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NEW SPECIES AND RECORDS OF *SCHIZOMUS* (ARACHNIDA: SCHIZOMIDA) FROM MEXICO

James R. Reddell and James C. Cokendolpher

Texas Memorial Museum
The University of Texas at Austin
2400 Trinity
Austin, TX 78705
and
Department of Entomology
Texas Tech University
Lubbock, TX 79409

ABSTRACT

Two new species of *Schizomus* are described from Mexico: *S. hoffmannae* from Tapijulapa, Tabasco, and *S. palaciosi* from Gruta de Acuitlapán, Guerrero. Included herein are all new records of *Schizomus* spp. from Mexico since revision of New World Schizomida by Rowland and Reddell (1979-1981). Also included are all unpublished records of *S. portoricensis* (Chamberlin) in the New World.

INTRODUCTION

Several new species of *Schizomus* have accumulated since Rowland and Reddell (1979a, 1979b, 1980, 1981) revised the New World Schizomida. Two species are of sufficient interest to warrant description in advance of a comprehensive review of the Mexican fauna. One, *S. hoffmannae*, new species from Tabasco, is closely related to an aberrant species, *S. infernalis* Rowland from Chiapas. The second species, *S. palaciosi*, new species from Guerrero, is closely related to an undescribed Chiapas species and is apparently a troglobite.

We also include in this paper all new records of *Schizomus* from Mexico, including older material recently discovered in the collection of the American Museum of Natural History. Finally, all new records of *S. portoricensis* (Chamberlin) from the New World are included.

The following acronyms are used to indicate the collections in which specimens are deposited:

AMNH—American Museum of Natural History, New York, New York.

FMNH—Field Museum of Natural History, Chicago, Illinois.

MCZ—Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts.

PWHC—P. Wagenaar Hummelinck collection.

SBPC—Stewart B. Peck collection, Carleton University, Ottawa, Canada.

TMM—Texas Memorial Museum, The University of Texas at Austin, Austin, Texas.

UCR—University of California at Riverside, Riverside, California.

UNAM—Universidad Nacional Autónoma de México, México, D.F., México.

UV—University of Vermont, Burlington, Vermont.

WBMC—William B. Muchmore collection, Rochester, New York.

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Schizomus Cook

brasiliensis group

Schizomus lacandonus Rowland

Schizomus lacandonus Rowland, 1975:16-18; Rowland and Reddell, 1979b:89, 103, 104-107, 108, 110, 114, 116, figs. 34, 37, 48, 55, 65.

New record.—MEXICO: *Chiapas*: Ruinas de Palenque, 28 September 1974 (J. Reddell), 1 female (TMM); 18 July 1983 (J. Reddell), 1 male (TMM).

mexicanus group

Schizomus reddelli Rowland

Schizomus reddelli Rowland, 1971:123, 124, 126. For complete synonymy see Rowland and Reddell, 1980:10.

New records.—MEXICO: *Tamaulipas*: Cueva de Guadalupe, 8 March 1981 (D.C. Rudolph, J.A. Matos, R. Collins), 1 male, 3 females (TMM); Cueva del Ojo de Agua (Sección Norte), Ojo de Agua, 2.5 km E of Gómez Farías, 28 March 1981 (J. Reddell, D. McKenzie, T. Archey, F. Endres), 2 females, 6 immatures (TMM); Cueva del Ojo de Agua de Manantiales, 13.5 km NE of Ocampo, 3 September 1979 (D.C. Rudolph), 1 immature (TMM).

Schizomus mexicanus Rowland

Schizomus mexicanus Rowland, 1971:117-119, figs. 1-3, 16. For complete synonymy see Rowland and Reddell, 1980:12.

New records.—MEXICO: *San Luis Potosí*: Cueva

Chica, El Pujal, 15 km SE of Ciudad Valles, 22 July 1969 (S. & J. Peck), 1 immature (TMM); Cueva de Los Sabinos, 20 January 1944 (collector unknown), 1 male, 2 females, 3 immatures (AMNH); Sótano de la Tinaja, 11 km NE of Ciudad Valles, 24 December 1963 (D. McKenzie), 1 male (TMM); 16 March 1972 (collector unknown), 2 females, 1 immature (TMM); 16 March 1972 (J.A.L. Cooke), 3 males, 2 females, 5 immatures (AMNH); 16 April 1972 (D. Kiser, M. Brownfield), 1 immature (TMM); 20 February 1973 (S. Wiley), 4 immatures (TMM); 11 January 1980 (B. & V. Roth), 1 male, 1 female, 1 immature (AMNH). *Tamaulipas*: Gómez Farías, lowland forest, July 1965 (B. Brown), 1 female (MCZ); 3 km S of Gómez Farías, 15 March 1972 (R. Mitchell), 4 females (TMM); 10 km SE of Gómez Farías, 4 km W of Highway 85, 21 May 1982 (H.L. McCutchen), 5 females, 1 immature (TMM); 24 May 1982 (H.L. McCutchen), 1 male (TMM); road cut near Gómez Farías, 15 March 1972 (R.W. Mitchell et al.), 3 males (TMM); 15 February 1970 (collector unknown), 1 male (TMM); Nacimiento del Río Frío, 15 February 1970 (collector unknown), 1 female (TMM); Arroyo del Nacimiento del Río Frío, 16 February 1970 (collector unknown), 5 males, 5 immatures (TMM).

Schizomus portoricensis (Chamberlin)

Stenochrus portoricensis Chamberlin, 1922:11-12.

Schizomus antilus Hilton, 1933:91-92.

Schizomus cavernicolens Chamberlin and Ivie, 1938: 102, 103, figs. 4-7.

Schizomus probably *latipes* Hansen: Cloudsley-Thompson, 1949:261 (misidentification).

Schizomus floridanus Muma, 1967:18-20, figs. 13-15.

Schizomus longimanus Rowland, 1971:119-120, figs. 4-6, 17.

Schizomus portoricensis: Rowland, 1973b:197.

For complete synonymy see Rowland and Reddell, 1980:14.

New records.—UNITED STATES: *Florida*: Dade County: Florida City, 26 August 1965 (W. Suter), CNHM(HD) no. 65-316 (Suter no. 65-126), 10 females, 50 immatures (FMNH); Miami, in association with *Prorhinotermes simplex*, 13 December 1936 (R.F. Dodd), 1 female (AMNH); Palma Vista Hammock, Everglades National Park, floor duff, 26 November 1961 (J. Wagner), 1 female, 30 immatures (FMNH); buttress of large smooth-barked tree (with tree snails), 27 August 1965 (W. Suter), CNHM(HD) no. 65-334 (Suter no. 65-127a), 5 immatures (FMNH); palmetto-gumbo limbo upland, forest floor,

18 June 1965 (W. Suter), FM(HD) no. 65-76 (W. Suter no. 65-28), 7 females, 6 immatures (FMNH); 27 August 1965 (W. Suter), CNHM(HD) no. 65-335 (Suter no. 165-127), 33 females (some gravid), 17 immatures (FMNH). Monroe County: Everglades National Park, Snake Bight Trail, berlese of litter under mangrove along road, 29 March 1967 (W. Suter), FM(HD) no. 67-44, 2 females, 11 immatures (FMNH); Snake Bight Trail, 0.5 mi. N of Flamingo, Everglades National Park, areas in sawgrass-mangrove area, 27 August 1965 (W. Suter), FM(HD) no. 65-377, 10 females, 22 immatures (FMNH); 5 mi. S of North Key Largo, floor at 100, 28 August 1965 (W. Suter), CNHM(HD) no. 65-365 (Suter no. 65-129), 1 female (FMNH); Marathon, Key Vaca, berlese no. 223, palm and hardwood litter (78 litres), 7 August 1971 (S. Peck), FM(HD) no. 71-359, 1 immature (FMNH); No Name Key, 31 December 1976 (R.T. Bell), 1 female (UV); Virginia Key, near Laboratory (Casuarina), 7 September 1963 (P. Wagenaar Hummelinck), 2 females (PWHC); Zim's Tavernier, 5 February 1967, 1 immature (AMNH).

MEXICO: *Campeche*: Ruins of Becán, Xpujil, Christmas trip 1973-74 (R.B. Waide), sample 13, 1 female (TMM), sample 14, 1 immature (TMM), sample 16, 1 female (TMM), sample 18, 1 female (TMM); 11 July 1974 (Waide & Mundel), litter 1, 1 female (TMM); 10 September 1974 (R.B. Waide), suction sample 4 right, 2 females (TMM), suction sample 5B-left, 1 female (TMM); 11 September 1974 (R.B. Waide), suction sample 5, Wilfredo, 1 female (TMM); 27 September 1974 (R.B. Waide), suction sample 1-L, Felipe, 1 female (TMM), suction sample 2 left, 1 female (TMM); 18 October 1974 (R.B. Waide), suction sample 2-L, Juan, 1 immature (TMM). *Chiapas*: Comitán, no. 6, 29 December 1960 (R. Meza), 1 female (UNAM); 2.5 mi. SW of El Bosque, 4,000 ft., on grassy ground, 25 August 1973 (A. Newton), 1 female (MCZ); Ruinas de Palenque, 4 September 1974 (E.M. Fisher), 1 female, 7 immatures (UCR). *Quintana Roo*: Cobá, 20°30'N-87°44'W, 1 February 1984 (B. & V. Roth), 1 female, 1 immature (UNAM); Cueva del Fermín, 3 km E of Pamul, 19-20 July 1983 (J. Reddell), 1 female (TMM). *Tabasco*: Grutas del Coconá, 3 km E of Teapa, 28 September 1974 (J. Reddell), 1 female (TMM). *Yucatán*: 3 km S of Calcehtok, 3 August 1973 (J. Reddell), 1 female (TMM); Chichén Itzá, 16-18 February 1939 (collector unknown), 1 female (AMNH); 28 June 1975, CA1/WCS, 1 female (MCZ); Cenote de la Culebra, 12 km N of Muna, 31 July 1983 (J. Reddell), 1 male (TMM); Actún Kaua, Kaua, March 1982 (T. Raines, S. Raines, J. Rodemaker), 1 immature (TMM); Actún Loltún, 24 March 1947

(Osorio), 2 females, 1 immature (AMNH); Oxkutzcab, 31 July 1973 (J. Reddell), 1 male, 1 female (TMM); 3 km N of Pisté, 26 July 1983 (J. Reddell), 1 male, 5 females, 1 immature (TMM); Cueva de Sabacá (=Actún Sabacá), Tecax (=Tekax de Alvaro Obregón), 26 September 1941 (collector unknown), 1 male (AMNH); Cueva del Cenote Xtolok, Chichén Itzá, 26 July 1983 (J. Reddell), 1 female (TMM); Cenote de Yaxcabá, Yaxcabá, 20 July 1983 (J. Reddell), 1 female (TMM).

HONDURAS: Copán, 15 August 1976 (Charles, Ann, and Marie Goodnight), 7 females, 5 immatures (TMM).

VIRGIN ISLANDS: *St. John*: Catherineberg, between large rocks under mango trees, 14 March 1984 (W.B. Muchmore), 5 females, 20 immatures (WBMC); Maho Bay, under large sea grape tree at side of road, 8 March 1984 (W.B. Muchmore), 2 females, 3 immatures (WBMC); under trees along road, 12 March 1984 (W.B. Muchmore), 1 immature (WBMC).

ECUADOR: *Archipiélago de Colón*: Isla Santa Cruz: Bellavista, 200 m, Horneman Farm, screening of litter beneath exotic giant bamboo, litter very wet, 3 April 1975 (W.G. Reeder), 1 female (TMM); 1 km E of Bellavista, 210 m, transition forest, cave ravine litter, 3 June 1985 (S. & J. Peck), 1 female (SBPC); 2 km N of Bellavista, 360 m, avocado grove, leaf and fruit litter, 14 May 1985 (S. & J. Peck), 13 females, 70 immatures (SBPC); Cueva Bellavista No. 1, Bellavista, 210 m, dung bait pit traps, 15-25 May 1985 (S. & J. Peck), 7 females, 3 immatures (SBPC); Cueva Bellavista No. 2, 1 km E of Bellavista, 210 m, meat and banana baits, 13-14 July 1985 (S. & J. Peck), 31 females, 1 immature (SBPC); dung bait pit traps, 15-25 May 1985 (S. & J. Peck), 30 females, 21 immatures (SBPC); Cueva Finca Kastdalen, 2 km NE of Bellavista, 300 m, 25 June 1985 (S. & J. Peck), 1 female (SBPC); Gallardo Caves nr. Bellavista, 29 April 1981 (309) (Y. Lubin), 2 females (MCZ); Cueva Sra. Colombia (=Cueva Jorge Sevilla), Bellavista, 280 m, 25 June 1985 (S. & J. Peck), 3 females (SBPC).

Schizomus cookei Rowland

Schizomus cookei Rowland, 1971:122-123, figs. 10, 12, 19. For complete synonymy see Rowland and Reddell, 1980:21.

New records.—MEXICO: *San Luis Potosí*: Sótano de la Tinaja, 18 February 1970 (J.A.L. Cooke), 3 females (AMNH); Sótano de Yerbaniz, 7 January 1970 (R.W. Mitchell et al.), 1 male, 4 females, 2 immatures, 5 larvae (TMM); on mud and wet debris, 17 February 1970 (J. Shepperd), 2 females (TMM).

Schizomus infernalis Rowland

Schizomus infernalis Rowland, 1975b:18-20; Rowland and Reddell, 1981:41-43, 44, figs. 43, 46-47, 50.

New records.—MEXICO: *Chiapas*: Ruinas de Palenque, 4 September 1974 (E.M. Fisher), 1 male (UCR); soil no. 4, 7 July 1949 (C.J. Goodnight), 1 female (AMNH); ca. 12 mi. from Palenque, on Nututun Road, berlese of dirt and rotten wood, 20 January 1976 (C. Alteri), 1 female, 1 immature (AMNH).

Schizomus hoffmannae, new species

Figs. 6-10

Type-data.—Male holotype from Tapijulapa, Tabasco, México, 13 February 1982 (R. Murillo), "habitat: hojarasca selva" (UNAM).

Etymology.—This species is named for Dra. Anita Hoffmann of the Laboratorio de Acarología, Universidad Nacional Autónoma de México, in recognition of her contributions to Mexican arachnology.

Description.—Holotype male (length from distal edge of propeltidium to base of flagellum, 3.5 mm). Body orangish-brown; legs somewhat lighter.

Cephalothorax: Propeltidium 1.2 mm long, 0.7 mm wide; with two apical setae and two pair dorsal setae. Apical margin of propeltidium drawn to sharp point. Eyespots distinct, elongate oval. Mesopeltidia separated by slightly more than the width of one plate. Metapeltidium undivided. Anterior sternum with 11 bifid setae and two long anteriorly directed setae arising from front of sternum; posterior sternum with six setae.

Abdomen: Sternite V about 3.6 times as wide as long. Tergite I with one pair dorsal setae; tergite II with three pair small setae anteriorly and five dorsal setae (two on left side, three on right side) near posterior margin; tergites III-VII with one pair dorsal setae each; tergite VIII with one pair dorsal and one pair lateral setae; tergite IX with one pair dorsolateral and one pair lateral setae. Segments X-XI telescoped; segment X with one dorsal, two dorsolateral, and six ventral setae; segment XI with two lateral and five ventral setae; segment XII with two dorsal, four lateral, and five ventral setae. Segment XII without posterior dorsal process. Flagellum (Figs. 9-10) 0.4 mm long, 0.22 mm wide; spade shaped, depressed posteriorly; without significant dorsal relief; with five dorsal and eight ventral setae.

Pedipalps (Figs. 6-7): Robust. Trochanter broadly connected to femur; produced distally to triangular point; row of setae on ventral margin; two spinose setae on ventral margin near distal end; one spine and two setae on mesal surface. Femur (Fig. 7) wide with

distal margin straight; ventral surface flattened, expanded distally, ending in spine-bearing spur; meso-distal margin with blunt spur bearing a spine; row of setae and spinose setae on dorsal margin; one seta on lateral surface; two spines on ventrolateral margin at distal end; two spines on mesal surface. Patella strongly curved and flattened ventrally; with scattered setae. Tibia with scattered setae; spur on ventromesal surface apposible to basitarsus-tarsus. Claw about 1/2, spurs about 1/5 as long as dorsal length of basitarsus-tarsus.

Chelicerae (Fig. 8): Fixed finger with four teeth between large outer teeth. Chelicera with the following setation (terminology after Lawrence, 1969): Three type 1 setae; four type 2 setae; four type 3 setae; two type 4 setae (plus five long plumose dorsal setae); seven type 5 setae; and one type 6 seta. Serrula with 18 teeth.

Legs: Lengths of segments in Table I. Leg I, including coxa, 5.04 mm long; basitarsal-tarsal segment proportions: 14:3:3:3:4:4:7. Femur IV about 2.3 times as long as deep.

Female: Unknown.

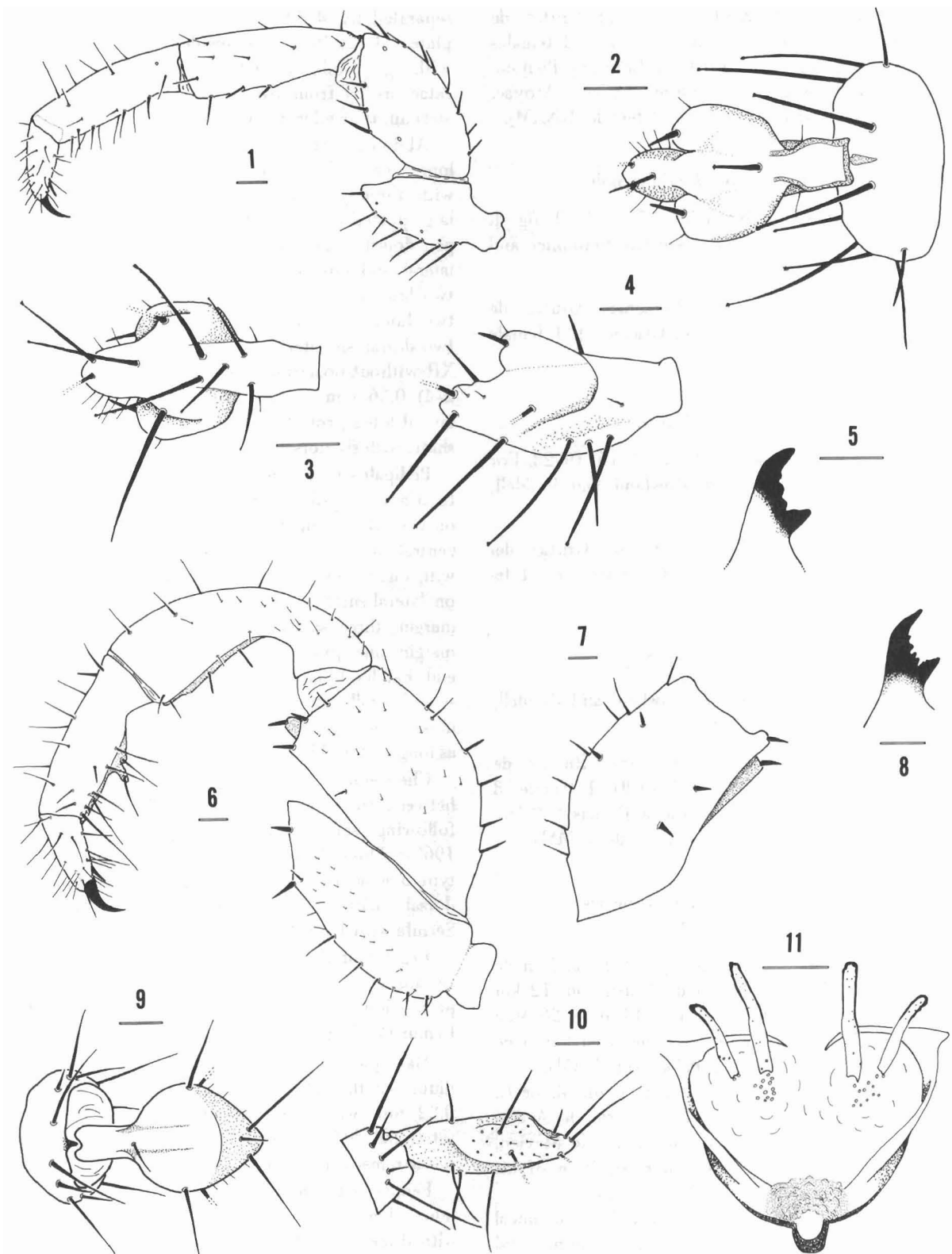
Discussion.—This species is most closely related to *Schizomus infernalis* Rowland from 0.8 km N of Ruinas de Palenque, Chiapas. These two species share the unusual morphology of the male pedipalp and the general shape of the flagellum. *Schizomus hoffmannae* differs from *S. infernalis* in having the flagellum more strongly depressed posteriorly and in details of the structure of the pedipalp, including a comparatively shorter patella and a less well-developed tibial spur. *Schizomus hoffmannae* also differs in possessing five instead of four dorsal setae on tergite II, but as these are grouped 2/3 per side the normal setal number may be 4, 5, or 6.

The relationships of *S. hoffmannae* and *S. infernalis* to other *Schizomus* species are somewhat obscure. *Schizomus infernalis* was not assigned to a species group by Rowland and Reddell (1981), although they suggested it might belong to the *mexicanus* group. The male flagellum is strongly suggestive of several species in the *mexicanus* group, but the remarkable nature of the pedipalps indicates that these two species should be considered a separate complex within the *mexicanus* group.

pecki group

Schizomus firstmani Rowland

Schizomus firstmani Rowland, 1973a:16-19, figs. 14-16, table 1. For complete synonymy see Rowland and Reddell, 1977:98.



Figs. 1-11.—*Schizomus* n.spp.: Figs. 1-5: *S. palaciosi* n.sp., holotype male: 1, pedipalp, lateral view; 2, flagellum, dorsal view; 3, flagellum, ventral view; 4, flagellum, lateral view; 5, fixed finger of chelicera, lateral view. Figs. 6-10: *S. hoffmannae* n.sp., holotype male: 6, pedipalp, lateral view; 7, pedipalp femur, submesal view; 8, fixed finger of chelicera, lateral view; 9, flagellum, dorsal view; 10, flagellum, lateral view. Fig. 11: *S. palaciosi* n.sp., paratype female, spermathecae, ventral view. Scale lines = 0.1 mm for Figs. 1-10; 0.05 mm for Fig. 11.

New records.—MEXICO: *Veracruz*: Grutas de Atoyac, no date (C. Bolívar y Pieltain), 2 females (AMNH); 13 November 1941 (C. Bolívar y Pieltain, F. Bonet), 1 female, 1 immature (AMNH); Atoyac, 6 December 1981 (V. Granados), 1 female (UNAM).

Schizomus sbordonii Brignoli

Schizomus sbordonii Brignoli, 1973:7, 8, 9, fig. 4.
For complete synonymy see Cokendolpher and Reddell, 1984:241.

New record.—MEXICO: *Veracruz*: Grutas de Atoyac, 7 December 1981 (V. Granados), 1 female (UNAM).

Schizomus pecki Rowland

Schizomus pecki Rowland, 1973a:7, 16, 19-23. For complete synonymy see Rowland and Reddell, 1980:29.

New record.—MEXICO: *Tabasco*: Grutas del Coconá, 13 April 1960 (collector unknown), 1 female (UNAM).

Schizomus sp., OTU No. 7

Schizomus sp., OTU No. 7: Rowland and Reddell, 1980:32, figs. 63, 72, 78.

New records.—MEXICO: *Chiapas*: Ruinas de Palenque, 18 July 1983 (J. Reddell), 1 female, 3 immatures (TMM); Cascada Motiepa, Ruinas de Palenque, 18 July 1983 (J. Reddell), 2 females (TMM).

Schizomus palaciosi, new species

Figs. 1-5, 11

Type-data.—Male holotype (UNAM) and male paratype (TMM) from Gruta de Acuitlapán, 12 km NE of Taxco, Guerrero, México, 1470 m, 26 May 1978 (J. Palacios); female paratype from Gruta de Acuitlapán, 23 May 1980 (J. Palacios) (UNAM).

Etymology.—This species is named for M. de C. José Palacios-Vargas of the Laboratorio de Acarología, Universidad Nacional Autónoma de México, the collector of this species, in recognition of his contributions to the biospeleology of Mexico.

Description.—Holotype male (length from apical margin of propeltidium to base of flagellum, 3.64 mm). Orangish-brown; abdomen and legs lighter.

Cephalothorax: Propeltidium 1.8 mm long, 0.62 mm wide; with three apical and two pair dorsal setae. Apical margin of propeltidium drawn to sharp downturned point. Eyespots absent. Mesopeltidia

separated by slightly more than the width of one plate. Metapeltidium undivided. Anterior sternum with eight bifid setae and two long anteriorly directed setae arising from front edge of sternum; posterior sternum triangular, with six setae.

Abdomen: Sternite V about 3.3 times as wide as long. Tergite I with one pair dorsal setae; tergite II with three pair small anterior setae and one pair large posterior dorsal setae; tergites III-VIII with one pair dorsal setae each; tergite IX with one pair dorso-lateral and one pair lateral setae. Segment X with two lateral and seven ventral setae; segment XI with two lateral and six ventral setae; segment XII with two dorsal, six lateral, and two ventral setae. Segment XII without posterior dorsal process. Flagellum (Figs. 2-4) 0.36 mm long, 0.22 mm wide; trilobate with lateral lobes projected above level of median lobe and shaft; with six dorsal and ten ventral setae.

Pedipalps (Fig. 1): Trochanter produced distally to triangular point; with row of seven spinose setae on ventral margin; four setae on lateral surface near ventral margin; five setae on mesal surface. Femur with eight setae on or near dorsal margin; two setae on lateral surface; two spinose setae on ventrolateral margin; three spinose setae on or near ventromesal margin; one spinose seta on mesal surface near distal end. Patella, tibia, and basitarsus-tarsus with scattered setae laterally, dorsally, and ventrally; with long plumose setae mesally. Claw about 1/2, spurs about 1/4 as long as dorsal length of basitarsus-tarsus.

Chelicerae (Fig. 5): Fixed finger with three teeth between two large outer teeth. Chelicera with the following setation (terminology after Lawrence, 1969): Three type 1 setae; four type 2 setae; two type 3 setae; two type 4 setae (plus five long plumose dorsal setae); seven type 5 setae; and one type 6 seta. Serrula with 15 teeth.

Legs: Lengths of segments in Table I. Leg I, including coxa, 5.8 mm long; basitarsal-tarsal segment proportions: 17:3:4:4:5:5:10. Leg I very slender. Femur IV about 2.5 times as long as deep.

Male paratype: Total length, 3.90 mm; propeltidium length 1.28 mm. Flagellum 0.36 mm long, 0.22 mm wide. As in holotype except for minor setational differences of the pedipalps. Leg segment measurements in Table I.

Female paratype: Total length 3.50 mm; propeltidium length 1.18 mm. Flagellum length 0.28 mm; with three segments. Leg I, including coxa, 4.62 mm long; more robust than in male. All legs proportionately shorter and more robust than in male; leg segment measurements in Table I.

Spermathecae (Fig. 11): Median lobes straight, without apical enlargement, slightly longer than

lateral lobes; lateral lobes without apical enlargement, very slightly curved.

Other records.—MEXICO: Guerrero: Gruta de Acuitlapán, Estación V, s/suelo, 2 August 1980 (J. Palacios), 1 immature (UNAM); 19 July 1980 (C. Morales), 1 immature (UNAM).

Discussion.—The long slender legs and lack of eyespots indicate that this species is probably a troglolite. The distinctly trilobate flagellum serves readily to separate this species from males of all other species of the *pecki* group. The spermathecae are most similar to an undescribed species from Chiapas (*Schizomus*, OTU No. 7; see Rowland and Reddell, 1980:fig. 71) but the median lobes in *S. palaciosi* are not curved as they are in the Chiapas species. The presence of three pair of dorsal setae in *S. palaciosi* versus

two pair in *S. sp.*, OTU No. 7, also serves to separate the two species.

Schizomus spp.

New records.—MEXICO: Chiapas: Chacamax River Road, at stream ford, berlese of rotting log, 3 February 1976 (C. Alteri), 1 immature (AMNH); 5 mi. NE of Chiapa, 22 August 1966 (J. & W. Ivie), 1 male, 1 female (AMNH); La Esperanza (?Motoquintla, coll. Musgos), 8 January 1940 (F. Bonet), 1 desiccated immature (AMNH); Ocosingo, deciduous leaf litter around waterfall, 2 June 1969 (J.M. Campbell), 1 immature (AMNH); Ruinas de Palenque, soil no. 13, 9 July 1949 (collector probably C.J. Goodnight), 1 abdomen (AMNH); cruising, 15 July 1949 (collector probably C.J. Goodnight), 1 female (AMNH); soil no. 24, 18 July 1949 (C.J. Goodnight), 1 immature (AMNH); 25 July 1973 (J. Reddell, J.M. Rowland), 4 immatures (TMM); 28 September 1974 (J. Reddell), 3 immatures (TMM); 18 July 1983 (J. Reddell), 1 female (TMM); 6 mi. S of Tuxtla Gutiérrez, W93.07, N16.42, 21 August 1966 (J. & W. Ivie), 4 immatures (AMNH); rim of gorge NE of Tuxtla Gutiérrez, 2 mi. S of Sumidero, W93.04, N16.48, 19 August 1966 (J. & W. Ivie), 1 immature (AMNH); Jardín Botánico, Tuxtla Gutiérrez, 27 September 1979 (A. Hoffmann), 1 immature (UNAM); Unión Juárez, 11 August 1950 (Goodnights), 4 immatures (AMNH). Guerrero: 62 mi. N of Acapulco, 18 June 1936 (A.M. & L. Irby Davis), 2 immatures (AMNH); Grutas de Cacahuamilpa, under rotting stick behind inner restroom, 16 November 1983 (M. Reyes & J. Reddell), 1 immature (TMM); Desviación a Pto. Oscuro, Taxco-Tetiepec, 2310 m elev., 24 January 1981 (J. Palacios), 1 female, 1 immature (UNAM); Grutas de Juxtlahuaca, 16 October 1982 (J. Palacios), 1 immature (UNAM). Hidalgo: Cueva de San José, San José, 18 March 1981 (J. Reddell, D. McKenzie, T. Archey, F. Endres), 1 immature (TMM). Nuevo León: El Carrizal, 16 July 1942 (collector unknown), 1 ?female (AMNH). Oaxaca: Centipede Cave, Río Iglesia Dolina, Huautla de Jiménez, 26 March 1981 (A. Grubbs, S. Zeman), 1 male, 2 females, 2 immatures (TMM); Huautla de Jiménez, May-June 1978 (A.G. Grubbs), 1 male, 2 females (TMM); jungle trail 25-30 km E of Huautla de Jiménez on way to Cerro Rabón, 23 March 1981 (A. Grubbs), 2 immatures (TMM); 3.5 mi. S of Suchixtepec, 8,000 ft. elevation, berlese (B no. 208) of leaf litter (39 litres), 3 June 1971 (S. Peck), 1 immature (FMNH no. 71-346), 3 ?immatures (TMM); Cave of 30 Skulls, Huautla de Jiménez, 25 March 1981 (A. Grubbs), 1 immature (TMM). Puebla: Unnamed cave-sinkhole, 10 m E of road to Derramadero, 200 m N of Hwy. to Izucar de Matamoros,

Table 1.—Measurements (mm) of *Schizomus* n.spp.: 1-3: *S. palaciosi*: 1, male holotype; 2, male paratype; 3, female paratype. 4: *S. hoffmannae*, male holotype.

	1	2	3	4
Pedipalp				
Trochanter	0.20	0.16	0.14	0.10
Femur	0.60	0.66	0.46	0.82
Patella	0.58	0.68	0.52	0.84
Tibia	0.52	0.60	0.40	0.54
Basitarsus-tarsus	0.28	0.30	0.22	0.30
Total	2.18	2.40	1.74	2.60
Leg I				
Trochanter	0.20	0.30	0.30	0.24
Femur	1.20	1.30	0.92	1.12
Patella	1.56	1.70	1.16	1.38
Tibia	1.16	1.34	0.92	1.02
Basitarsus	0.38	0.42	0.34	0.32
Tarsus	0.60	0.70	0.52	0.46
Total	5.10	5.76	4.16	4.54
Leg II				
Trochanter	0.10	0.14	0.16	0.22
Femur	0.86	0.94	0.52	0.82
Patella	0.50	0.54	0.40	0.44
Tibia	0.60	0.72	0.52	0.48
Basitarsus	0.46	0.54	0.36	0.46
Tarsus	0.40	0.44	0.36	0.40
Total	2.92	3.32	2.32	2.82
Leg III				
Trochanter	0.22	0.20	0.14	0.22
Femur	0.78	0.84	0.66	0.66
Patella	0.30	0.40	0.32	0.32
Tibia	0.50	0.54	0.40	0.32
Basitarsus	0.50	0.58	0.42	0.44
Tarsus	0.42	0.44	0.38	0.42
Total	2.72	3.00	2.32	2.36
Leg IV				
Trochanter	0.28	0.36	0.26	0.30
Femur	1.12	1.20	0.98	1.10
Patella	0.48	0.48	0.44	0.48
Tibia	0.82	1.14	0.70	0.70
Basitarsus	0.70	0.80	0.60	0.62
Tarsus	0.46	0.48	0.46	0.46
Total	3.86	4.46	3.44	3.56

50 m SE of railroad, 31 December 1981 (D. McKenzie), 1 female (TMM); Yohulichan, 5.6 mi. (by road) N of Cuetzalan, 19 December 1976 (J. Reddell), 1 female (TMM). *Quintana Roo*: Cobá, 1 February 1984 (B. & V. Roth), 1 female (CAS). *San Luis Potosí*: Agua Fría, 10 km S of Tamán, 27 March 1981 (J. Reddell, T. Archey), 1 male (TMM); Tamazunchale, sifted from debris in banana plantation, 5 March 1948 (C.H. Seevers), 1 immature (FMNH); La Cueva (=Sótano) de la Tinaja, 10.5 km NE of Ciudad Valles, 20 February 1973 (J.P. Webb), 1 immature (TMM). *Tabasco*: surface near Grutas del Coconá, Teapa, 25 August 1972 (collector unknown), 2 immatures (TMM). *Veracruz*: Atoyac, 6 December 1981 (V. Granados), 1 female (UNAM); Grutas de Atoyac, date unknown (C.B.P.), 3 fragmented immatures (AMNH); 13 November 1941 (C.B., F.B.), 3 fragmented immatures (AMNH); 7 December 1981 (V. Granados), 1 immature (UNAM); Balzapote, berlese sample of rain forest litter, 7 July 1976 (A. Newton), 5 immatures (MCZ); Lago Catemaco, on brush along lake, 28 December 1983 (V. & B. Roth), 1 female (CAS); 12 February 1984 (V. & B. Roth), 2 males, 3 females, 7 immatures (CAS); 5 km N of Cuitlahuac, 4 January 1977 (J. Reddell), 1 female (TMM); El Nacimiento, Paraje Nuevo, Córdoba, tropical evergreen forest, berlese no. 176 of soil and litter, 56 lbs., 7 August 1969 (S. & J. Peck), 1 immature (AMNH); Cueva Pintada, Ixhuatlán del Café, near Coscomatepec, 4 January 1982 (D. McKenzie, M. Shumate, L. Elliott), 3 males (TMM); Playa Escondida, lot 57, 12 January 1976 (J. Richter), 3 immatures (TMM); Nacimiento del Río Tonto "Huizkla," Zongolica, dry section in Big Room, 30 December 1986 (S. & L. Robertson, J.L. Soberanes), 1 male (TMM); 13 km NW of Sontecomapan, 19 August 1975 (E. & J. Fisher), 1 male, 1 female (AMNH); 31 August 1975 (E.M. & J.L. Fisher), 1 male, 5 females, 1 immature (UCR); 29 August 1975 (E. & J. Fisher), 1 male, 1 female (AMNH). *Yucatán*: Chichén Itzá, 27 June 1951 (L.J. Stannard), 1 larva (AMNH).

Comments.—Much of the above material is inadequate for further identification. Most of the adult specimens are representative of undescribed species to be considered later.

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