



A new invasive *Ptinella* Motschulsky from Europe and North America (Coleoptera: Ptiliidae)

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Abstract

Ptinella populicola sp. n. is described from material recently collected in the Netherlands. The habitus, spermatheca and aedeagus are illustrated. The only earlier specimens known are from Maryland (USA). The species is considered introduced into Europe, possibly being of Nearctic origin.

Key words: Coleoptera, Ptiliidae, *Ptinella*, new species, invasive species, Europe, North America

Introduction

The ptiliid genus *Ptinella* Motschulsky, 1844 consists of tiny (0.5–1.3 mm long), relatively flat, pubescent, yellow to brown beetles. The globally distributed genus currently contains about 50 valid species (Brinck 1948; Csiki 1911; Johnson 1972, 1975a, 1975b, 1982a, 1982b, 1985, 1993, 2004), with 14 species known to occur in the Palaearctic region (Johnson 2004). Remarkably rich is the New Zealand fauna with 19 species, 15 of which have been described in recent decades (Johnson 1982a). The Seychelles and neighbouring islands harbour seven species (Johnson 1985). From the Nearctic region six described species are currently recorded (Hall 2001; Sörensson 2003). The present knowledge of ptiliid diversity should be considered limited and the number of undescribed species of these minute beetles might be considerable, especially outside of Europe.

The taxonomy within the genus is in large part based on the female spermatheca, which usually is highly characteristic. Dimorphism is common within *Ptinella*, where a flightless, de-pigmented, and blind or small-eyed form usually is dominant: *forma aptera*. Normal winged individuals, belonging to the *forma alata*, are more heavily pigmented and in the possession of normal eyes. Both forms are capable of reproduction (Dybas 1978; Taylor 1981). Some species are known to be parthenogenetic (Dybas 1966; Taylor 1981). *Ptinella* species live under humid conditions and are usually associated with dead trees, decaying wood, leaf litter, or other decaying vegetable matter (Horion 1949; Johnson 1982a).

Recently, a species of *Ptinella* was discovered at two localities in the Netherlands. It differs from the known northwest European species, both externally and in the shape of the spermatheca. In the course of establishing its identity, conspecific material was discovered from Maryland (USA), indicating a possible Nearctic origin. Hall (2001) reports the presence of ‘three species and many more undescribed’ *Ptinella* for North America north of Mexico. These are *Ptinella pini* (LeConte, 1863), *P. quercus* (LeConte, 1863), and *P. ochracea* (Casey, 1924). Syntypic material of the former two, described by LeConte (1863) in *Ptilium* Gyllenhal, as well as *Ptilium nigrovittis* LeConte, 1863, considered a synonym of *Ptilium quercus*, was studied, but proved to be different from the new species which is larger and has a broader body shape and a duller pronotal surface.

Recently three more species, described from the Palaearctic region, have been reported from North America (Sörensson 2003): *Ptinella aptera* (Guérin-Méneville, 1839), *P. britannica* Matthews, 1858 and *P. johnsoni* Rütanen, 1985.

Measurements were taken from card-mounted specimens using an ocular micrometer.