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Revision of the Genus *Yorima* Chamberlin and Ivie (Arachnida, Agelenidae)

By Vincent D. Roth[1]

The genus *Yorima* comprises a small group of six-eyed agelenids which are distributed through the coastal ranges of central and southern California. One species seemingly occurs in Cuba, and another is recorded from Baja California with some doubt. The yorimas are found in habitats similar to those preferred by agelenids of the genera *Cybaeus, Cicurina,* and *Blabomma,* and seem to be more common than these genera in the area south of the northern part of the Monterey Bay area. The spiders inhabit shady areas where there is abundant leaf mold or litter and rotting logs. The microhabitat must retain a moderately high humidity throughout the year. Specimens have been obtained from under logs, in pine and fir needles, oak duff, and between layers of a damp and rotting cardboard box. They can usually be collected by careful searching of the duff, sifting, or, more easily, through the use of a Berlese funnel.

All holotypes and allotypes of the new species are deposited in the collection of the American Museum of Natural History. Representative paratypes will be retained in the collection of the author.

The author owes special thanks for the extensive loan of specimens from Dr. Willis J. Gertsch of the American Museum of Natural History and for smaller loans from Mr. R. X. Schick of the University of California in Los Angeles and Dr. R. V. Chamberlin of the University of Utah. To Dr. Herbert W. Levi of the University of Wisconsin, who

[1] University of Arizona Experiment Station, Yuma, Arizona.

graciously compared the type of *Chorizomma antillanum* Bryant and provided sketches for comparison, and to Dr. Harriet Exline Frizzell, who assisted in the correction of the manuscript, I offer my sincere thanks.

Chamberlin and Ivie (1942, pp. 20–21) separated three species from *Chorizomma* and placed them in the new genus *Yorima.* At the same time they placed *Chorizomma* as a subgenus of *Cicurina,* with the type species as *Chorizomma subterraneum* Simon. No disposition was made for the species *C. pallens* Simon or *C. antillanum* Bryant. The type of the latter has been studied and is a *Yorima,* but the type of *C. pallens* Simon has not been located and is only tentatively placed in this genus.

Yorima can be separated from the related genus *Blabomma* (which includes *Chorizommoides*) by the following characteristics:

Yorima: Posterior eye row recurved or occasionally straight; eyes six; distal segment of posterior spinneret one-half to five-sixths as long as basal segment. Male palp lacking median apophysis; tibia and patella never modified.

Blabomma: Posterior eye row procurved to almost straight; eyes six or eight (in which case the anterior median eyes are minute); distal segment of posterior spinneret one-third as long as basal segment. Male pulp with a median apophysis; tibia and often femur and patella modified.

GENUS *YORIMA* CHAMBERLIN AND IVIE

Yorima CHAMBERLIN AND IVIE, 1942, Bull. Univ. Utah, vol. 32, no. 13, pp. 19–20.

GENOTYPE: *Yorima sequoiae* (Chamberlin and Ivie).

Small spiders, ranging in length from 2.8 mm. to 5.5 mm., usually 3–4 mm., pale in coloration, carapace and legs lacking markings, abdomen with dusky pattern, often faded or absent. Eyes six, subequal, anterior medians missing, anterior laterals usually largest. Posterior eye row slightly to moderately recurved. Carapace convex in cross section; in longitudinal section rising slowly from the eyes and becoming depressed anterior to the thoracic furrow and dropping rapidly to the posterior border. Furrow ends anteriorly opposite second coxae. Carapace length one and one-third to one and one-half times the width. Head-eye ratio[1] 56.1 to 67.3.

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[1] $\frac{\text{Eye row width} \times 100}{\text{Head width}} = \text{head-eye ratio.}$

Clypeus width one-half to a full diameter of the anterior lateral eye. Chelicera moderately geniculate, fang moderately long, scopula as long as fang, promargin with three teeth, of which the middle one is largest, retromargin with six to nine teeth and denticles, first three largest, remaining denticles becoming smaller away from base of fang. Ventral surface of chelicera bears a group of 10 to 20 long hairs near the mesal-central border. Labium slightly wider than long, shallowly notched distally, basal one-fifth excavated laterally. Endites approximately one and three-quarter times as long as wide, moderately convergent, separated at base approximately two and one-half times more than at tip, mesal-distal corner membranous, with distal scopula extending sparsely into membranous area. Sternum four-fifths as wide as long, shield-shaped, posterior point separating hind coxae slightly.

Legs relatively slender, posterior legs slightly stouter; tibial index of first leg, 11.5–14, of fourth leg, 10–13. Carapace-leg ratio for first leg, in male 291, in female 296, for fourth leg, in male 333, in female 340. Femur or first leg with 1-1-1 or 1-1-2 spines dorsally, tibia of first leg bearing 2-2 ventrally, tibia of second leg bearing usually 1-1 with one smaller prolateral spine, metatarsus of first leg bearing 2-2-2 ventrally. Tarsal claws with nine to 10 teeth, median claw four or five, occasionally three. Female tarsal claw with eight to nine teeth. Abdomen ovate, longer than wide, colulus vestigial, represented by five to eight setae, placed more or less in two almost contiguous groups. Posterior spinnerets separated by one-half to three-quarters of their diameter, longer than the anterior, basal segment slightly shorter than basal segment of anterior spinnerets, distal segment one-half to five-sixths as long as basal segment, tapering to a point with 10 to 20 spinning tubes on mesal surface. Anterior spinnerets stout, subcylindrical, distal segment hemispherical, spinning tubes five or six at tip only. Median spinnerets rounded distally with 12 to 13 spinning tubes scattered over the tip. Epigynum simple, consisting of an external sclerotized area becoming membranous posteromedially with two slit-like openings. Internally the genitalia consist of a symmetrical pair of globular to oval spermathecae with simple connecting canals.

Male palp of the *Cybaeus* type with a long, slender, whip-like embolus arising mesally, curving distally to the ectal side where it is received by the conductor. Femur and patella unmodified, tibia bears ectodistally a broad carina or spur and ventrally two spur-like processes, the most ventral usually curved ectally and the mesal one straight and membranous. Embolus bent near tip, occasionally almost to a 90-degree angle, and then straightened. Conductor bears a small nipple-like process ectally.

Yorima albida, new species

Figures 1–3

HOLOTYPE MALE: Color: Carapace, legs, and sternum yellowish; chelicerae, endites, and labium slightly darker. Abdomen grayish white, without markings. Spinnerets grayish white.

Structure: Eye ratio: Anterior lateral eyes 6, posterior median eyes 5, posterior lateral eyes 5.5. Anterior lateral eyes separated by slightly less than their diameter, posterior median eyes separated by their own diameter and about the same distance from posterior lateral eyes as anterior lateral eyes. Clypeus about as wide as diameter of anterior eyes. Chelicerae slightly geniculate, retromargin with four teeth and three denticles. Palp typical as illustrated. Measurements of holotype: Total length, 2.9 mm. Carapace: length, 1.53 mm.; width, 1.09 mm.; head width, 0.55 mm.; eye-row width, 0.34 mm.; head-eye ratio, 61.8.

ALLOTYPE FEMALE: Similar to male. Eye ratio: Anterior lateral eyes 6.5, posterior median eyes 5, posterior lateral eyes 5.5. Anterior lateral eyes separated by one and two-thirds times their diameter, posterior median eyes separated one and one-half times their diameter and about the same distance from the posterior lateral eyes as the anterior lateral eyes. Clypeus as wide as diameter of anterior eyes. Chelicerae strongly geniculate, retromargin with three teeth, five denticles on the right margin and two teeth, five denticles on the left. Epigynum as illustrated (fig. 1), with separate openings anterior to spermathecae. Sclerotized sheet depressed in front of each opening. Measurements of allotype: Total length, 3.8 mm. Carapace: length, 1.80 mm.; width, 1.22 mm.; head width, 0.73 mm.; eye-row width, 0.41 mm.; head-eye ratio, 56.1.

Yorima albida, new species, is very similar to *Yorima flava* (Chamberlin and Ivie) but can be separated from the latter on the basis of the genital openings which face posteromesally rather than anteriorly.

TYPE LOCALITY: *California:* Sonoma County, 2 miles west of Glen Ellen, February 15, 1954 (Roth and Schuster), male holotype.

OTHER LOCALITIES: *California:* Sonoma County, 3 miles west of Glen Ellen, December 31, 1953 (Roth and Schuster), male and female paratypes; Armstrong Redwood State Park, October 9, 1954 (Schuster and MacNeill), female allotype.

Yorima angelica, new species

Figures 4–6

Chorizomma californicum CHAMBERLIN AND IVIE, 1937, Ann. Ent. Soc. Amer., vol. 30, pp. 216–217, figs. 25–28. (Misidentification.)

Yorima californica CHAMBERLIN AND IVIE, 1942, Bull. Univ. Utah, vol. 32, no. 13, p. 20. (Misidentification.)

Chorizomma californicum Simon belongs to the genus *Blabomma* and is the species that was named *grandis* by Chamberlin and Ivie.

HOLOTYPE MALE: Color: Carapace and legs yellowish; chelicerae, endites, and labium slightly darker. Sternum yellowish, with a darker border. Abdomen grayish white, with dusky markings as illustrated in figure 9. Venter and sides with irregular grayish markings, becoming darker near the spinnerets and forming a ring around the base. Spinnerets grayish white.

Structure: Eye ratio: Anterior lateral eyes 7, posterior median eyes 5, posterior lateral eyes 6. Anterior lateral eyes separated by five-sevenths of their diameter, posterior median eyes separated by one and two-fifths of their diameter. Posterior median eyes one-third closer to anterior lateral eyes than the posterior lateral eyes. Clypeus about one-half of the diameter of the anterior lateral eyes. Chelicera moderately geniculate, retromargin with three teeth and three denticles. Genitalia typical as illustrated. Measurements of holotype: Total length, 2.9 mm. Carapace: length, 1.43 mm.; width, 1.02 mm.; head width, 0.49 mm.; eye-row width, 0.33 mm.; head-eye ratio, 67.3. Average length of 19 males, 3.38 mm., ranging from 2.8 mm. to 4.1 mm.

ALLOTYPE FEMALE: Color identical to that of male. Structure same as that of male except for chelicera which is not geniculate. Epigynum as illustrated in figure 6. Measurements of allotype: Total length, 3.9 mm. Carapace: length, 1.63 mm.; width, 1.12 mm.; head width, 0.61 mm.; eye-row width, 0.40 mm.; head-eye ratio, 65.6. Average length of 11 females, 4.1 mm., ranging from 3.3 mm. to 5.5 mm.

TYPE LOCALITY: *California:* Los Angeles County, 15 miles west of Santa Monica, March 20, 1941 (W. Ivie), male holotype, female allotype, and three male and three female paratypes.

OTHER LOCALITIES: All the specimens listed below are designated as paratypes: *California:* Glendale, December 26, 1951, two males, November 25, 1950, male, May 16, 1954, male and female (all E. I. Schlinger). Santa Monica Mountains, March, 1952, four males and one female, April, 1953, male and female, February 20, 1954, male and female, February 20, 1954, male (all R. X. Schick). Santa Monica Mountains, Tapia Park, March 6, 1954 (R. X. Schick) male. San Gabriel Mountains: Tanbark Flats, June 20, 1952 (W. J. Gertsch) female; Mill Creek Canyon, May 22, 1954 (R. X. Schick) female; Big Tujunga Canyon, March 27, 1954 (R. X. Schick) two females; Gold Canyon, March 27, 1955 (R. X. Schick) three females; no specific locality, March, 1952 (R. X. Schick), female. Orange County, Laguna Beach, December 28, 1932 (W. Ivie), female and two males. San Diego County, Dalzura, March 18, 1947 (W. M. Pearce), female.

The above paratypes have been distributed to the University of California at Los Angeles, University of Utah, and the American Museum of Natural History, and a few are retained in the author's collection.

Yorima flava (Chamberlin and Ivie)

Chorizomma flavum CHAMBERLIN AND IVIE, 1937, Ann. Ent. Soc. Amer., vol. 30, p. 218, fig. 30.

Yorima flava CHAMBERLIN AND IVIE, 1942, Bull. Univ. Utah, vol. 32, no. 13, p. 21.

This species is known only from the female holotype, which was collected at Santa Rosa, California, and is in the collection of the University of Utah. *Yorima albida,* new species, which occurs 10 miles on either side of the type locality, is closely related, but comparison with the holotype shows that it has distinctly different genitalia.

Yorima sequoiae (Chamberlin and Ivie)

Figures 7–10

Chorizomma sequoiae CHAMBERLIN AND IVIE, 1937, Ann. Ent. Soc. Amer., vol. 30, p. 217, fig. 29.

Yorima sequoiae CHAMBERLIN AND IVIE, 1942, Bull. Univ. Utah, vol. 32, no. 13, p. 20.

ALLOTYPE MALE: Color: Carapace and legs yellowish; chelicerae, endites, and labium slightly darker. Sternum yellowish or slightly dusky, becoming darker posteriorly near margins. Abdomen grayish white, with dusky markings as illustrated in figure 9. Venter and sides with irregular gray markings, becoming darker near spinnerets and forming a ring around the base. Spinnerets grayish white.

Structure: Eye ratio: Anterior lateral eyes 7, posterior median eyes 5.3, posterior lateral eyes 6. Anterior lateral eyes separated by one-half to two-thirds of their diameter, posterior median eyes separated by one to one and one-half times their diameter and equidistant from the posterior and anterior lateral eyes. Clypeus as wide as diameter of anterior eyes. Chelicera moderately geniculate, retromargin with one or two teeth and seven or eight denticles. Palp typical, as illustrated in figures 7 and 8. Measurements of allotype: Total length, 2.9 mm. Carapace: length, 1.5 mm.; width, 1.08 mm.; head width, 0.54 mm.; eye-row width, 0.36 mm.; head-eye ratio, 66.6.

TYPE LOCALITY: *California:* Santa Cruz County, Felton (R. V. Chamberlin), female holotype and paratype. The holotype is in the collection of the University of Utah.

OTHER LOCALITIES: *California:* Santa Cruz County, Ben Lomond, January 22, 1955 (D. Burdick, M. Wasbaur), three females. San Mateo

County, 6 miles southeast of Half Moon Bay, December 5, 1953 (V. Roth), one female in redwood duff. Boulder Creek, December 23, 1953 (V. Roth), male allotype and one female.

Yorima sexoculata, new species

Figures 16–17

HOLOTYPE MALE: Color: Carapace, legs, chelicera, labium, endites, and sternum yellow-orange. Abdomen grayish white, with typical pattern, sides and venter with dusky mottling. Spinnerets almost white.

Structure: Eye ratio: Anterior lateral eyes 8, posterior median eyes 6, posterior lateral eyes 7. Anterior lateral eyes separated by three-eighths of their own diameter, posterior median eyes separated by their diameter and slightly closer to the anterior lateral eyes than to the posterior lateral eyes. Clypeus five-eighths of diameter of anterior lateral eye. Chelicera almost straight, retromargin with three teeth and three denticles. Male palp as illustrated in figures 16 and 17. Measurements of holotype: Total length, 3.23 mm. Carapace: length, 1.63 mm.; width, 1.22 mm.; head width, 0.61 mm.; eye-row width, 0.37 mm.; head-eye ratio, 60.7.

ALLOTYPE FEMALE: Similar to male in color but with reduced markings on the abdomen. Structure: Eye ratio: Anterior lateral eyes 7, posterior median eyes 5, posterior lateral eyes 6. Anterior lateral eyes separated by four-sevenths of their diameter, posterior median eyes separated by one and two-fifths of their diameter, slightly closer to the anterior lateral eyes than to the posterior lateral eyes. Clypeus five-sevenths of the diameter of the anterior lateral eyes. Chelicera geniculate, retromargin with three teeth and three or four denticles. Epigynum seemingly identical to that of *Y. sequoiae* (Chamberlin and Ivie). Measurements of allotype: Total length, 4.5 mm. Carapace: length, 1.70 mm.; width, 1.19 mm.; head width, 0.68 mm.; eye-row width, 0.43 mm.; head-eye ratio, 63.2.

TYPE LOCALITY: *California:* Monterey County, Hastings Natural History Reservation, Robles del Rio, April 20, 1946 (J. Linsdale), male holotype.

OTHER LOCALITIES: *California:* Monterey County, Hastings Natural History Reservation, Robles del Rio, March 8, 1946 (J. Linsdale), female and two male paratypes from leaves under live oak; June 8, 1946 (J. Linsdale), female allotype from soil under house of wood rat (*Neotoma fuscipes*); San Benito County, 4 miles west of San Juan Bautista, December 21, 1953 (V. Roth), male paratype from duff under live oak.

Yorima subflava Chamberlin and Ivie

Figures 11–13

Yorima subflava CHAMBERLIN AND IVIE, 1942, Bull. Univ. Utah, vol. 32, no. 13, p. 20, fig. 26.

ALLOTYPE MALE: Color: Carapace and legs yellowish; chelicerae, endites, and labium slightly darker. Sternum yellowish, with dusky borders. Abdomen grayish white.

Structure: Eye ratio: Anterior lateral eyes 7, posterior median eyes 6, posterior lateral eyes 9. Anterior lateral eyes separated by five-sevenths of their diameter, posterior median eyes separated by their diameter and equidistant from posterior and anterior lateral eyes. Clypeus slightly less wide than the diameter of the anterior eyes. Chelicera moderately geniculate, retromargin with three or four teeth and three denticles. Palp as illustrated. Measurements of allotype: Total length, 3.1 mm. Carapace: length, 1.63 mm.; width, 1.12 mm.; head width, 0.58 mm.; eye-row width, 0.38 mm.; head-eye ratio, 65.5. Average length of six males, 3.42 mm., ranging from 3.0 mm. to 3.7 mm.

FEMALE: Similar to male in color and structure except that the posterior median eyes are closer to the anterior lateral eyes than the posterior lateral eyes. Average length of eight females was 3.55 mm., ranging from 2.8 mm. to 3.7 mm. Figure of epigynum (fig. 13) was taken from a slightly cleared specimen, hence appears different from the illustration of this species given by Chamberlin and Ivie in 1942.

TYPE LOCALITY: *California:* Monterey County, Pacific Grove, September 1, 1937 (Wilton Ivie), female holotype in the collection of the University of Utah.

OTHER LOCALITIES: *California:* Monterey County, 7 miles south of Big Sur, December 22, 1953 (V. Roth), male allotype; 14 miles south of Big Sur, December 22, 1953 (V. Roth), four males, three females; 1 mile north of Carmel, December 21, 1953 (V. Roth), male, four females. Santa Cruz County, Big Basin State Park, December 23, 1953 (V. Roth), female.

Yorima antillana (Bryant), new combination

Figures 14–15

Chorizomma antillanum BRYANT, 1940, Bull. Mus. Comp. Zool., vol. 86, p. 273, fig. 14.

Chorizomma antillanum Bryant was described in 1940 on the basis of a single male. While the original description differs on a number of points, a comparison of the type with a specimen of *Yorima angelica,*

new species, showed that the species are congeneric. Dr. Herbert W. Levi, who made the comparisons, wrote: "It is smaller and there are some differences in the palpus. The type specimen is in poor condition—shrivelled as a result of an old rubber stopper, thus comparison of the carapace, sternum and endites was difficult, but I did not see any differences. Colulus hairs also were difficult to see. The teeth on the chelicerae are very similar to the California specimens [*Y. angelica,* new species] as is also the fang. The third anterior tooth is difficult to see (I think it is there); there are five or six posterior teeth arranged the same way as those of the California specimen. The ventral surface of the chelicerae has probably fewer hairs. Legs are missing from the type except the femora. The spinnerets looked alike." He also indicated that the left palpal tibia is very similar to that of *Yorima angelica,* new species, and that the eyes seem to be the same but are very difficult to see.

The holotype, collected by Neal Weber, July 14, 1935, at Soledad, Cuba, is in the collection of the Museum of Comparative Zoölogy at Harvard College, Cambridge, Massachusetts.

Yorima (?) *pallens* (Simon), new combination

Chorizomma pallens SIMON, 1895, Bull. Soc. Zool. France, vol. 20, p. 136.

The type of *Chorizomma pallens* Simon was apparently returned by the author to Dr. George Marx, whose collection is now in the United States National Museum. Unfortunately, no types were designated in the Marx collection, and the collection is in such a state that the specimen in question could not be located.

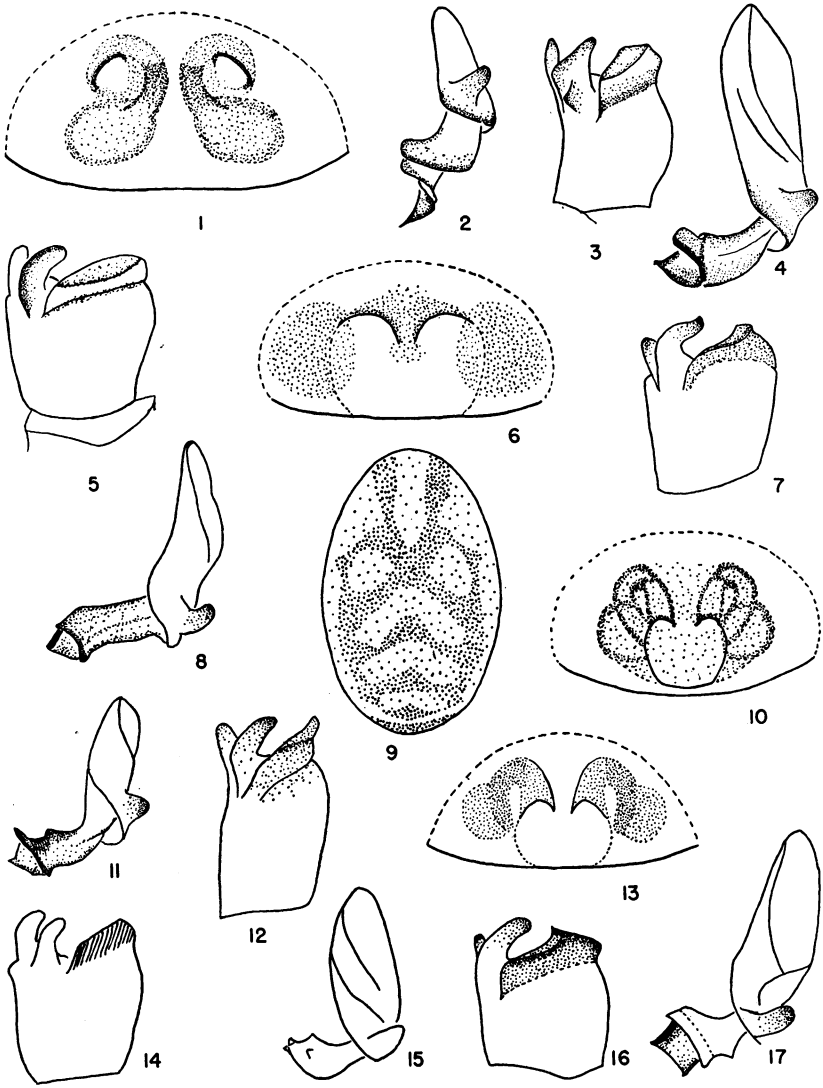
This species, although probably a *Yorima,* is also possibly a *Blabomma.* It is impossible to tell from the meager original description. The type was a female, 4 mm. long, from "Lower California."

LITERATURE CITED

BRYANT, E.
1940. Cuban spiders in the Museum of Comparative Zoölogy. Bull. Mus. Comp. Zool., vol. 86, no. 7, pp. 249–532.

CHAMBERLIN, R. V., AND WILTON IVIE
1937. New spiders of the family Agelenidae from western North America. Ann. Ent. Soc. Amer., vol. 30, no. 2, pp. 211–241.
1942. A hundred new species of American spiders. Bull. Univ. Utah, vol. 32, no. 13, pp. 1–117.

SIMON, E.
1895. Descriptions de quelques arachnides de Basse-Californie faisant partie des collections du Dr. George Marx. Bull. Soc. Zool. France, vol. 20, pp. 134–137.



FIGS. 1–3. *Yorima albida*, new species. 1. Epigynum. 2. Palpal tibia. 3. Conductor.

FIGS. 4–6. *Yorima angelica*, new species. 4. Conductor. 5. Palpal tibia. 6. Epigynum.

FIGS. 7–10. *Yorima sequoiae* Chamberlin and Ivie. 7. Palpal tibia. 8. Conductor. 9. Abdomen. 10. Epigynum.

FIGS. 11–13. *Yorima subflava* Chamberlin and Ivie. 11. Conductor. 12. Palpal tibia. 13. Epigynum.

FIGS. 14–15. *Yorima antillana* Bryant (modified from sketches of the type specimen made by Dr. H. Levi). 14. Palpal tibia. 15. Conductor.

FIGS. 16–17. *Yorima sexoculata*, new species. 16. Palpal tibia. 17. Conductor.

(Ventral views of epigyna; ectoventral views of palpal tibiae; ectal views of conductors of palpi; dorsal view of abdomen.)