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On the Nest of *Stenopsocus externus* BANKS (Psocoptera: Stenopsocidae)^{1), 2)}

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Key words: *Stenopsocus externus*; Stenopsocidae; Psocoptera; nest; behavior.

In this paper, we report the nest of *Stenopsocus externus* BANKS from Guizhou, China.

Some taxonomic groups of the Psocoptera are known to weave silk nests or webs. As NEW (1987) mentioned, this behavior is widely spread in various psocid groups, for example *Caecilius* (Caeciliusidae), *Pseudocaecilius* (Pseudocaeciliidae), *Ectopsocus* (Ectopsocidae), *Reuterella* (Elipsocidae) and *Psoculus* (Mesopsocidae). In the genus *Stenopsocus*, JENTSCH (1938) reported that *S. stigmaticus* and *S. immaculatus* often stay under a web together.

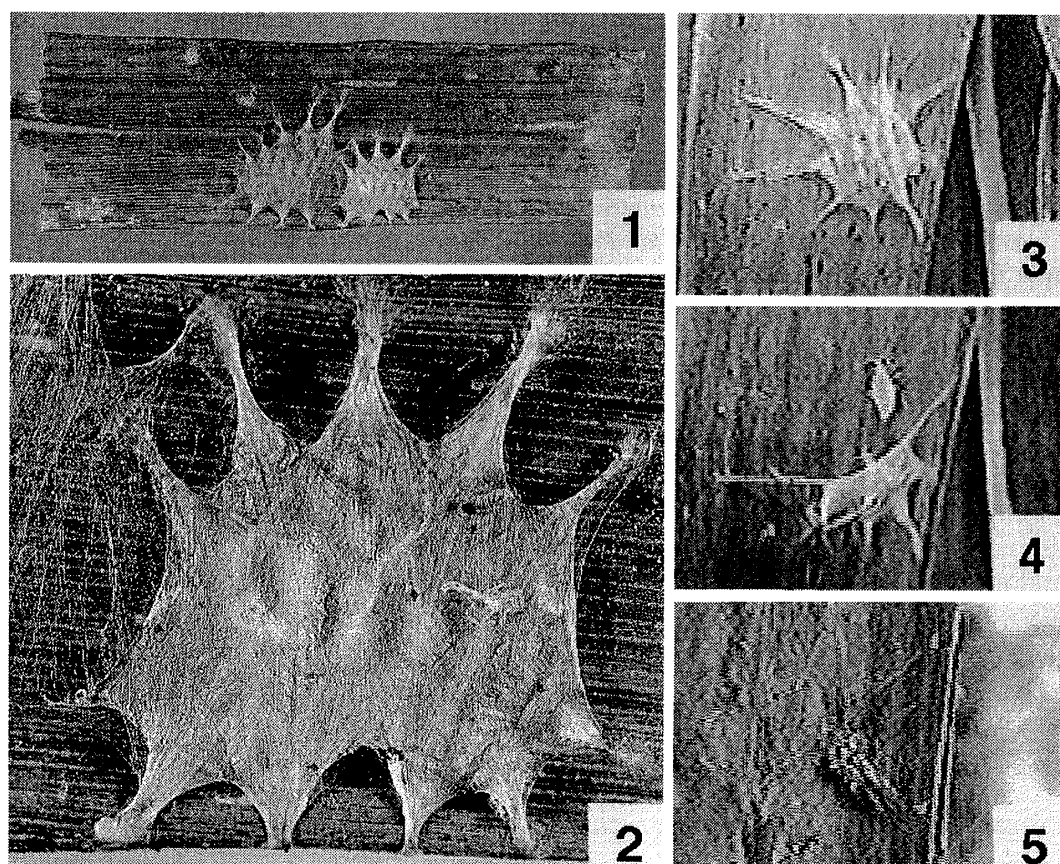
On June 30, 1995, one of us, SAIGUSA, found many silk nests of a peculiar shape (Fig. 1–3) on upper surface of leaves of two groups of a bamboo species in Jiangkou, Guizhou, China. The nest consists of a densely woven flat whitish film, roughly circular or oval in shape, about 5–8 mm in diameter and with its margin radially expanded at several portions, with which the film is attached to the surface of a leaf (Fig. 1–3). Usually, one to several nymphs of a psocid were found on the leaf under the nest (Fig. 4), and a few adults were also observed there often together with nymphs. Judging from the material component of the nest, it cannot be assumed that the nest was woven by spiders, lepidopterous larvae, etc. Additionally, some adults were observed under very roughly woven web (Fig. 5), which seems a nest of the species under construction. Therefore we consider that the nest was woven by the psocid. This psocid was determined as *Stenopsocus externus* BANKS, 1937 by YOSHIZAWA. This species is widely distributed in southern China and Taiwan.

The present stenopsocid's nest seems peculiar in shape because the nests of *Reuterella helvimacula* (Elipsocidae) (YOSHIZAWA, 1996), *Haplophallus* spp. and *Aaroniella* spp. (Philotarsidae) (YOSHIZAWA's personal observation) and *Stenopsocus*

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Figs. 1–5. — 1, Nests (dried specimens). 2, Ditto, right one magnified. 3, A nest in the field. 4, Ditto, upper half of the nest removed. Two larvae were staying under the nest. 5, An adult stays under the nest under construction. (Fig. 3–5 were taken by SONY Handycam.)

stigmatics and *S. immaculatus* (Stenopsocidae) (JENTSCH, 1938) are rough and irregular in shape. On the other hand, the nest of *Pseudocaecilius citricola* (Pseudocaeciliidae) is very similar to the present stenopsocid's nest (TURNER and MOCKFORD, pers. comm.). NEW (1987) mentioned that webbing habit has independently evolved in a number of lineages of the Psocoptera and the shapes of nests are variable among the taxa. In the future, when phylogenetic relationships of the Psocoptera are understood and nest of many groups of psocids are studied, evolution of the nesting behavior of the Psocoptera will be discussed.

As SAIGUSA observed the psocids only for an hour, we cannot confirm the role of the nest. But, as mentioned by TURNER (1973), the nest may serve for a refuge against predators.

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