

***Keroplatus tipuloides* Bosc rediscovered in Finland (Diptera: Nematocera: Keroplatidae)**

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A male of *Keroplatus tipuloides* (in Finland earlier known as *K. sesioides* Wahlberg), an endangered species, was found in *Sb*: Vieremä on 14.7.1989. This is the first record since 1960.

The larvae live in mucilaginous nets spun under the carpophores of *Fomes fomentarius* (Polyporaceae). Larvae probably also belonging to this species were found in three localities in the Talaskangas-Sopenmäki forest situated in *Ok*: Vuolijoki and *Sb*: Vieremä.

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Taxonomy

Keroplatidae is sometimes treated as an independent family and sometimes as a sub-family of the Mycetophilidae. There has long been much confusion regarding the species names of the genus *Keroplatus*, e.g. three European species have been confused under the name *K. testaceus* Dalman (Matile 1986). Six Palearctic species are recognized in the revision of the genus by Matile (1986).

Both Dufour (1839) and Matile (1986) divide the European species of *Keroplatus* into two groups. In the *K. tipuloides* group (represented in Europe only by *K. tipuloides* Bosc, 1792), the adults have strongly coloured wings and globulose palpi; in the *testaceus* group, the wings are diffusely spotted and the palpi long (at least two species belonging to this group are found in Finland).

K. tipuloides has previously been known as *K. sesioides* Wahlberg (Hackman 1980, Väisänen 1982, Anon. 1986), but Matile (1986) has established its synonymy. It is the largest

species in the genus (wing length 8–12 mm, Väisänen 1982) and has a wasp-like appearance.

The identity of the species that formerly was known in Finland as *K. tipuloides* is still unclear, but it clearly belongs to the *testaceus*-group.

Distribution

The species has a Palearctic distribution; it is known from Austria, the Balkan peninsula, Estonia, Fennoscandia, France, Germany, Hungary, Italy, Iran and Latvia (Santini 1982, Matile 1986, Krivosheina & Mamaev 1988).

The Finnish Diptera collection in the Zoological Museum in Helsinki contains 12♀♀ and 1♂ of this species.

Until now the most recent observation was from 19.7.1960, 1♂ 1♀, *Ab*: Askainen: Lemsjöholm, Lars v. Haartman leg. Earlier records exist from *Al*: Brändö, *Ab*: Lojo, *N*: Tvärminne, *Ta*: Hattula, *Sa*: Luumäki, *Sb*: Maaninka,

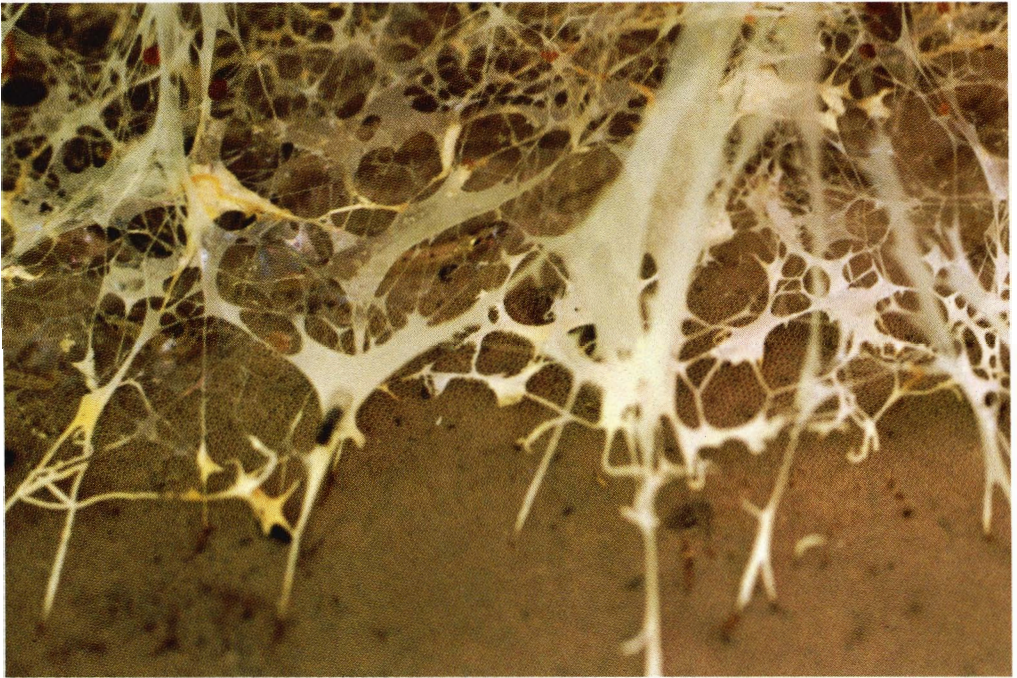


Fig. 1. Mucilaginous net under the carpophore of *F. fomentarius* (observe the larva). (Phot. Timo Nikki)

Korkeakoski and *Kb*: Pyhäselkä, Hammaslahti. For more detailed information, see Väisänen (1982).

The Palearctic collection at ZMH has 1♂ and 1♀ from Sweden: Ostrogothia (=Östergötland) (19th century).

Biology

The larvae of *K. tipuloides* live solely under the carpophores of *Fomes fomentarius* (L. ex Fr.) Fr. (Polyporaceae) (Santini 1982), in irregular mucilaginous nets (Fig. 1), which they produce with their salivary glands. The larvae are primarily fungus-spore feeders (Santini 1982) and are reported to be luminous (Matile 1986 and references therein).

The adults mimic wasps. In Italy the species is reported to be multivoltine (Santini 1982),

but at Finnish latitudes more than one generation per year is unlikely.

The rediscovery in Finland

During a natural history course arranged by Suomen Luonnonsuojeluliitto, 14-year-old Sami Tynkkynen, a keen lepidopterist, found a polypore which under it had an interesting net with larvae. Three larvae collected at the site were determined by the authors as *Keroplatus*.

Later, the authors visited the site (*Sb*: Vieremä, 19.7.1989) for the purpose of finding specimens in the pupal stage. One dead unhatched male was found, which was still inside its cocoon, but easy to examine as it was in good condition. It lay on the ground under a rotting but still upright birch bearing at least eight



Fig. 2. Carpophores of *F. fomentarius* on the birch which is described in the text. (Phot. Timo Nikki)

carpophores of *F. fomentarius* (Fig. 2). We found a total of nine empty cocoons. In addition, larvae probably belonging to the same species were found in three localities in the disputed Talaskangas-Sopenmäki forest in *Ok*: Vuolijoki and *Sb*: Vieremä (uniform grid 27° coordinates 709:50 and 710:50).

Discussion

This species is included in the Finnish list of endangered species ("Red Data Book") in the category of endangered species (Anon. 1986). Extensive collecting (more than 100 000 specimens) of mycetophilids by W. Hackman and the late R. Tuomikoski in the 1960s, failed to yield any specimens of *K. tipuloides*.

The reason for the obvious decline of the species appears to be the disappearance of old deciduous trees with polypores, a consequence of modern silvicultural practices.

References

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Referat

Keroplastus tipuloides åter funnen i Finland

Keroplastus tipuloides är en stor, getinglik svampmygga, som räknas till familjen Keroplastidae; den har tidigare gått under namnet *K. sesioides* Wahlberg. Dess larv lever under fnösktickor (*Fomes fomentarius*, Polyporaceae), i skydd av klibbiga trådar den spinner.

Det finns gamla finländska fynd av arten, det senaste år 1960 från *Ab*: Villnäs, Lemsjöholm. Sommaren 1989 upptäcktes i *Sb*: Vieremä kyrkby larver av arten samt en kläckfärdig hane på en murken, tickbevuxen björkstubbe. Dessutom upptäcktes larver som uppenbarligen tillhör denna art på tre ställen i det omstridda Talaskangas-Sopenmäki området (*Sb*: Vieremä, 709:50, och *Ok*: Vuolijoki, 710:50). I förteckningen över hotade djur och växter i Finland har arten klassificerats som akut hotad.