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Scutacarus scolyti sp. n. a New Scutacarid Species (Acari: Tarsonemina) from Germany

#87

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ABSTRACT. Description of a new Scutacarid species (S. scolyti sp. n.) living on bark beetles (Coleoptera: Ipidae) is given from Germany.

The junior author and Dr. H. BOGENSCHÜTZ have launched a series of investigations concerning mites living on/with wood-borer beetles.

A sample of 4 725 adults from a much larger number of flying Ips typographus beetles were collected during June 1980 from pheromone traps placed by Dr. Hermann BOGENSCHÜTZ in the Forest District of Freiburg, St. Peter, St. Märgen and Kirchzarten (Black Forest) Germany. The specimens were put in 70% alcohol and sent to MOSER, who examined 200 beetles from each locality (n= 800). Only ten specimens of a new scutacarid, Scutacarus scolyti sp. n. were attached to these 800 beetles. Another 60 S. scolyti sp. n. were retrieved at the bottom of the vials, which contained 3 925 beetles (4 725 - 800 = 3 925).

To determine approximately the average number of mites per beetle, we used the following equation:

$$\frac{4725}{X} \quad \frac{800}{10} \qquad X = 59.06 = 60$$

X represents the number of mites that should have been attached to the total sample if our smaller sample of 800 beetles carried 10 mites attached. Therefore, about half of the mites had fallen off of the beetles during shipment and handling.

The ten mites in the smaller sample phoreticized 6 of the beetles. Three beetles had one mite, two had two mites, and one had three mites. All of the mites were attached to the base of the coxae by grasping setae with the large claw in the mites' leg I (Fig. 5).

Curiously, some localities had far more mites than others. Freiburg and Kirchzarten had only 6 and 3 mites respectively, whereas St. Peter had 34 and St. Märgen had 27.

S. scolyti sp. n. also rides at least two other scolytids, Hylurgops palliatus (Gyllenhal 1813) and Trypodendron lineatus (Olivier 1795). These two beetles were likewise collected by Dr. BOGENSCHÜTZ from pheromone traps in the Black Forest near Freiburg during March and April 1980.

In the course of identification the specimens proved to be new for science.

Scutacarus scolyti sp. n.

All examined specimens have been prepared in Hoyer-fluid, nevertheless, they were in good condition, though only approximative measurements can be given: length: 400 µm, breadth: 280 µm.

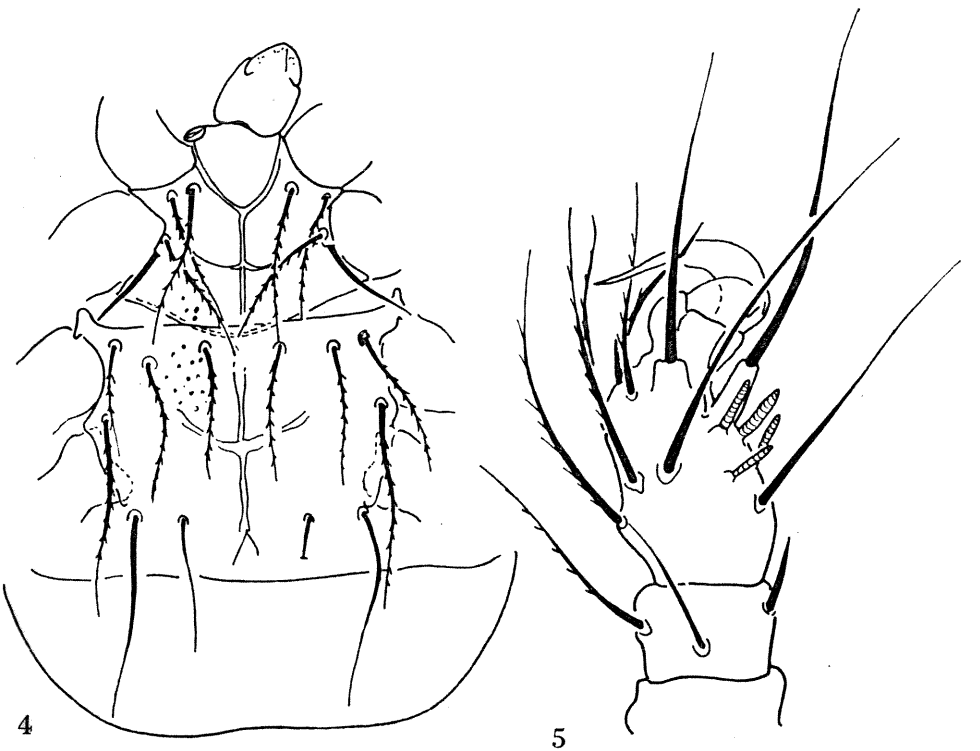
Dorsal side (Fig. 1): Clypeus is much broader than the other segments, inner hair (c_1) originating behind outer one (c_2). Greater length differences existing between hairs c_1 and c_2 than between hairs c_1. All hairs thin, simple, c_1 longest of all. Hairs of segment Ps, ps_1 and ps_2 of equal length, emitted close to each other; ciliated, hairs ps_3 thin, much shorter.

Figs. 4-5: Scutacarus scolyti sp. n.
4 = Dorsal side; 5 = leg IV.

Ventral side (Fig. 4): Surface of sternal plates with comparatively large foveolae. Apodemes weakly developed, only ap. sa. and ap. sp. thick. Hairs of anterior sternal plate - - excepting 2b - with longer ciliae than hairs of posterior sternal plates. Hairs 3a - 3b aligned transversally, hairs 4a-4b likewise arranged. Distance between hairs 3a-3b greater than between 3b-3c.

Legs: Tibiotarsus of leg I (Fig. 5) with a large claw. Chitinized peg of hair d long, hairs d and dT also long. Solenidium short, only ω_1 longer than others. Hairs ld_1'' of legs II (Fig. 2) and III spiniform, much bigger than tarsal ω of leg II. Tarsus of leg IV (Fig. 3) with 7 hairs, and basally one solenidium* (φ), too. Hair dF of femur and other hairs of leg long, thin.

Material examined: Holotypus (552-HT-80): Germany, Black Forest, near Freiburg, 4th March, 1980. Coll: H. BOGENSCHÜTZ, Phoretic on Trypodendron lineatus, "caught in trap baited with Lineatum." 2 paratypes (552-PT-80): from the same locality. All types are deposited in the Arachnoidea Collection of the Hungarian Natural History Museum, Budapest.



Figs. 4-5: Scuatacurs scolyti sp. n.
4 = Ventral side; 5 = leg I.

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*The existence or absence of the solenidium so far has not always been examined, but it can be a significant generic feature (cf. Rettenmeyerella Mahunka, 1977).