

First record of *Reesa vespulae* (Milliron, 1939) in Bulgaria (Insecta: Coleoptera: Dermestidae)

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Abstract. The dermestid beetle *Reesa vespulae* (Milliron, 1939) is recorded for the first time in Bulgaria.

Key words: *Reesa vespulae*, first record, Bulgaria.

Introduction

Reesa vespulae (Milliron, 1939) is the only representative of genus *Reesa* Beal, 1967. This monotypic genus is placed in subtribe Trogodermina, tribe Megatomini, subfamily Megatominae (Háva 2015, 2020). It was described as *Perimegatoma vesuplae* (Milliron, 1939) from wasp nests from St. Paul, Minnesota state (USA). In 1967 Beal transferred this species to a new genus *Reesa* (Beal 1967). A short period after it has been recorded from the territory of the United States, *Reesa vespulae* was found in Canada (Spencer 1948, 1954, 1956). In his paper Beal (1967) took note on possible danger to natural history collections caused by this species.

The species is native to the Nearctic region and began to appear in Europe during the 1950's, first collected in Germany in 1957-1958 (Bahr & Nussbaum 1974). The first records of this species spreading to Europe came from Finland (Mäkisalo 1970), Sweden (Anderson 1973), USSR (Zhantiev 1973), Germany (Bahr & Nussbaum 1974), Norway (Mehl 1975), the United Kingdom (Adams 1978), Iceland (Ólafsson 1979) and it has since become widespread.

In the Nearctic region it is mostly a wild species occurring in bee hives and other hymenopteran nests where larvae develop on dead insects and detritus. In Europe *Reesa vespulae* generally occurs in domestic premises where the adults may be found in the spring and summer. There are few records of the species occurrence in the wild, but in general it is synanthropic, inhabiting human dwellings and stores etc. It rarely causes damage in domestic situations although it can feed on dried fruits, and large populations can establish in cellars where they feed upon fungi growing on exposed wood. The species is known to infest a wide range of products including various stored seed and plant material, museum specimens, dead insects and it is a pest in seed stores (Stejskal & Kučerová 1996).

The larvae are omnivorous and can cause serious damage not only in natural history collections (Mäkisalo 1970, Bahr & Nussbaum 1974, Mehl 1975), but also on products such as seeds of wheat, rye and other plants, and dried plant materials (Stejskal & Kučerová 1996). They also feed on other materials such as dried milk, flour, dried mushrooms, bread crumbs and food residues (Kadej *et al.* 2017). The larva is very distinctive among

Dermestidae being small, 4-6 mm in length, pale brown to yellow, pubescent with long golden setae at the abdominal apex.

The adult *Reesa vespulae* is 2-4 mm in length and distinctive due to its long-oval shape and colouration. The head and pronotum are shiny black, elytra dark brown at the base becoming lighter towards the apex and with a transverse band of light brown or yellowish pubescence in the basal third, which does not extend to the suture. The entire upper surface is finely punctured and clothed with fine, semi-erect and curved pubescence. The antennal cavities are shallow and poorly defined, situated on the front of the head before the convex and very prominent eyes. Antennae are 11-segmented, pale with the club darker. The club is 4-segmented, elongate and only weakly differentiated. Pronotum evenly rounded with the basal margin bisinuate and the hind angles acute. Scutellum distinct. Elytral punctation random, quite strong and moderately dense, in many specimens there are larger punctures that form loose longitudinal rows on each elytron. The species is parthenogenetic as males have never been found and the females lay eggs that develop to complete the life cycle without being fertilized (Peacock 1993).

Results and Discussion

Material: Sofia, Lyulin district, 14.06.2020, 2 ex., obs. T. Tsvetanov, leg. T. Tsvetanov, 1 ex. in J. Háva's collection.

On 14.06.2020 the first author observed 2 specimens of *Reesa vespulae* in his apartment in Lyulin district, Sofia. One of the specimens is deposited in the collection of the second author and the other one is photographed (Fig. 1).

Reesa vespulae is nearly cosmopolitan species (Hagstrum & Subramanyam 2009, Háva 2015, 2020). The distribution of the species is Europe, Algeria, Egypt, Morocco, Tunisia, Canada, Mexico, USA, Argentina, Chile, Afghanistan, China, Japan, Korea, Russia, Australia, New Zealand (Háva 2020). In Europe the species is known from Austria, the Czech Republic, Denmark, Finland, France, Germany, Hungary, Iceland, the Netherlands, the United Kingdom, Lithuania, Latvia, Norway, Poland, Russia, Slovakia, Sweden, Switzerland, Serbia, Romania, Spain, Italy and Estonia.

Dermestidae family is known for the ability of many species to introduce in new areas and there is no surprise in recording a new species from this family in Bulgaria.



Fig. 1. *Reesa vespulae* (Milliron, 1939), Lyulin district, Sofia, 595 m a.s.l., 14.06.2020, obs. T. Tsvetanov.

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