A new species of the genus *Sinanapis* (Ananeae: Anapidae) from Lam Dong Province, southern Vietnam

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ABSTRACT Contrib. Nat. Hist: 12: 1021–1028.

A new species of the genus *Sinanapis* Wunderlich & Song, 1995, belonging to the family Anapidae sensu lato, including Micropholcommatidae (Arachnida, Araneae), is described from Lang Biang, Lam Dong Province, southern Vietnam, under the name of *Sinanapis thaleri* sp. nov. Details of its palpal organ are illustrated. Because the spiders of *Sinanapis* were hitherto known only from China, the genus is recorded for the first time from Vietnam.

Introduction

Through the Entomological Expeditions to Vietnam (1995–2003) made by the National Science Museum, Tokyo (NSMT), in partnership with the Institute of Ecology and Biological Resources, Hanoi (IEBR), many specimens of insects and spiders were collected and offered for taxonomical studies.

Based on a part of these specimens, the present author has continued studying spiders of various families from this country. The present paper reports on the result of a study on a tiny spider of the family Anapidae obtained from Lam Dong Province including an interesting mountainous area in southern Vietnam (Hogg 1922; Ono 2002, 2004).

Material and Methods

A single male specimen used for this study was collected sifting soil litter in the mountainous region in southern Vietnam by Dr. S. Nomura. The specimen preserved in 76% ethanol was examined and measured under a stereomicroscope (Leica MZ16). Its pro- and opisthosomata and the details of the palpal

organ were illustrated. On the basis of the result of the above examination, the spider was recognized as new to science by comparison with descriptions of known species of the genera *Textricella* Hickman, 1945 and *Sinanapis* Wunderlich & Song, 1995 (Hickman 1945; Forster 1955, 1959, 1964; Wunderlich & Song 1995).

The specimen is designated as the holotype with the following data: Mt. Lang Biang, 1900 m alt. near peak, Da Lat, Lam Dong Province, Vietnam, 2-VI-2002, S. Nomura leg. Hogg (1922) recorded 20 species of spiders of several families based on the collection made by C. Boden Kloss in 1918 from the type area of the present new spider. However, no anapid was included in that report and no further record of any spider was made from this area since that time.

Thus, the new species is described in the following lines. The type specimen of the new species described herein is deposited in the collection of the Department of Zoology, National Science Museum, Tokyo, in the joint ownership between NSMT and IEBR.

Abbreviations:

The abbreviations of morphological terms used in the present paper are as follows:

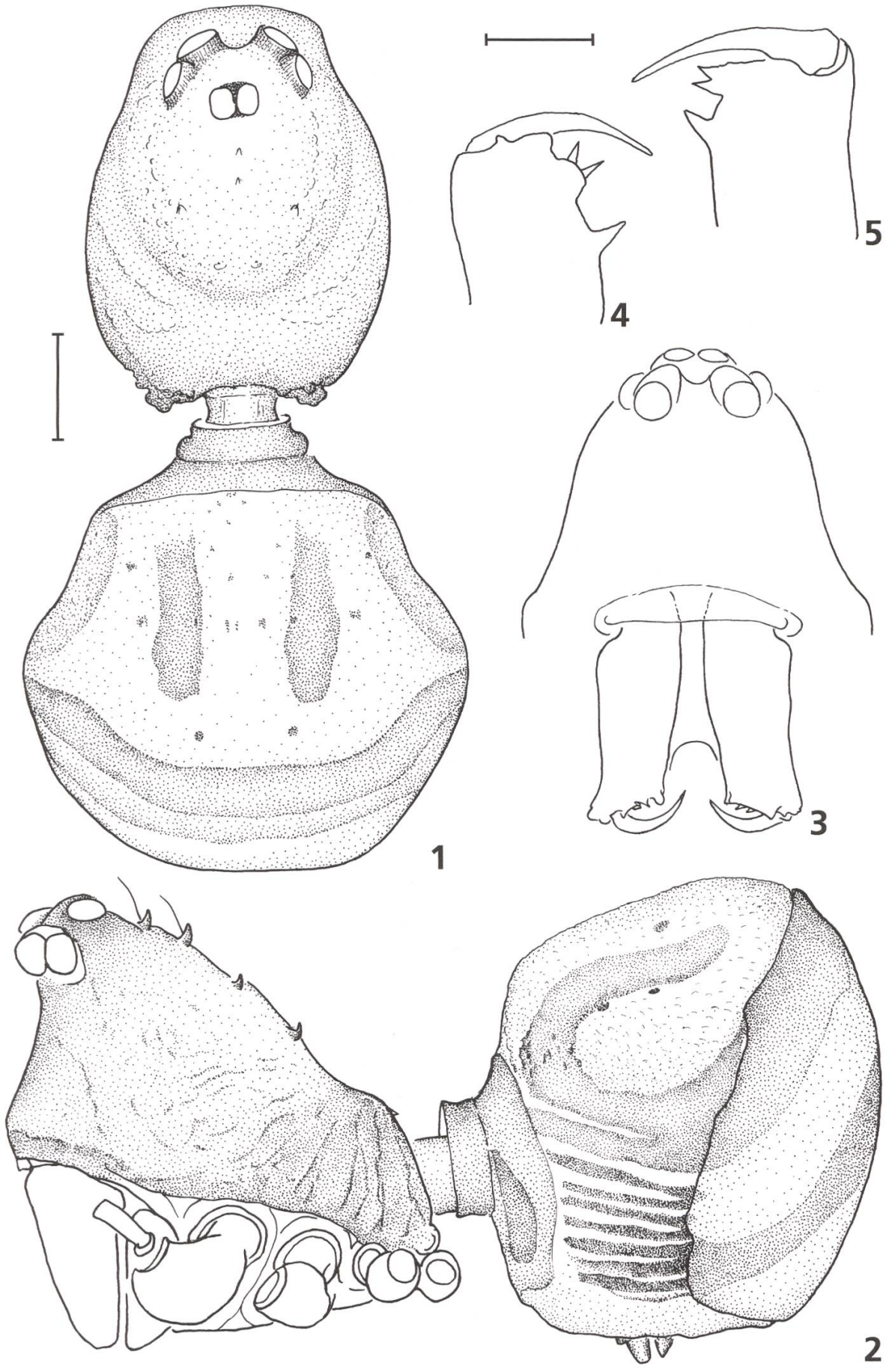
ALE	anterior lateral eye
AME	anterior median eye
PLE	posterior lateral eye
PME	posterior median eye

Description (based on the holotype male)

Family Anapidae sensu lato (including Micropholcommatidae)

***Sinanapis thaleri* sp. nov.** (Figs. 1–14)

Diagnosis: This new species is first assumed as a member of the genus *Textricella* Hickman, 1945, mainly by the presence of a modified patella of the male palp, and resembles *T. parva* Hickman, 1945 from Tasmania and *T. complexa* Forster, 1959 from Australia. These species have a complicated structure of the male palpal patella with a grater-like apophysis with many minute



Figs. 1–5. *Sinanapis thaleri* sp. nov. – 1: Body, dorsal view; – 2: Body, lateral view; – 3: Prosoma, frontal view; – 4: Left chelicera, dorsal view; – 5: Left chelicera, ventral view. (Scales for Figs. 1–3, 0.2 mm; for Figs. 4–5, 0.1 mm).

teeth. However, this new species can be easily distinguished from these by the simple and filiform embolus (Figs. 10–11), the eye-arrangement (Fig. 1) and the shape of the chelicera (Figs. 3–5). The new species is more closely related to *Sinanapis crassitarsus* recently described by Wunderlich & Song (1995) from Southwest China, but differs from the latter in the details. Other than genital features, the new spider resembles the Chinese species by the arrangement of the eyes in three groups, the condition of the chelicera with large teeth and the presence of a distinct posterior plate of the opisthosoma.

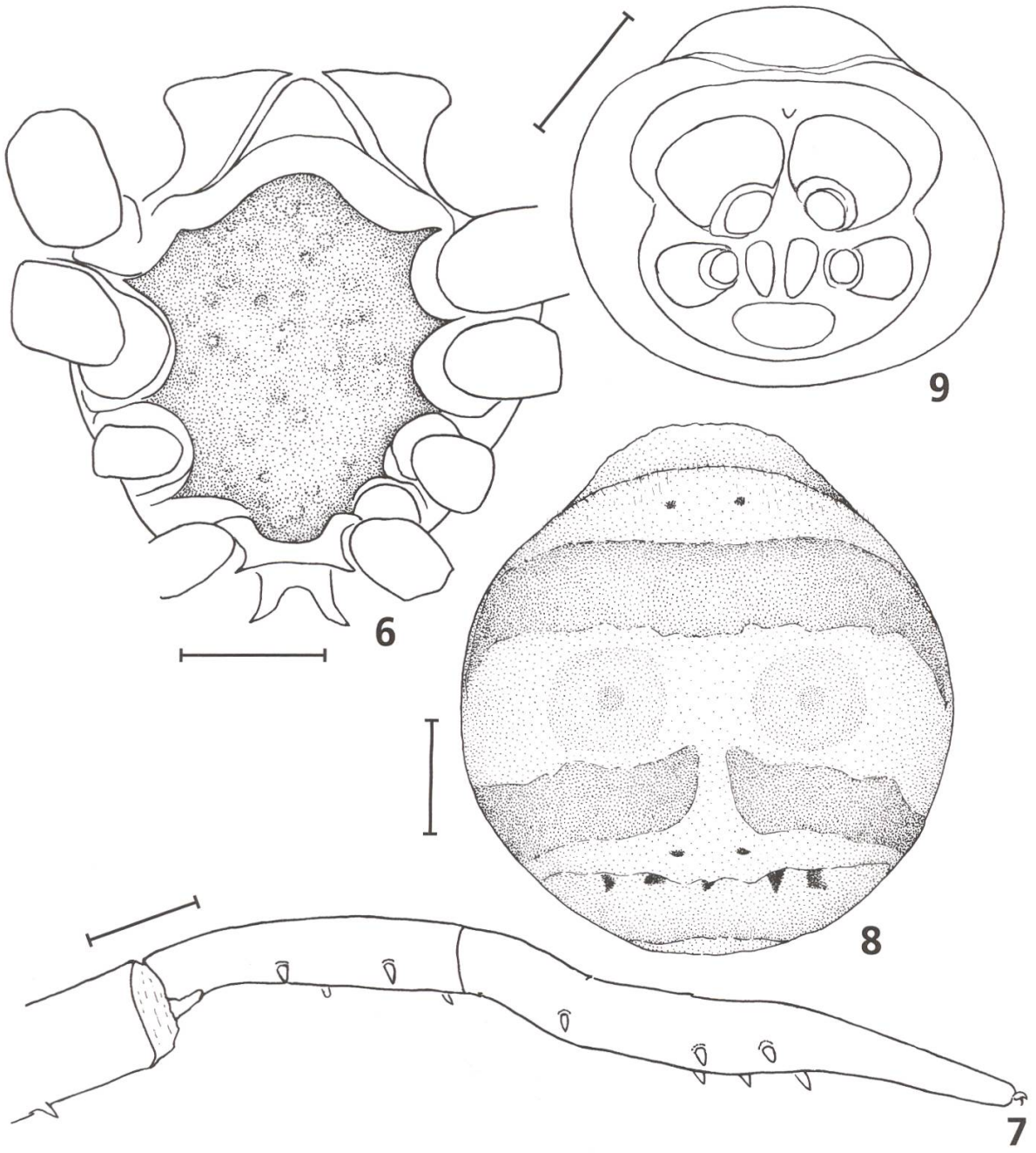
Type specimen: Holotype: male, from Mt. Lang Biang, 1900 m alt. near peak, Da Lat, Lam Dong Province, Vietnam, 2-VI-2002, S. Nomura leg. (NSMT-Ar 5960).

Measurement: Body length 1.69 mm; prosoma length 0.79 mm, width 0.62 mm, height 0.71 mm; opisthosoma length 0.85 mm, width 0.85 mm, height 0.96 mm; lengths of legs [total length (femur + patella + tibia + metatarsus + tarsus)]: I 2.71 mm (0.86 + 0.31 + 0.72 + 0.28 + 0.54), II 2.13 mm (0.67 + 0.26 + 0.50 + 0.25 + 0.45), III 1.50 mm (0.44 + 0.18 + 0.31 + 0.20 + 0.37), IV 1.86 mm (0.59 + 0.20 + 0.43 + 0.24 + 0.40).

Prosoma (Figs.1–6): Carapace longer than wide (length/width 1.27), very high (height/width 1.15), highest at the ocular area, without setae. Median furrow absent, surface of carapace strongly sclerotized with reticulation forming radial lines, six teeth, 1-1-2-2 in order, present in the cephalic part behind the eyes, base of pedicel forming a collar. Eyes set in three groups (Fig. 1), six in number, AME lacking, the posterior eye-row re-curved in dorsal view. Both lateral eyes close to each other, all eyes similar in size, but ALE seems to be slightly larger than the others, ALE-ALE sub-equal to their diameter, longer than PME-PLE, clypeus wide (Figs. 2–3), much longer than ALE-ALE (15:4). Chelicerae with three large teeth on the retro-margin of the fang furrow, the distal two teeth on a common protuberance (Figs. 4–5), labium fused with anterior margin of sternum, wider than long, maxillae distally wide and obtuse, sternum strongly sclerotized and grained, longer than wide (8:6)(Fig. 6).

Legs: patellae of legs III–IV with a long, apico-dorsal spine, respectively; tibiae III–IV dorsally with a long spine; metatarsus shorter than patella in legs I–II; metatarsus and tarsus of leg I with several ventral, conical spines (Fig. 7); tarsal claws of the legs without distinct teeth. Leg formula: I-II-IV-III.

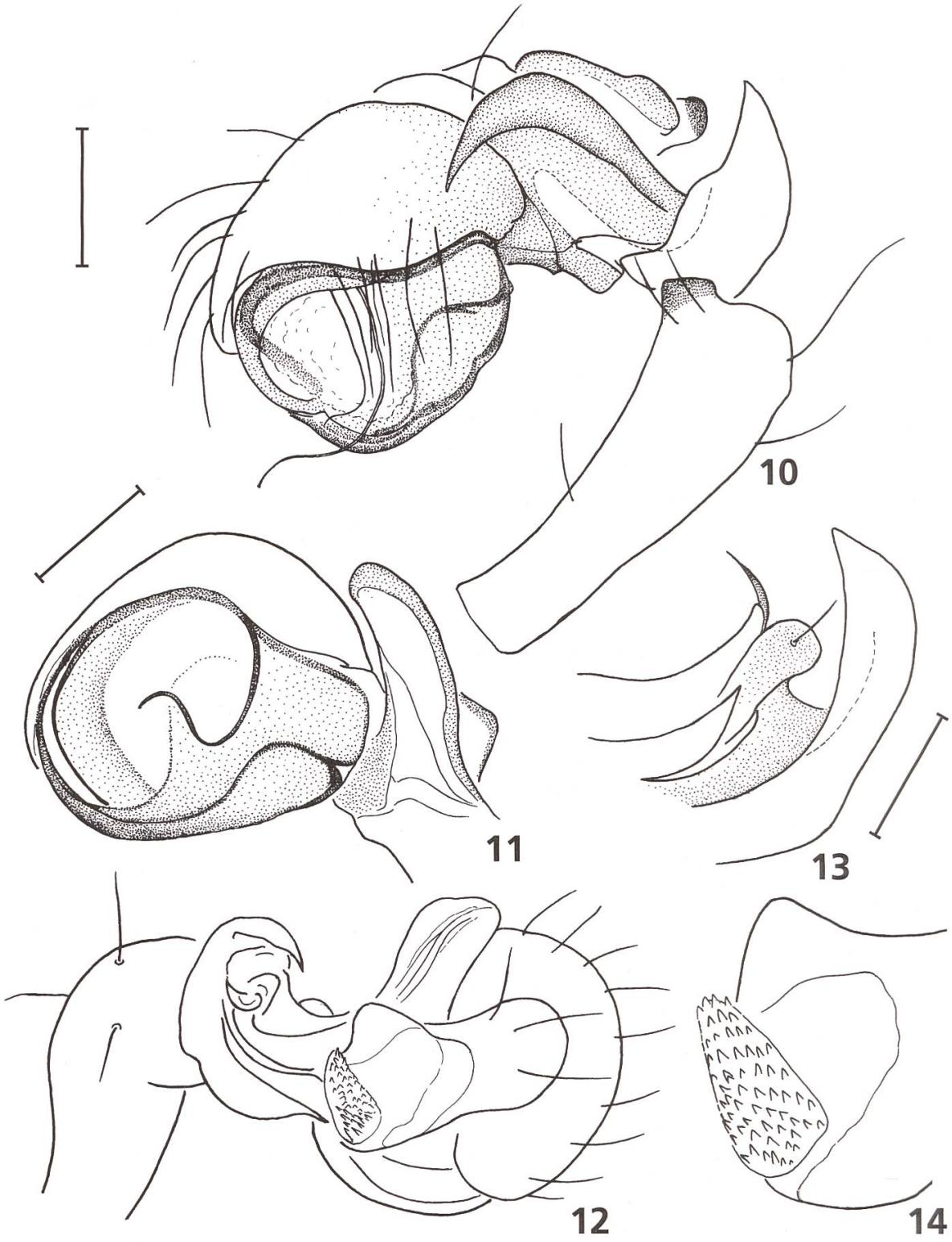
Male palp (Figs. 10–14): Femur simple with a few long hairs, without any apophysis, distal margin slightly sclerotized; patella extremely modified, with a large, dorsal apophysis and a complicated process (Fig. 13) and a grater-like apophysis with many teeth on dorsal surface (Fig. 14); tibia not clearly recognizable. Cymbium short and simple, palpal organ fitted in the cymbium, conductor absent, embolus distally filiform (Figs. 10–11).



Figs. 6–9. *Sinanapis thaleri* sp. nov. – 6: Prosoma, ventral view, without appendages; – 7: Tarsus and metatarsus of leg I, ventral view; – 8: Sclerotized plate of opisthosoma, posterior view; – 9: Spinnerets, ventral view. (Scales for Figs. 6 & 8, 0.2 mm; for Figs. 7 & 9, 0.1 mm).

Opisthosoma (Figs. 1–2, 8–9): as long as wide, very high, with a firm collar, the posterior part covered by a large plate rounded and sclerotized (Fig. 8), the surface of the plate relatively smooth and transparent. Anterior spinnerets and posterior lateral spinnerets thick and conical, posterior median spinnerets small but visible, colulus present but indistinct (Fig. 9). Venter of opisthosoma very narrow, cover of booklung distinct, but booklung replaced by trachea and without lung slit, posterior trachea seems to be lacking.

Coloration and markings (Figs. 1–2, 8): Carapace and chelicerae dark reddish brown, shiny, maxillae and labium reddish brown, sternum reddish brown



Figs. 10–14. *Sinanapis thaleri* sp. nov. – 10: Male palp, retrolateral view; – 11: Palpal organ, ventral view; – 12: Palpal patella, dorsal view; – 13: Peculiar process on palpal patella, prolateral view; – 14: Grater-like apophysis on palpal patella, dorsal view. (Scales for Figs. 11–12, 0.1 mm; for Figs. 13–14, 0.05 mm).

with black reticulum, femur of palp yellow, palpal organ reddish brown, femora I and II reddish brown, other segments of legs yellowish brown. Opisthosoma dorsally reddish brown, its posterior plate amber with black marking (Fig. 8).

Distribution: Vietnam (at present known only from the type locality).

Etymology: The specific name is dedicated to the late Dr. Konrad Thaler in memory of his contribution to the study of various spiders mainly from the European Alps.

Remarks: The position of the genus *Textricella* in the phylogeny of Araneoidea is not clear. Although Forster & Platnick (1981) at first used Textricellidae established by Hickman (1945) with *Textricella* as the type genus, they regarded the small family as a junior synonym of Micropholcommatidae Hickman, 1943, after a few years (Platnick & Forster 1986). The family Micropholcommatidae is characterized by the presence of a cheliceral gland mound and the condition of booklungs and tracheae, and the modified shape of the male palpal patellae. That included several genera known only from the Australian Region and South America, but spiders of the group should occur also in Asia as evidenced by the species of *Sinanapis* and *Enielkenie acaroides* Ono, 2006, recently recorded from Taiwan (Ono, Chang & Tso 2006). The present author, however, treats the family Anapidae Simon, 1895, in a broadest sense including micropholcommatids, following Schütt (2003) and Wunderlich (2004), until more information about these spiders, especially those from Asia, will emerge.

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