

***Scorpiops irenae* sp. n. from Nepal and *Scorpiops hardwickei jendeki*
subsp. n. from Yunnan, China (Arachnida: Scorpionida: Vaejovidae).**

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Received February 1, 1994; accepted March 10, 1994
Published August 26, 1994

Taxonomy, descriptions, Scorpionida, Vaejovidae, Scorpiops, Nepal, China.

Abstract. *Scorpiops (Scorpiops) irenae* sp. n. from Nepal differs from other species of the subgenus *Scorpiops* Peters 1861 in the distribution of trichobothria eb on the external surface of the patella and in having only 5-6 pectinal teeth. It is the only species of the genus with merely 3 trichobothria on the ventral surface of the manus. *Scorpiops (Scorpiops) hardwickei jendeki* subsp. n. from Yunnan differs from other subspecies of *S. hardwickei* in the distribution of trichobothria on the chelae and their number (6) on the ventral surface of the patella, and in having only 4, or exceptionally 5, pectinal teeth of distinctly uneven size. It is the first representative of the genus *Scorpiops* reported from the Yunnan Province.

***Scorpiops (Scorpiops) irenae* sp. n. (Figs. 1-6, Table 1)**

HOLOTYPE. A female 51.3 mm long, leg. J. Probst, 7 June 1992, under a dry log, deposited in my collection. No other material.

TYPE LOCALITY. Chichila-Mure, elevation 2050 m, Arun Valley, east Nepal.

ETYMOLOGY. Named after my wife Irena.

DESCRIPTION. The new species is characterized by its dimensions and proportions (Table 1), by the number and distribution of trichobothria on the ventral surface of the manus (Figs. 1-3) and the patella (Figs. 4-6), and by the number of pectinal teeth (Table 1). There are 3 trichobothria on the ventral surface of the manus and 6 on the ventral surface of the patella. The teeth number 6 in the left pectine and 5 in the right pectine. The specimen is black except for the chelae and telson which are dark reddish brown, and tarsomere II which is lighter reddish brown.

AFFINITIES. Vachon (1980) divided the genus *Scorpiops* into four subgenera in two groups and characterized the subgenus *Alloscorpiops* Vachon, 1980 by 10-12 trichobothria on the ventral surface of the manus, and the subgenera *Neoscorpiops* Vachon, 1980, *Scorpiops* Peters, 1861 and *Euscorpiops* Vachon, 1980 by 4 trichobothria on the ventral surface of the manus. *S. irenae* sp. n. is the only species of the genus with merely 3 trichobothria on the ventral surface of the manus (Fig. 3), but due to the numbers and distribution of other trichobothria, I nevertheless regard it as belonging in the subgenus *Scorpiops*.

The distribution of trichobothria eb on the external surface of the patella (Fig. 5) also differentiates *S.(S.) irenae* sp. n. from all other species of the subgenus (cf. Vachon 1980, Tikader & Bastawade 1983, Kovářik 1993).

S. irenae sp. n. is one of the larger of the subgenus (cf. Table 1), reaching a size similar to *S. crassimanus* Pocock, 1899, *S. montanus* Karsch, 1879, *S. petersi* Pocock, 1893 and *S. tibetanus* Hirst, 1911. However, these species have 8, 13-18 and 7 trichobothria, respectively, on the ventral surface of the patella, whereas *S. irenae* sp. n. has only 6 trichobothria in that

position. *S. tibetanus* has 7-8 pectinal teeth (Hirst 1911), whereas *S. irenae* sp. n. has only 5-6.

Scorpiops (Scorpiops) hardwickei jendeki subsp. n. (Figs. 7-13, Table 1)

TYPES. Holotype (a female) and five paratypes (females nos. 1-5), all leg. E. Jendek and O. Sausa 14-21. VI. 1993. Paratype no. 1 has been deposited in the invertebrate zoology collection of the Czech National Museum (Natural History), Prague; all other types are in my collection.

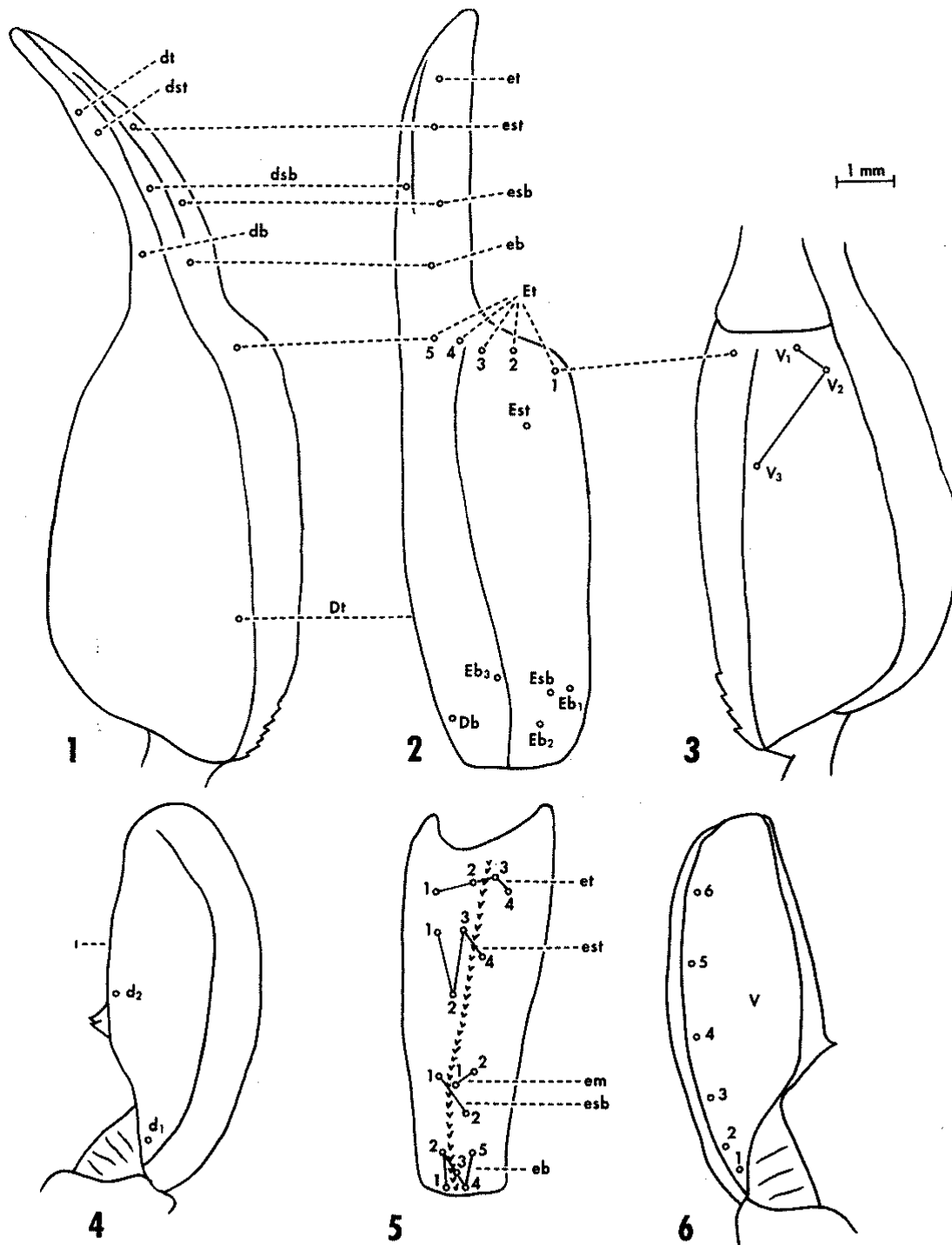
TYPE LOCALITY. Gaoligongshan Nature Reserve 100 km west of Baoshan, Yunnan Province, China. The holotype and paratypes are from the same locality.

ETYMOLOGY. Named after the Slovak entomologist Eduard Jendek, who has collected a majority of the specimens.

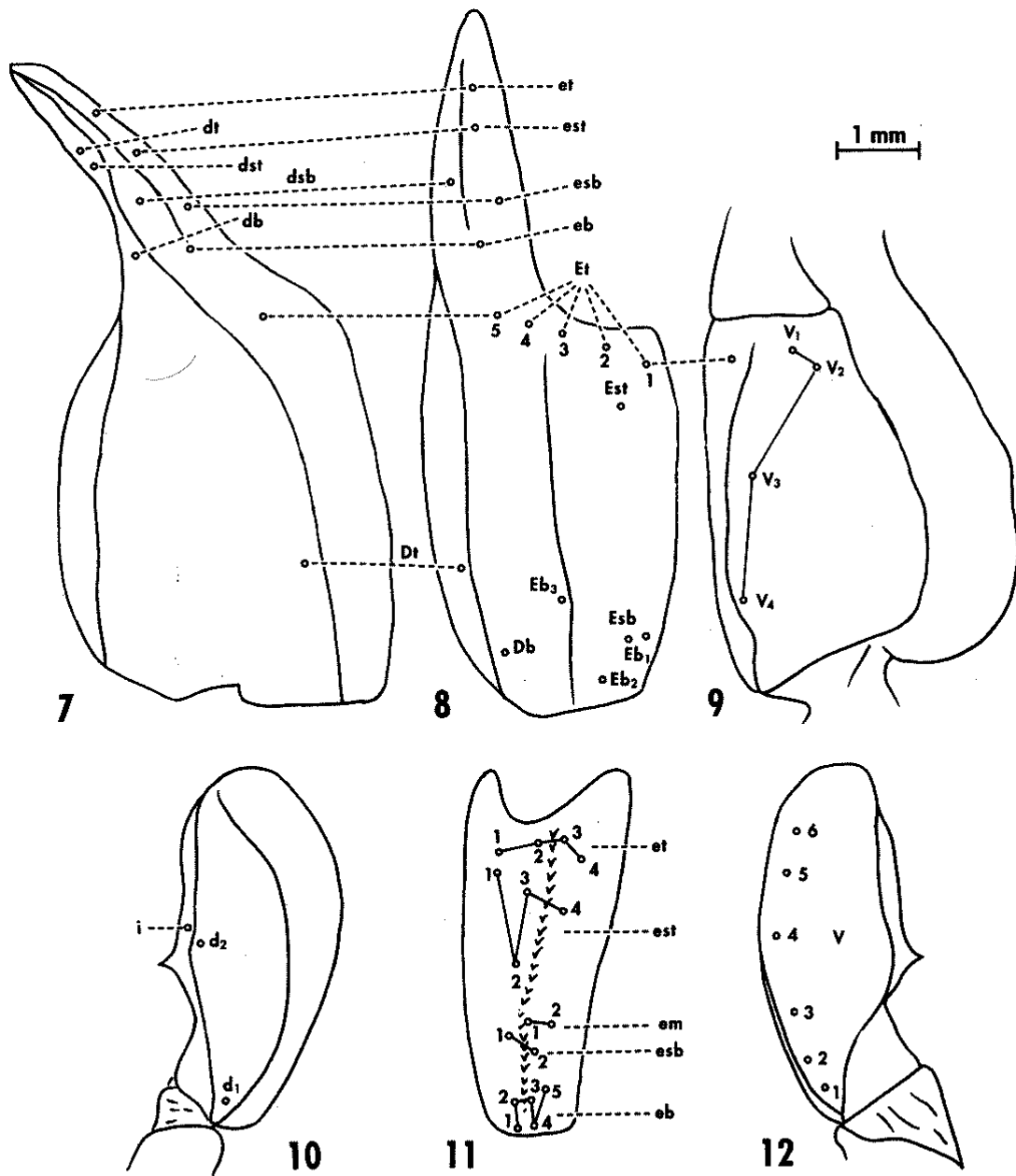
DESCRIPTION. The new subspecies is characterized by its dimensions (Table 1), by the distribution of trichobothria on the chelae (Figs. 7-9) and their number on the ventral surface of the

Table 1. Measurements in millimeters of the species described. Column denoted 'Pectinal teeth' contains numbers of both left and right teeth separated by a colon

		<i>S.(Scorpiops)</i> <i>irenae</i> sp. n. holotype	<i>S.(Scorpiops)</i> <i>hardwickei</i> <i>jendeki</i> ssp. n. holotype	<i>S.(Scorpiops)</i> <i>hardwickei</i> <i>jendeki</i> ssp. n. paratype no.4
Total	length	51.3	42.1	37.9
Carapace	length	7.3	5.1	4.7
	width	7.8	5.9	5.5
Metasoma segment I	length	25.2	20.1	18.2
	length	2.5	2.1	1.9
segm. II	width	3.1	2.6	2.4
	length	3.0	2.5	2.2
segm. III	width	2.6	2.3	2.1
	length	3.3	2.6	2.4
segm. IV	width	2.2	2.1	2.0
	length	3.8	3.1	2.8
segm. V	width	2.2	2.1	1.9
	length	6.2	5.4	4.7
telson	width	2.2	2.0	1.8
	length	6.4	4.8	4.5
Pedipalp femur	length	7.5	4.2	3.9
	width	2.5	1.6	1.5
patella	length	7.0	4.4	4.0
	width	2.7	1.8	1.7
tibia	length	14.1	8.3	7.9
manus	length	8.6	5.1	4.8
	width	4.5	3.8	3.6
finger m.	length	7.5	4.6	4.5
Pectinal	teth	6:5	4:4	4:4



Figs 1-6. *Scorpiops (Scorpiops) irenae* sp. n. female holotype. In Figs 1-3 the first capital letters denote trichobothria on the manus; the first lower case ones are those situated on the fixed finger of the pedipalp. Figs 4-6 show the distribution of trichobothria on the patella of the pedipalp. Explanation: First letters: V, ventral; D, dorsal; E, external. Second or second plus third letters: b, basal; sb, suprabasal; m, medial; st, subterminal; t, terminal. Numerals distinguish individual trichobothria of the same classification. Designation and description of trichobothria according to Vachon (1973, 1980).



Figs 7-12. *Scorpiops (Scorpiops) hardwickei jendeki* subsp. n. holotype. In Figs. 7-9 the first capital letters denote trichobothria on the manus; the first lower case ones are those situated on the fixed finger of the pedipalp. Figs 10-12 show the distribution of trichobothria on the patella of the pedipalp. Explanation: First letters: V, ventral; D, dorsal; E, external. Second or second plus third letters: b, basal; sb, suprabasal; m, medial; st, subterminal; t, terminal. Numerals distinguish individual trichobothria of the same classification. Designation and description of trichobothria according to Vachon (1973, 1980).

patella (Figs. 10-12), and by the number and respective sizes of the pectinal teeth (Table 1, Fig. 13). There are 6 trichobothria on the ventral surface of the patella and 4, or exceptionally 5, pectinal teeth of uneven size. The specimens are black except for the chelae and telson which are reddish brown, and tarsomere II which is yellow to orangish yellow on all legs.

VARIABILITY. Compared with the holotype, in three of the paratypes the distribution of trichobothria on the external surface of the patella (Fig. 11) is somewhat different and in one the trichobothria are absent. However, in all of them this concerns either only the left or right pedipalp, not both in the same specimen. Paratype no. 2 lacks trichobothria esb on the right pedipalp. Paratype no. 3 has trichobothrium est 1 on the left pedipalp out of position, nearly touching trichobothrium et 1. Paratype no. 4 has trichobothrium em 2 on the left pedipalp out of alignment

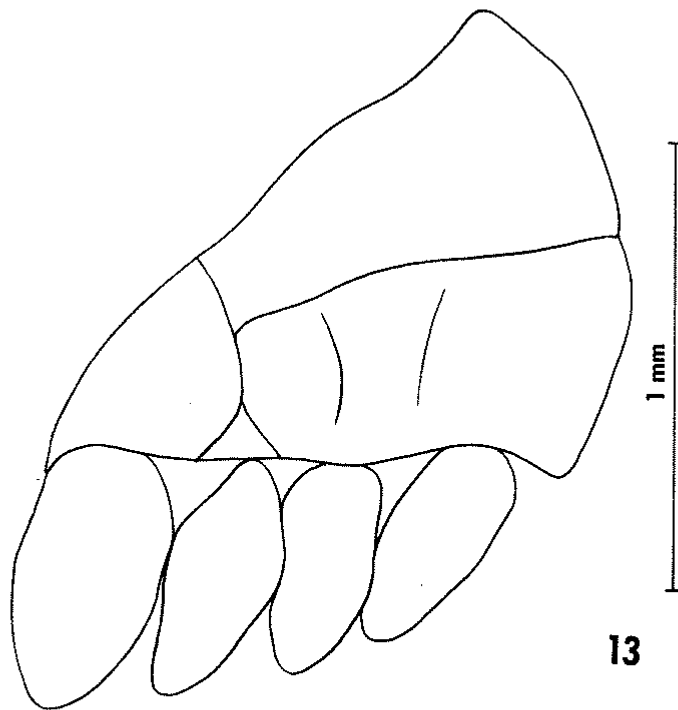


Fig. 13. *Scorpiops (Scorpiops) hardwickei jendeki* subsp. n. Pectinal teeth.

so that the line between em 1 and em 2 runs parallel to the esb 1 - esb 2 line; this paratype also has the apex of the outermost pectinal tooth split into two tips, but the split does not reach anywhere near the tooth base. Paratype no. 5 has trichobothrium est 4 on the right pedipalp situated closer to et 4 than in the holotype, whereas em 2 is in the same position as in paratype no. 4; this paratype (no. 5) is the only specimen that has 5 teeth in the left pectine.

AFFINITIES. Species of the subgenus *Scorpiops* are best distinguished by the number of trichobothria on the ventral surface of the patella. The numbers are as follows: 13-18 in *S. montanus* Karsch, 1879 (Vachon 1980), 10 in *S. pachmarhicus* Bastawade, 1992 (Bastawade 1992), 9 in *S. oligotrichus* Fage, 1933 and *S. farkaci* Kovařík, 1993 (Kovařík 1993), 8 in *S. crassimanus* Pocock, 1899 (Tikader & Bastawade 1983), 7 in *S. leptochirus* Pocock, 1893 (Tikader & Bastawade 1983), *S. petersi* Pocock, 1893 (Pocock 1893), *S. rohtangensis* Mani, 1959 (Mani 1959) and *S. tibetanus* Hirst, 1911, and 6-7 in *S. hardwickei* Gervais, 1844.

Kraepelin (1913) placed *S. affinis* Kraepelin, 1898 and *S. insculptus* Pocock, 1900 as subspecies in *S. hardwickei*, and Vachon (1980) concurred with that assignment. Tikader & Bastawade (1983) did not accept Kraepelin's (1913) subspecies, and, moreover, placed *S. austerus* Hirst, 1911 into synonymy of *S. affinis* (= *S. h. affinis*). The subspecies *S. h. insculptus* invariably has 7 trichobothria on the ventral surface of the patella (Hirst 1911, Tikader & Bastawade 1983); the remaining subspecies have 6-7 trichobothria in that position.

Scorpiops hardwickei jendeki subsp. n. differs from other subspecies of *S. hardwickei* in having only 4, or exceptionally 5, pectinal teeth of distinctly uneven size (Fig. 13). Tikader & Bastawade (1983) used the length/width ratio of pectinal teeth to differentiate between *S. hardwickei* and *S. insculptus* (= *S. h. insculptus*), with the teeth 2.75 times longer than wide in the former and only twice longer than wide in the latter. In *S. h. jendeki* subsp. n. the first (medial) pectinal tooth is 1.38-1.75 times longer than wide and the fourth lateral tooth is 1.4-1.9 times longer than wide. Other differences can be seen in individual dimensions (Table 1), distribution of trichobothria (Figs. 7-12) and the papers cited.

S. h. jendeki subsp. n. is the first representative of the genus *Scorpiops* reported from the Yunnan Province.

Acknowledgements

I would like to express my thanks to Jiří Zidek (New Mexico Bureau of Mines & Mineral Resources, Socorro, USA) for helping me with this paper.

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