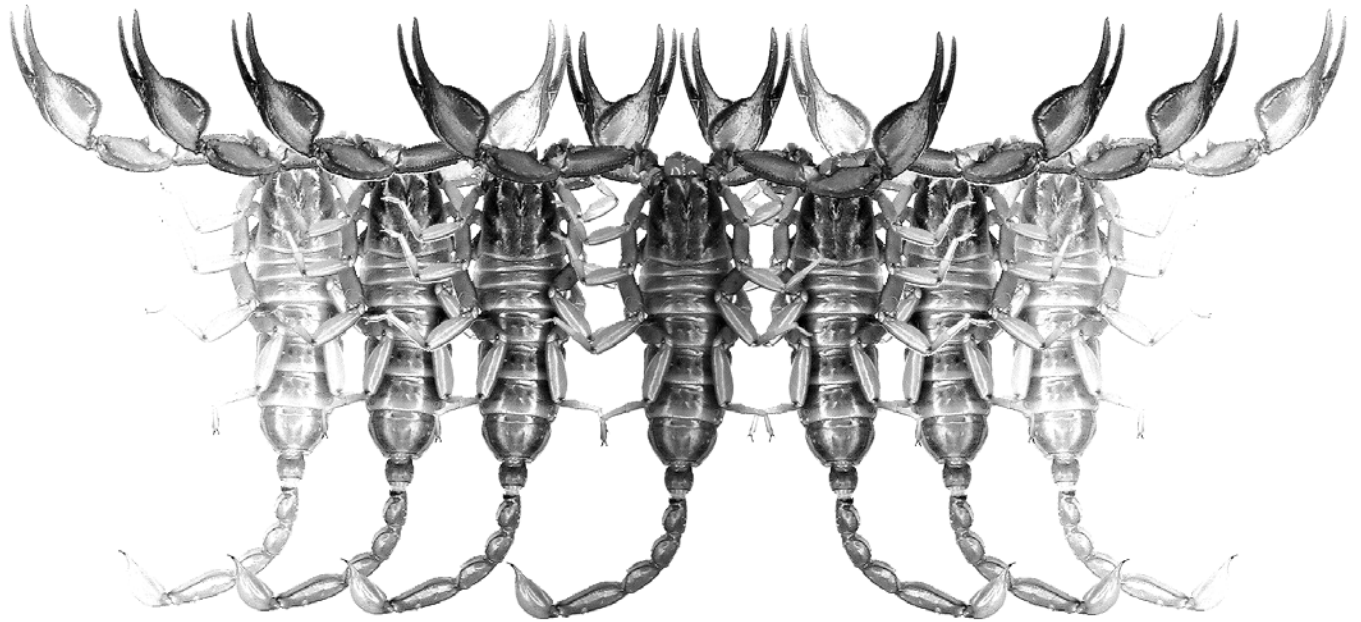


Euscorpilus

Occasional Publications in Scorpiology



**Two New Species of the Genus *Chaerilus* Simon, 1877 from
Malaysia (Scorpiones: Chaerilidae)**

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- **ZISP**, Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia
- **WAM**, Western Australian Museum, Perth, Australia
- **NTNU**, Norwegian University of Science and Technology, Trondheim, Norway

Two new species of the genus *Chaerilus* Simon, 1877 from Malaysia (Scorpiones: Chaerilidae)

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Summary

Two new species of *Chaerilus* are described. *C. ojangureni* sp. n. is most similar to *C. laevimanus* Pocock, 1899, from which it differs in the presence of carinae on the dorsal surface of metasomal segments and in having trichobothrium d_2 situated on the dorsal surface of the patella of pedipalps. *C. sejnai* sp. n. is 16 to 22 mm long, only slightly smaller than *C. celebensis* Pocock, 1894, *C. petrzelkai* Kovařík, 2000 and *C. rectimanus* Pocock, 1899. It is most similar to *C. rectimanus* from Malaysia, whose males however lack a pronounced internal tubercle on the patella of pedipalps. *C. sejnai* sp. n. was bred and raised by the author; data on its ontogeny are included. Both males and females matured after the fourth ecdysis, which took place at the age of 11 months in the males and of 18 months in the females. The female allotype gave birth at the age of 28 months.

Abbreviations

List of depositories: AMNH, American Museum of Natural History, New York, USA; FKCP, Personal collection of František Kovařík, Prague, Czech Republic.

Systematics

Chaerilus ojangureni sp. n. (Figs. 1 and 2, Table 1)

TYPE LOCALITY. **Malaysia**, Selangor, Tanjung Karang env.; FKCP.

TYPE MATERIAL. **Malaysia**, Selangor, Tanjung Karang env., III.1996, 1♂ (holotype), leg. P. Dorsak. The holotype is deposited in the author's collection (FKCP).

ETYMOLOGY: Named after Andrés Affilastro Ojanguren, an Argentine arachnologist who helps me with determinations of South American scorpions and contributes to improving my comparative collection.

DIAGNOSTIC CHARACTERS. Total length of the male holotype is 32 mm. For habitus see Figs. 1 and 2. Measurements of the carapace, telson, segments of the metasoma and segments of the pedipalps, and numbers of pectinal teeth are given in Table 1. The movable

finger of pedipalp has seven cutting edges composed of granules. The fingers are entirely straight even in the male. Trichobothrium d_2 is situated on the dorsal surface of the patella (see fig. 34 in Kovařík, 2000: 59). The chela and patella of pedipalp have six carinae, the femur has three carinae; the chela is reticulated. Pectinal teeth number 5 to 6.

The first and fourth metasomal segments have 10 carinae, the second and third segments have eight carinae. The fifth metasomal segment has nine carinae, of which one ventral carina posteriorly branches to form the letter "Y". All carinae consist of widely spaced rounded granules. All metasomal segments bear two dorsomedian carinae, the second to fourth lack ventral carinae, and the first to third lack ventral carinae. The space between carinae is irregularly granulated.

The carapace is sparsely covered by granules of unequal size. The mesosoma is dorsally granulated but lacks carinae, and its ventral surface is smooth, also without carinae.

AFFINITIES. The described features distinguish *C. ojangureni* sp. n. from all other species of the genus. In the available key (Kovařík, 2000: 69) this new species corresponds to *C. agilis* Pocock, 1899, which however reaches over 47 mm, has entirely different fingers (see Fig. 3), chela of pedipalp with eight carinae and femur of pedipalp with five carinae (*C. ojangureni* sp. n. has six and three), and lacks carinae on the dorsal surface of metasomal segments. Morphologically, *C. ojangureni* sp. n. Appears to be more similar to *C. laevimanus*



Figures 1–2: *Chaerilus ojangureni* sp. n., male holotype: 1. dorsal aspect; 2. ventral aspect.

	<i>Chaerilus sejnai</i> sp. n.		<i>Chaerilus</i> <i>ojuangureni</i> sp.n.
	male holotype	female allotype	male holotype
Total length	16.6	18.4	32.0
Carapace			
length	2.1	2.4	4.6
width	2.2	2.3	4.5
Metasoma and telson			
segment I			
length	8.3	8.8	19.1
width	0.7	0.8	1.9
segment II			
length	1.1	1.2	2.5
width	0.9	1.0	2.2
segment III			
length	1.0	1.0	2.3
width	0.9	1.0	2.4
segment IV			
length	0.9	1.0	2.2
width	1.1	1.1	2.7
segment V			
length	0.9	0.9	2.1
width	1.9	2.0	4.7
telson			
length	0.8	0.9	2.1
Pedipalp			
length	2.6	2.9	5.2
femur			
length	2.0	2.1	3.8
width	0.7	0.7	1.5
patella			
length	2.4	2.2	4.0
width	0.8	0.9	1.6
chela			
length	4.1	4.5	7.9
width	1.2	1.7	2.9
finger mov.			
length	1.9	2.0	3.8
Pectinal teeth	4:4	3:3	5:6

Table 1: Measurements (in millimeters) of type specimens of the new species.

Pocock, 1899 (see Fig. 4), which however also lacks carinae on the dorsal surface of metasomal segments and differs in the position of trichobothrium d_2 on the patella of pedipalp.

Chaerilus sejnai sp. n.

(Figs. 5 and 6, Table 1)

TYPE LOCALITY. **Malaysia**, Tioman Island, near Paya; FKCP.

TYPE MATERIAL. **Malaysia**, Tioman Island, near Paya, IV.2002, 2♂ 7♀ (paratypes), leg. and bred by V. Šejna. Three specimens born on 25.IX.2002 to a female collected at the type locality by V. Šejna. First ecdysis was on 30.IX.2002, following that each specimen was kept separately. They are 2♂ (holotype: second ecdysis 7.III.2003, third ecdysis 6.V.2003, fourth ecdysis 16.VIII.2003; and paratype: second ecdysis 27.II.2003, third ecdysis 27.V.2003, fourth ecdysis 13.VIII.2003) and 1♀ (allotype: second ecdysis 17.IV.2003, third ecdysis 10.VI.2003, fourth ecdysis 10.III.2004; since July 2004 this female kept together with the male holotype, on 29.I.2005 gave birth to 4 offspring). Also part of the type series are 2 juveniles before first ecdysis,

3 juveniles after first ecdysis, 3 second exuviae, 3 third exuviae and 3 fourth exuviae. All types are in the author's collection (FKCP), except of one paratype (a juvenile after first ecdysis), which is at AMNH.

ETYMOLOGY: Named after Vladimír Šejna, who collected the female whose offspring are the type specimens.

DIAGNOSTIC CHARACTERS. Total length is 16 mm to 22 mm. For habitus see Figs. 5 and 6. Measurements of the carapace, telson, segments of the metasoma and segments of the pedipalp, and numbers of pectinal teeth are given in Table 1. The movable finger of pedipalp has seven cutting edges composed of granules. The fingers are straight in both sexes. Trichobothrium d_2 on the patella is situated either directly on the dorsal-internal surface boundary (holotype) (see fig. 36 in Kovařík, 2000: 59) or on the internal surface (allotype). The chela of pedipalp has seven or eight carinae, the patella has five carinae, the femur has four carinae. The patella of pedipalp bears a pronounced internal tubercle, especially in males. Pectinal teeth number 3 (female) or 4 (males). The male has relatively larger pectines and telson, and differs from the female also in the shape of pedipalp manus.

The carinae of metasomal segments consist of large, pointed, widely spaced granules. The first metasomal segment has eight carinae, lacks ventral carinae, and its ventral side is smooth, devoid of granules. The second to fourth segments have six or eight carinae, may or may not have two ventral carinae and lack two lateral carinae. The fifth metasomal segment has seven carinae, of which one ventral carina posteriorly branches to form the letter "Y". The metasoma is smooth between carinae.

The entire carapace and mesosoma are sparsely covered by granules. The ventral side of mesosomal segments is smooth, without carinae.

AFFINITIES. The described features distinguish *C. sejnai* sp. n. from all other species of the genus. *C. sejnai* sp. n. is most similar to *C. celebensis* Pocock, 1894, *C. petrzekai* Kovařík, 2000 and *C. rectimanus* Pocock, 1899. Adults of these species are less than 30 mm long, and *C. sejnai* sp. n. is the smallest of them. *C. sejnai* sp. n. is easily distinguished from *C. petrzekai* (Vietnam), whose metasomal segments are granulose (Fig. 8) including the ventral side of the first metasomal segment (which in *C. sejnai* sp. n. is entirely smooth).

This species is similar to *C. celebensis* from Sulawesi (Celebes), Borneo, and Luzon (Fig. 7), but the female of *C. sejnai* sp. n. has a more inflated and longer manus and a shorter fixed finger of pedipalp. This difference is even more pronounced in the males (see Fig. 5 and figs. 12 and 13 in Kovařík, 2000: 52).

The most similar species is *C. rectimanus* from Malaysia, whose males however lack the pronounced



Figure 3: *Chaerilus agilis* Pocock, 1899, female holotype, dorsal aspect.



Figure 4: *Chaerilus laevimanus* Pocock, 1899, female holotype, dorsal aspect.



Figures 5–6: *Chaerilus sejnai* sp. n.: 5. male holotype, live; 6. female allotype, live with two juveniles before the first ecdysis.



Figure 7: *Chaerilus celebensis* Pocock, 1894, female holotype, dorsal aspect.



Figure 8: *Chaerilus petrzekai* Kovařík, 2000, female holotype, dorsal aspect.



Figure 9: *Chaerilus rectimanus* Pocock, 1899, male from Malaysia, Bukit Fraser, elev. 1500 m, 1.VIII.1999, leg. J. Hromádka, live.

internal tubercle on the patella of pedipalp. Also the shape of the patella and chela of pedipalp are different (see Figs. 5 and 9).

Reference

KOVAŘÍK, F. 2002. Revision of family Chaerilidae (Scorpiones), with descriptions of three new species. *Serket*, 7(2): 38–77.