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

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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. BOGENSCHUTZ have launched a series of investiga-
tions 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 BO-
GENSCHUTZ 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:

\[
\frac{4725}{X} \times \frac{800}{10} = 59.06 = 60
\]

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 phoretically 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 (Gyllen-
hal 1813) and Trypodendron lineatus (Olivier 1795). These two beetles were likewise collected
by Dr. BOGENSCHUTZ 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
c1) originating behind outer one (c2). Greater length differences existing between hairs c1
and c2 than between hairs c1. All hairs thin, simple, c1 longest of all. Hairs of segment Ps1,
Ps2 and Ps3 of equal length, emitted close to each other; ciliated, hairs Ps3 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 $\varnothing_1$ longer than others. Hairs ld, ’ ’ of legs II (Fig. 2) and III spiniform, much bigger than tarsal $\varnothing$ of leg II. Tarsus of leg IV (Fig. 3) with 7 hairs, and basally one solenidium* (♀), too. Hair dF of femur and other hairs of leg long, thin.


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

*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).