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***Spelaeomysis villalobosi*, a new species of mysidacean from
northeastern México (Crustacea: Mysidacea)**

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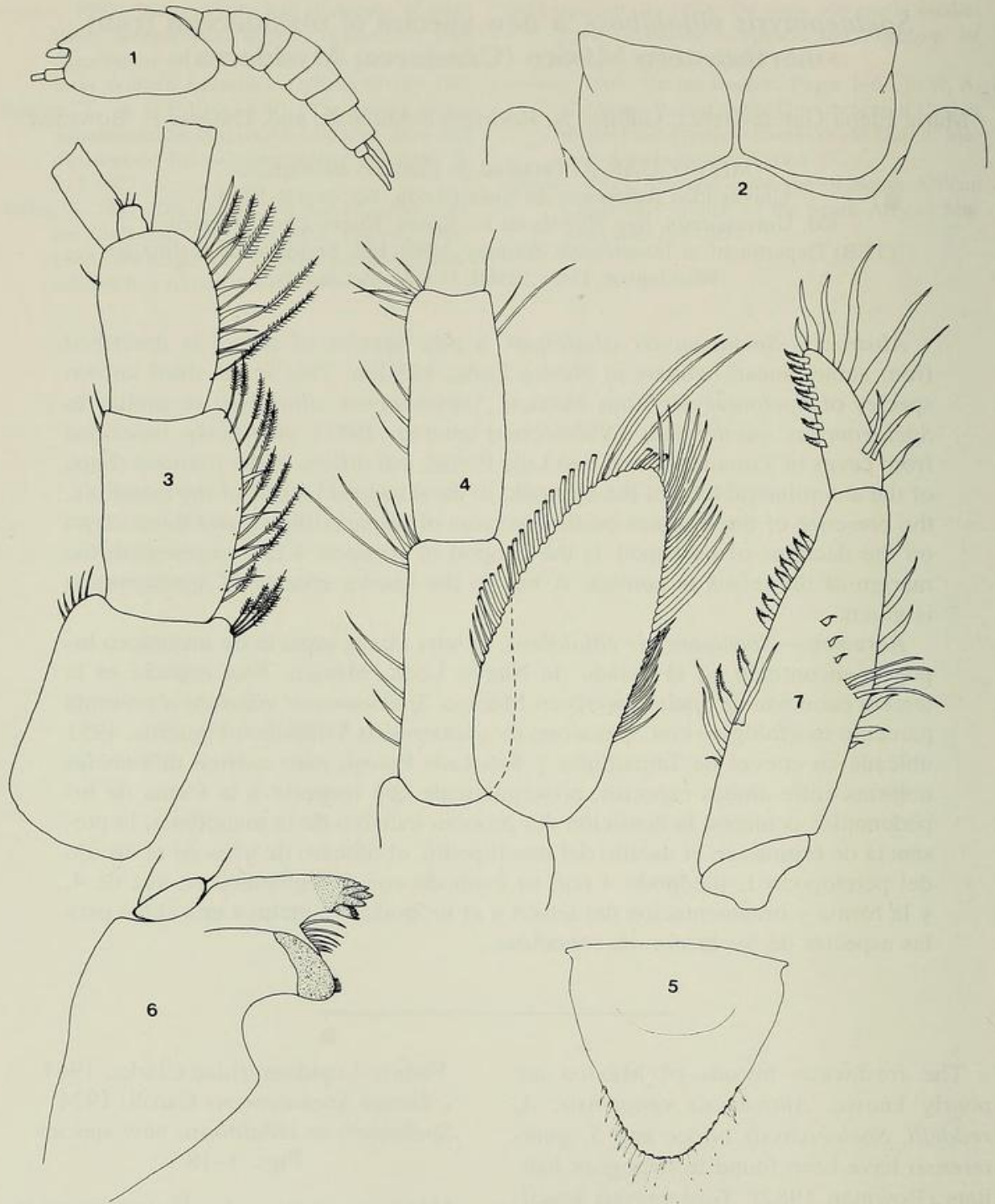
Abstract.—*Spelaeomysis villalobosi*, a new species of mysid is described from subterranean habitats in Nuevo León, México. This is the third known species of *Spelaeomysis* from México. *Spelaeomysis villalobosi* is similar to *Spelaeomysis quinterensis* (Villalobos-Figueroa, 1951) previously described from caves in Tamaulipas and San Luis Potosí, but differs in the rounded shape of the anterolateral lobe of the eyestalk, in the 4 cusped incisor of the mandible, the presence of three spines on the dactylus of the maxilliped, and three claws on the dactylus of pereopod 1; the exopod of pleopod 4 is 2-segmented; the margin of the telson is convex. A key to the known species of *Spelaeomysis* is given.

Resumen.—*Spelaeomysis villalobosi*, es una nueva especie de misidáceo hipogeo encontrada en el Estado de Nuevo León, México. Esta especie es la tercera conocida de *Spelaeomysis* en México. *Spelaeomysis villalobosi* presenta parecido morfológico con *Spelaeomysis quinterensis* Villalobos-Figueroa, 1951 ubicada en cuevas de Tamaulipas y San Luis Potosí, pero existen diferencias notorias entre ambas especies, principalmente con respecto a la forma de los pedunculos oculares, la dentición del proceso incisivo de la mandíbula, la presencia de espinas en el dactilo del maxilipedio, el número de uñas en el dactilo del pereópodo 1, pleópodo 4 con su exopodo con 2 segmentos en vez de 4, y la forma y ornamentación del telson y el urópodo. Se incluye una clave para las especies de *Spelaeomysis* conocidas.

The freshwater mysids of México are poorly known. *Antromysis cenotensis*, *A. reddelli*, *Spelaeomysis olivae* and *S. quinterensis* have been found in hypogean habitats (Bowman 1982). *Taphromysis louisianae* is the first freshwater epigean mysidacean recorded from México (García-Garza et al. 1992). *Spelaeomysis quinterensis* was recorded from caves in Tamaulipas and San Luis Potosí (Villalobos-Figueroa 1951; Reddell 1981), and *S. olivae* is known from caves in Oaxaca (Bowman, 1973), both species have disjunct distributions.

Family Lepidomysidae Clarke, 1961
Genus *Spelaeomysis* Caroli, 1924
Spelaeomysis villalobosi, new species
Figs. 1-18

Material examined.—Holotype male, UANL (Universidad Autónoma de Nuevo León) CCRMY001, 1 female paratype (UANL CCRMY002) from a draw-well, Rancho Monte Carmelo, Cerralvo, Nuevo León, 100 Km Northeast of Monterrey, Nuevo León, about 26°04'N, 99°37'W, 21 Oct 1989, leg. María Elena García-Garza, 1 male paratype (UANL CCRMY003) from

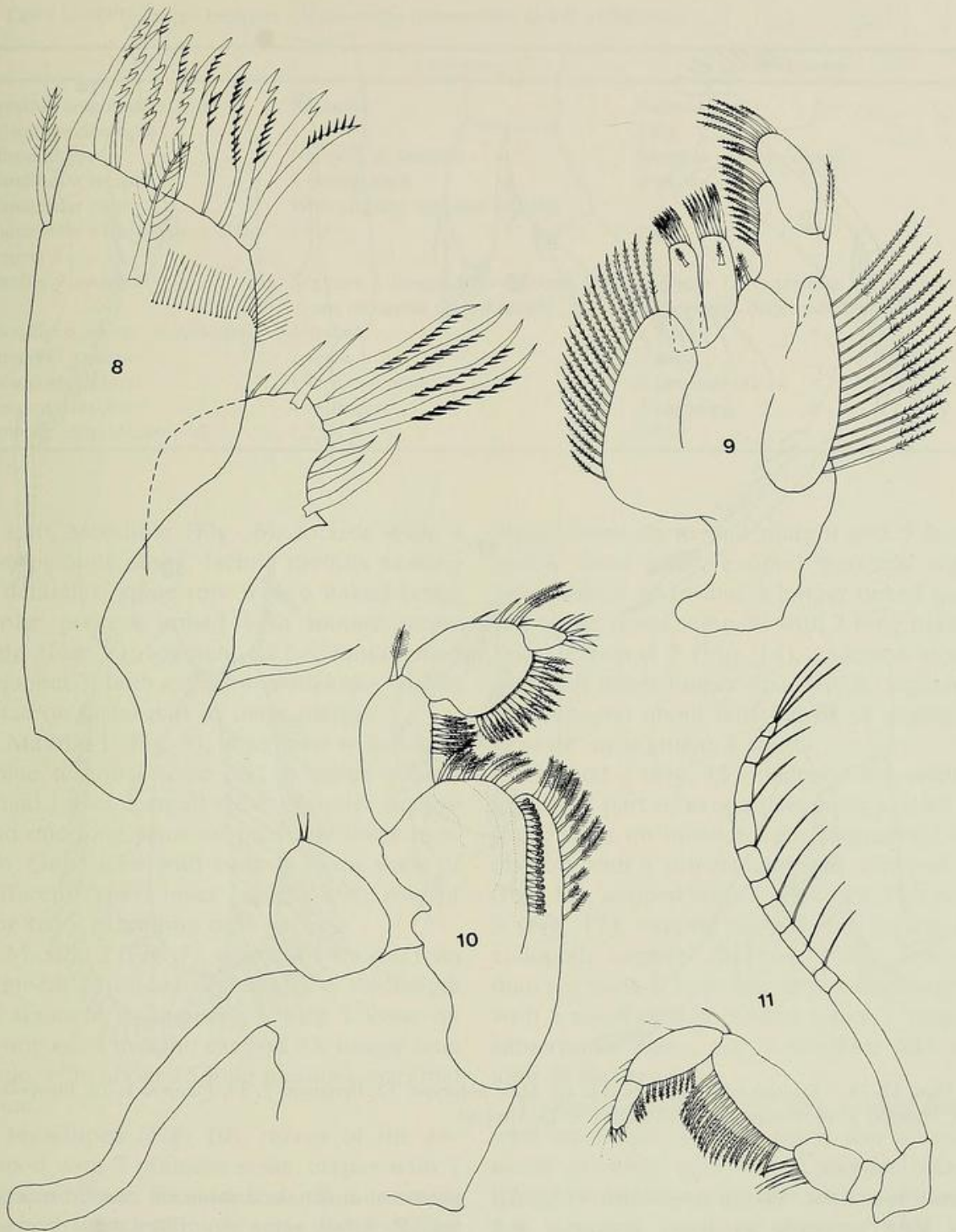


Figs. 1-7. *Spelaeomysis villallalobosi* n. sp., Male holotype: 1, Male, lateral; 2, Eyestalks; 3, Antenna 1; 4, Antenna 2; 5, Telson; 6, Mandible; 7, Mandible palp.

a small spring near the Pilon River, Montemorelos, Nuevo Leon, about 25°11'N, 99°48'W, 17 May 1990, leg. M. Valdez-Marroquín. 3 male paratypes (UANL CCRMY004) from Chorrera Cave, High-

way Linares-Galeana, Linares, Nuevo León, 24°46'N, 99°37'W, 4 Apr 1994, leg. Carlos Cavazos-Camacho.

Description.—Length of holotype 7 mm. Caparace with triangular rostrum (Fig. 2)

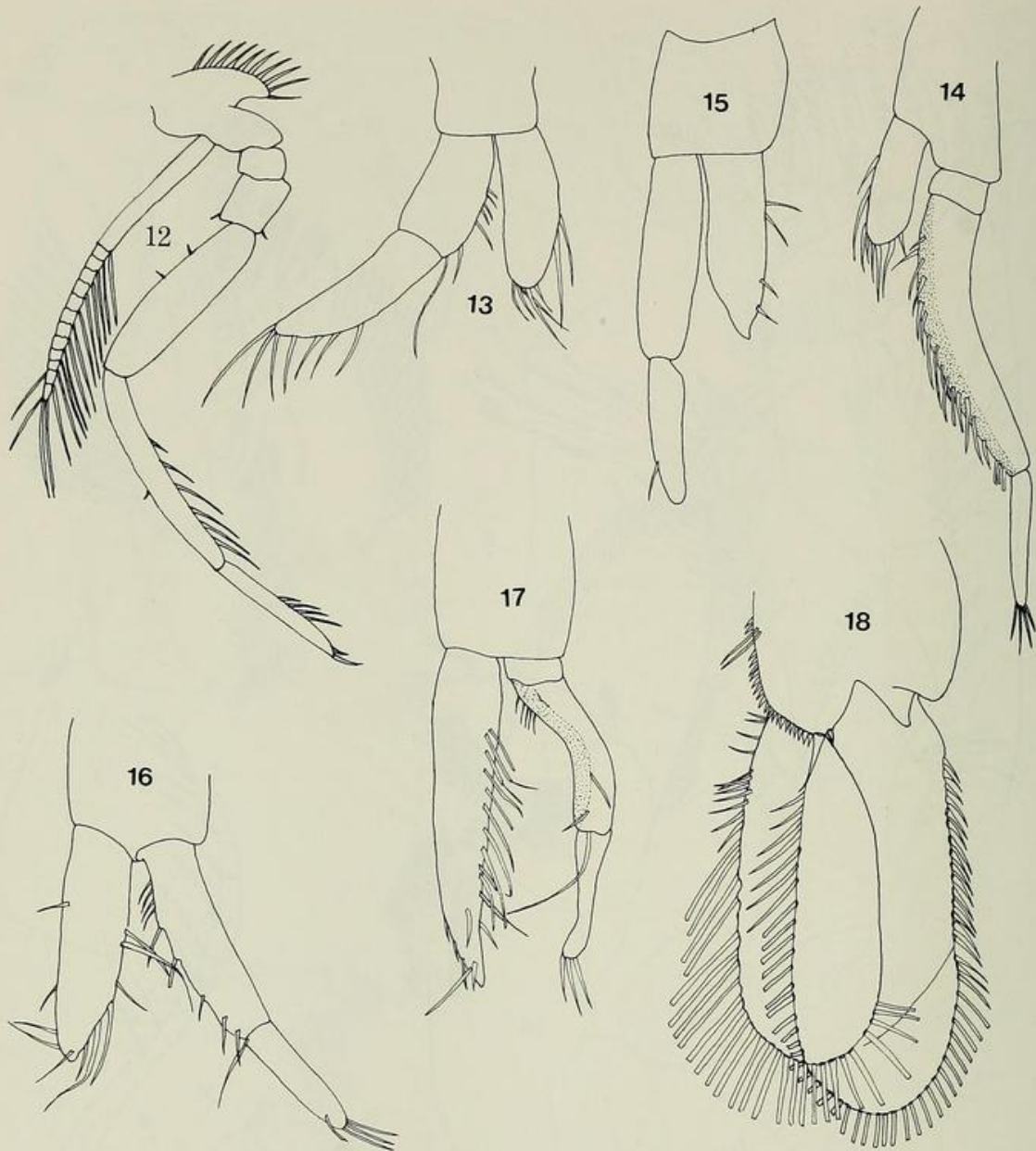


Figs. 8-11. *Spelaeomysis villalobosi* n. sp. Male holotype: 8, Maxilla 1; 9, Maxilla 2; 10, Maxilliped; 11, Pereopod 1.

not covering eyestalks; anterolateral lobe of caparace reaching to midlength of eyestalks. Eyestalk without ommatidia slightly

wider than long, produced anterolaterally into pointed lobe.

Pleuron of pereonite 7 produced poste-



Figs. 12-18. *Spelaemysis villalobosi* n. sp. Male holotype: 12, Pereopod 7; 13, Pleopod 1; 14, Pleopod 2; 15, Pleopod 3; 16, Pleopod 4; 17, Pleopod 5; 18, Uropod.

riorly into lobe. Telson linguiform (Fig. 5), as long as wide at base; posterior 0.4 armed, with 24 marginal spines; apex with 2 long spines flanked by 2 short spines.

Antenna 1 peduncle (Fig. 3), segment 1 widest, about 1.1 times longer than segment 2; segment 3, shortest $0.95\times$ as long as segment 2; segment 1, with 4 plumose setae at distomedial corner and 5 naked setae at distolateral corner; segment 2, with row of

plumose and naked setae on medial margin and 2 small setae on distolateral corner; segment 3 with naked and plumose setae on medial margin and small seta on distal part of lateral the margin; distal lobe as wide as long; bearing 3 small apical setae. Flagellum with 45 segments. Antenna 2 (Fig. 4), scale $2.5\times$ longer than wide, reaching to first third of last segment of peduncle, flagellum broken.

Table 1.—Differences between *Spelaeomysis quinterensis* and *S. villalobosi*.

	<i>S. quinterensis</i>	<i>S. villalobosi</i>
Eyestalk anterolateral lobe	Rounded	Pointed
Telson length/width	1.3×	1.0×
Telson shape	Narrows at anterior	Margins evenly convex
Mandibular incisor	3 strong teeth	4 strong teeth
Mandibular palp	With slightly concave margins	
Mandibular palp segment 2/segment 3	1.8×	2.6×
Maxilla 2 endopod	Segment 1 longer than segment 2, not produced distomedially	Segment 1 shorter than segment 2, produced distomedially
Maxilliped, merus of endopod	4 setae	7 setae
Pereopod 1 merus	2 setae	6 setae
Pereopod 1 dactyl	1 terminal claw	3 terminal claws
Pleopod 4 exopod	4 segments	2 segments
Uropod: exopod/endopod	1.25×	1.30×

Left Mandible (Fig. 6), incisor with 4 conspicuous cusps; lacinia mobilis bearing 5 denticles; spine row with 6 naked setae; molar process armed with minute setae; palp (Fig. 7), segment 22.6× longer than segment 3, both segments with stout barbed setae on distal part of outer margin.

Maxilla 1 (Fig. 8), inner lobe with 4 pectinate terminal setae and 3 naked subterminal setae; 3 small setae on outer margin and one long setae on proximal inner margin. Outer lobe with 14 long apical setae of different types; inner margin with row of fine hairs extending onto surface.

Maxilla 2 (Fig. 9), segment 1 shorter than segment 2, produced medially to midlength of segment 2; segment 2 with 7 setae on distomedial margin; exopod 3× longer than wide, with about 15 long plumose marginal setae.

Maxilliped (Fig. 10), merus of the endopod with 7 plumose setae, carpus with 7 plumose setae. Propodus, distal outer margin with 2 long plumose setae and 3 smaller naked setae; dactylus with 3 spines and 4 naked setae in distal part.

Pereopod 1 (Fig. 11), endopod is robust; merus with 6 naked setae; outer margin propodus with a long setae and 3 smaller setae; dactylus ending in 3 claws. Pereopods 2–7 as in Fig. 12.

Pleopod 1 (Fig. 13), endopod with 2 long

naked setae on medial margin and 5 long naked distal setae; exopod proximal segment with 4 short and 3 longer naked medial setae; distal segment with 7 long naked setae. Pleopod 2 (Fig. 14), endopod elongate, 2.8 times longer than width; segment 3 of exopod about half length of segment 2, setae on segment 2 short.

Pleopod 3 (Fig. 15), endopod not reaching distal part of exopod segment 1, with 4 small setae on inner margin; segment 2 of exopod with a subterminal seta. Pleopod 4 (Fig. 16), exopod with 2 segments. Pleopod 5 (Fig. 17), exopod subequal in length to endopod; segment 2 about 1.25× longer than segment 3, bent laterally at midlength, with 5 small proximolateral setae, 2 longer subterminal setae, and a terminal seta as long as 3rd segment.

Uropod protopod (Fig. 18), medial lobe with numerous curved spines and a long tooth; proximal part with 2 slender setae. Endopod reaching oblique suture of exopod. Exopod, proximal segment with 15 spines of almost equal size.

Etymology.—Named in memory of Dr. Alejandro Villalobos-Figueroa, distinguished Mexican carcinologist.

Remarks.—*Spelaeomysis villalobosi* is the third species of the genus known for México. *Spelaeomysis quinterensis* (Villalobos-Figueroa, 1951) and *S. villalobosi*,

new species, have similar distribution in northeastern México; and *S. olivae* (Bowman, 1973) is known only from Oaxaca state in southern México. *Spelaeomysis villalobosi* is similar to *S. quinterensis*; the principal differences are listed in Table 1. The seven known species of *Spelaeomysis* may be distinguished by the following key.

Key to the Species of *Spelaeomysis*

1. Eyes with small anteriolateral area of ommatidia 2
 - Eyes without visual elements 3
2. Apical spine of telson about 2× length of 2 flanking spines *S. serratus* (Fage, 1924)
 - Apical spine of telson more than 6× length of 2 flanking spine ... *S. cardisomae* Bowman 1973
3. Eyestalks fused medially, forming single plate *S. longipes* (Pillai & Mariamma, 1963)
 - Eyestalks separate 4
4. Eyestalks produced anterolaterally into subtriangular lobe. 5
 - Eyestalks subquadrilangular, not produced anterolaterally 6
5. Pleopod 4 with L/W 4 segmented exopod; telson about 1.2; lateral margins slightly concave near midlength *S. quinterensis* (Villalobos-Figueroa, 1951)
 - Pleopod 4 with L/W 2 segmented exopod; telson about 1.0; lateral margins evenly convex *S. villalobosi* n. sp.
6. Telson L/W 1.5, with about 20 marginal spinal *S. nuniezi* Bacescu & Orghidan, 1971
 - Telson L/W 1.1–1.2, with about 40 marginal spines *S. olivae* Bowman, 1973

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