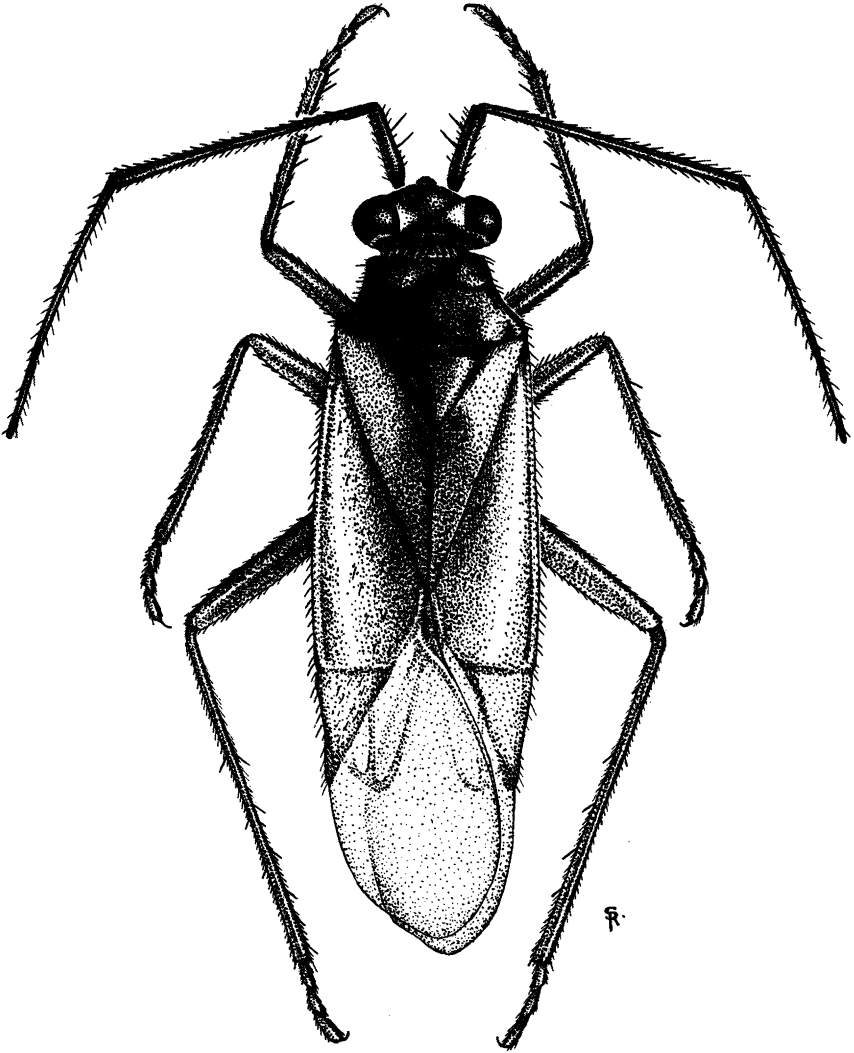


Fig. 154. *Cyrtorhinus caricis*

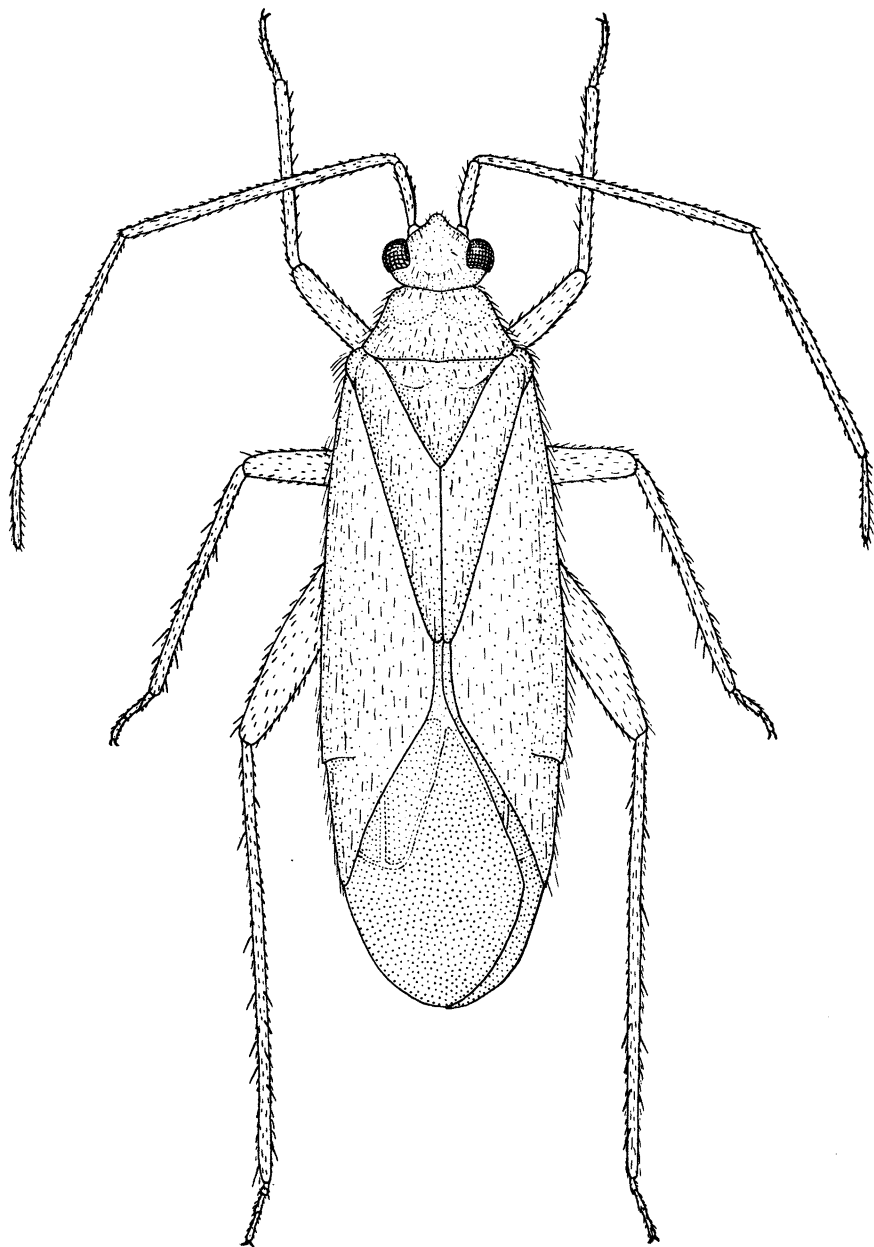


Fig. 155. *Diaphnocoris provancheri*

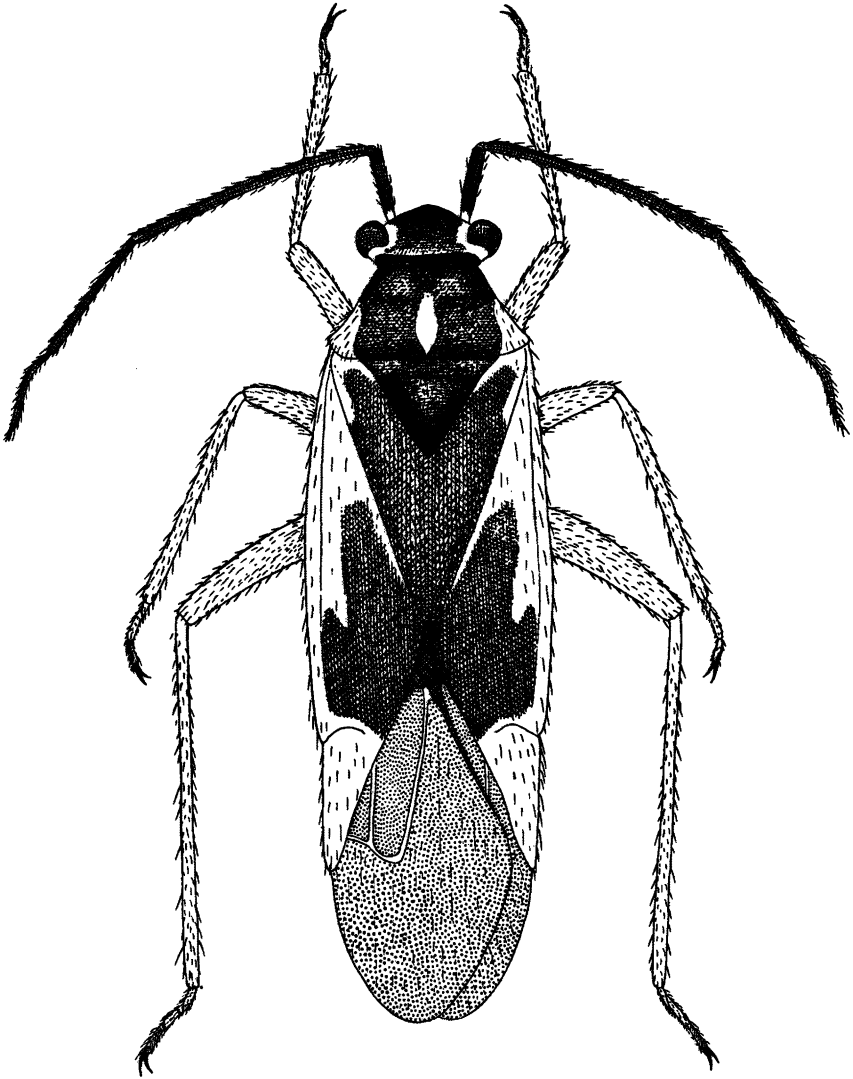


Fig. 156. *Orthotylus dorsalis*

**Remarks.** This is the largest brown species in the Prairie Provinces. The impunctate pronotum and sparingly pilose hemelytra also help to distinguish the species. The genital claspers (Fig. 160) are distinctive.

**Habitat.** Collected on *Quercus macrocarpa*.

**Distribution.** Eastern and Central States, Ontario, Quebec; now known to occur in Manitoba and Saskatchewan (Map 62).

*Ceratocapsus geminatus* Knight

Figs. 140, 161; Map 62

*Ceratocapsus geminatus* Knight, 1930b:192.

Length 3.78–3.92 mm; width 1.19–1.26 mm. Head, pronotum, and scutellum dark brown. First antennal segment and base of second pale, remainder brown. Hemelytra brown, pale along claval suture (Fig. 140). Pronotum and hemelytra impunctate, pubescence short, appressed. Legs reddish.

**Remarks.** This species is closely related to *nigrocephalus*, but is distinguished from it by the reddish legs, shorter second antennal segment, and by the differences in the genitalia (Fig. 161).

**Habitat.** Unknown.

**Distribution.** Colorado; now known to occur in the Prairie Provinces (Map 62).

*Ceratocapsus nigrocephalus* Knight

Fig. 162; Map 62

*Ceratocapsus nigrocephalus* Knight, 1923b:534.

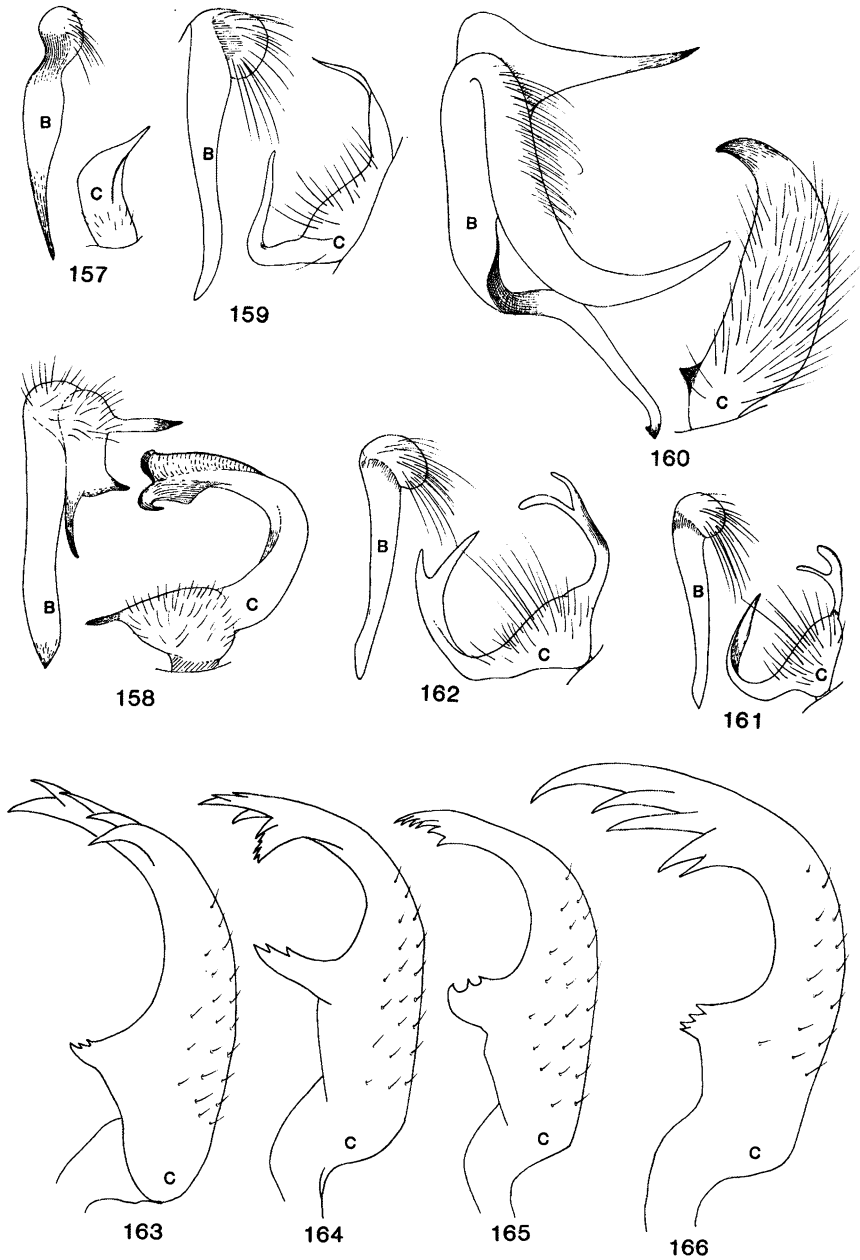
Length 2.94–4.55 mm; width 1.40–1.68 mm. Head, pronotum, and scutellum black. First antennal segment pale, black at base, remaining segments brown. Pronotum and hemelytra impunctate, pilose, other pubescence short, appressed. Legs yellowish brown. Females brachypterous with hemelytra completely pale and wing membrane greatly reduced.

**Remarks.** This species is closely related to *geminatus*, but is distinguished from it by the pilose hemelytra, by the slightly larger size, by the longer second antennal segment, and by the differences in the genitalia (Fig. 162).

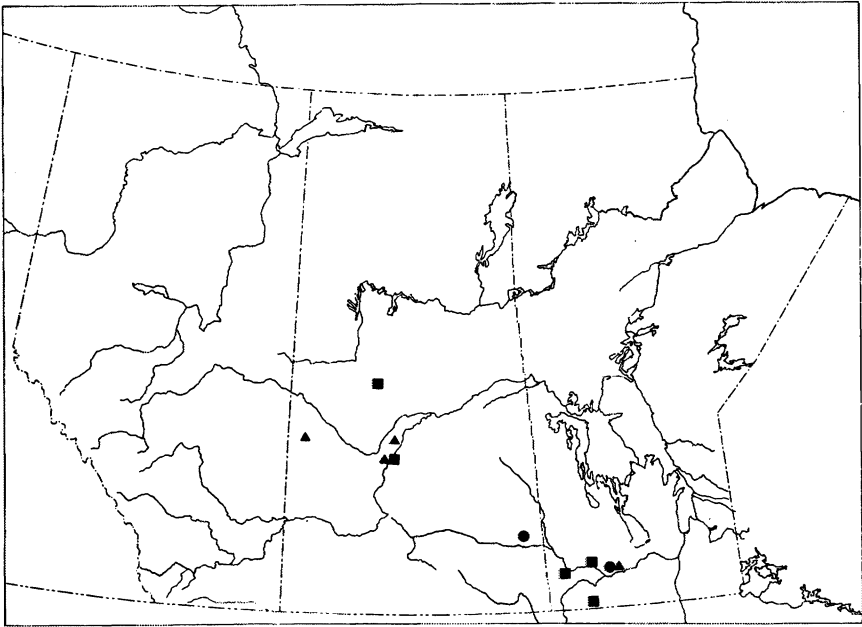
**Habitat.** Males collected at light, females among grass roots.

**Distribution.** North Central States, Ontario, Quebec; now known to occur in Manitoba and Saskatchewan (Map 62).





Figs. 157–166. Male clasper of *Ceratocapsus* and *Slaterocoris* spp. 157, *Ceratocapsus pilosulus*; 158, *C. digitulus*; 159, *C. drakei*; 160, *C. modestus*; 161, *C. geminatus*; 162, *C. nigrocephalus*; 163, *Slaterocoris pallidicornis*; 164, *S. atritibialis*; 165, *S. breviatus*; 166, *S. stygicus*.



Map 62. Collection localities for *Ceratocapsus modestus* (●), *C. geminatus* (▲), and *C. nigrocephalus* (■).

## Genus *Sericophanes* Reuter

Slender, small, antlike species. Head oblique, eyes large, carina between them sharp, prominent. Antennae cylindrical, second and third segments of equal thickness. Pronotum campanulate, strongly declivent, lateral margins rounded, calli obscured. Hemelytra velvety, costal margin broadly concave. Legs brown, hind coxae pale. Brachypterous and macropterous forms.

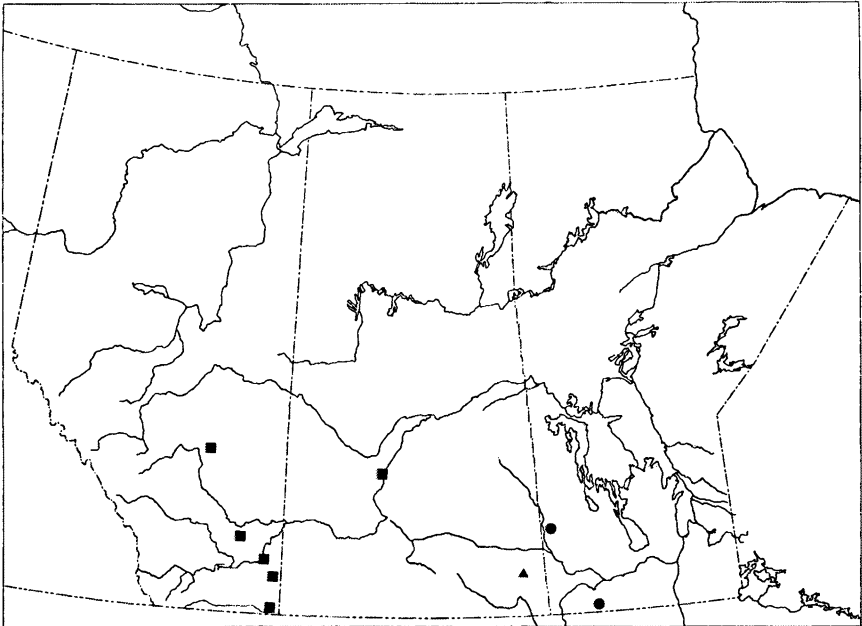
Nine species have been described from North America, one occurs in the Prairie Provinces.

### *Sericophanes heidemanni* Poppius

Figs. 141, 142; Map 63

*Sericophanes heidemanni* Poppius, 1914:260.

Length 2.94–3.50 mm; width 1.12–1.26 mm. Head brown, smooth. Rostrum 1.12–1.19 mm long. Antennae brown. Pronotum dark brown. Hemelytra fully developed in male (Fig. 141), reduced in female (Fig. 142), clavus velvety brown with large, pale spot on middle of commissure; corium



Map 63. Collection localities for *Sericophanes heidemanni* (■), *Schaffneria davisi* (●), and *S. schaffneri* (▲).

with two large, triangular, silvery blotches on each side, extending from costal margin to claval suture; pubescence short, sparse.

**Remarks.** The females resemble wingless ants, the males are distinguished by the large, pale spot on the clavus.

**Habitat.** Collected on grass roots, and at light.

**Distribution.** Widespread in USA, Ontario, Quebec; now known to occur in the Prairie Provinces (Map 63).

### Genus *Schaffneria* Knight

Elongate, reddish brown, antlike species. Head oblique, triangular, carina sharp as in *Pilophorus*. Antennal segments thickened similar to those of *Ceratocapsus*. Pronotum campanulate, lateral margins rounded. Scutellum moderately tumid. Hemelytra pruinose on basal half, polished on embolium, apical half of corium, and cuneus; pruinose area behind scutellum with broad and irregular transverse frosted band; pubescence short, dense and appressed on pruinose area; erect, long and sparse on pruinose and polished areas. Osteolar peritreme well developed.

Only five species are known from North America, two occur in the Prairie Provinces. Knight (1966) published a key to the species.

### Key to species of *Schaffneria*

1. Larger species, 3.50–3.85 mm long; pronotum strongly convex (Fig. 143) .....  
..... *davisi* (Knight) (p. 213)
- Smaller species, 2.80–3.01 mm long; pronotum gently convex .....  
..... *schaffneri* Knight (p. 213)

#### *Schaffneria davisi* (Knight)

Fig. 143; Map 63

*Pamelia davisi* Knight, 1923b:535.

*Schaffneria davisi*: Knight, 1966:2.

Length 3.50–3.85 mm; width 1.33–1.47 mm. Head brown to black. First antennal segment pale to brown with reddish diagonal bar on inner surface; second segment 0.98–1.15 mm long. Rostrum 1.33–1.40 mm long. Pronotum brown to black, shiny, strongly convex (Fig. 130), humpbacked in appearance. Hemelytra dark brown to black. Ventral surface and legs reddish brown.

**Remarks.** This species is distinguished by the strongly convex pronotum.

**Habitat.** Collected on *Quercus macrocarpa*.

**Distribution.** New Jersey; now known to occur in Manitoba (Map 63).

#### *Schaffneria schaffneri* Knight

Map 63

*Schaffneria schaffneri* Knight, 1966:2.

Length 2.80–3.01 mm; width 0.98–1.05 mm. Head brown, clypeus and adjacent area tinged with red. First antennal segment pale; second segment 0.98–1.12 mm long, basal half pale, apical half brown. Rostrum 1.29–1.40 mm long. Pronotum brown, shiny, gently convex. Hemelytra brown, similar to *davisi* in markings and pubescence. Ventral surface and legs reddish brown.

**Remarks.** This species is smaller than *davisi* and the pronotum is gently convex, not strongly turned down posteriorly as in *davisi*.

**Habitat.** Collected on *Beckmannia syzigachne*.

**Distribution.** Texas; now known to occur in Alberta and Saskatchewan (Map 63).

## Genus *Slaterocoris* Wagner

Black, shiny species. Head vertical, short, carina sharp, base of head overlaps anterior margin of pronotum. Pronotum rugose, punctate, lateral margins sharply angled, basal margin convex. Hemelytra rugose, punctate, glabrous or pubescent, sericeous hairs absent. Ventral surface black, legs pale or black.

The genus was revised by Kelton (1968) and Knight (1970). Forty-seven species have been described from the Nearctic region, four occur in the Prairie Provinces.

### Key to species of *Slaterocoris*

1. Second antennal segment mostly yellow; male claspers (Fig. 163) .....  
..... *pallidicornis* (Knight) (p. 214)  
Second antennal segment mostly black ..... 2
2. Second antennal segment shorter than head width; rostrum shorter than head width; male claspers (Fig. 164) ..... *atritibialis* (Knight) (p. 215)  
Second antennal segment longer than head width; rostrum longer than head width ..... 3
3. Hind tibia yellow, often fuscous on basal half; first antennal segment yellow; genital claspers (Fig. 165) .....  
..... *breviatus* (Knight) (p. 216)  
Hind tibia black; first antennal segment black; genital claspers (Fig. 166) .....  
..... *stygius* (Say) (p. 217)

### *Slaterocoris pallidicornis* (Knight)

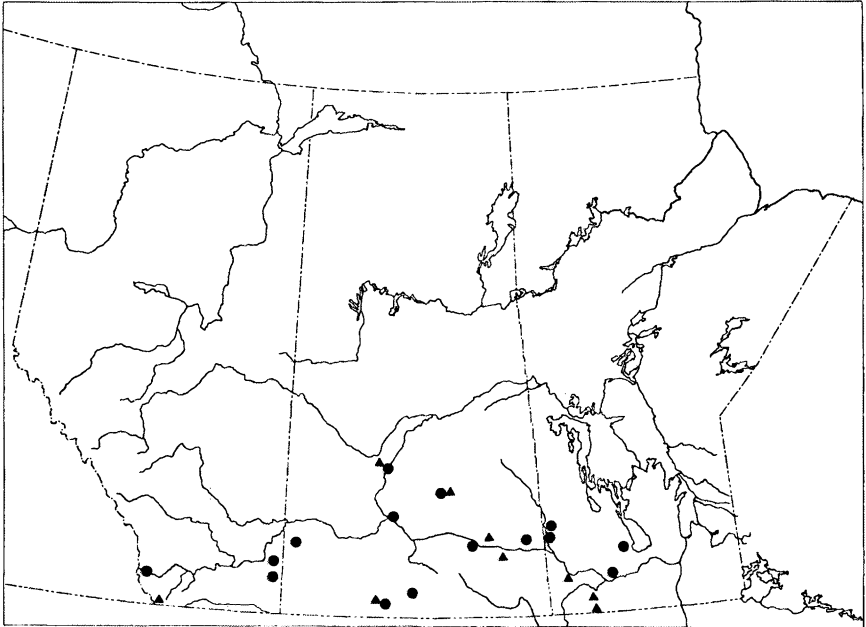
Fig. 163; Map 64

*Strongylocoris pallidicornis* Knight, 1938:4.

*Slaterocoris pallidicornis*: Kelton, 1968:1123.

Length 4.20–4.55 mm; width 1.90–2.20 mm. Rostrum 1.12–2.20 mm. First and second antennal segments yellow. Pubescence on hemelytra short, sparse. Femora black, tibiae yellow.

**Remarks.** This species is distinguished by the yellow second antennal segment and by the yellow hind tibia. The genital claspers (Fig. 163) are distinctive.



Map 64. Collection localities for *Slaterocoris pallidicornis* (●) and *S. atritibialis* (▲).

**Habitat.** Collected on *Solidago* spp. and *Symphoricarpos occidentalis*.

**Distribution.** North Central States, Nova Scotia; Prairie Provinces (Map 64).

*Slaterocoris atritibialis* (Knight)

Fig. 164; Map 64

*Strongylocoris atritibialis* Knight, 1938:2.

*Slaterocoris atritibialis*: Wagner, 1956:280.

Length 4.50–4.60 mm; width 2.40–2.50 mm. Rostrum 1.12–1.26 mm long. Antennae black, second segment in female often pale at middle. Pubescence on hemelytra short, sparse. Femora black, first and second tibiae partly pale, hind tibia black.

**Remarks.** This species is distinguished by the black hind tibia and by the distinctive genital claspers (Fig. 164).

**Habitat.** Collected on *Solidago* spp. and *Aster* spp.

**Distribution.** Widespread in USA, Ontario, Quebec, British Columbia; Alberta, Manitoba, now known to occur in Saskatchewan (Map 64).

*Slaterocoris breviatus* (Knight)

Fig. 165; Map 65

*Strongylocoris breviatus* Knight, 1938:1.

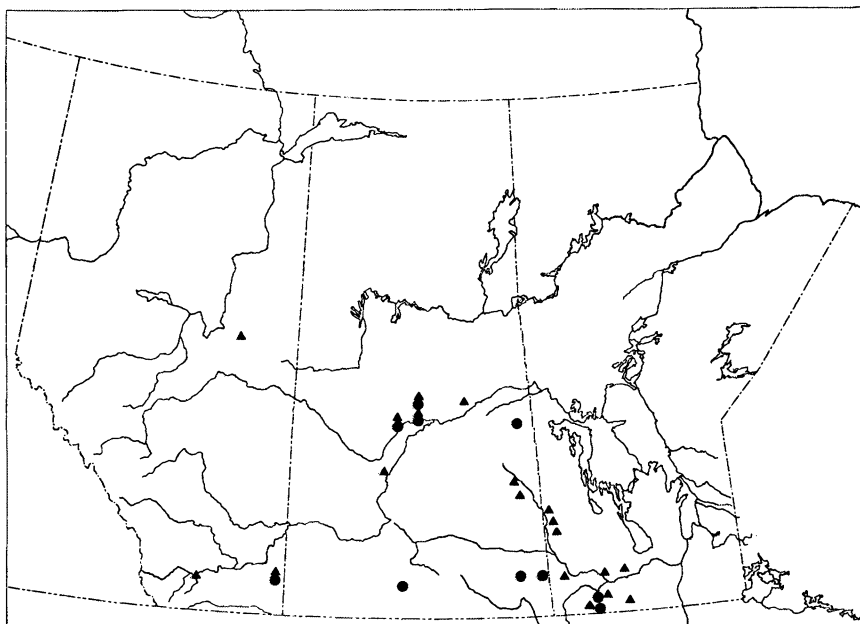
*Slaterocoris breviatus*: Wagner, 1956:280.

Length 4.10–4.30 mm; width 2.03–2.20 mm. Rostrum 1.05–1.12 mm long. First and second antennal segments yellow, second antennal segment often black. Pubescence on hemelytra short, sparse. Femora black, tibiae yellow, hind tibia often fuscous on basal half.

**Remarks.** This species is distinguished by the male genitalia (Fig. 165).

**Habitat.** Collected on *Solidago* spp., *Aster* spp., and *Salix* spp.

**Distribution.** Northeastern and North Central States, Ontario, Quebec, New Brunswick, Nova Scotia; Prairie Provinces (Map 65).



Map 65. Collection localities for *Slaterocoris breviatus* (●) and *S. stygicus* (▲).

*Slaterocoris stygicus* (Say)

Figs. 144, 166; Map 65

*Capsus stygicus* Say, 1832:24.

*Slaterocoris stygicus*: Wagner, 1956:280.

Length 4.20–4.40 mm; width 2.03–2.10 mm. Rostrum 1.05–1.12 mm long. Antennae black, second segment in female often pale. Pubescence on hemelytra short, sparse. Femora black, tibiae pale, in male hind tibia often black, anterior and middle femora partly black (Fig. 144).

**Remarks.** This species is often difficult to distinguish from *atritibialis* except by the genitalia (Fig. 166).

**Habitat.** Collected on *Solidago* spp.

**Distribution.** Widespread in USA, Eastern Canada, British Columbia; Prairie Provinces (Map 65).

Genus *Ilnacora* Reuter

Elongate, slender, green species. Head vertical, vertex flattened, carina between eyes distinct. Second antennal segment longer than width of pronotum at base. Pronotum trapeziform, lateral margins rounded, calli distinct with clump of black scales behind. Scutellum with similar clump at middle of base. Hemelytra smooth, shiny. Pubescence of two types: appressed, black scales, intermixed with erect, pale hairs. Legs long, slender. Dorsal margin of genital cavity with short hook.

Twenty-two species are known from North America, three occur in the Prairie Provinces.

Key to species of *Ilnacora*

1. Face below antennae black; frons with trifurcate black marks; male clasper (Fig. 167) ..... *vittifrons* Knight (p. 217)  
Face mostly pale ..... 2
2. First antennal segment almost as long as width of vertex; genital clasper (Fig. 168) ..... *stalii* Reuter (p. 218)  
First antennal segment shorter than width of vertex; genital claspers (Fig. 169) ..  
..... *albifrons* Knight (p. 220)

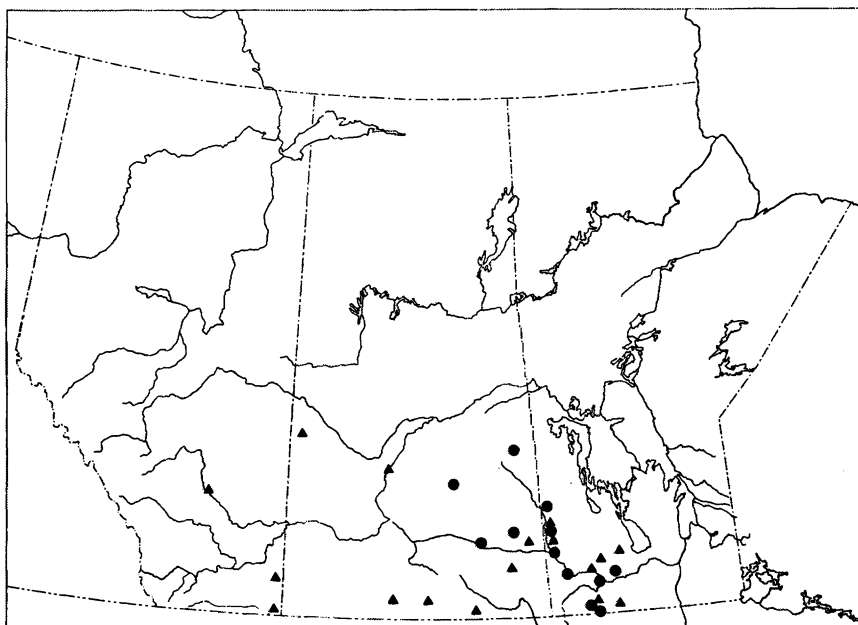
*Ilnacora vittifrons* Knight

Fig. 167; Map 66

*Ilnacora vittifrons* Knight, 1963:166.

Length 4.80–5.48 mm; width 1.68–1.82 mm. Head mostly black below antennal sockets, pale above with trifurcate black marks. Rostrum





Map 66. Collection localities for *Ilnacora vittifrons* (●) and *I. stalii* (▲).

1.12–1.26 mm long. Pronotum and scutellum with typical black patches of scales. Hemelytra green, black scales uniformly scattered, often rubbed off. Ventral surface black, legs pale green.

**Remarks.** This species is distinguished by the bicolored head and by the genital claspers (Fig. 167).

**Habitat.** Collected on *Helianthus* spp.

**Distribution.** North Central States; now known to occur in Manitoba and Saskatchewan (Map 66).

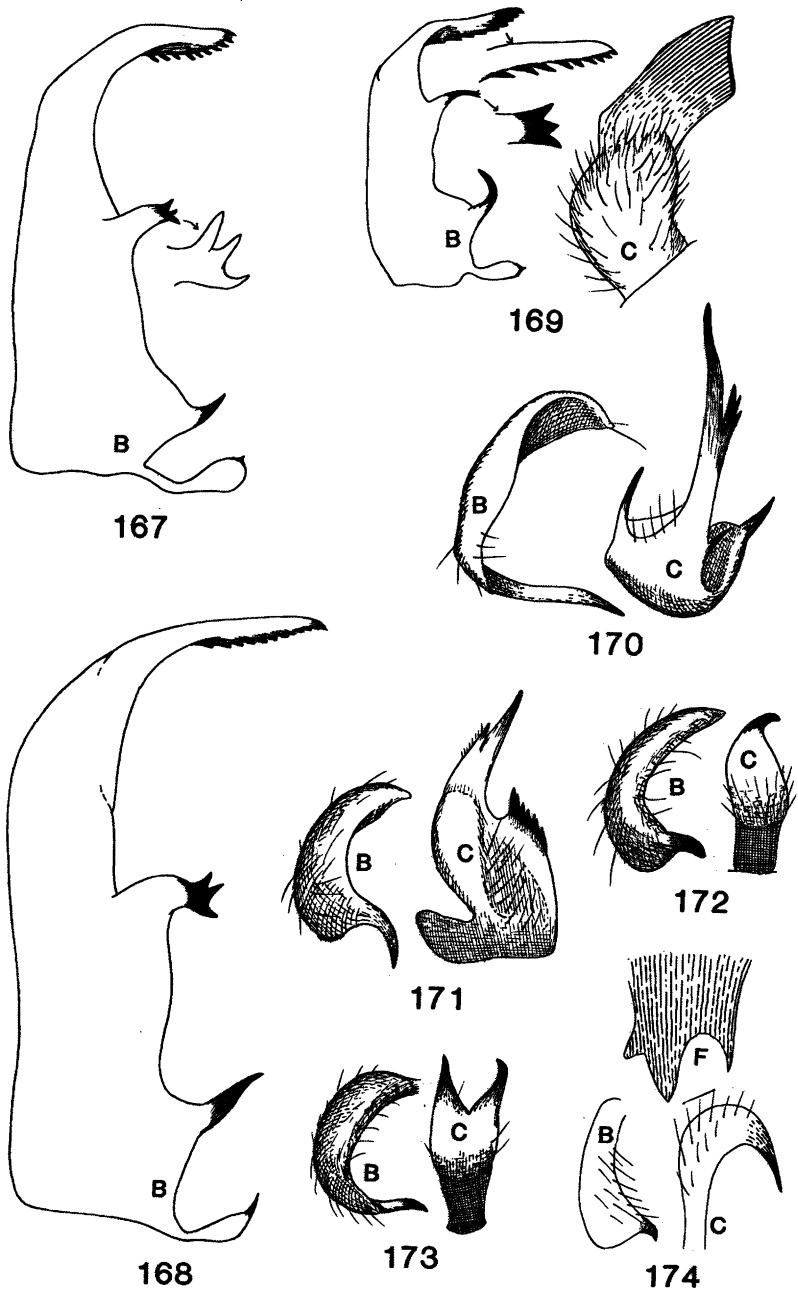
*Ilnacora stalii* Reuter

Fig. 168; Map 66

*Ilnacora stalii* Reuter, 1875c:86.

*Parthenicus psalliodes* Provancher, 1877:146.

Length 5.60–6.16 mm; width 1.82–2.10 mm. Head pale green. Rostrum 1.40–1.54 mm long. First antennal segment almost as long as width of vertex, pale, annulate with black at base and apex. Pronotum and scutellum with typical black patches of scales. Hemelytra green, black scales more or less in clumps. Ventral surface green.



Figs. 167–174. Male claspers of Miridae. 167, *Ilnacora vittifrons*; 168, *I. stalii*; 169, *I. albifrons*; 170, *Ilnacorella sulcata*; 171, *Brooksetta inconspicua*; 172, *B. viridicata*; 173, *B. chelifera*; 174, *B. incurva*.

**Remarks.** This species is larger than *vittifrons* with longer first antennal segment and longer rostrum. The genital claspers are distinctive (Fig. 168).

**Habitat.** Collected on *Helianthus* spp.

**Distribution.** Eastern and Central States, Ontario, Quebec; Alberta, now known to occur in Saskatchewan and Manitoba (Map 66).

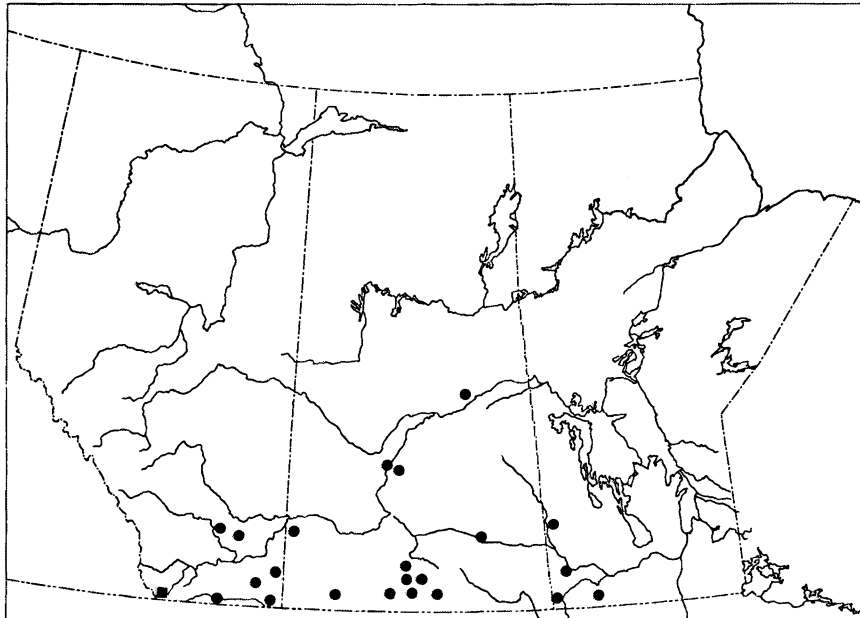
*Ilnacora albifrons* Knight

Figs. 145, 169; Map 67

*Ilnacora albifrons* Knight, 1963:165.

Length 4.20–4.76 mm; width 1.54–1.68 mm. Head mostly pale, base and apex of clypeus, lorum, and short bar at middle of vertex often black. Rostrum 0.98–1.12 mm long. First antennal segment short and mostly black. Pronotum and scutellum with typical black patches of scales. Hemelytra green, black scales uniformly scattered. Ventral surface black in male, mostly pale in female.

**Remarks.** This species is distinguished by the nearly white head (Fig. 145) and the genital claspers (Fig. 169).



Map 67. Collection localities for *Ilnacora albifrons* (●) and *Ilnacorella sulcata* (■).

**Habitat.** Collected on *Grindelia perennis*.

**Distribution.** Central and western States; now known to occur in the Prairie Provinces (Map 67).

### Genus *Ilnacorella* Knight

Elongate, slender, green species. Head vertical, vertex flattened, carina between them distinct. First antennal segment almost as long as head width. Pronotum trapeziform, flattened, lateral margins sharply angled. Hemelytra smooth, shiny. Pubescence of two types: black, appressed scales, intermixed with longer, erect, black hairs. Legs long, slender.

Four species are known from North America, one occurs in the Prairie Provinces.

#### *Ilnacorella sulcata* Knight

Fig. 170; Map 67

*Ilnacorella sulcata* Knight, 1925a:93.

Length 5.39–5.95 mm; width 1.68–1.96 mm. Head pale yellowish. Rostrum 1.19–1.33 mm long. First antennal segment green, base black. Second antennal segment longer than width of pronotum at base. Pronotum pale green, calli yellowish. Hemelytra green. Ventral surface and legs pale yellow. Dorsal rim of genital cavity without sclerite.

**Remarks.** This species is distinguished by the long and slender form, by the long antennae and legs, by the pubescence, and by the genital claspers (Fig. 170).

**Habitat.** Unknown.

**Distribution.** Alberta (Map 67).

### Genus *Brooksetta* Kelton

Oblong, small, green species. Head subvertical, area between eyes flattened; carina between eyes distinct. First antennal segment shorter than width of vertex between eyes. Rostrum relatively short, extending to middle coxae. Pronotum trapeziform, lateral margins angulate; calli distinct. Hemelytra smooth, entire in males, often reduced in females. Pubescence of two types: appressed, black, scaly hairs, intermixed with erect, pale or black, longer simple hairs. Genital claspers variable, highly specific; dorsal margin of genital cavity with slender or flattened sclerite.

Several North American species formerly included in *Melanotrichus* Reuter were transferred to *Brooksetta* by Kelton (1979c, d). Fifteen species are known from North America, four occur in the Prairie Provinces.

### Key to species of *Brooksetta*

1. First antennal segment marked with black; long pubescence on dorsum black; genital structures (Fig. 171) ..... *inconspicua* (Uhler) (p. 222)  
    First antennal segment pale; long pubescence on dorsum pale ..... 2
2. Tibial spines black; genital structures (Fig. 172) ..... *viridicata* (Uhler) (p. 223)  
    Tibial spines pale ..... 3
3. Rostrum 0.84–0.87 mm long; genital structures (Fig 173) .....  
    ..... *chelifer* (Knight) (p. 223)  
    Rostrum 1.05–1.19 mm long; genital structures (Fig. 174) .....  
    ..... *incurva* (Knight) (p. 224)

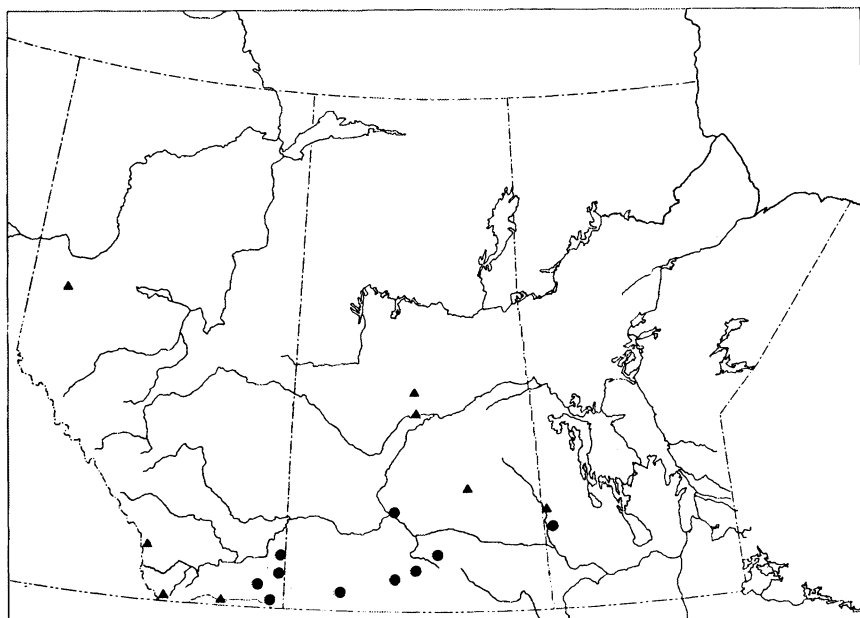
#### *Brooksetta inconspicua* (Uhler)

Figs. 146, 171; Map 68

*Asciodema inconspicua* Uhler, 1893:376.

*Melanotrichus inconspicuus*: Knight, 1927c:142.

*Brooksetta inconspicua*: Kelton, 1979c:950; 1979d:1423.



Map 68. Collection localities for *Brooksetta inconspicua* (●) and *B. viridicata* (▲).

Length 3.22–3.64 mm; width 1.26–1.47 mm. Head pale bluish green, carina with row of black bristles each with black spot at base. Rostrum 0.77–0.91 mm long. First antennal segment mostly black in male, with only black line on ventral surface in female. Pronotum, scutellum, and hemelytra bluish green; pubescence consists of black scales, intermixed with erect, black hairs. Ventral surface and legs pale green, tibial spines black. Dorsal margin of genital cavity with tiny sclerite.

**Remarks.** This species is easily recognized by the black or partly black first antennal segment, by the black hairs on the carina (Fig. 146), and by the genital claspers (Fig. 171).

**Habitat.** Collected on *Artemisia cana*.

**Distribution.** California, Utah; Prairie Provinces (Map 68).

*Brooksetta viridicata* (Uhler)

Fig. 172; Map 68

*Orthotylus viridicatus* Uhler, 1895:48.

*Melanotrichus viridicatus*: Knight, 1927:143.

*Brooksetta viridicata*: Kelton, 1979c:952; 1979d; 1423.

Length 3.92–4.06 mm; width 1.26–1.40 mm. Head, pronotum, and hemelytra green; pubescence consists of black scales with erect, pale hairs. Rostrum 0.91–1.08 mm long. Tibial spines black. Dorsal margin of genital cavity with short, flattened, bifurcate sclerite.

**Remarks.** This species is distinguished by the genital structures (Fig. 172).

**Habitat.** Collected on *Potentilla fruticosa*.

**Distribution.** Western States; Prairie Provinces (Map 68).

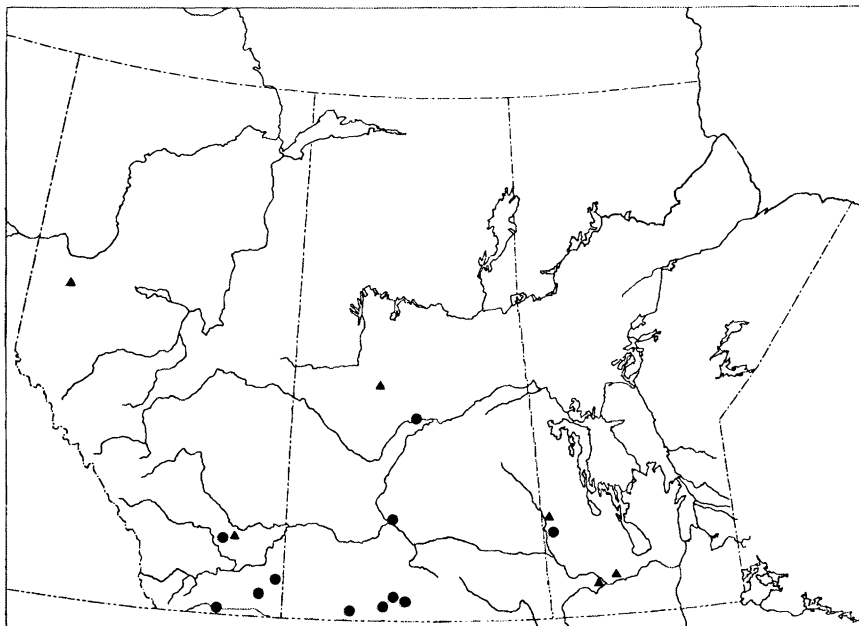
*Brooksetta chelifera* (Knight)

Fig. 173; Map 69

*Melanotrichus chelifera* Knight, 1927c:144.

*Brooksetta chelifera*: Kelton, 1979c:952; 1979d:1423.

Length 3.36–3.64 mm; width 1.26–1.40 mm. Head yellowish green, carina with white bristles and without black spots. Rostrum 0.84–0.87 mm long. First antennal segment pale. Pronotum, scutellum, and hemelytra bluish green; pubescence consists of black scales, intermixed with longer white hairs. Ventral surface and legs pale green, tibial spines pale. Dorsal margin of genital cavity with slender, pointed sclerite.



Map 69. Collection localities for *Brooksetta chelifera* (●) and *B. incurva* (▲).

**Remarks.** This species is similar to *inconspicua* in size and color, but the first antennal segment is pale, the carina has white bristles, the long pubescence on the hemelytra is pale, and the genital claspers (Fig. 173) are different.

**Habitat.** Collected on *Malvastrum coccineum*.

**Distribution.** Western States; Prairie Provinces (Map 69).

*Brooksetta incurva* (Knight)

Fig. 174; Map 69

*Melanotrichus incurvus* Knight, 1927c:143.

*Brooksetta incurva*: Kelton, 1979c:953; 1979d:1423.

Length 3.39–3.64 mm; width 1.26–1.40 mm. Head yellowish green, bristles on carina pale. Rostrum 1.05–1.19 mm long. Pronotum pale green, calli yellowish. Scutellum and hemelytra similar to *viridicata* in color and pubescence. Tibial spines pale. Dorsal margin of genital cavity with broadly flattened and divided sclerite.

**Remarks.** This species is distinguished by the genital structures (Fig. 174).

**Habitat.** Unknown.

**Distribution.** Western States; Prairie Provinces (Map 69).

### Genus *Hadronema* Uhler

Elongate, black and red, pubescent species. Head vertical, carina between eyes distinct. Pronotum trapeziform, transversely rugose, lateral margins carinate. Hemelytra shiny. Pubescence simple. Front femur of male with or without strongly developed tubercle.

Thirteen species are known from North America, four occur in the Prairie Provinces.

### Key to species of *Hadronema*

1. Rostrum extending to hind coxae; pubescence on dorsum pale .....  
..... *princeps* Uhler (p. 225)  
Rostrum shorter, extending to middle coxae; pubescence on dorsum black ..... 2
2. Femora mostly pale ..... *bispinosum* Knight (p. 226)  
Femora black ..... 3
3. Smaller species, less than 3.7 mm ..... *simplex* Knight (p. 226)  
Larger species, more than 4.2 mm ..... *militaris* Uhler (p. 228)

### *Hadronema princeps* Uhler

Map 70

*Hadronema princeps* Uhler, 1894:251.

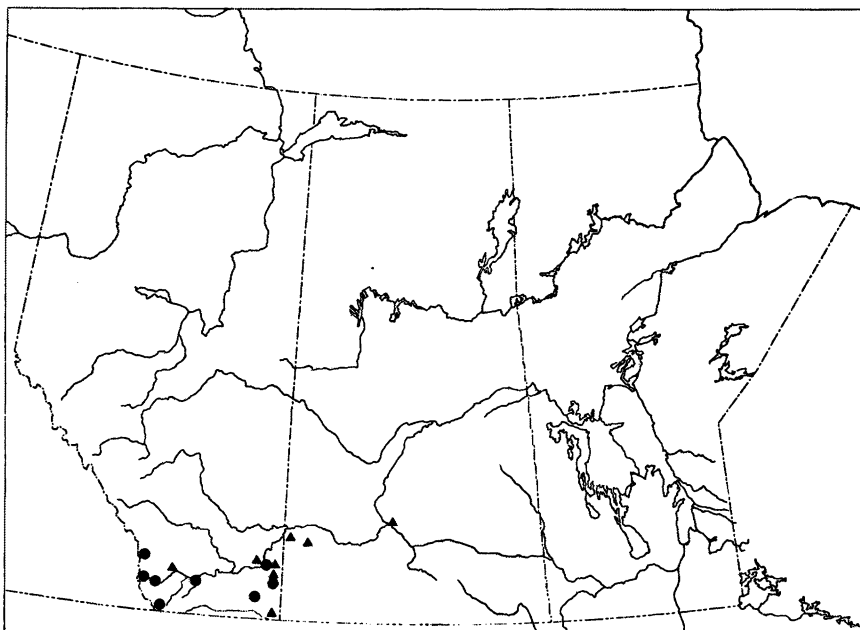
Length 4.20–4.48 mm; width 1.33–1.54 mm. Head black, jugum and frons often reddish. Rostrum 1.68–1.82 mm long. Pronotum red, calli black. Scutellum red. Hemelytra black, base of cuneus pale, claval suture often pale in female. Pubescence on dorsum pale, long, slanting. Ventral surface black marked with red, legs reddish brown or black, front femur in male without tubercle.

**Remarks.** This species is distinguished by the pale pubescence on the dorsum and by the long rostrum.

**Habitat.** Collected on *Juniperus horizontalis* and *Pinus contorta*.

**Distribution.** Western States, British Columbia; Alberta, now known to occur in Saskatchewan (Map 70).





Map 70. Collection localities for *Hadronema princeps* (●) and *H. bispinosum* (▲).

*Hadronema bispinosum* Knight

Fig. 184; Map 70

*Hadronema bispinosum* Knight, 1928b: 179.

Length 3.36–4.06 mm; width 1.12–1.54 mm. Head almost black, lorum, jugum, and area above antennal socket pale. Pronotum yellow or reddish, calli black. Scutellum partly pale. Hemelytra generally black, wide costal margin and cuneus white; pubescence black, erect (Fig. 184). Ventral surface and femora mostly pale; tibiae black.

**Remarks.** This species is distinguished by the mostly pale femora.

**Habitat.** Collected on *Psoralea lanceolata*.

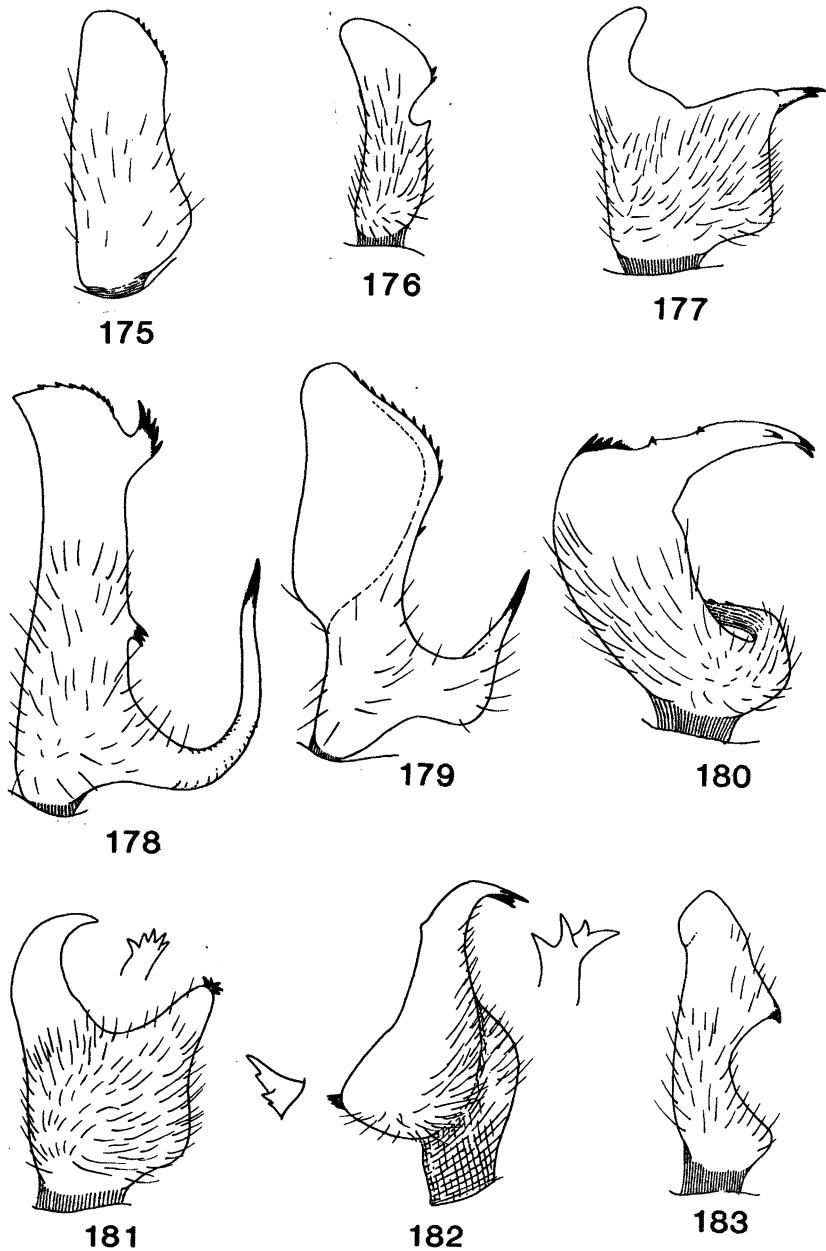
**Distribution.** South Dakota, Wyoming, Colorado; now known to occur in Alberta and Saskatchewan (Map 70).

*Hadronema simplex* Knight

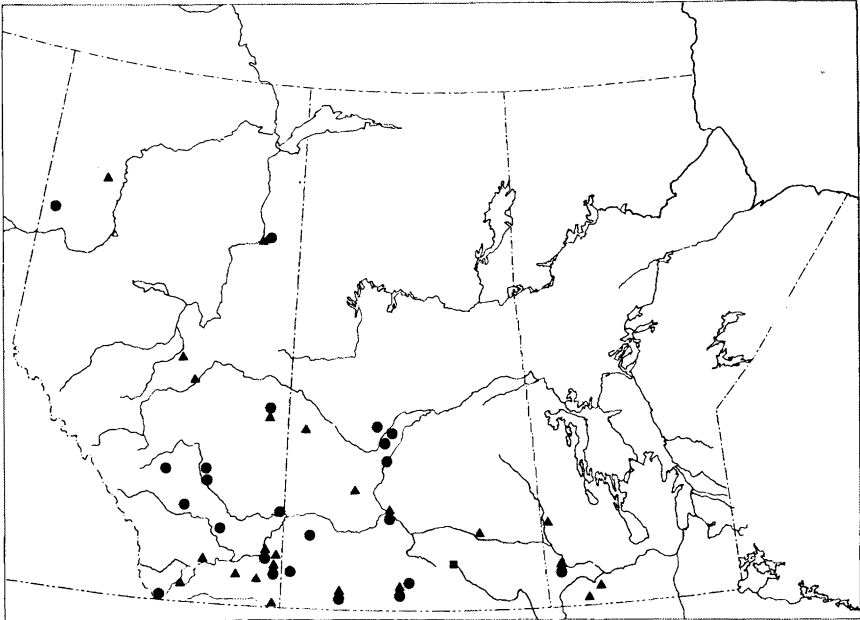
Map 71

*Hadronema simplex* Knight, 1928b:178.

Length 2.80–3.64 mm; width 0.98–1.47 mm. Head black. Pronotum mostly black, basal angles sometimes reddish. Scutellum and hemelytra



Figs. 175–183. Male claspers of *Lopidea* spp. 175, *yampae*; 176, *minor*; 177, *lathyri*; 178, *media*; 179, *lepidii*; 180, *serica*; 181, *balli*; 182, *dakota*; 183, *teton*.



Map 71. Collection localities for *Hadronema simplex* (▲) and *H. militaris* (●).

black, costal margin and cuneus white; pubescence black, erect. Ventral surface and legs black.

**Remarks.** This species is similar to *bispinosum* in size, but the head and femora are black.

**Habitat.** Collected on various plants.

**Distribution.** Wyoming; now known to occur in the Prairie Provinces (Map 71).

#### *Hadronema militaris* Uhler

Map 71

*Hadronema militaris* Uhler, 1872:412.

Length 4.20–5.18 mm; width 1.54–1.82 mm. Head black. Pronotum red, calli black. Scutellum and hemelytra black, costal margin and cuneus white; pubescence black, erect. Ventral surface and legs black.

**Remarks.** This species is similar to *simplex* in color and appearance, but is much larger in size.

**Habitat.** Collected on *Thermopsis rhombifolia*.