

## Occurrence of a Heptatheline Spider (Araneae, Liphistiidae) in Lam Dong Province, Vietnam

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**Abstract** A new species of the subfamily Heptathelinae (Araneae, Liphistiidae) is described from Lam Dong Province in the southern part of Vietnam under the name of *Songthela australis* sp. nov. With this record, the southern limit of distributional range of heptatheline spiders is moved to the southernmost part of Indochina.

**Key words:** Taxonomy, new species, Araneae, Liphistiidae, Heptathelinae, Vietnam.

### Introduction

Four species of two genera of the subfamily Heptathelinae were hitherto known from Vietnam, that is, *Abcathela abca* (Ono, 1999) from Yen Bai Province (Yen Bai), *Abcathela tomokunii* (Ono, 1997), comb. nov. [erroneously omitted in my previous paper (Ono, 2000)], from Vinh Phu Province (Tam Dao), *Vinathela tonkingensis* (Bristowe, 1933), from Bac Giang Province (Song Luc Nam) and *Vinathela cucphuongsensis* (Ono, 1999) from Ninh Binh Province (Cuc Phuong). All these species were recorded from the northern part of Vietnam and the southern limit of their distributional range was laid on Cuc Phuong National Park in Ninh Binh Province (20°15'N in the latitude), with the occurrence of *Vinathela cucphuongsensis* (Ono, 1999, 2000 and 2001).

In 2002 (May–June), I had an opportunity to participate in an entomological expedition in Vietnam made by the National Science Museum, Tokyo (NSMT), in collaboration with the Institute of Ecology and Biological Resources (IEBR), National Center for Natural Science and Technology, Hanoi.

During this expedition, several specimens of a heptatheline spider were obtained from a village near Bao Loc (11°30'N) in Lam Dong Province, southern Vietnam. After a careful examination,

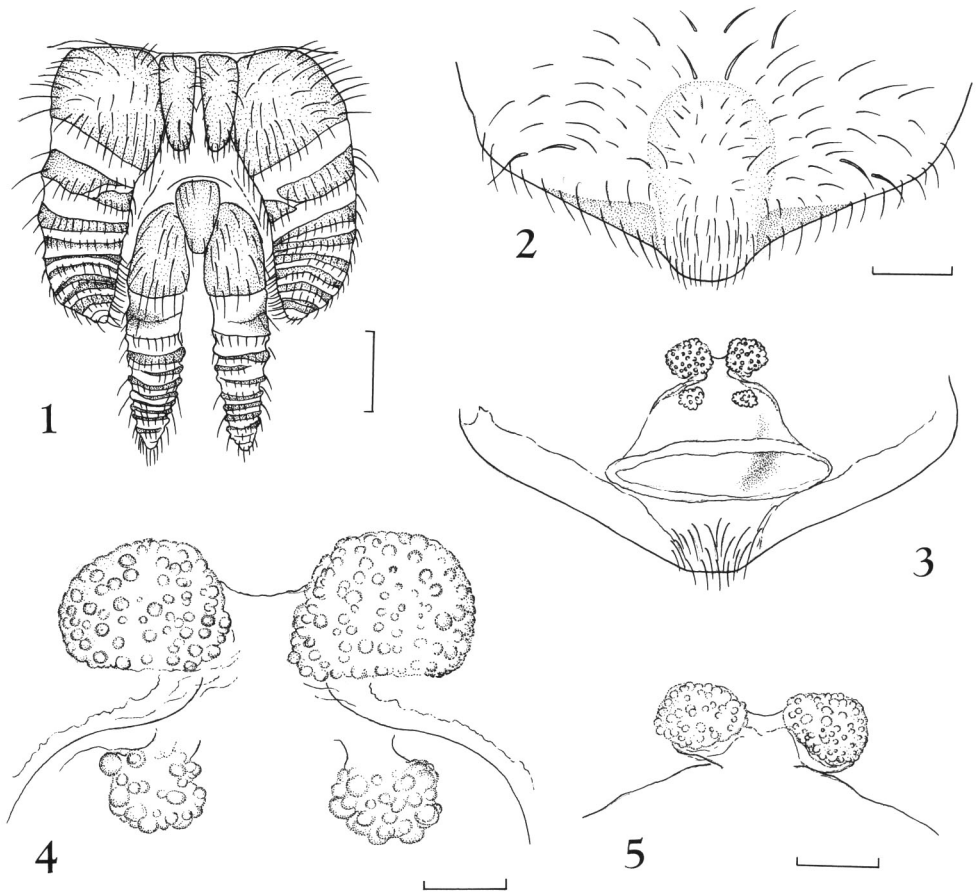
the spider was recognized as a new species of the genus *Songthela* Ono, 2000, hitherto known only from eastern China.

Besides, the discovery of the spider indicates that the real distributional range of the subfamily Heptathelinae should be moved much southward from that of the former knowledge. Although distributional ranges of two liphistiid subfamilies, Liphistiinae and Heptathelinae, seem to show an allopatry (Ono, 1990), no record of spiders in question has been known from Laos and Cambodia, the boundary area of both groups.

The eastern part of Thailand is wholly covered by liphistiine spiders (Ono & Schwendinger, 1990; Schwendinger, 1996); and the occurrence of heptatheline spiders in northern and southern Vietnam was recognized herewith. These facts suggest that the area along the River of Mekong may play an important role as a boundary between ranges of the two subfamilies.

The interesting, new species from Vietnam will be described in the present paper. The holotype and two paratypes are deposited in the collection of the Department of Zoology, National Science Museum, Tokyo (NSMT), and a paratype is deposited in the Institute of Ecology and Biological Resources (IEBR), Hanoi.

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Figs. 1–5. *Songthela australis* sp. nov., female holotype from Lam Dong Province, Vietnam (NSMT-Ar 5225).—1, Spinnerets, ventral view; 2, genital area, ventral view; 3, female genitalia, cleared, dorsal view; 4, spermathecae, dorsal view; 5, main bursae of spermathecae, ventral view. [Scales: 1–3, 1 mm; 4, 0.25 mm; 5, 0.5 mm.]

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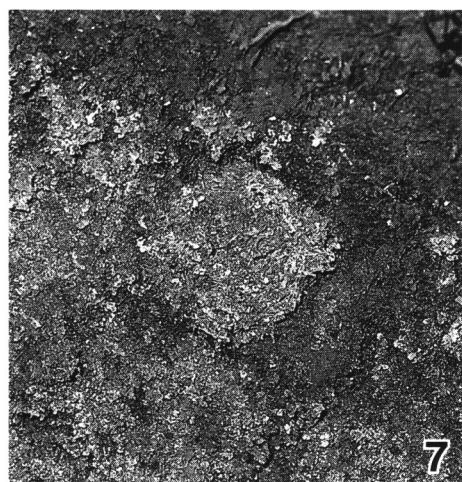
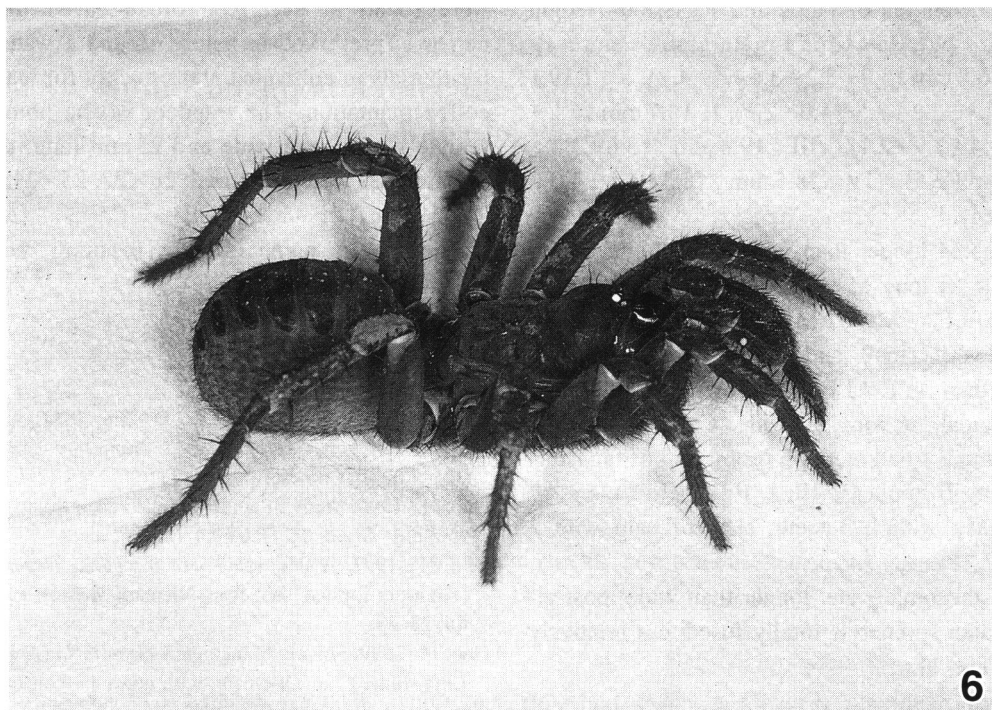
Family Liphistiidae Thorell, 1869

Subfamily Heptathelinae Kishida, 1923

***Songthela australis* sp. nov.**

(Figs. 1–8)

*Diagnosis.* This new species closely resembles *Songthela hangzhouensis* Chen, Zhang et Zhu, 1981, known from Zhejiang and Hunan Provinces, East China (Song & Haupt, 1984; Song, Zhu & Chen, 1999). Both the species has a same construction of female genitalia, especially in the condition of median (posterior) bursae (cf. Fig. 4 of the present paper and Song & Haupt, 1984, p. 447, fig. 3c–d). However, these bursae of *Songthela australis* are larger and more devel-



Figs. 6–8. *Songthela australis* sp. nov.—6, Body of a female paratype (NSMT-Ar 5226), lateral view; 7, retreat with a trapdoor closed; 8, trapdoor leaving open. [Body length, 17.0 mm; trapdoor, 24 mm wide and 19 mm long.]

oped than those of the latter species.

*Specimens examined.* Holotype: ♀, Dambri, altitude 800 m, near Bao Loc, Lam Dong Province, about 200 km NE from Ho Chi Minh City, Vietnam, 11°30'N, 108°E, 29–V–2002, H. Ono leg. (NSMT-Ar 5225); 3 ♀, paratypes, with 9

non-type juveniles, from the type locality, 29–30–V–2002 (NSMT-Ar 5226–5230).

*Description* (based on the female holotype; male unknown). Measurements. Body length 22.5 mm; prosoma length 10.7 mm, width 9.1 mm; opisthosoma length 11.6 mm, width

9.8 mm; lengths of palps and legs [total length (femur + patella + tibia + metatarsus + tarsus)]: palp 16.8 mm (5.9+3.2+3.5+—+4.2), leg I 19.1 mm (6.3+3.2+3.5+4.0+2.1), II 18.7 mm (6.1+3.2+3.4+3.9+2.1), III 19.3 mm (5.6+3.4+3.2+4.6+2.5), IV 28.5 mm (8.3+5.1+4.0+7.7+3.4).

Prosoma longer than wide, head high; ocular tubercle as long as wide, its diameter 1.30 mm, ALE>PLE>PME>AME (nearly 33 : 27 : 17 : 2), AME very small and hardly visible, clypeus wider than ALE-ALE (9 : 4), median ocular area trapezoidal, as long as wide. Chelicera with 7 large and 2 small teeth on promargin of fang furrow. Leg formula IV, III, I, II; superior claws of tarsi each with 2–3 teeth, claw of palp with 2 teeth.

Opisthosoma ovate, longer than wide; posterior median spinnerets totally fused, but relatively large (Fig. 1).

Female genitalia (Figs. 2–5). Two pairs of spermathecae present; main bursae large and developed and close to each other; median ones moved to the posterior position near the base of main bursae.

Coloration and markings (Fig. 6). Prosoma dark brown, ocular tubercle black; chelicera proximally and ventrally orange, distally blackish brown, fang black; sternum, legs and palps dark brown. Opisthosoma dark yellowish brown, dorsal sclerites darker; ventral sclerites and spinnerets yellowish brown.

*Variation.* Body length of the paratypes: 15.2–17.5 mm. A female paratype is much darker than the holotype; other two females are yellowish.

*Distribution.* Known only from the type locality. This record indicates the southern limit of the distributional range of spiders of the subfamily Heptathelinae known at the present.

*Remarks.* Retreats (Figs. 7–8) of spiders

were found in evergreen broad-leaved forests narrowly preserved in nature around a waterfall for tourists in cultivated areas mainly for tea and coffee plantation. The trapdoor of the holotype female was 33 mm wide and 25 mm long; those of paratypes were measured: 26×22, 25×21, and 24×19 mm.

The species name is Latin meaning “southern.”

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