

THE SPIDER GENERA *STEMMOPUS*, *CHROSIOTHES*
AND THE NEW GENUS *CABELLO* FROM AMERICA

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While examining types of theridiid spiders in European museums, I discovered that the genus *Theridiotis* Levi, 1954, is a synonym of *Chrosiothes* Simon. In the meantime, additional species have been found of *Chrosiothes*, and also of *Stemmops*, revised in 1955. In addition, in Simon's large collections from Venezuela, a theridiid spider was found that could not be placed in any known genus.

A National Science Foundation Grant (G-4317) made possible a trip to examine types. I am grateful also for the hospitality of Prof. M. Vachon of the Muséum National d'Histoire Naturelle, Paris; and Dr. G. Owen Evans, Mr. E. Browning and Mr. K. Hyatt of the British Museum (Natural History) in London. Without the unfailing help in the loan of specimens of Prof. Vachon, Dr. W. J. Gertsch of the American Museum of Natural History (AMNH), Dr. R. V. Chamberlin of the University of Utah (UU), and Mrs. D. Frizzell (Dr. H. Exline) of Rolla, Missouri, this paper would not have been possible. I would like to thank Fr. Chrysanthus who gave advice on Latin specific names. A National Institutes of Health Grant (AI-01944) facilitated completion of the paper.

Stemmops O. P.-Cambridge

Stemmops O. P.-Cambridge, 1894 (January), *Biologia Centrali-Americana*, Araneidea, 1: 125. Type species by monotypy *S. bicolor* O. P.-Cambridge. The name *Stemmops*, according to Bonnet (1958, *Bibliographia Araneorum*, 2: 4150), is of masculine gender.

Description. Eyes very large, close together, usually in a black area. Legs very strong and short. Fourth leg sometimes longer than first, fourth patella and tibia 1.5 to 1.6 times carapace length. Abdomen longer than wide; dorsoventrally flattened. Colulus replaced by two short setae. Abdomen usually with a light spot above spinnerets.

Diagnosis. Separated from other genera that bear two colulus setae by relatively large eyes, close together, and short stout legs. *Stemmops* is similar to the African *Coscinida* and differs only by having colulus setae. It is probable that *Coscinida* Simon, 1894, a name several months younger than *Stemmops*, has to be synonymized after more species have been examined (Levi and Levi, 1962).

Distribution. *Stemmops* is known only from America. Most

species have been described and illustrated in a previous paper (Levi, 1955).

Key to *Stemmops*

- 1a. Males 2
- 1b. Females 9
- 2a. Embolus coiled (Fig. 9); Panama *servus* sp. n.
- 2b. Embolus not coiled 3
- 3a. Palpal embolus short, framed by outline of bulb or cymbium in ventral view 5
- 3b. Palpal embolus long, partly covering cymbium margin in ventral view 4
- 4a. Radix with a hook (1955, figs. 17, 18); Georgia, Gulf states, Mexico to Panama, Bahama Isl. *bicolor* O. P.-Cambridge
- 4b. **Radix with a spine (1955, fig. 19); Mexico** *lina* Levi
- 5a. Embolus filament thick; half as wide as area surrounded by embolus (1955, fig. 20); Yucatan, Tabasco, Honduras *cambridgei* Levi
- 5b. Embolus filament fine, one-third as wide as area surrounded by embolus (Figs. 1, 3, 6) 6
- 6a. Carapace sclerotized, brown; area between lateral and median eyes not black (Fig. 3); Minas Gerais, Brazil *vicosa* sp. n.
- 6b. Carapace soft, yellowish; area between lateral and median eyes black 7
- 7a. Distal portion of embolus almost straight, pointed distally (1955, fig. 22); eastern United States possibly to Panama *ornatus* (Bryant)
- 7b. Embolus describing a half circle, its tip pointing ectally (Figs. 1, 6) 8
- 8a. Area enclosed by embolus in ventral view longer than wide (Fig. 1) Venezuela *subtilis* (Simon)
- 8b. Area enclosed by embolus in ventral view subcircular (Fig. 6); Southern Mexico to Panama *questa* Levi
- 9a. Epigynum with triangular median dark area (Fig. 5); Minas Gerais, Brazil *vicosa* sp. n.
- 9b. Epigynum otherwise 10
- 10a. Epigynum with a median depression or dark marks (Figs. 15, 18) 11
- 10b. Epigynum otherwise, with an indistinct transverse lip (Fig. 12), Panama *servus* sp. n.
- 11a. A median dark mark (Fig. 15) or a median dark septum in

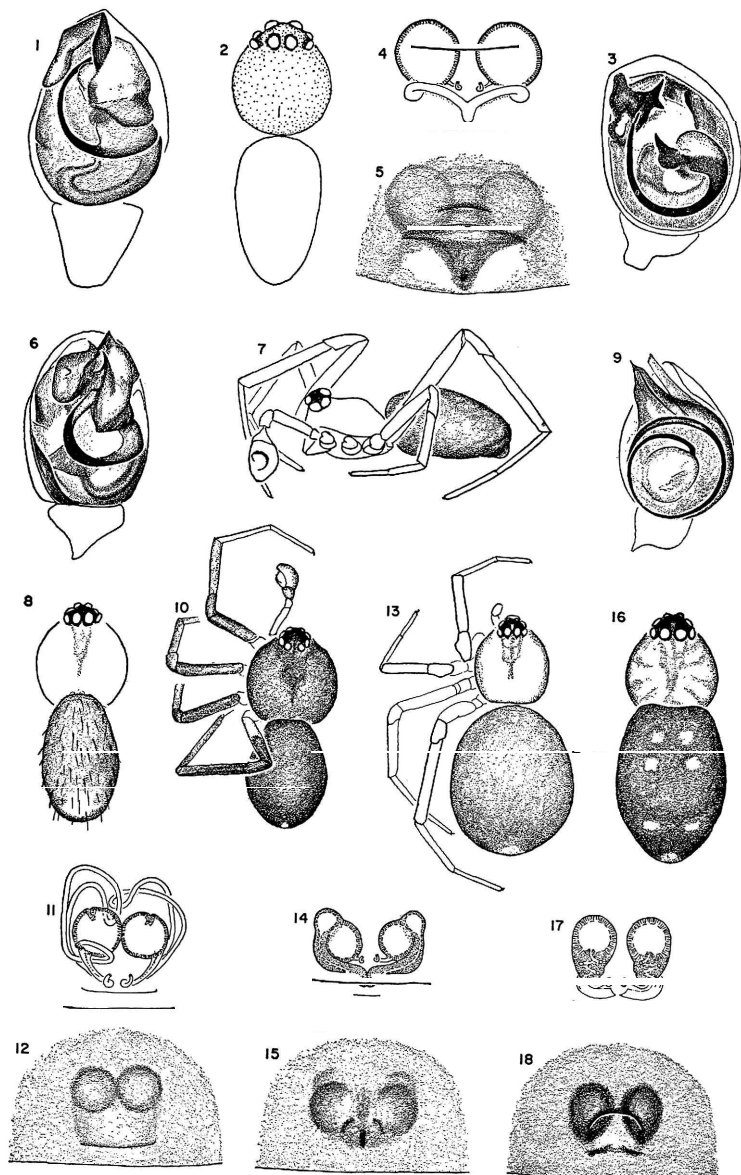
- depression (1955, fig. 34); ducts with small loop anterior to seminal receptacles (1955, fig. 33; Fig. 14) 12
- 11b. Seminal receptacles (1955, fig. 33; Fig. 14) 13
- 12a. Epigynum and ducts otherwise 13
- 12a. Duct loop anterior of seminal receptacles on their ectal side (Figs. 14, 15); Panama *mellus* sp. n.
- 12b. Duct loops anterior to seminal receptacles on their mesal side (1955, fig. 33); southern Mexico to Panama *questus* Levi
- 13a. Depression containing shadows of sclerotized areas (1955, figs. 32, 36) 14
- 13b. Depression otherwise 15
- 14a. Ducts looping anterior; seminal receptacles behind depression (1955, fig. 35); Georgia, Gulf states, Mexico to Panama, Bahama Isl. *bicolor* O. P.-Cambridge
- 14b. Duct barely anterior of seminal receptacles; seminal receptacles anterior to depression (1955, fig. 31); Yucatan, Tabasco, Honduras *cambridgei* Levi
- 15a. Depression bordered anterior (1955, fig. 30); eastern United States 16
- 15b. Depression bordered on sides or posterior 17
- 16a. Connecting ducts coiled (Fig. 17); anterior border of depression ventral to seminal receptacles (Fig. 18), Panama *orsus* sp. n.
- 16b. Connecting ducts not coiled, bent (1955, fig. 29); anterior border of depression posterior to seminal receptacles (1955, fig. 30); eastern United States *ornatus* (Bryant)
- 17a. Depression bordered on sides (1955, fig. 28); Tamaulipas *victoria* Levi
- 17b. Depression otherwise 18
- 18a. Duct coiled, heavily sclerotized (1955, fig. 26); Mexico *lina* Levi
- 18b. Duct almost straight, lightly sclerotized (1955, fig. 23); Panama *cryptus* Levi

Stemmops bicolor O. P.-Cambridge

Stemmops bicolor O. P.-Cambridge, 1894, Biologia Centrali-Americana, Araneidea, 1: 125, pl. 17, fig. 5, ♂. Male holotype from Teapa, Tabasco, Mexico in the British Museum.—Levi, 1955, Ann. Ent. Soc. Amer., 48: 338, figs. 14, 17, 18, 35, 36, ♀, ♂.

Distribution. Georgia, Gulf states, Mexico, to Panama and Bahama Isl.

Additional records. Panama. Boquete (A. M. Chickering). Panama Canal Zone. Summit, (A. M. Chickering); Barro Colorado Island (A. M. Chickering); near Pedro Miguel (A. M. Chickering).



Stemmops ornatus (Bryant)

Euryopis ornata Bryant, 1933, Bull. Mus. Comp. Zool. 74: 172, figs. 2, 3, ♂.
Male holotype from Meridian, Lauderdale County, Mississippi in the
Museum of Comparative Zoology.

Stemmops ornata,—Levi, 1955, Ann. Ent. Soc. America, 48: 341, figs. 16,
21, 22, 29, 30, ♀, ♂.

Distribution. New Jersey, Ohio, Missouri, Georgia to Mississippi.

Additional record. Missouri, Johnson Co.: Warrensburg, 29 June
1962, ♀ (W. Peck).

Stemmops subtilis (Simon), n. comb.

Figure 1

Coscinida subtilis, 1895, Ann. Soc. ent. France, 64: 137. Male holotype from
San Estaban, [Carabobo], Venezuela in the Muséum National d'Histoire
Naturelle, Paris, examined.

Stemmops vicosa sp. n.

Figures 2-5

Type. Male holotype from Viçosa, Minas Gerais, Brazil, 6 July
1933 (Hambleton), in the American Museum of Natural History.
The specific name is a noun in apposition after the type locality.

Description. Carapace brown. Eyes ringed by black but otherwise
little black between eyes. Sternum, legs yellow-brown. Abdomen
whitish without pattern or marks, lighter above spinnerets in female.
Carapace high and sclerotized. Eyes subequal in size. Anterior median
eyes one-third diameters apart, touching laterals. Posterior median
eyes slightly less than their radius apart, two-thirds diameters from
laterals. Eyes of female slightly farther apart. Anterior margin of
chelicerae without teeth. Abdomen of female subtriangular, of male
slightly wider in front than behind (Fig. 2). Colulus replaced by two
setae. Total length of female 1.6 mm. Carapace 0.54 mm long,

EXPLANATION OF PLATE 9

- Fig. 1. *Stemmops subtilis* (Simon), left palpus.
Figs. 2-5. *S. vicosa* sp. n. 2. Male. 3. Palpus. 4. Female genitalia, dorsal
view. 5. Epigynum.
Figs. 6-8. *S. questa* Levi. 6. Palpus. 7-8. Male.
Figs. 9-12. *S. servus* sp. n. 9. Palpus. 10. Male. 11. Female genitalia,
dorsal view. 12. Epigynum.
Figs. 13-15. *S. mellus* sp. n. 13. Female. 14. Female genitalia, dorsal
view. 15. Epigynum.
Figs. 16-18. *S. orsus* sp. n. 16. Female. 17. Female genitalia, dorsal
view. 18. Epigynum.

0.50 mm wide. First patella and tibia 0.60 mm; second 0.48 mm; third 0.39 mm. Fourth femur 0.59 mm; patella and tibia 0.71 mm; metatarsus 0.44 mm. Total length of male 1.4 mm. Carapace 0.52 mm long, 0.58 mm wide. First femur 0.65 mm; patella and tibia 0.66 mm; metatarsus 0.32 mm; tarsus 0.36 mm. Second patella and tibia 0.50 mm; third 0.39 mm; fourth 0.65 mm.

Diagnosis. Genitalic structure (Figs. 3-5), brown carapace and absence of black eye area separate this species from *S. bicolor* and others.

Record. ♀ paratype collected with ♂ holotype.

***Stemmops servus* sp. n.**

Figures 9-12

Type. Male holotype from Forest Preserve, Panama Canal Zone, 29 Jan. 1958 (A. M. Chickering) in the Museum of Comparative Zoology. The specific name is an arbitrary combination of letters.

Description. Female with carapace yellow, dusky on sides, eye region black, sternum gray, legs yellow, abdomen gray with white spot above spinnerets. Male with carapace dark brown, sternum black, palpi colorless light. First and second coxae black, third and fourth yellow-white; all trochanters yellow-white; other leg segments black, except proximal half of fourth femora yellow-white. Abdomen black with white spot above spinnerets. Carapace subcircular. Anterior median eyes slightly smaller than others, about two-thirds their diameter apart, touching laterals. Posterior median eyes one diameter apart, touching laterals. Total length of female 1.2 mm. Carapace 0.5 mm long, 0.5 mm wide. First patella and tibia, 0.6 mm; second, 0.6 mm; third, 0.5 mm. Fourth femur, 0.6 mm; patella and tibia, 0.7 mm; metatarsus, 0.4 mm; tarsus, 0.3 mm. Total length of male 1.0 mm. Carapace, 0.5 mm long; 0.5 mm wide. First femur, 0.6 mm; patella and tibia, 0.7 mm; metatarsus, 0.4 mm; tarsus, 0.4 mm. Second patella and tibia, 0.5 mm; third, 0.4 mm; fourth, 0.7 mm.

The male and female have not been collected together. But the structure, particularly of the carapace and eye region, is very similar. The coloration, however, differs; the female is lighter.

Diagnosis. The coiled embolus of the palpus (Fig. 9) separates this species from other *Stemmops*. The epigynum (Fig. 12) has no distinguishing marks and the ducts could be found only under a compound microscope (Fig. 11).

♀ (A. M. Chickering) Panama Canal Zone: Forest Preserve, Jan.; Feb. 1958,

Stemmops questa Levi
Figures 6-8

Stemmops questa Levi, 1956, *Amia Ent. Mexicana*, 4: 140, figs. 6-8. ♀
Natural History.

Description. Male. Carapace yellow-white, eye region black, some median longitudinal gray pigment marks. Sternum, legs yellow-white. Abdomen gray with unpigmented yellow-white spot above spinnerets. Anterior median eyes slightly smaller than others, less than one-quarter diameter apart, touching laterals. Posterior median eyes less than one-quarter diameter apart, touching laterals. Total length 1.4 mm. Carapace 0.7 mm long, 0.5 mm wide. First patella and tibia, 0.9 mm; second, 0.7 mm; third, 0.6 mm. Fourth femur, 0.8 mm; patella and tibia, 1.0 mm; metatarsus, 0.5 mm; tarsus, 0.5 mm.

The embolus of the palpus is relatively short (Fig. 6).

The male described here has not been collected with the female, but seems to match the female in general appearance and particularly in eye arrangement.

Natural history. Found in leaf mold in Panama.

Distribution. Southern Mexico to Panama.

Additional records. Panama. Boca Toro, Changuinola Dist., 18 Jan. 1925, ♀ (F. R. Swift, AMNH). Panama Canal Zone: near Cocoli, 13 Jan. 1958, ♂ (A. M. Chickering); Forest Preserve, Jan., Feb. 1958, ♂ (A. M. Chickering); Experimental Gardens, 10-14 July 1955, ♀ (A. M. Chickering); Pedro Miguel, 25 Aug. 1954, ♀ (A. M. Chickering).

Stemmops mellus sp. n.
Figures 13-15

Type. Female holotype from Barro Colorado Island, Panama Canal Zone, June-July 1934 (A. M. Chickering) in the Museum of Comparative Zoology. The specific name is an arbitrary combination of letters.

Description. Carapace yellow-white, dusky on sides, with median dorsal gray marks. Sternum light with gray pigment and scattered small unpigmented spots. Legs yellow-white. Abdomen dorsum gray, light spot above spinnerets without pigment; venter without pigment, almost whitish. Carapace subcircular (Fig. 13). Anterior median eyes smaller than other eyes, their radius apart, touching laterals. Posterior median eyes less than a quarter of their diameter apart, touching laterals. Total length 1.7 mm. Carapace 0.6 mm long,

0.6 mm wide. First patella and tibia, 0.8 mm; second, 0.6 mm; third, 0.6 mm. Fourth femur, 0.8 mm; patella and tibia, 0.9 mm; metatarsus, 0.5 mm; tarsus, 0.4 mm.

Diagnosis. This species can be separated from *S. questa* by the internal female genitalia (Fig. 14) and by the dark marks on the anterior of the seminal receptacles in the epigynum. The dark marks are toward the lateral side of the seminal receptacles in *S. mellus* (Fig. 15) while they are median in *S. questa*.

Record. Two juvenile paratypes collected with type.

Stemmops orsus sp. n.

Figures 16-18

Type. Female holotype from Forest Preserve, Panama Canal Zone, 28 Feb. 1958 (A. M. Chickering) in the Museum of Comparative Zoology. The name is an arbitrary combination of letters.

Description. Carapace yellow, dusky on sides and in center; eye region black. Sternum dusky around edges; legs yellow. Abdomen black with three pairs of white dorsal spots and a spot above spinnerets (Fig. 16). Diameter of anterior median eyes almost half that of others. Anterior median eyes almost one diameter apart, touching laterals. Posterior median eyes one-quarter diameter apart, touching laterals. Total length 1.3 mm. Carapace 0.4 mm long; 0.4 mm wide. First patella and tibia, 0.5 mm; second, 0.4 mm; third, 0.4 mm. Fourth femur, 0.4 mm; patella and tibia, 0.6 mm; metatarsus, 0.2 mm; tarsus, 0.3 mm.

Diagnosis. *Stemmops orsus* differs from *S. lina* by having a transverse curved lip in the epigynum (Fig. 18). It differs from *S. ornatus*, found in the eastern United States, by having the internal ducts coiled (Fig. 17).

Records. Panama. Boquete, 1-8 Aug. 1950, 2 ♀ paratypes (A. M. Chickering).

Chrosiothes Simon

Chrosiothes Simon, 1894, Histoire Naturelle des Araignées, 1: 521. Type species by original designation and monotypy: *C. silvaticus* Simon, 1894.

Theridiotis Levi, 1954, Trans. Amer. Micros. Soc., 73: 178. Type species by original designation. *Dipoena jocosa* Gertsch and Davis.

Description. Abdomen suboval, subtriangular or with humps on each side, and often with characteristic coloration. Venter black, particularly anterior and above pedicel. Two minute setae replace colulus. Legs sometimes noticeably thick, first or fourth the longest.

Longest patella and tibia one to two times carapace length. Male very much smaller than female.

Epigynum with an indistinct oval depression; connecting ducts in most species characteristically coiled. The male palpus has the conductor absent or minute; the cymbium is uniquely modified to hold tip of long embolus.

Diagnosis. The coloration, the coils of the internal genitalia, the superficially simple structure of the palpus, and the above mentioned modification of the cymbium separate this genus from the related *Episinus*, *Spintharus*, *Thwaitesia* and *Anelosimus*.

Distribution. The genus is known only from the Americas.

Misplaced species. *Chrosiothes australis* Simon, 1896, = *Anelosimus australis* (Simon). *C. porteri* Simon, 1900 = *Anelosimus australis* (Simon).

Key to species of *Chrosiothes*

- 1a. Abdomen with seven dorsal humps (Fig. 36), Mexico *litus*
- 1b. Abdomen with two or without humps 2
- 2a. Abdomen with humps or abdomen as wide or wider than long 3
- 2b. Abdomen without humps, longer than wide 8
- 3a. Abdomen width equal to length or wider than long 4
- 3b. Abdomen longer than wide 6
- 4a. Abdomen with anterior lateral humps (1954, figs. 10, 19); Texas, Tamaulipas *jocosus*
- 4b. Abdomen without humps, or humps anterior dorsal 5
- 5a. Palpal embolus as long as circumference of bulb (1954, fig. 6); female abdomen with transverse stripes (1954, fig. 22); Tamaulipas to Honduras *tonala*
- 5b. Palpal embolus shorter than bulb circumference (Fig. 19); female abdomen with two dark spots (Fig. 22); Arizona to Nayarit, Mexico *portalensis*
- 6a. Abdomen humps anterior (Fig. 39); California *iviei*
- 6b. Abdomen humps in middle or posterior of abdomen 7
- 7a. Abdomen widest in middle (Fig. 30); Jamaica *jamaicensis*
- 7b. Abdomen widest posterior (1954, figs. 11, 21); Texas, northern Mexico *minuscule*
- 8a. Abdomen widest in posterior half (1954, fig. 23); Veracruz, Mexico *wagneri*
- 8b. Abdomen widest anterior or in middle 9
- 9a. Abdomen suboval, rounded behind (1954, fig. 20); Utah, Colorado to central Mexico *chirica*

82	<i>Psyche</i>	[June
9b.	Abdomen subtriangular, pointed behind	10
	Females	11
10a.	Males	14
10b.	Epigynum with small median depression, its width less than radius of seminal receptacle (Fig. 32); Est. Rio de Janeiro, Brazil	<i>niteroi</i>
11a.	Width of depression equal to shorter seminal receptacle diameter	12
11b.	Depression bordered only anterior (Fig. 25); duct with only one loop (Fig. 24); Veracruz, Mexico	<i>proximus</i>
12a.	Depression bordered all around, or only on posterior (1954, figs. 34, 36)	13
12b.	Dorsum of abdomen white with black spots; duct diameter near openings wider than duct near seminal receptacle (1954, fig. 35); Veracruz, Mexico to Costa Rica	<i>goodnightorum</i>
13a.	Dorsum of abdomen purplish, duct diameter of equal width (1954, fig. 37); Florida, Mexico to Ecuador	<i>silvaticus</i>
13b.	Cymbium outline subcircular in ventral view; embolus filament (except for tip) not supported by radix (1954, fig. 9); Veracruz, Mexico to Costa Rica	<i>goodnightorum</i>
14a.	Cymbium otherwise; at least distal third of embolus supported by radix	15
14b.	Embolus long (1954, figs. 13, 14); Florida, Mexico to Ecuador	<i>silvaticus</i>
15a.	Embolus short (Fig. 23); Lesser Antilles	<i>valmonti</i>

Chrosiothes jocosus (Gertsch and Davis), n. comb.

Map 1

Dipoena jocosa Gertsch and Davis, 1936, Amer. Mus. Novitates, 881: 7, fig. 20, ♂. Male holotype from Austin, Texas in the American Museum of Natural History.

Theridiotis jocosa, — Levi, 1954, Trans. Amer. Micros. Soc., 73: 180, figs. 1-5, 10, 19, 26, 27, ♀, ♂.

Distribution. Texas and Tamaulipas, Mexico.

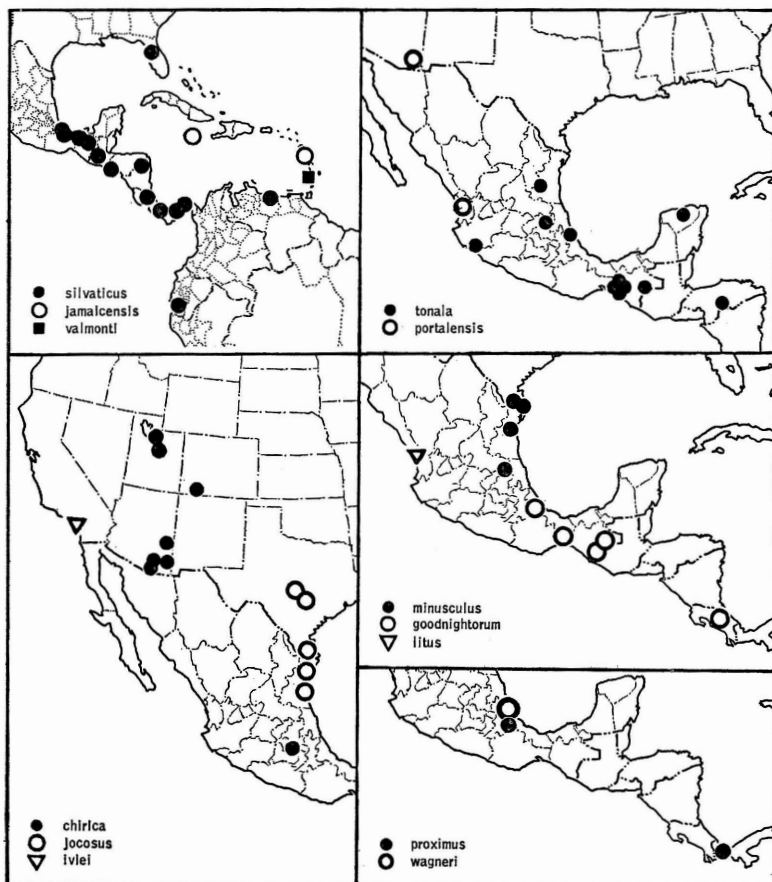
Chrosiothes minusculus (Gertsch), n. comb.

Map 1

Episinus minusculus Gertsch, 1936, Amer. Mus. Novitates, 852: 9, fig. 9, ♂. Male holotype from five miles south of San Juan, Hidalgo County, Texas in the American Museum of Natural History.

Theridiotis minuscula, — Levi, 1954, *ibid.* 73: 182, figs. 11, 16-18, 21, 28-29, ♀, ♂.

Distribution. Southern Texas; Tamaulipas, San Luis Potosí, Mexico.

MAP 1. Map of *Chrosiothes* species*Chrosiothes chirica* (Levi), n. comb.

Map 1

Theridiotis chirica Levi, 1954, *ibid.*, 73: 184, figs. 7-8, 20, 30-31, ♀, ♂. Male holotype from Rustlers Camp, Chiricahua Mountains, Arizona in the American Museum of Natural History. The specific name is an arbitrary combination of letters as a noun in apposition.

Distribution. Utah, Colorado, Arizona to Distrito Federal, Mexico.

Additional records. Georgia: Okefenokee Swamp (AMNH), doubtful locality. Utah: Salt Lake Co.: 1-2 mi. up Mill Creek

Canyon, 21 Aug. 1941; ♀ (J. C. Chamberlin, UU). Emery Co.: Hughes Canyon (W. Ivie, UU).

Chrosiothes tonala (Levi), n. comb.

Map 1

Theridiotis tonala Levi, 1954, *ibid.*, 73: 185, figs. 6, 22, 32-33, ♀, ♂. Male holotype from Tonalá, Chiapas, Mexico in the American Museum of Natural History. The species is named after the type locality as a noun in apposition.

Distribution. Tamaulipas, Mexico to Honduras.

Additional records. Mexico. Colima: 16 km S of Colima, 1 Aug. 1954, ♂ (W. J. Gertsch, AMNH); Arméria, 1 Aug. 1954, ♀ (W. J. Gertsch, AMNH); Tecolapa, 31 July 1954, ♀, ♂ (W. J. Gertsch, AMNH). Hidalgo: Jacala, 1400 m alt., sweeping (R. Haag).

Chrosiothes goodnightorum (Levi), n. comb.

Map 1

Theridiotis goodnightorum Levi, 1954, *ibid.*, 73: 186, figs. 9, 24, 34-35, ♀, ♂. Male holotype from between Comitán and Ocotlán, Chiapas, Mexico in the American Museum of Natural History. The species is named after the collectors.

Distribution. Veracruz, Mexico to Costa Rica.

Chrosiothes wagneri (Levi), n. comb.

Map 1

Theridiotis wagneri Levi, 1954, *ibid.*, 73: 188, figs. 12, 23, ♂. Male holotype from Papantla, Veracruz, Mexico in the American Museum of Natural History.

Distribution. Known only from Papantla, Veracruz.

Chrosiothes silvaticus Simon

Figure 26, Map 1

Chrosiothes silvaticus Simon, 1894, *Histoire Naturelle des Araignées*, 1: 521. Female holotype from Venezuela [probably Dist. Fed., Carabobo or Aragua and collected by Simon in 1888] in the Muséum National d'Histoire Naturelle, Paris, examined.

Theridion munifex O. P.-Cambridge, 1896, *Biologia Centrali-Americana, Araneidea*, 1: 203, pl. 24, fig. 8, ♀. Female holotype from Teapa, Tabasco, Mexico in the British Museum, examined. NEW SYNONYMY.

Euryopis probabilis O. P.-Cambridge, 1899, *ibid.*, 1: 295, pl. 39, fig. 1, ♀. Female holotype from Orizaba, Veracruz in the British Museum, examined.

Chrosiothes conservaticus Chamberlin and Ivie, 1936, Bull. Univ. Utah, biol. ser., 3(2): 32, pl. 10, fig. 81, ♀. Female holotype from Barro Colorado Island, Panama Canal Zone in the American Museum of Natural History, examined. NEW SYNONYMY.

Theridiotis probabilis,—Levi, 1954, Trans. Amer. Micros. Soc., 73: 187, figs. 25, 36, 37, ♀.

Theridiotis barrowsi Levi, 1954, *ibid.*, 73: 187, figs. 13-15, ♂. Male holotype from Hernando County, Florida in the American Museum of Natural History. NEW SYNONYMY.

The male and female have been collected at the same locality, Barro Colorado Island, and their similarity indicates that they belong together. Thus *T. barrowsi* Levi is a synonym of *C. silvaticus*. *Euryopis proxima* O. P.-Cambridge, which was thought to be a synonym of *E. probabilis* is, however, a separate species. Figure 26 was drawn from Simon's holotype. The internal genitalia are as in figure 37 in Levi, 1954.

Distribution. Florida, Mexico to Ecuador.

Additional records. *Nicaragua:* Musawas, Waspuc River, Oct. 1955, ♀ (B. Malkin, AMNH). *Panama Canal Zone.* Barro Colorado Island, numerous ♀, ♂ (W. J. Gertsch, AMNH; A. M. Chickering). Summit, July, Aug. 1950, ♀, ♂ (A. M. Chickering). *Panama:* Boquete, Aug. 1954, ♀ (A. M. Chickering); El Valle, July 1936, ♂ (A. M. Chickering). *Ecuador.* *Arenillas:* 20 km SE of Machala, 1 Nov. 1942, ♂ (E. L. Moore).

Chrosiothes proximus (O. P.-Cambridge), n. comb.

Figures 24-25

Euryopis proxima O. P.-Cambridge, 1899, *Biologia Centrali-Americana*, Araneidea, 1: 296, pl. 39, fig. 2, ♀. Female holotype from Orizaba, Veracruz in the British Museum, Natural History, examined.

Note. This species, which was considered in my previous paper to be the same as *C. silvaticus* Simon, is distinct. Though superficially similar, the connecting ducts of the internal genitalia are very short (Fig. 24) in *C. proximus*. The drawings were made from the holotype. I have some doubt that the type locality is correct, as large collections from Veracruz have not revealed additional specimens.

Records. *Panama.* El Volcan, Chiriquí, 20 March, 1936, ♀ (W. J. Gertsch, AMNH); Chiriquí, 1938, ♀ (R. V. Chamberlin, UU).

Chrosiothes valmonti (Simon), n. comb.

Figure 23

Dipoena valmonti Simon, 1897, Proc. Zool. Soc. London, p. 863. Male holotype from St. Vincent Island, Lesser Antilles in the British Museum, examined.

Chrosiothes jamaicensis sp. n.

Figures 27-30

Type. Female holotype from Liguanea, St. Andrew Parish, Jamaica, West Indies, October 1957 (A. M. Chickering) in the Museum of Comparative Zoology. The species is named after the island of the type locality.

Description. Carapace brown with irregular dusky marks in eye region, and on sides and middle; eyes on reddish areas. Sternum brown, gray on sides. Legs yellowish to brown with indications of dusky marks on venter. Abdomen with two humps (Fig. 30), dorsum black, white and mottled gray; venter black. Male is lighter yellowish with a wide median dorsal longitudinal band on carapace. Eyes subequal in size, laterals on slight tubercles. Anterior median eyes one diameter apart, almost touching laterals. Posterior eyes one diameter apart in female, one-third diameter in male, their radius from laterals in male. Total length of female 2.9 mm. Carapace 1.04 mm long, 1.00 mm wide. First femur 1.50 mm; patella and tibia 1.62 mm; metatarsus 1.47 mm; tarsus 0.65 mm. Second patella and tibia 1.04 mm; third 0.82 mm; fourth 1.50 mm. Total length of male 1.6 mm. Carapace 0.65 mm long, 0.57 mm wide. First femur 0.93 mm; patella and tibia 1.06 mm; metatarsus 0.88 mm; tarsus 0.48 mm.

Variation. The specimens from Dominica have a longer abdomen and higher humps.

Diagnosis. The female resembles *Episinus amoenus* Banks, but has very different internal genitalia (Fig. 28). The male is very different. The species has to be placed in the genus *Chrosiothes*. The palpus (Fig. 27) suggests that it is probably close to *C. wagneri* but the shape of the radix, the embolus supporting structure, differs.

Natural history. The species has been found under ledges on

Dominica. *Jamaica:* 15 km W of Red Hills Road, St. Andrew Parish, Nov. 1957, 2 ♀ paratypes, (A. M. Chickering); Long Mountain, 5 Dec. 1955 (C. Underwood); Guanaboa Vale, St. Catherine Par., Nov.-Dec. 1957, ♀ paratype, (A. M. Chickering). *Dominica:* Jacks Walk above Roseau, July 1958, ♀ ♂ (S. Lazell, AMNH).

Chrosiothes niterói sp. n.

Figures 31-33

Type. Female holotype from Niterói, Est. Rio de Janeiro, Brazil, in the Muséum National d'Histoire Naturelle, Paris (no. 9143). The specific name is a noun in apposition after the type locality.

Description. Carapace, sternum olive-gray. Legs yellow with narrow gray rings. Abdomen spotted with white, gray and black pigment on dorsum (Fig. 33); black on venter with many fine light yellow spots where pigment is lacking. Carapace slightly pointed between anterior median eyes. Eyes subequal in size. Anterior median eyes their radius apart, touching laterals. Posterior median eyes their radius apart, one-third diameter from laterals. Total length 1.8 mm. Carapace 0.68 mm long, 0.66 mm wide. First patella and tibia, 0.89 mm; second, 0.62 mm; third, 0.53 mm. Fourth femur, 0.85 mm; patella and tibia, 0.89 mm; metatarsus, 0.60 mm; tarsus, 0.47 mm.

Diagnosis. *Chrosiothes niteroi* has a much smaller depression in the epigynum (Fig. 32) than other *Chrosiothes*.

***Chrosiothes iviei* sp. n.**

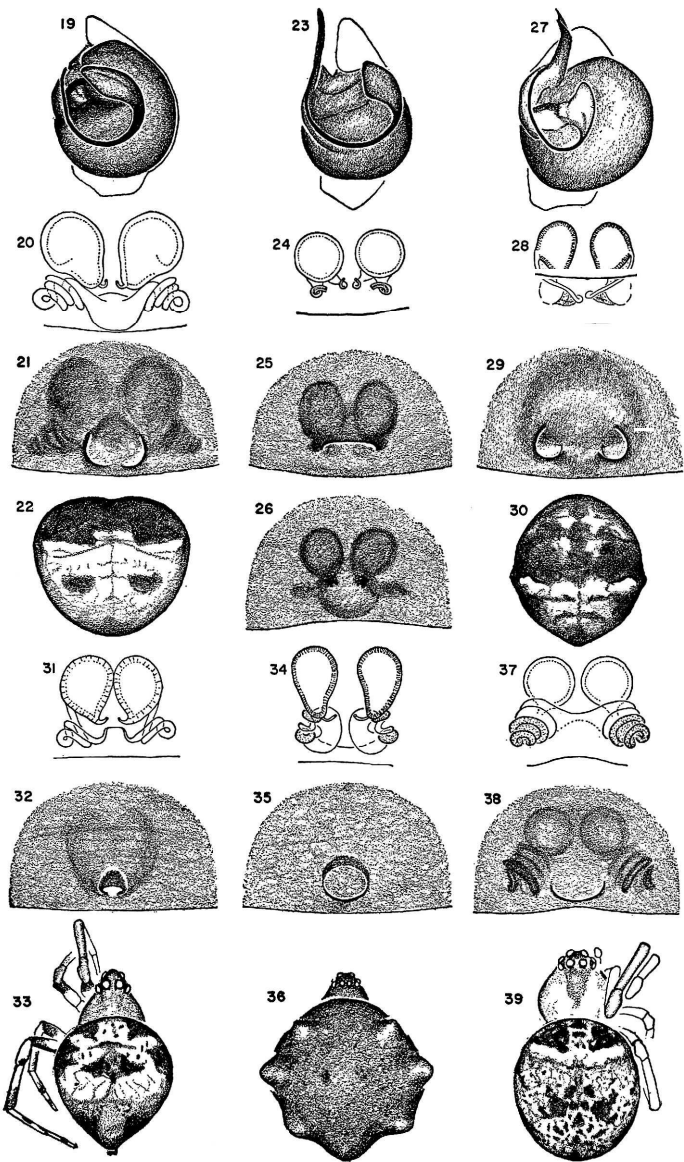
Figures 37-39

Type. Female holotype from Fish Springs, Salton Sea, Imperial County, California, 2-12 March 1941 (A. and W. Ivie), in the American Museum of Natural History. The species is named after its collector.

Description. Carapace yellowish with a dusky median band as wide as eye region in front, narrowing behind, and a narrow black border. Area around eyes reddish. Sternum yellow, dusky on sides. Legs yellowish with wide brown rings on distal ends of femora and tibiae. Abdomen white with dusky and black pattern (Fig. 39) on dorsum; venter white with irregular black streaks; black anterior and above pedicel. Eyes subequal in size. Anterior median eyes one diameter apart, less than one-quarter from laterals. Posterior eyes two-thirds their diameter apart. Abdomen suboval with slight lateral humps anterior (Fig. 39). Total length 2.0 mm. Carapace 0.75 mm long, 0.75 mm wide. First patella and tibia 1.06 mm; second 0.68 mm; third 0.57 mm. Fourth femur 1.17 mm; patella and tibia 1.06 mm; metatarsus 0.82 mm; tarsus 0.50 mm.

Diagnosis. The epigynum has no distinct structures (Fig. 38) but the ducts (Fig. 37) are slightly different from those of other species. The abdomen shape (Fig. 39) separates this species from *C. chirica*.

Record. California. Orange Co.: Laguna Beach, 27 July 1931, ♀ paratype, (W. Ivie, AMNH).



LEVI — CHRSIOTHES

Chrosiothes portalensis sp. n.

Figures 19-22

Type. Male holotype from Southwestern Research Station, 5 miles west of Portal, Cochise County, Arizona, 5-15 Aug. 1955 (W. J. Gertsch), in the American Museum of Natural History. The species is named after the type locality.

Description. Carapace light brown, gray on sides and head region, reddish around eyes. Sternum yellow-brown, black around margins. Legs yellow-brown; proximal ends of femora lighter. Dorsum of abdomen white, sometimes with a pair of indistinct gray spots; anterior of dorsum black (Fig. 22). Venter black or gray except for light area anterior to spinnerets. Eyes subequal in size, laterals on slight tubercles. Anterior median eyes of female one diameter apart, one-quarter diameter from laterals. Posterior median eyes their radius apart, two-thirds diameter from laterals. Eyes of male slightly closer together. Abdomen subtriangular with a pair of anterior humps on dorsum (Fig. 22). Total length of female 2.7 mm. Carapace 0.78 mm long, 0.85 mm wide. First femur 1.04 mm; patella and tibia 1.12 mm; metatarsus 0.65 mm; tarsus 0.41 mm. Second patella and tibia 0.78 mm; third 0.59 mm; fourth 0.92 mm. Total length of male 1.1 mm. Carapace 0.54 mm long, 0.52 mm wide. First femur 0.71 mm; patella and tibia 0.75 mm; metatarsus 0.45 mm; tarsus 0.32 mm. Second patella and tibia 0.57 mm; third 0.39 mm; fourth 0.58 mm.

Diagnosis. The shorter palpal embolus (Fig. 19) separates this species from *C. jocosus*. The shorter duct of the female (Fig. 20) and the different shaped abdomen (Fig. 22) separates it from *C. minusculus*.

Records. Arizona: ♀ paratype collected with holotype. *Nayarit.* 24 km N of Tepic, 25 July 1954, ♀, ♂, (W. J. Gertsch, AMNH).

EXPLANATION OF PLATE 10

genitalia, dorsal view. 21. Epigynum. 22. Female abdomen, dorsal view. Figs. 19-22. *Chrosiothes portalensis* sp. n. 19. Left palpus. 20. Female

Fig. 23. *C. valmonti* (Simon), palpus.

Figs. 24-25. *C. proximus* (O. P.-Cambridge). 24. Female genitalia, dorsal view. 25. Epigynum.

Fig. 26. *C. silvaticus* Simon, epigynum.

Figs. 27-30. *C. jamaicensis* sp. n. 27. Palpus. 28. Female genitalia, dorsal view. 29. Epigynum. 30. Female abdomen, dorsal view.

Epigynum. 33. Female.

Figs. 31-33. *C. niteroi* sp. n. 31. Female genitalia, dorsal view. 32.

Figs. 34-36. *C. litus* sp. n. 34. Female genitalia, dorsal view. 35. Epigynum. 36. Female abdomen, dorsal view.

Figs. 37-39. *C. iviei* sp. n. 37. Female genitalia, dorsal view. 38. Epigynum. 39. Female.

Chrosiothes litus sp. n.

Figures 34-36

Type. Female holotype from San Blas, Nayarit, Mexico, 6 August 1947 (C. M. Goodnight, B. Malkin) in the American Museum of Natural History. The specific name is an arbitrary combination of letters.

Description. Carapace, sternum, legs dark brown. Distal end of third and fourth tarsi yellow-white. Abdomen black with scattered small white pigment spots, most distinct on humps. Eyes subequal in size; anterior median eyes three-quarters diameter apart, almost touching laterals. Posterior eyes their diameter apart. Abdomen relatively flat, as wide as long with seven humps (Fig. 36). Total length 3.4 mm. Carapace 1.2 mm long, 1.2 mm wide. Third patella and tibia, 0.9 mm. Fourth femur, 2.0 mm; patella and tibia, 2.0 mm; metatarsus, 2.1 mm; tarsus, 0.8 mm.

The specimen described is damaged and lacks first and second legs.

Diagnosis. The seven humps of the abdomen (Fig. 36) readily separates *C. litus* from all other species of *Chrosiothes*.

Cabello gen. nov.

Type species. *Cabello eugeni* sp. n. *Cabello* is named after the city Puerto Cabello, Venezuela and the name is of masculine gender.

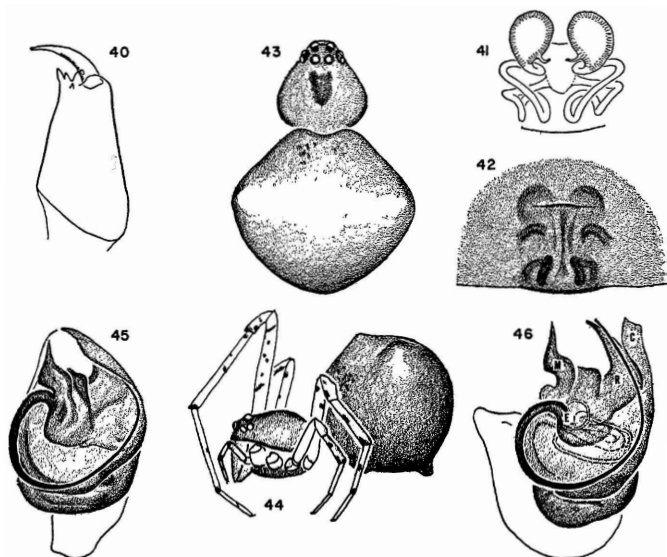
Description. Small theridiid spider with eight eyes, carapace as wide as long, first patella and tibia almost twice as long as carapace width. Chelicerae with two teeth on anterior margin, one posterior. Fourth leg with tarsal comb. Abdomen wider than long with two humps. Colulus lacking. Female genitalia with winding duct. Palpus has all sclerites: median apophysis, radix, conductor (Fig. 46).

Diagnosis. This genus differs from *Theridion* and *Achaeearanea* in having the abdomen wider than long, with two humps, and in having the left embolus pointing counterclockwise. It differs from *Achaeearanea* in having a radix in the palpus; from *Theridula* in having a more complex palpus with radix and median apophysis. It differs from *Chrosiothes* and *Episinus* by lacking a colulus.

Cabello eugeni sp. n.

Figures 40-46

Type. Male holotype from "Corosal, Puerto Cabello", Venezuela, 1888 (E. Simon), in the Muséum National d'Histoire Naturelle, Paris (no. 10959). Corosal was a coffee plantation on the north slope of Mt. Silla (Dist. Fed.), Puerto Cabello is in the state Cara-



Figs. 40-46. *Cabello eugeni* sp. n. 40. Left female chelicera, inside view. 41. Female genitalia, dorsal view. 42. Epigynum. 43-44. Female. 45-46. Left palpus. 46. Expanded (C, conductor; E, embolus; M, median apophysis; R, radix).

bobo. The specimens were marked as coming from both places. The species is named after its collector.

Description. Carapace yellow-white, reddish in eye region with a dusky median longitudinal band. Sternum whitish, gray on sides. Legs yellow-white with scattered black spots on anterior face. Abdomen with scattered white pigment spots, more dense on dorsum between humps. Some gray pigment on each side above spinnerets. Eyes subequal in size. Anterior median eyes one diameter apart, almost touching laterals. Posterior median eyes a little less than their diameter apart, one diameter from laterals. Eyes of male slightly farther apart. Chelicerae with two teeth on anterior margin, one on posterior (Fig. 40). Abdomen wider than long, quite variable in different specimens, but narrowest in males. Total length of female 2.0 mm. Carapace 0.71 mm long, 0.65 mm wide. First femur, 1.20 mm; patella and tibia, 1.23 mm; metatarsus, 0.91 mm; tarsus, 0.39 mm. Second patella and tibia, 0.80 mm; third, 0.52 mm; fourth, 0.82 mm. Total length of male 1.6 mm. Carapace 0.71 mm long, 0.63 mm wide. First femur, 1.43 mm; patella and tibia, 1.58 mm;

metatarsus, 1.16 mm; tarsus, 0.42 mm. Second patella and tibia, 0.98 mm; third, 0.58 mm; fourth, 0.81 mm.

Record. 2 ♀, 1 ♂ paratypes in the same collection as holotype.

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