RESEARCH NOTES

THE MALE OF *SCHIZOMUS SBORDONII* BRIGNOLI (SCHIZOMIDA, SCHIZOMIDAE)

Brignoli (1973) published a brief diagnosis of *Schizomus sbordonii* based on one female and one juvenile from Cueva del Ojo de Agua Grande, Paraje Nuevo, Veracruz, Mexico. A somewhat more complete description was published later (Brignoli 1974), but he still failed to include a description of the male and several important characters of the female. Rowland and Reddell (1980) tentatively referred a single female from Cueva de Atoyac, 2 km E Atoyac, Veracruz, to *S. sbordonii.* They pointed out the inadequacy of the description by Brignoli, but felt that on geographical grounds the specimens from both caves were probably conspecific. Three additional specimens, including a male, from Cueva de Atoyac have recently been located in the American Museum of Natural History (AMNH) and are conspecific with the female described by Rowland and Reddell. Cueva del Ojo de Agua Grande and Cueva de Atoyac are both located in the same mountain range and are only about 10 km apart. Both caves also share almost all species of troglobites and troglophiles (Reddell 1981), indicating that there are no barriers to dispersal from one cave to the other. It is likely that the specimens from Cueva de Atoyac are correctly identified as *S. sbordonii.* The specimen upon which the present description of the male is based is badly fragmented and partially cleared.

We wish to express our appreciation to Dr. Norman I. Platnick of the American Museum of Natural History for the loan of specimens.

Schizomus sbordonii Brignoli
Figs. 1-4

Schizomus sbordonii Brignoli 1973:7-9, fig. 4; Rowland 1973:135, 136; Brignoli 1974:143, 146-149, figs. 1e, 2c-d; Rowland and Reddell 1977:80, 86, 89, 98, fig. 3; Rowland and Reddell 1979:163; Rowland and Reddell 1980:24, 27; Reddell 1981:45, 126, 127, fig. 22.
Schizomus sp., cf. *sbordonii:* Rowland and Reddell 1980:1, 23-25, 27-30, fig. 63, 73.

Type data.—Cueva del Ojo de Agua Grande, Paraje Nuevo, Veracruz, México, 5 November 1969 (V. Sbordoni), holotype female (Accademia Nazionale dei Lincei, not examined).

Description.—Male, total length about 5.3 mm; segments X-XII missing; brown.

Cephalothorax: Carapace 1.6 mm long, 0.8 mm wide; with two apical setae and three pair dorsal setae. Apical margin of carapace drawn to downturned point. Eyespots absent or very indistinct (specimen cleared). Mesopeltidia separated by 2/3 length of one plate. Metapeltidium entire; saddle-shaped; greatest length to width ratio of metapeltidium about 1:2. Anterior sternum with nine setae (all missing); posterior sternum with four setae.

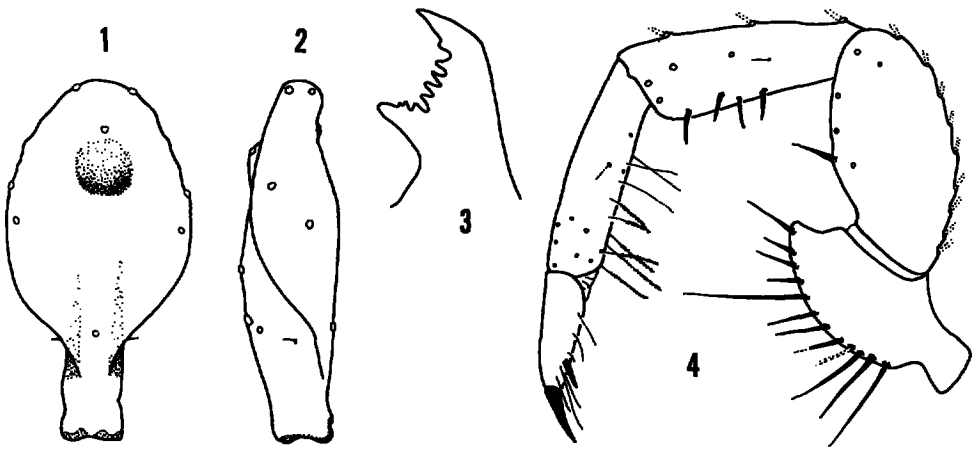
Abdomen: Broken at posterior margin of tergite IV; segments V-IX split horizontally into two parts; segments X-XII missing. Tergite I with two pair small anterior and one pair large posterior dorsal setae; tergite II with three pair small anterior and one pair dorsal setae; tergites III-VII with one pair dorsal setae; tergites VIII-IX with one pair dorsal and one pair lateral setae. Flagellum (Figs. 1-2) 0.54 mm long, 0.28 mm wide; with narrow shaft, then expanding gradually to an elongate oval shape with one shallow dorsal depression.

Chelicerae: Fixed finger with distinct notches on large basal tooth (Fig. 3).

Pedipalps (Fig 4): Trochanter produced to blunt apical point; row of 12 ventral spinose setae; three spinose setae on mesal surface; one spine near apical margin of mesal surface. Femur with one ventral, three ventrolateral, two distolateral, nine dorsal, and three mesal spinose setae. Patella with three spinose setae and one small seta on ventral margin; four plumose setae on mesal margin; three dorsal spinose setae; one small seta and four spinose setae laterally. Tibia with irregular row of about 11 plumose setae on and near mesoventral margin. Claw about 1/2 and spurs 1/4 as long as dorsal length of basitarsus-tarsus.

Legs: Lengths of segments in Table 1. Left leg I missing; right leg I broken after trochanter, basitarsus-tarsus missing. Right leg II missing; left leg II attached, tarsus missing. Both legs III complete but detached after trochanter. Right leg IV attached, basitarsus and tarsus missing; left leg IV detached, complete. Femur IV almost 3.5 times as long as wide.

Discussion.—The male of *Schizomus sbordonii* verifies the placement of this species in the *pecki* group (Rowland and Reddell 1980). The only other species in this group with a single dorsal depression on the male flagellum is *S. pecki* Rowland from Tabasco, which appears to be the closest relative of *S. sbordonii.* The shaft of the flagellum is proportionately longer and the flagellar depression less distinct in *S. sbordonii* than in *S. pecki.* The two species also may be separated by the presence of three pair of dorsal carapacial setae in *S. sbordonii* versus two pair in *S. pecki. Schizomus sbordonii* shares Cueva de Atoyac with *S. firstmani* Rowland, also a member of the *pecki* group. The male flagellum of *S. firstmani,* however, is without a dorsal depression and otherwise quite different in shape from that of *S. sbordonii* (see Rowland and Reddell 1980, figs. 65, 67).



Figs. 1-4.—*Schizomus sbordonii,* male: 1, flagellum dorsal view; 2, flagellum lateral view; 3, cheliceral fixed finger lateral view; 4, pedipalp lateral view.

Table 1.–Measurements (mm) of legs and pedipalps of male of *Schizomus sbordonii* Brignoli.

	Palp	Leg I	Leg II	Leg III	Leg IV
Trochanter	0.26	0.48	0.20	0.32	0.40
Femur	0.80	1.86	1.48	1.40	2.20
Patella	0.78	3.40	0.86	0.50	0.82
Tibia	0.70	2.48	1.12	0.64	1.52
Basitarsus	0.34	-	0.84	0.76	1.34
Tarsus		-	-	0.52	0.70
Total	2.88	-	-	4.14	6.98

The principal differences between the male studied and the female described by Rowland and Reddell (1980) and the females collected with the male are the longer legs of the male and the apparent absence of eyespots in the male. In many species of schizomid the males have longer legs than the females and thus this difference is probably of no significance. Eyespots may be present in the male, since the cleared condition of the specimen studied does not allow any definite conclusions about the state of this character; the female reported by Rowland and Reddell (1980) and the females collected with the male have indistinct eyespots. Brignoli (1974) did not find eyespots in the female he studied from Cueva del Ojo de Agua Grande. The only other significant difference between the specimens from Cueva de Atoyac and the holotype is in the lack of notches on the basal tooth in the holotype. This is a somewhat variable character and one female from Cueva de Atoyac has only a single notch.

Material examined.–MEXICO: *Veracruz;* Cueva de Atoyac, 2 km E Atoyac, 6 August 1969 (S. and J. Peck), one female (formerly Texas Tech University, now Texas Memorial Museum), 30 May 1941 (F. Bonet), one desiccated female (AMNH), no date (C. Bolívar Pieltain), one male, one female (AMNH).

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Manuscript received September 1983, accepted October 1983.