

## Two New Conifer-Inhabiting *Phytocoris* from Western North America (Hemiptera: Miridae)

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**Abstract.**—The new plant bug species *Phytocoris nobilis* and *P. occidentalis* are described from western North America. *Phytocoris nobilis* was collected on *Abies* spp. and *P. occidentalis* was taken on several species of *Pinus* and also collected at light. The adult male of *P. nobilis* and male genitalia of both species are illustrated.

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Relatively little is known about the plant bug fauna of the northwestern United States. A recent survey of the *Phytocoris* species that occur in this region has revealed the presence of several undescribed species. *Phytocoris nobilis* and *P. occidentalis* are described to provide names for a forthcoming study of the Miridae of Oregon. *Phytocoris nobilis* was taken at several localities in the Coast and Cascade Ranges of Oregon on *Abies* spp. *Phytocoris occidentalis* occurs throughout much of coastal western North America on pines and also has been taken at light.

The following abbreviations are used for specimen depositories cited in the locality data: American Museum of Natural History (AMNH); California Academy of Sciences (CAS); California State Department of Food and Agriculture (F&A); Los Angeles County Museum (LACM); Oregon State University (OSU); San Diego Natural History Museum (SDNH); University of British Columbia (UBC); University of California, Berkeley (UCB); University of California, Riverside (UCR); National Museum of Natural History, Smithsonian Institution (USNM).

### *Phytocoris nobilis*, NEW SPECIES

(Figs. 1, 2-4)

**Male** (Fig. 1).—Length 7.68–8.85 mm, width 2.50–2.74. Head: width across eyes 1.20–1.27, vertex 0.36–0.39; dark reddish brown to nearly black; frons, gula, and ventral margin of lorum marked with white or pale yellow; base of jugum with conspicuous pale spot; vertex and frons with scattered, erect, black bristles. Rostrum: length 3.36–3.69, extending to 6th or 7th abdominal segment. Antennae: dark brown or black; with closely appressed, recumbent, light setae; I, length 1.50–1.71, with scattered, pale, often indistinct spots, and stout erect black bristles; II, length 3.46–3.93, narrowly pale at base; III, length 1.86–2.18; IV, length 1.14–1.27. Pronotum: mesal length 1.12–1.18, posterior width 1.98–2.05, white or pale yellow, lateral margins broadly fuscous. Scutellum: moderately convex, white or pale yellow, pale midline bordered by broad fuscous band. Hemelytra: opaque white, densely marked with small to large fuscous patches, particularly along

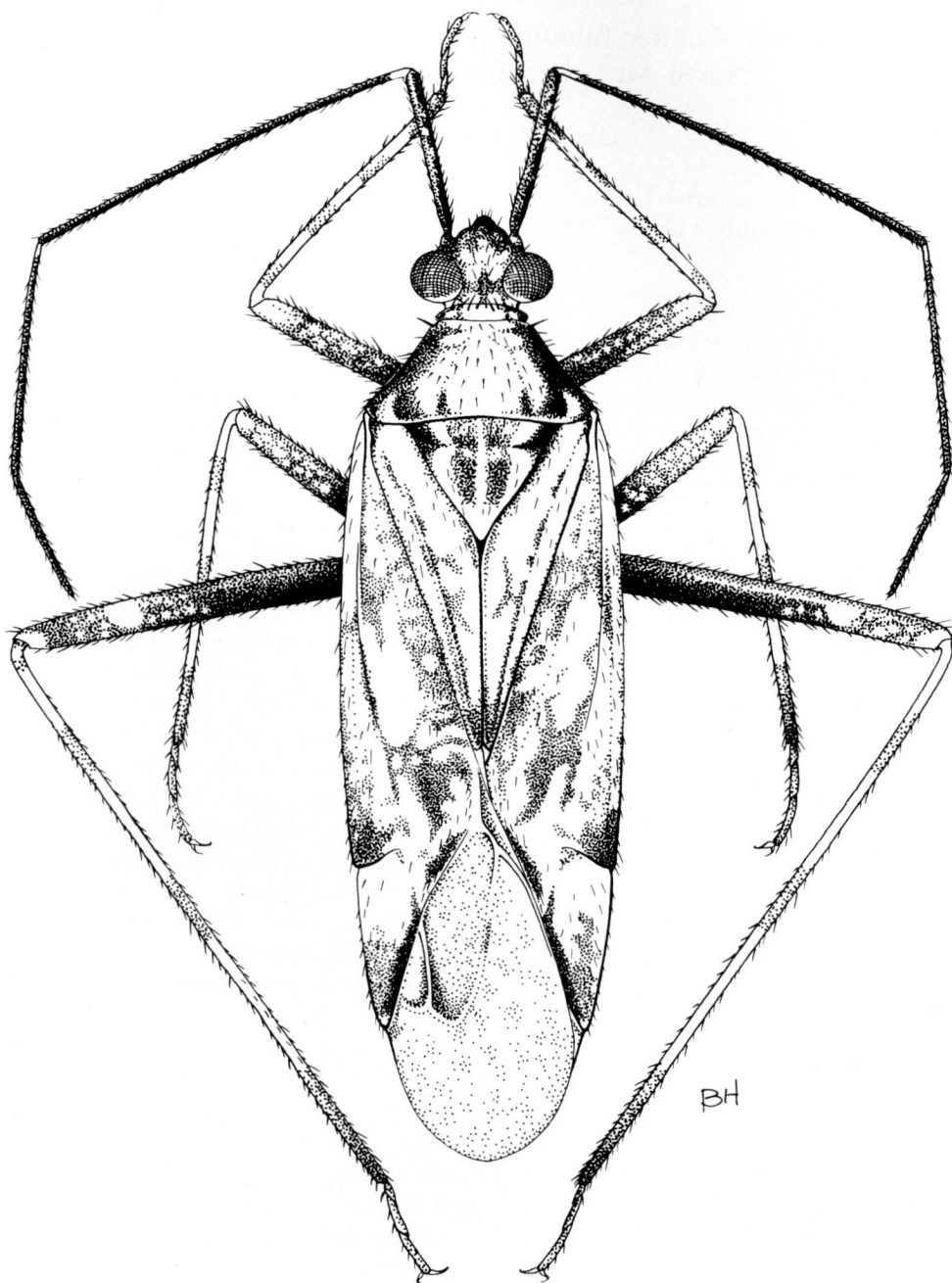
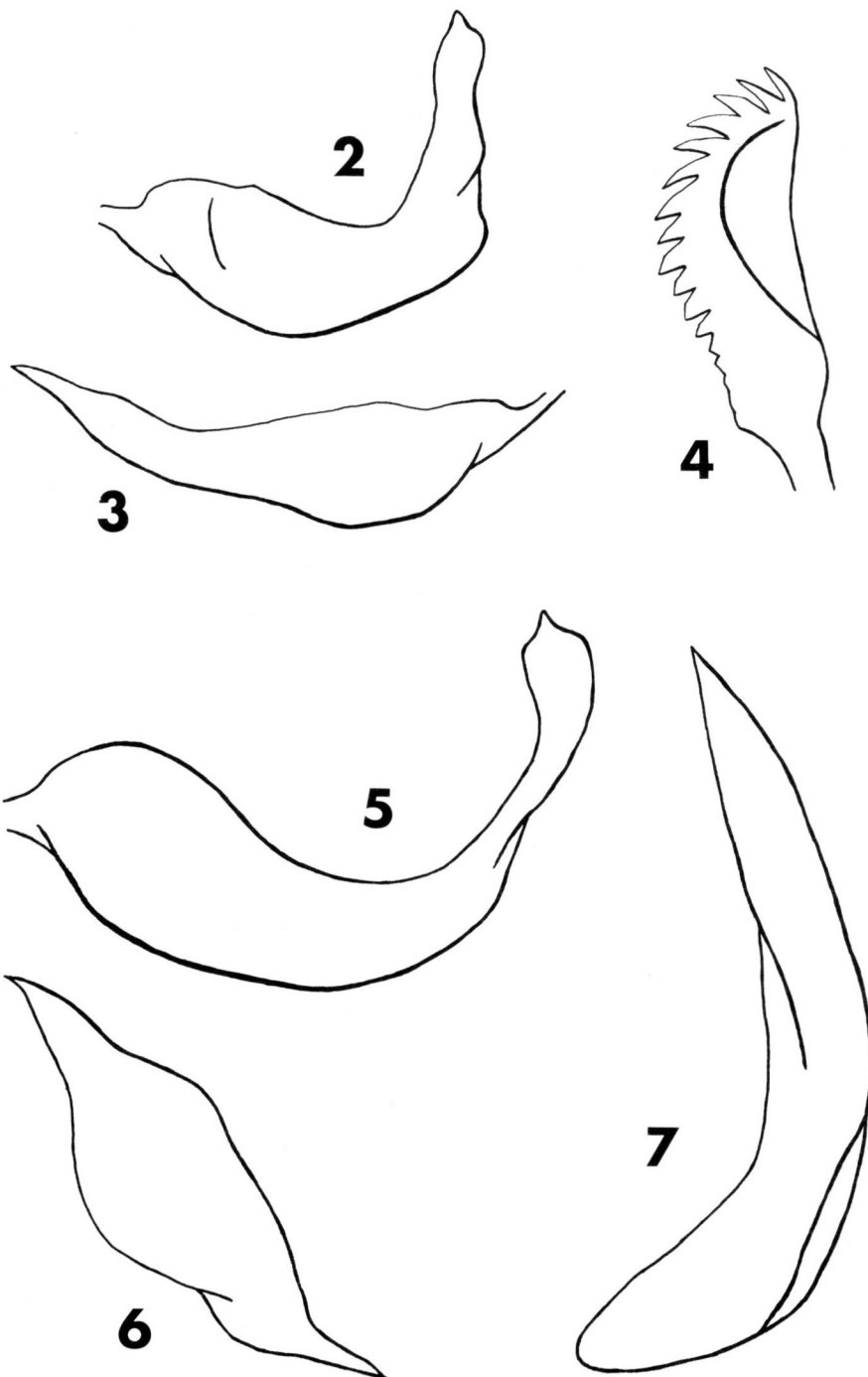
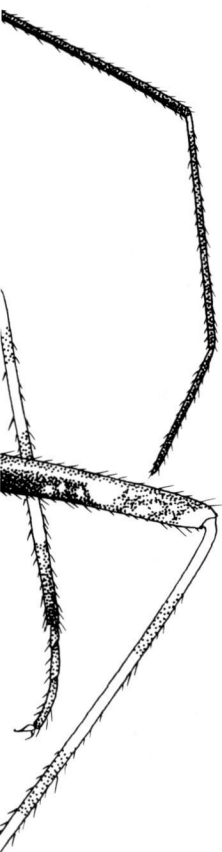


Figure 1. *Phytocoris nobilis*, n. sp., adult male.

claval, cubital and radial veins; apices of clavus and cuneus, posterolateral angle of corium, and posterior margin of paracuneus fuscous; membrane conspurcate, veins dark, becoming pale posteriorly. Venter: dark brown or black, shining, with scattered pale setae. Legs: coxae white or pale yellow; femora fuscous, apical half

Figures 2-4. *Phytocoris vesica*. 5-7. *Phytocoris vesica*.



Figures 2-4. *Phytocoris nobilis*. 2. Left paramere. 3. Right paramere. 4. Sclerotized process of vesica. 5-7. *Phytocoris occidentalis*. 5. Left paramere. 6. Right paramere. 7. Sclerotized process of vesica.

posterolateral angle  
brane conspurcate,  
black, shining, with  
fuscous, apical half



transverse, pale  
al claws yellowish  
n semierect, black  
ures 2-4. Genital  
imilar but smaller  
sed on the exami-

with fewer fuscous  
width 2.32-2.60.  
length 3.63-3.82,  
9-3.57; III, 1.67-  
erior width 1.79-  
2 specimens.

ews Experimental  
9 (G. M. Cooper;  
arys Peak, T12S,  
OSU); 1 male and  
ers, July 25-Aug.  
Peak, T12S, R7W,  
SU). Lane Co.: 1  
les and 5 females,  
4 and SE ¼, 1480  
; AMNH, OSU);  
M. Cooper; CAS);  
e. 7, SW ¼, 1329

and silver fir, *Abies*

formed by Knight  
*porcoris nobilis* keys  
dominantly white  
anal segment. The  
re of the dorsum,  
grayish white cast  
mora of *P. nobilis*  
to the apical half  
with a reticulate,  
The tibiae of *P.*  
inct or lacking in  
are more densely  
*lis*. Male genitalia

across eyes 0.90-  
rum, jugum, and  
scous striae each

side of midline. Rostrum: length 1.89-2.30, extending to 5th or 6th abdominal segment. Antennae: dark reddish brown to fuscous; I, length 0.68-0.79, with recumbent, black setae and 10-12 erect, pale bristles; II, length 1.78-2.03, narrowly pale at base; III, length 1.03-1.30, narrowly pale at base; IV, length 0.68-0.90. Pronotum: mesal length 0.71-0.81, posterior width 1.28-1.42; testaceous or grayish yellow, collar and calli marked with red; posterior submargin with 4-6 slightly elevated tubercles outlined posteriorly by a wavy, fuscous band. Scutellum: testaceous or grayish yellow; frequently marked or tinged with red, especially along midline. Hemelytra: testaceous or grayish yellow with distinct reddish cast, areas bordering claval suture darker brown; cuneus deeper red; membrane translucent, confusedly sprinkled with fuscous spots which often coalesce to form larger fuscous patches, veins pale, usually tinged with red and sometimes infuscated basally. Venter: testaceous or grayish yellow, extensively mottled with red or reddish brown; base of 9th abdominal segment broadly fuscous. Legs: coxae pale yellow with scattered, reddish patches; femora pale yellow, reticulated with red or reddish brown so that pale areas appear as spots, metafemora more extensively infuscated apically; tibiae reddish brown to fuscous with scattered, pale spots, pale markings on front tibiae often appearing as three distinct bands; tarsi testaceous to fuscous; tarsal claws testaceous. Vestiture: pronotal disk, scutellum, and hemelytra with semierect, black setae intermixed with brown or black, scale-like setae and white, scale-like setae. Genitalia: Figures 5-7. Genital segment with a finger-shaped tubercle at bases of left and right parameres. The male description is based on the examination of 46 specimens.

*Female*.—Very similar to male in color, vestiture, and size. Length 4.37-5.29 mm, width 1.51-1.71. Head: width across eyes 0.80-0.95, vertex 0.33-0.41. Rostrum: length 1.98-2.47, extending to 5th or 6th abdominal segment. Antennae: I, 0.68-0.80; II, 1.76-2.11; III, 1.12-1.30; IV, 0.76-0.94. Pronotum: mesal length 0.70-0.86, posterior width 1.19-1.49. The female description is based on the examination of 29 specimens.

*Type data*.—HOLOTYPE male, Oregon, Josephine Co., 4 mi NE Cave Junction on US 199, Aug. 8, 1979, ex *Pinus ponderosa* Dougl. (G. M. Stonedahl; USNM). PARATYPES: OREGON. 3 males and 1 female, same data as holotype (OSU); 9 males and 3 females, same data as holotype but Aug. 24, 1979 (AMNH, CAS, OSU).

*Additional specimens*.—CANADA. BRITISH COLUMBIA. Goldstream, Aug. 4, 1927 and Aug. 16, 1929 (W. Downes; UBC). UNITED STATES. CALIFORNIA. Alameda Co.: Berkeley, Aug. 28 and Oct. 1, 1965, at light (R. L. Langston; UCB). Butte Co.: Oroville, July 13, 1926 (H. H. Keifer; CAS). Contra Costa Co.: Moraga, July 24 and Sept. 23, 1976 (D. G. Denning; AMNH); San Pablo Dam Res., June 29, 1978, ex *Pinus radiata* D. Don (C. P. Ohmart; OSU); Walnut Crk., Aug. 20, 1969, at blacklight (J. A. Powell; UCB). Mariposa Co.: Feliciano Mtn., July 26, 1946, ex *Pinus attenuata* Lemmon (R. L. Usinger; UCB). Plumas Co.: Johnsville, Sept. 2, 1967, light trap (H. Pini; F&A). Sacramento Co.: Sacramento, June 15-26, 1968 (R. A. Belmont; F&A). San Bernardino Co.: San Bernadino Mts., Mill Crk., 1829 meters, Sept. 2, 1950, at light (Timberlake; UCR); San Bernardino Mts., South Fork Camp, 1890 meters, Sept. 10, 1944, ex *Pinus ponderosa* (Timberlake; UCR); San Bernardino Mts., Camp O-Ongo nr. Running Springs, 1920 meters, Aug. 31, 1971 (C. L. Hogue; LACM); 4 mi S Twentynine



Palms, March 30, 1970, ex *Yucca schidigera* Roezl (UCB). San Diego Co.: Laguna, Aug. 21, 1927 (SDNH). Shasta Co.: Lakehead, 350 meters, June 26, 1981, ex *Pinus sabiniana* Dougl. (J. D. Lattin; OSU). Siskiyou Co.: McCloud, 1073 meters, Aug. 9 & 20, 1980, ex *Pinus attenuata* (G. M. Stonedahl; OSU). Yolo Co.: 5 mi N Rumsey, May 2, 1973 (J. C. Miller; OSU). OREGON. Grant Co.: Malheur Nat. For., Dixie Campground, Aug. 24, 1981, ex *Pinus ponderosa* (G. M. Stonedahl; OSU). Hood River Co.: Mt. Hood, Cloud Cap, 1829 meters, Sept. 5, 1979, ex *Pinus contorta* Dougl. (G. M. Stonedahl; OSU); T1S, R10E, Sec. 31, Sept. 13, 1979, ex *Pinus contorta* (G. M. Stonedahl; OSU); T3S, R9E, Sec. 18, 1311 meters, Sept. 13, 1979, ex *Pinus contorta* (J. D. Lattin; OSU). Josephine Co.: O'Brien, Aug. 2, 1968 (P. Oman; OSU); 2 mi W O'Brien, Aug. 10, 1979, ex *Pinus ponderosa* (G. M. Stonedahl; OSU). Linn Co.: 1 mi W jct. State Hwy. 22 on US 20, Sept. 19, 1979, ex *Pinus contorta* (G. M. Stonedahl; OSU); 0.5 mi N jct. US 20 on State Hwy. 22, 1158 meters, Sept. 1, 1977, ex *Pinus contorta* (J. D. Lattin; OSU).

*Remarks.*—*Phytocoris occidentalis* will key to *P. miniatus* Knight in Knight (1968:219) but is easily separated from *miniatus* by the submarginal, fuscous band on the pronotal disk and the black, scale-like setae on the dorsum. *Phytocoris occidentalis* is much larger than *P. miniatus* which has an average size of only 3.4 mm. The geographic ranges of these two species also are different. *Phytocoris miniatus* is known only from Arizona and Utah.

*Phytocoris occidentalis* is superficially similar to another pine-inhabiting *Phytocoris* species, *P. stellatus* Van Duzee. *Phytocoris stellatus* is easily separated from *occidentalis* by the absence of black, scale-like setae on the dorsum and the structure of the male genitalia, particularly the absence of the genital tubercles.

#### ACKNOWLEDGMENTS

I wish to thank John D. Lattin (OSU), Paul W. Oman (OSU), and Thomas J. Henry (USDA, SEL, % USNM) for reviewing the manuscript; and special thanks to Richard C. Froeschner (USNM) for loaning type specimens of *P. abiesi* Knight and *P. rainieri* Knight for comparison. I also thank Bonnie B. Hall for the fine illustration of *P. nobilis* and Julie A. Stonedahl for help in preparing the manuscript. The Theodore Roosevelt Memorial Fund (AMNH) and the Oregon State University Foundation provided funds to study additional type material at the USNM.

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