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A Revision of the Spider Genus *Drassinella* (Araneae, Liocranidae)

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ABSTRACT

The six known species of *Drassinella*, found from Oregon and Idaho south to Baja California and New Mexico, are diagnosed and illustrated; *Drassinella* is confirmed as a senior synonym of *Gosiphrrurus* Chamberlin and Ivie rather than a junior synonym of *Heterochemmis* F. O. P.-Cambridge. *Apostenus pacificus* Gertsch is transferred to *Drassinella* and newly synonymized with *D. modesta*

Banks. Three new species (*D. gertschi*, *D. sonoma*, and *D. siskiyou*) are described from California, and the females of *D. sclerata* (Chamberlin and Ivie) and *D. unicolor* (Chamberlin and Ivie) are described for the first time. Despite some similarities with gnaphosids, *Drassinella* seems most closely related to phrurolithines.

INTRODUCTION

The spider genus *Drassinella* was described by Banks (1904) for two females from Santa Catalina Island, California. Banks placed the genus in the family Drassidae (=Gnaphosidae), and subsequently (1910) transferred to *Drassinella* a gnaphosid species (*Megamyrmecion lepidum* Banks, 1899) later shown to be a member of the genus *Drassyllus* (Chamberlin, 1922; Platnick and Shadab, 1982). No additional information about

Drassinella appeared in the literature until Ubick and Roth (1973), in a list of the gnaphosids then known from North America, removed the genus from the Gnaphosidae and placed it (without explanation) as a junior synonym of the Mexican "clubionid" genus *Heterochemmis* F. O. P.-Cambridge (1900). The type species of that genus, *Heterochemmis mirabilis* (O. P.-Cambridge, 1896), has a complex male palp quite unlike

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that of *Drassinella* species, and the synonymy of those two generic names seems totally baseless. Roth (1982, 1985) subsequently (and again without explanation) resurrected *Drassinella* and placed it as a senior synonym of the phrurolithine genus *Gosiphururus* Chamberlin and Ivie (1935), a synonymy with which we concur.

The first known male of *Drassinella* was described by Gertsch (1935) as a member of the genus *Apostenus*. Two other American species assigned to that genus by earlier authors were subsequently shown to be misplaced; *Apostenus acutus* Emerton (1909) was placed as an *Agroeca* by Kaston (1938), and *Apostenus cinctipes* Banks (1896) was placed as an *Ethobuella* by Chamberlin and Ivie (1947), and subsequently as a *Dirksia* by Lehtinen (1967). Examination of specimens of the European type species, *Apostenus fuscus* Westring (1851), indicates that *Drassinella* is not congeneric with *Apostenus*.

The original placement of *Drassinella* in the Gnaphosidae is readily understandable. The two female specimens studied by Banks have anterior spinnerets that are separated by almost their width, endites that bear distinct oblique depressions, and posterior median eyes that are slightly flattened and not fully circular in outline, all features that resemble those of gnaphosids. We concur with Ubick and Roth (1973) and Roth (1982, 1985), however, that *Drassinella* is not a gnaphosid. The anterior spinnerets are conical rather than tubular in shape, are separated by only half their width in some specimens (although by more than their width in others), and bear a distinct distal segment not found in true gnaphosids. Obliquely depressed endites are characteristic of gnaphosoids but also occur (presumably as parallelisms) in some corinnids, and some members of the phrurolithine genera *Scotinella* and *Piabuna*, as well as in *Drassinella*. Both the presence of numerous paired ventral spines on the anterior tibiae and metatarsi, and the ventral modification of the male palpal femur, support the placement of *Drassinella* as a close relative, if not a member, of the Phrurolithinae. That large and widespread group has generally been placed in the family Liocranidae since the breakup of the classical but

probably polyphyletic family Clubionidae, although Brignoli (1983) erroneously associated phrurolithines with the gnaphosid genus *Micaria* instead (see Platnick and Shadab, 1988).

Our conclusions about the generic-level relationships of *Drassinella* agree with those presented by Penniman in an unpublished thesis (1985); his cladogram shows *Drassinella* as the sister group of the other classical phrurolithine genera (*Orthobula*, *Phonotimpus*, *Piabuna*, *Phrurotimpus*, *Phrurolithus*, and *Scotinella*). Penniman associated the phrurolithines with corinnids rather than liocranids, placing *Liocranum* tentatively with clubionines; no synapomorphies were found for the latter grouping, and that arrangement is not followed here.

The format of the descriptions follows that of Platnick and Shadab (1975); because *Drassinella* species are relatively uniform in size, only a single specimen of each sex was measured. We thank Dr. M. U. Shadab of the American Museum of Natural History for help with illustrations, and Drs. C. D. Dondale of the Biosystematics Research Centre, Ottawa, W. J. Gertsch of the American Museum of Natural History, and A. J. Penniman of Defiance College, Defiance, Ohio, for helpful comments on a draft of the manuscript. The following institutions, curators, and collectors provided access to these relatively rare spiders.

COLLECTIONS EXAMINED

AMNH	American Museum of Natural History, including material made available by W. J. Gertsch
CAS	California Academy of Sciences, W. J. Pulawski
CDB	D. Boe collection
CDU	D. Ubick collection
CNC	Canadian National Collection, C. D. Dondale
MCZ	Museum of Comparative Zoology, Harvard University, H. W. Levi
SCJ	S. C. Johnson collection, loaned by W. R. Icenogle
UCB	University of California, Berkeley, J. Chemsak
UCR	University of California, Riverside, S. Frommer
WRI	W. R. Icenogle collection

SYSTEMATICS

DRASSINELLA BANKS

Drassinella Banks, 1904: 334 (type species by monotypy *Drassinella modesta* Banks, 1904).

Gosiphrrurus Chamberlin and Ivie, 1935: 38 (type species by original designation *Gosiphrrurus scleratus* Chamberlin and Ivie, 1935). First synonymized by Roth, 1982: D-1.

DIAGNOSIS: The combination of obliquely depressed endites and two-segmented anterior spinnerets separates specimens of *Drassinella* from those of the other North American clubionoid (except some *Scotinella* and *Piabuna*) and gnaphosoid genera. Males can be recognized (and separated from those of *Scotinella* and *Piabuna*) by the denticulate retroventral expansion on the palpal femur, females by the indistinct external epigynum and rounded spermathecae with ventral ducts visible through the integument.

DESCRIPTION: Total length 2.5–4.0. Carapace oval in dorsal view, widest between coxae II and III, narrowed opposite palpal insertion, brownish orange, darkest anteriorly; cephalic area rounded, thoracic groove short, longitudinal; ocular area and clypeus with stiff bristles, pars thoracica with fine recumbent setae. From above, anterior eye row recurved, posterior row slightly recurved; from front, both rows procurved; AME circular, dark, PME almost circular, light; ALE and PLE oval, light; AME separated by about their diameter, closer to ALE; PME separated by almost their diameter, about as far from ALE; ALE and PLE separated by their radius or more; MOQ longer than wide in front, wider in back than in front; clypeal height almost twice diameter of AME. Chelicerae geniculate, with three promarginal teeth and two retromarginal denticles. Mouthparts and sternum brownish orange; endites rectangular, obliquely depressed, each with anterolateral serrula and anteromedian scopula arising from white area; labium wider than long, invaginated at posterolateral corners; sternum shield-shaped, rebordered, with sclerotized extensions to and between coxae. Leg formula 4123; legs brownish orange; tarsi with two usually smooth claws and short claw tufts; metatarsi III and IV with distoventral preening brushes; trochanters not notched;

trichobothria in two rows on tarsi, one row on metatarsi. Typical leg spination pattern (only surfaces bearing spines listed): femora: I d1-1-0, p0-1-1; II d1-1-0; III d1-1-1; IV d1-1-1, r0-0-1; tibiae: I v6-6-0; II v6-4-0; III, IV p0-1-0, v2-2-2, r1-1-1; metatarsi: I, II v4-2-0; III p0-1-0, v1r-2-0, r0-1-0; IV p0-1-0, v0-2-0, r0-1-0. Abdomen dark gray dorsally, paler ventrally except for dark ring around spinnerets; males with dorsum almost entirely covered by shiny scutum; anterior spinnerets conical, separated by from one-half to more than their diameter, two-segmented, distal segment short but distinct; median spinnerets small, with flattened tips in females; posterior spinnerets two-segmented, distal segment short. Male palpal femur with large retroventral expansion bearing tiny denticles; tibia with short retrolateral apophysis; tegulum bearing simple embolus and membranous conductor. Epigynum with indistinct anterior ridge; spermathecae and ventral ducts visible through integument.

MISPLACED SPECIES: Judging by the epigynal illustration provided by Chamberlin and Ivie (1936, fig. 15), their species *Gosiphrrurus schulzefenai*, described from Guerrero, Mexico, is not a *Drassinella*. It presumably belongs to some phrurolithine genus, but a definitive placement must await revisions of the Neotropical phrurolithine fauna.

Drassinella modesta Banks

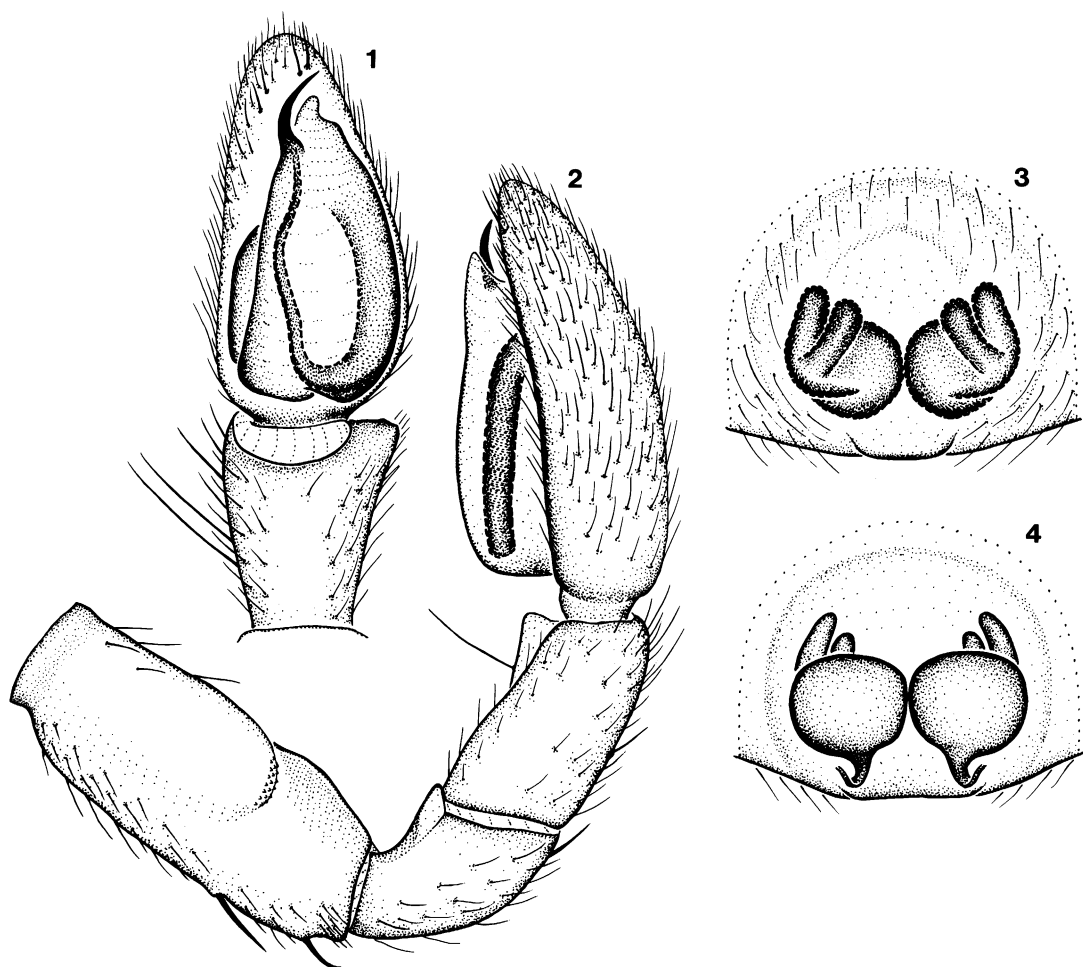
Figures 1–4; Map 1

Drassinella modesta Banks, 1904: 335 (two female syntypes from Santa Catalina Island, Los Angeles County, California, in MCZ, examined). – Roewer, 1955: 384. – Bonnet, 1956: 1556.

Apostenus pacificus Gertsch, 1935: 9, fig. 26 (male holotype from Los Angeles, Los Angeles County, California, in AMNH, examined). – Roewer, 1955: 564. – Bonnet, 1955: 364. NEW SYNONYMY.

DIAGNOSIS: Males resemble those of *D. gertschi* and *D. sonoma* in having the embolus situated near the conductor, but have a longer palpal tibia (fig. 2); females can be recognized easily by the positions of the four dorsal epigynal ducts (figs. 3, 4).

MALE: Total length 2.80. Carapace 1.38 long, 1.26 wide. Femur II 1.05 long. Eye sizes



Figs. 1–4. *Drassinella modesta* Banks. 1. Palp, ventral view. 2. Palp, retrolateral view. 3. Epigynum, ventral view. 4. Epigynum, dorsal view.

and interdistances: AME 0.05, ALE 0.07, PME 0.07, PLE 0.07; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.07, PME-PLE 0.05, ALE-PLE 0.04; MOQ length 0.18, front width 0.15, back width 0.21. Palpal femur with only one ventral expansion (fig. 2); prolateral margin of embolus slightly invaginated at base, tegulum not expanded proximally (fig. 1). Leg spination: femur III p0-1-0, r0-1-1; tibiae: I v8-4-0; II v7-4-0; III d1-0-0, p1-1-1; IV d1-0-0, p1-1-1; metatarsi: III v2-2-0; IV v2-2-0, r1-1-0.

FEMALE: Total length 3.84. Carapace 1.60 long, 1.39 wide. Femur II 1.25 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.08, PLE 0.07; AME-AME 0.06, AME-

ALE 0.03, PME-PME 0.07, PME-PLE 0.08, ALE-PLE 0.05; MOQ length 0.20, front width 0.18, back width 0.23. Two pairs of dorsal ducts visible through epigynal integument; spermathecae rotund (figs. 3, 4). Leg spination: femur III r0-1-0; tibiae: I v10-6-0; II 9-4-0; III p0-1-1; IV p0-1-1; metatarsus III v2-2-0.

MATERIAL EXAMINED: UNITED STATES: **California:** *Kern Co.:* Tehachapi Mountain Park, 8 mi SW Tehachapi, Aug. 13, 1980, elev. 6000 ft (C. E. Griswold, UCB), 2♂. *Los Angeles Co.:* Big Tujunga Canyon, San Gabriel Mountains, Jan. 1953 (R. X. Schick, AMNH), 1♀; Los Angeles, Nov.–Dec. (G. Grant, AMNH), 2♂ (including type); Morris

Reservoir, Sept. 16, 1978 (D. Boe, CDB), 2♂ (palpi only); Santa Catalina Island (Baker, MCZ), 2♀ (types). *Monterey Co.*: Landels-Hill Big Creek Res., 5 mi N Lucia, June 4–6, 1982 (C. Besette, UCB), 1♂. *San Luis Obispo Co.*: Cambria, Nov. 16, 1937 (O. Bryant, AMNH), 1♂. *Santa Barbara Co.*: N Goleta, July 12, 1935 (W. Ivie, AMNH), 2♂; N end, Lake Cachuma, Feb. 8, 1967, oak woodland (V. Roth, AMNH), 1♀; Santa Barbara, Apr. 12, 1948 (H. L. Shantz, AMNH), 1♂; Santa Cruz Island, Mar.–Apr. 1913 (R. V. Chamberlin, AMNH), 4♀.

DISTRIBUTION: Known only from Monterey to Santa Barbara and Los Angeles counties, and the adjacent California Channel Islands (map 1).

SYNONYMY: Males of *Drassinella* were unknown when Gertsch (1935) misplaced the first known male of this species as a member of the European liocranid genus *Apostenus*.

***Drassinella gertschi*, new species**

Figures 5–8; Map 1

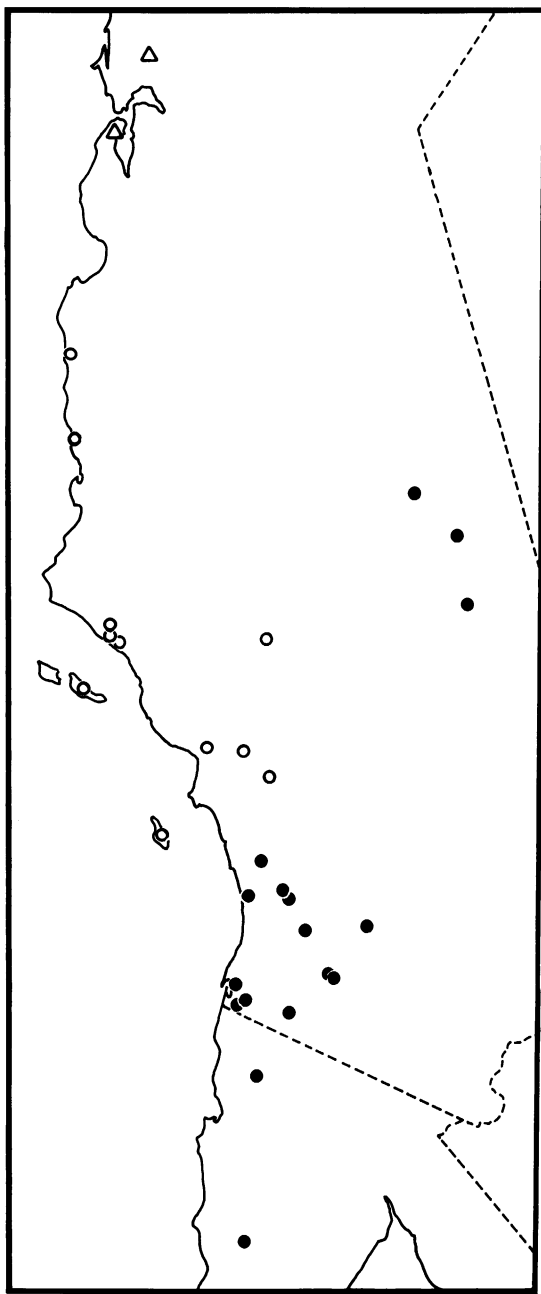
TYPE: Male holotype from 1–2 miles west of Lone Pine, Inyo County, California (Apr. 27, 1960; W. J. Gertsch, W. Ivie, R. Schrammel), deposited in AMNH.

ETYMOLOGY: The specific name is a patronym in honor of Dr. Willis J. Gertsch, long-time student of North American spiders and one of the collectors of the holotype.

DIAGNOSIS: Males can be recognized by the presence of two ventral expansions on the palpal femur (fig. 6), females by the prolonged lateral pair of dorsal epigynal ducts (fig. 7).

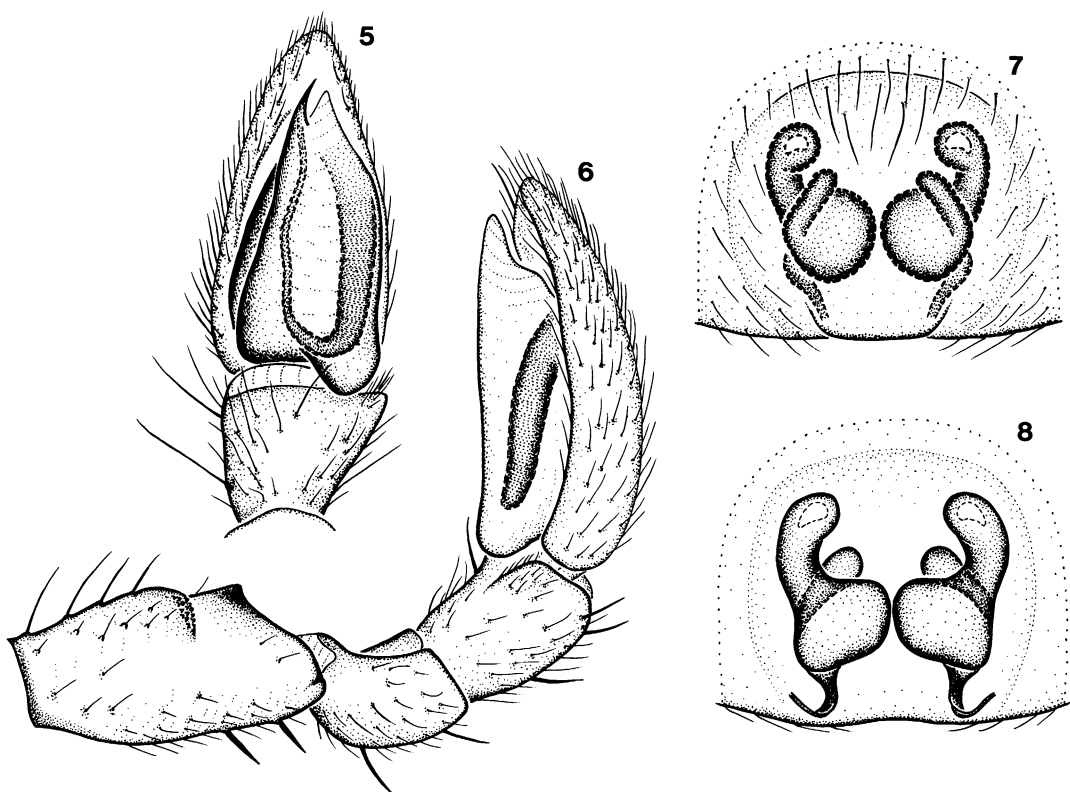
MALE: Total length 3.41. Carapace 1.65 long, 1.41 wide. Femur II 1.46 long. Eye sizes and interdistances: AME 0.06, ALE 0.09, PME 0.08, PLE 0.07; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.07, PME-PLE 0.08, ALE-PLE 0.04; MOQ length 0.21, front width 0.18, back width 0.23. Palpal femur with small proventral expansion at about two-thirds of length (fig. 6); tegulum with strongly produced proximal lobe at retrolateral side (fig. 5). Leg spination: femora: II p0-1-1; III p0-1-1, r0-1-1; IV p0-1-1; tibiae: I v7-6-0; II v7-4-0; III d1-0-0, p1-1-1; IV d1-1-0, p1-1-1; metatarsi III, IV p1-1-0, r1-1-0.

FEMALE: Total length 3.15. Carapace 1.43 long, 1.20 wide. Femur II 1.16 long. Eye sizes



Map 1. Southwestern North America, showing records of *Drassinella modesta* (open circles), *D. gertschi* (closed circles), and *D. sonoma* (triangles).

and interdistances: AME 0.07, ALE 0.09, PME 0.08, PLE 0.08; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.06, PME-PLE 0.06, ALE-PLE 0.05; MOQ length 0.20, front width

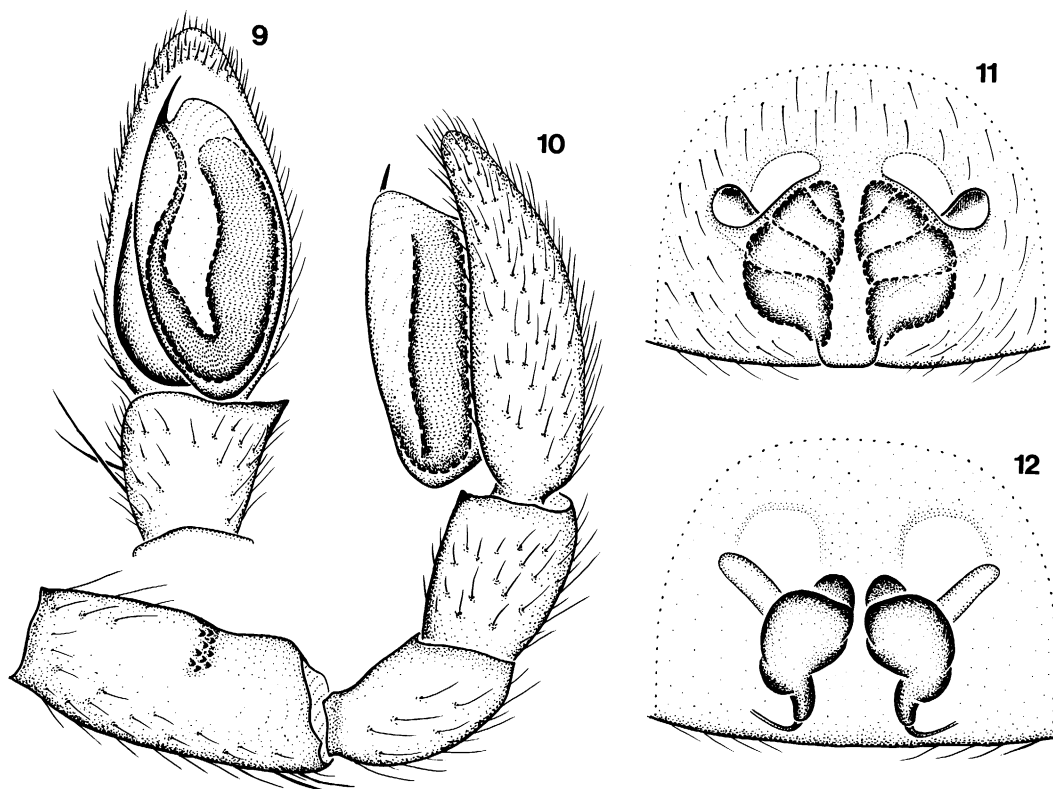


Figs. 5–8. *Drassinella gertschi*, new species. 5. Palp, ventral view. 6. Palp, retrolateral view. 7. Epigynum, ventral view. 8. Epigynum, dorsal view.

0.19, back width 0.22. Lateral ducts extending far anterior of spermathecae (figs. 7, 8). Leg spination: femora: II p0-1-0; III p0-1-1, r0-1-1; IV p0-0-1; tibiae: I v8-6-0; II v7-6-0; III d1-0-0, p1-1-1; IV d1-1-0, p1-1-1; metatarsi III, IV p1-1-0, r1-1-0.

OTHER MATERIAL EXAMINED: UNITED STATES: **California:** *Inyo Co.:* Alabama Hills, 2 mi W Lone Pine, Dec. 31, 1980–Mar. 31, 1981, elev. 1300 m, pitfall trap (D. Giuliani, CAS), 1♂; Grapevine Canyon, Saline Valley, Jan. 25–Sept. 29, 1986, elev. 5000 ft, pitfall trap (D. Giuliani, CAS), 1♀; 1–2 mi W Lone Pine, Apr. 27, 1960 (W. J. Gertsch, W. Ivie, R. Schrammel, AMNH), 3♂; Thompson Camp, Surprise Canyon, Panamint Mountains, Mar. 29, 1970, elev. 6650 ft, under rocks and leaves (L. LaPré, UCR), 1♀. *Orange Co.:* Santa Ana Canyon, 12 mi E Capistrano, Mar. 30, 1960 (W. J. Gertsch, W. Ivie, R. Schrammel, AMNH), 1♂. *Riverside Co.:* Deep Canyon, Santa Rosa Mountains, 0.5 mi S junction of Highway 74 and Pinyon Crest

turnoff, Dec. 8–May 14, 1974–1981, elev. 3600 ft, under rocks on south-facing slope (W. R. Icenogle, S. C. Johnson, AMNH, WRI), 2♂, 25♀; 0.8 mi N junction Deep Creek and Horsethief Creek, May 5, 1983, elev. 2960 ft (J. D. Pinto, UCD), 1♀; 2.5 mi S Murietta, Mar. 26–Apr. 14 (matured by May 5), 1977–1978, elev. 1200 ft, under rock below chaparral (W. R. Icenogle, WRI), 2♂, 1♀; 1.5 mi S Temecula, Jan. 31, 1977, elev. 1000 ft, under rock below live oak trees (W. R. Icenogle, WRI), 1♀. *San Diego Co.:* Camp Pendleton, 8 mi N Oceanside, Mar. 30, 1960 (W. J. Gertsch, W. Ivie, R. Schrammel, AMNH), 1♂; Grapevine Canyon, Anza-Borrego Desert State Park, Apr. 16, 1981, under rock (D. Ubick, CDU), 1♀; Henshaw Dam, Mt. Palomar, July 25, 1931 (W. Ivie, AMNH), 1♀; Highway 78 at W border of Anza-Borrego Desert State Park, Dec. 28, 1979 (D. Boe, CDB), 1♂; Laguna Mountain Park, Sept. 13, 1941 (W. Ivie, AMNH), 1♂; Otay Mesa, Johnson Canyon, Apr. 1–22, 1977–1978 (S.



Figs. 9–12. *Drassinella sonoma*, new species. 9. Palp, ventral view. 10. Palp, retrolateral view. 11. Epigynum, ventral view. 12. Epigynum, dorsal view.

C. Johnson, SCJ), 2♀; Pine Valley, Mar. 29, 1960 (W. J. Gertsch, W. Ivie, R. Schrammel, AMNH), 1♀; Proctor Valley, Jan. 22, 1979 (W. F. Rapp, AMNH), 1♀; San Diego, Dec. 18, 1965, in house (B. J. Kaston, SCJ), 1♀, Jan. 22, 1970, under rock (S. C. Johnson, SCJ), 1♂; San Diego Stadium parking area, Mar. 3, 1976, under rocks (S. C. Johnson, AMNH), 1♂, 1♀. MEXICO: **Baja California:** Meling Ranch, San José, May 1–4, 1961 (W. J. Gertsch, V. Roth, AMNH), 4♂, 1♀; 10 mi S Tecate, Nov. 10, 1957 (V. Roth, AMNH), 1♀; 40 mi S Tecate, Apr. 29, 1961 (W. J. Gertsch, V. Roth, AMNH), 1♂.

DISTRIBUTION: Southern California and northern Baja California (map 1).

***Drassinella sonoma*, new species**

Figures 9–12; Map 1

TYPE: Female holotype taken under rock in grass 3.5 miles west of El Verano, Sonoma

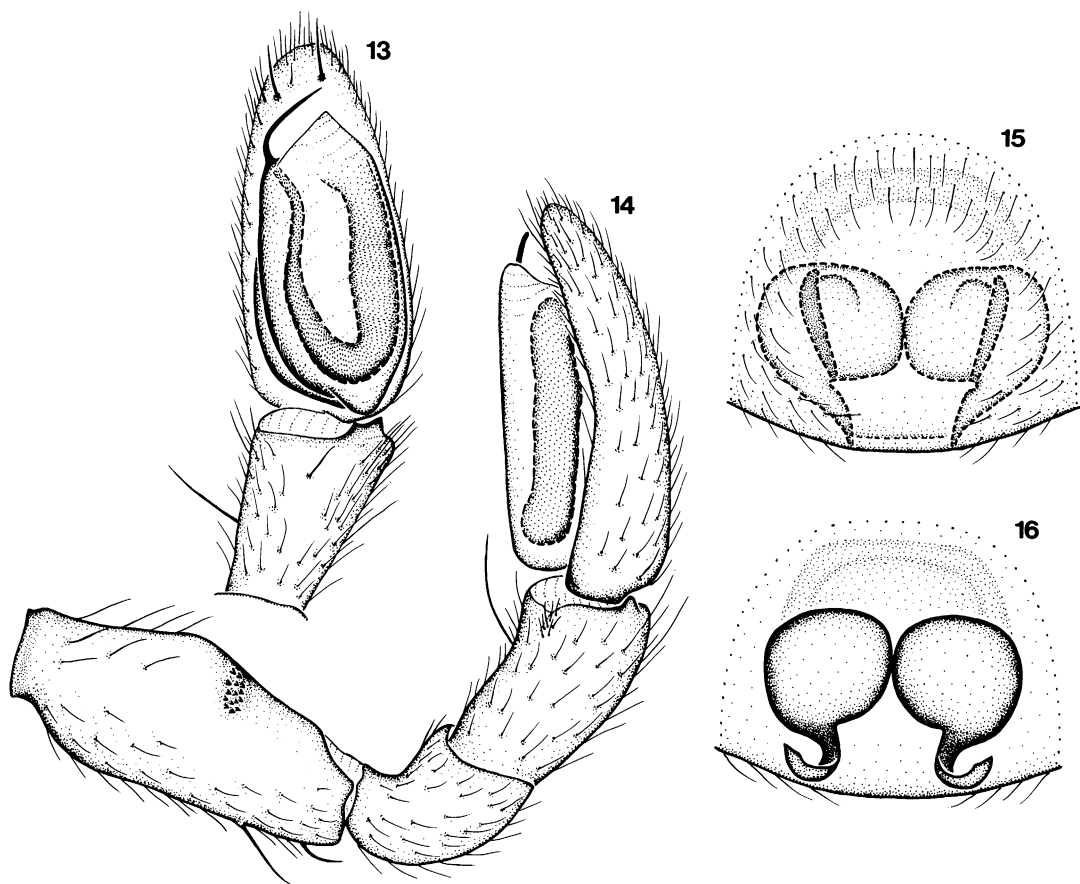
County, California (Feb. 6, 1988; D. Ubick), deposited in AMNH.

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: Males resemble those of *D. gertschi* but have a single ventral expansion on the palpal femur (fig. 10); females can be recognized easily by the elaborate lateral epigynal margins (fig. 11).

MALE: Total length 2.64. Carapace 1.14 long, 0.96 wide. Femur II 0.86 long. Eye sizes and interdistances: AME 0.04, ALE 0.07, PME 0.06, PLE 0.06; AME-AME 0.06, AME-ALE 0.01, PME-PME 0.06, PME-PLE 0.06, ALE-PLE 0.04; MOQ length 0.15, front width 0.14, back width 0.18. Palpal femur relatively short, with single, slight ventral expansion (fig. 10); embolus straight, near conductor (fig. 9). Leg spination: femora: III d1-1-0; IV r0-0-0; tibiae: I v6-4-0; II 4-4-0; III v0-2-2, r0-1-0; IV v1p-2-2; metatarsi: I, II v2-2-0; III v0-2-0.

FEMALE: Total length 3.86. Carapace 1.61



Figs. 13–16. *Drassinella sclerata* (Chamberlin and Ivie). 13. Palp, ventral view. 14. Palp, retrolateral view. 15. Epigynum, ventral view. 16. Epigynum, dorsal view.

long, 1.39 wide. Femur II 1.28 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.08, PLE 0.08; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.06, PME-PLE 0.09, ALE-PLE 0.05; MOQ length 0.19, front width 0.17, back width 0.22. Epigynum with distinct lateral margins (figs. 11, 12). Leg spination: femur III p0-1-0, r0-1-0; tibiae: II v5-4-0; III v1p-2-2, r0-1-0; IV p1-1-1; metatarsi III, IV v2-2-0.

OTHER MATERIAL EXAMINED: UNITED STATES: **California:** *San Mateo Co.*: San Bruno Mountain, May 6, 1979, under rock (D. Ubick, AMNH), 1♂. *Sonoma Co.*: 3.5 mi W El Verano, Feb. 11, 1983, under rock, broadleaf forest (D. Ubick, CAS), 1♀.

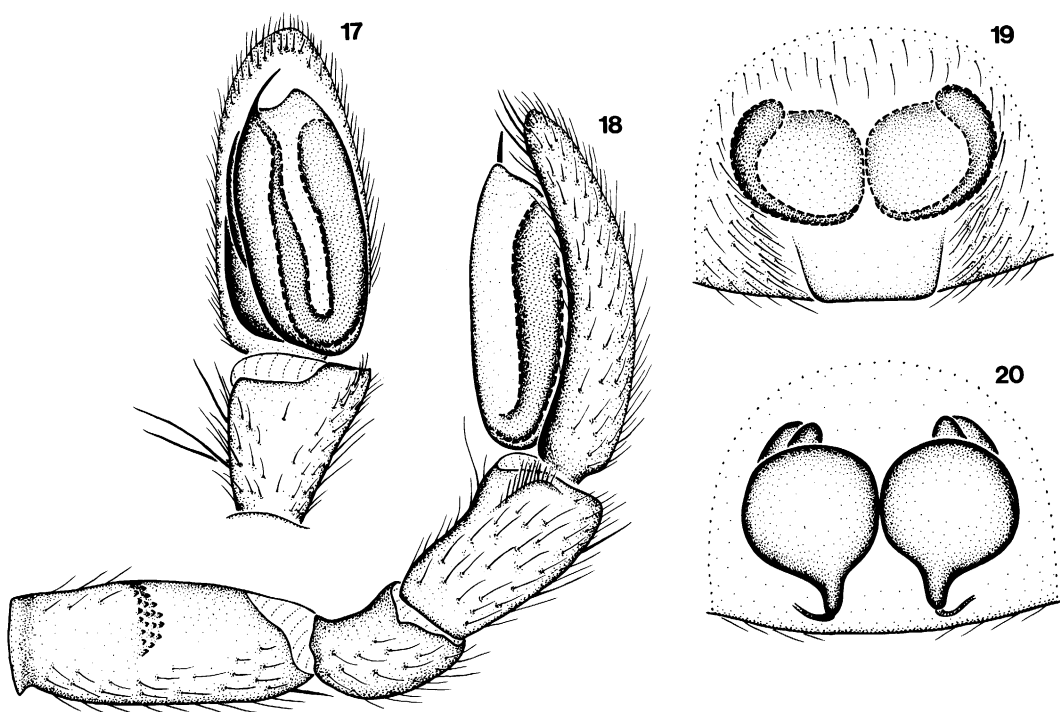
DISTRIBUTION: San Francisco Bay area, California (map 1).

Drassinella sclerata (Chamberlin and Ivie),
new combination
Figures 13–16; Map 2

Gosiphhrurus scleratus Chamberlin and Ivie, 1935: 39, fig. 123 (male holotype from mouth of San Dieguito River, San Diego County, California, in AMNH, examined). – Roewer, 1955: 570. – Bonnet, 1957: 2052.

DIAGNOSIS: The long, arched embolus of males (fig. 13), and enlarged spermathecae (obscuring their ducts in dorsal view, fig. 16) of females are diagnostic; males and females have not been collected together and are matched here solely by parsimony.

MALE: Total length 3.04. Carapace 1.30 long, 1.19 wide. Femur II 1.11 long. Eye sizes and interdistances: AME 0.06, ALE 0.08,



Figs. 17–20. *Drassinella unicolor* (Chamberlin and Ivie). 17. Palp, ventral view. 18. Palp, retrolateral view. 19. Epigynum, ventral view. 20. Epigynum, dorsal view.

PME 0.09, PLE 0.07; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.05, PME-PLE 0.06, ALE-PLE 0.05; MOQ length 0.21, front width 0.18, back width 0.23. Retrolateral tibial apophysis with distinct dorsal lobe (fig. 14); embolus long, arched (fig. 13). Leg spination: femora: III d1-1-0; IV d1-1-0; tibia III p0-1-1; metatarsus III v2-2-0.

FEMALE: Total length 3.45. Carapace 1.22 long, 0.93 wide. Femur II 0.86 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.06, PLE 0.06; AME-AME 0.05, AME-ALE 0.03, PME-PME 0.06, PME-PLE 0.05, ALE-PLE 0.04; MOQ length 0.16, front width 0.15, back width 0.18. Spermathecae enlarged, completely obscuring both pairs of ducts in dorsal view (figs. 15, 16). Leg spination: femora: III d1-1-0; IV d1-1-0, r0-0-0; tibiae: III p0-0-0, v0-2-2, r0-0-0; IV v1p-2-2; metatarsi: III p0-0-0, v2-2-0, r0-0-0.

MATERIAL EXAMINED: UNITED STATES: **California:** *Riverside Co.:* 0.5 mi E peak Santa Rosa Mountain, May 21, 1973, elev. 8000 ft, under rocks (W. Icenogle, S. C. Johnson, AMNH), 1♀. *San Diego Co.:* mouth, San Die-

guito River, July 12, 1931 (W. Ivie, AMNH), 1♂ (type).

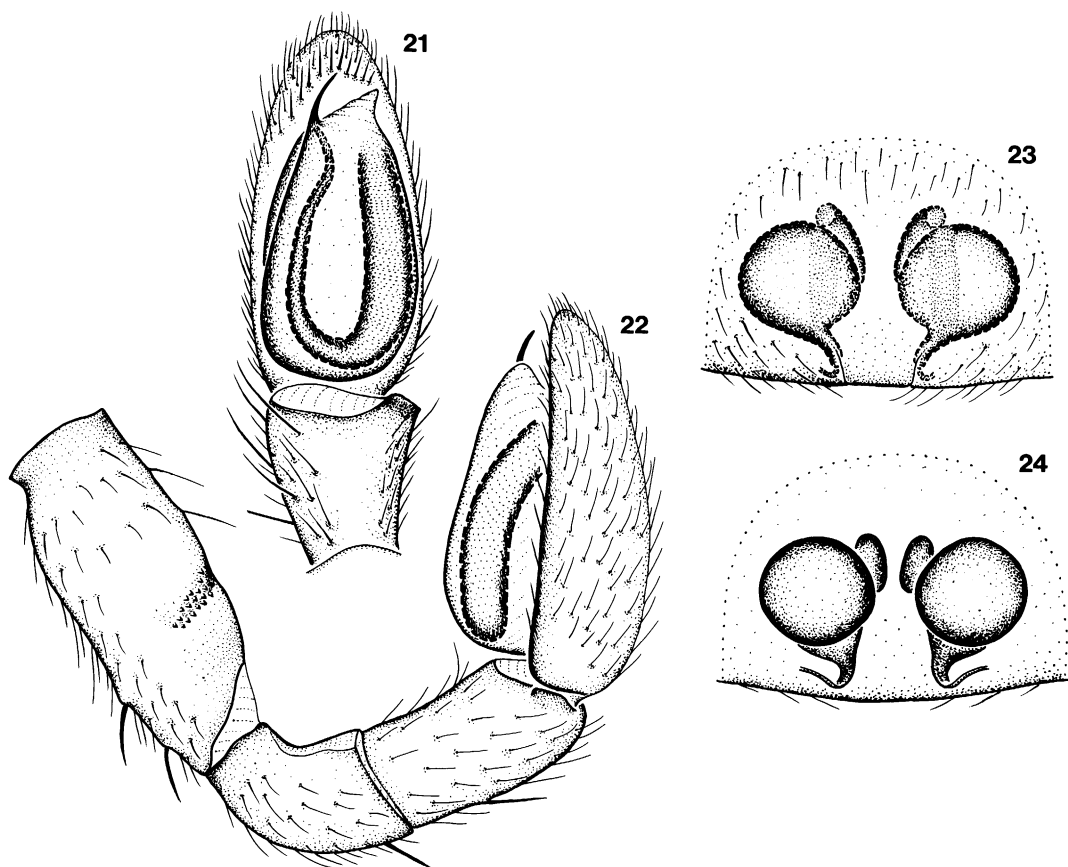
DISTRIBUTION: Known only from San Diego and Riverside counties, California (map 2).

Drassinella unicolor (Chamberlin and Ivie),
new combination
Figures 17–20; Map 2

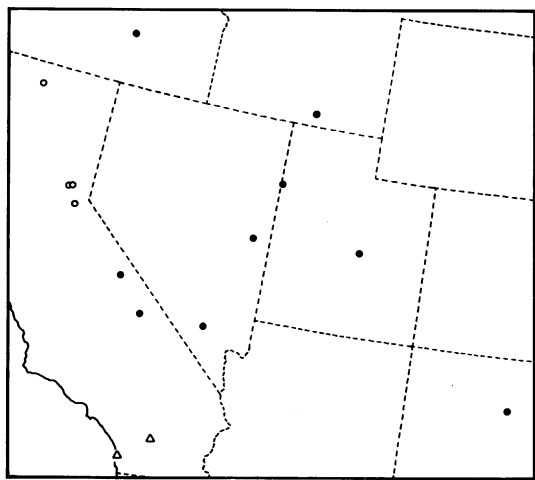
Gosiphhrurus unicolor Chamberlin and Ivie, 1935: 40, figs. 121–122 (male holotype from Ferron, Emery County, Utah, in AMNH, examined). – Roewer, 1955: 570. – Bonnet, 1957: 2052.

DIAGNOSIS: Males resemble those of *D. siskiyou* in having a curved embolus well separated from the conductor, but can be distinguished by the presence of a retrobasal extension of the palpal tegulum (figs. 17, 18); females can be recognized by their semicircular, laterally situated dorsal epigynal ducts (figs. 19, 20).

MALE: Total length 3.08. Carapace 1.41 long, 1.24 wide. Femur II 1.28 long. Eye sizes and interdistances: AME 0.07, ALE 0.07,



Figs. 21–24. *Drassinella siskiyou*, new species. 21. Palp, ventral view. 22. Palp, retrolateral view. 23. Epigynum, ventral view. 24. Epigynum, dorsal view.



Map 2. Western North America, showing records of *Drassinella sclerata* (triangles), *D. unicolor* (closed circles), and *D. siskiyou* (open circles).

PME 0.09, PLE 0.08; AME-AME 0.05, AME-ALE 0.01, PME-PME 0.05, PME-PLE 0.05, ALE-PLE 0.04; MOQ length 0.20, front width 0.19, back width 0.24. Palpal femur with only slight ventral expansion (fig. 18); embolus curved, well separated from conductor (fig. 17). Leg spination: femora: II p0-1-0; III p0-1-0, r0-1-0; IV d1-1-0; tibiae: I v8-4-0; III pl1-1-1; metatarsi: I, II v3-2-0; IV v1r-2-0.

FEMALE: Total length 3.90. Carapace 1.61 long, 1.39 wide. Femur II 1.24 long. Eye sizes and interdistances: AME 0.08, ALE 0.08, PME 0.08, PLE 0.07; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.08, PME-PLE 0.09, ALE-PLE 0.05; MOQ length 0.22, front width 0.22, back width 0.24. Spermathecae globose, lateral pair of dorsal ducts semicircular (figs. 19, 20). Leg spination: femora: III d1-1-0; IV d1-1-0, r0-0-0; tibiae: II v5-4-0; III

v0-2-2, r0-0-0; IV v1p-1p-2, r0-1-0; metatarsi: I v3-2-0; II v2-2-0; III, IV r0-0-0.

MATERIAL EXAMINED: UNITED STATES: **California:** *Inyo Co.:* 6 mi W Bishop, Mar. 16, 1941 (D. and S. Mulaik, AMNH), 1♂; Grapevine Canyon, Saline Valley, Jan. 25–Sept. 29, 1986, elev. 5000 ft, pitfall trap (D. Giuliani, CAS), 1♀. **Idaho:** *Cassia Co.:* Raft River Valley Geothermal Project, Aug. 2, 1978, from ca. 2 ft down in ant mound (S. Porter, AMNH), 1♂. **Nevada:** *Clark Co.:* McWilliams Camp, 43 mi NW Las Vegas, Charleston Mountains, July 23, 1966, elev. 8400 ft (F., P., and M. Rindge, AMNH), 1♂. *White Pine Co.:* Connors Pass, 14 mi S, 13 mi E Ely, Mar.–Oct. 1982, elev. 7200 ft, pitfall trap (D. Giuliani, CAS), 1♂. **New Mexico:** *Santa Fe Co.:* Santa Fe, June 20–26, 1973, in house (CNC), 1♂. **Oregon:** *Harney Co.:* Wagontire, June 23, 1952 (B. Malkin, AMNH), 1♀. **Utah:** *Emery Co.:* Ferron, June 23, 1934, under rock on dry hillside (W. Ivie, AMNH), 1♂ (type). *Tooele Co.:* Salt Springs, Sept. 20, 1927 (R. V. Chamberlin, AMNH), 1♀.

DISTRIBUTION: Oregon and Idaho south to California and New Mexico (map 2).

Drassinella siskiyou, new species

Figures 21–24; Map 2

TYPES: Male holotype and female allotype from 3 miles northwest of Weed, Siskiyou County, California (Sept. 2, 1959; W. J. Gertsch and V. Roth), deposited in AMNH.

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: Males resemble those of *D. unicolor* in having a curved embolus well separated from the conductor, but can be distinguished by the absence of any basal extension of the tegulum (figs. 21, 22); females can be recognized easily by the medially situated dorsal epigynal ducts (figs. 23, 24).

MALE: Total length 2.99. Carapace 1.28 long, 1.16 wide. Femur II 1.02 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.08, PLE 0.07; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.05, PME-PLE 0.06, ALE-PLE 0.05; MOQ length 0.16, front width 0.16, back width 0.21. Ventral expansion on palpal femur slight (fig. 22); embolus well removed from conductor, tegulum with no trace

of basal extension (fig. 21). Leg spination: femur III d1-1-0, r0-1-0; tibia III v1p-2-2, r0-1-0; metatarsi: III v0-2-0; IV v2-1p-0.

FEMALE: Total length 3.38. Carapace 1.38 long, 1.21 wide. Femur II 1.11 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.08, PLE 0.06; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.06, PME-PLE 0.06, ALE-PLE 0.04; MOQ length 0.19, front width 0.18, back width 0.22. Dorsal epigynal ducts situated paramedially rather than laterally (figs. 23, 24). Leg spination: femur III d1-1-0; tibiae: III v1p-2-2, r0-1-0; IV v1p-2-2; metatarsus III v0-2-0.

OTHER MATERIAL EXAMINED: UNITED STATES: **California:** *El Dorado Co.:* River-ton, July 15, 1934 (W. Ivie, AMNH), 1♀. *Placer Co.:* Emigrant Gap, Aug. 4, 1953 (W. J. and J. W. Gertsch, AMNH), 1♀; 5 mi W Emigrant Gap, July 9, 1952 (W. J. Gertsch, M. Cazier, R. Schrammel, AMNH), 7♀. *Siskiyou Co.:* 3 mi NW Weed, Sept. 2, 1959 (W. J. Gertsch, V. Roth, AMNH), 4♂, 3♀.

DISTRIBUTION: Northern California (map 2).

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