

Two opilionid species new to Finland: *Opilio dinaricus* and *Mitostoma chrysomelas* (Arachnida, Opiliones)

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Two more opilionid species have been discovered since the latest checklist of Finnish Opiliones was published (Uddström et al. 2013). Specimens of *Opilio dinaricus* and *Mitostoma chrysomelas* were collected in 2014 and 2016 respectively. Both species were found in the same location in south-east Finland, on the island of Halla off the coast of Kotka. Neither one of these species were known from Finland before, the number of opilionid species recorded in Finland now being 17. Two specimens of *M. chrysomelas* were found under pieces of wood on a gravelly field. Several specimens of *O. dinaricus* were collected from a little grove. *O. dinaricus* was introduced to the Finnish readers already in the identification guide of Finnish Opiliones and Pseudoscorpiones (Uddström & Rinne 2016). On the island of Halla there are large fields used for storing raw timber shipped from Russia. Due to the nature of the site it is discussed if these species have established themselves in Finland.

Mitostoma chrysomelas (Herman, 1804) (Nemastomatidae)

In autumn 2016 Tarmo Lampinen sent us photographs of an unusually looking opilionid for identification. We identified the species as *Mitostoma chrysomelas*. Lampinen found the two photographed specimens on the 17th of September 2016 on the Island of Halla, Kotka (60,48°N 26,97°E). Specimens were found under pieces of wood on a gravelly field. *M. chrysomelas* has been considered a potential species to be discovered in Finland, and was therefore included in the identification key in Uddström & Rinne (2016).

M. chrysomelas is a very small but long-legged opilionid. Male body length is 1,4–1,6 mm, female body length is 1,7–2,0 mm. *M. chrysomelas* has dark brown ground coloration with yel-

low transverse lines or spots on the dorsal side of the opistosoma (Fig. 1). It also has transverse rows of forked spines on the dorsal side of the opistosoma, a unique feature of this species. Pedipalps of *M. chrysomelas* are very long and slender, and they are covered with sticky setae (Wijnhoven 2009, Martens 1978).

M. chrysomelas can live in a great variety of habitats. It prefers moist forests but can be found also in habitats with quite dry open terrain. The species lives in forest litter, in mosses, under stones and logs. *M. chrysomelas* can overwinter in all life stages and adult specimens may be found throughout the year (Wijnhoven 2009, Martens 1978).

M. chrysomelas is a widespread opilionid in Europe. It occurs in large areas of Central Europe but the population densities seem to vary between

Fig. 1. *Mitostoma chrysomelas* has dark brown coloration with yellow transverse lines or spots. Photo: Tarmo Lampinen.



areas. The nearest records of this species are from Sweden, Norway and Russia (Tomasson et al. 2014, Stol 2007, Chevrizov 1979).

Opilio dinaricus Šilhavý, 1938 (Phalangiidae)

Five specimens of *Opilio dinaricus* were found on the 30th of July 2014 in a little grove on the island of Halla, Kotka. The patch of forest is surrounded with gravelly fields used for storing raw wood shipped from Russia and as a parking lot for trucks.

O. dinaricus is a middle sized opilionid with very long legs. Female body length is 5,2–7,3 mm and male body length is 3,7–5,0 mm. *O. dinaricus* is coloured brownish yellow or orange brown and it may have white spots on the dorsal side of opistosoma (Fig. 2). Sometimes there are also dark transversal lines of spots. The species has no clear saddle-like pattern unlike many other opilionid species. Ventral side of *O. dinaricus* is pale yellow. Ocularium is small and low, with 5–8 small spines. Legs are yellowish brown and strikingly long and slender (Uddström & Rinne 2016, Martens 1978).

O. dinaricus lives in moist forests with a substantial amount of ground vegetation. Species thrives especially near rivers, lakes or other water systems. During the day it commonly rests on tree trunks, on the leaves of herbaceous plants and on rocks. *O. dinaricus* overwinters in the egg stage. Adult specimens can be found during late summer from the beginning of August to the end of October (Martens 1978).

The nearest records of *O. dinaricus* are from Russia and Estonia, but the species has not been recorded in any other Nordic country (Tomasson et al. 2014, Stol 2007, Chevrizov 1979). *O. dinaricus* is widely distributed in Central Europe, but occurrence of the species is patchy and it is not common anywhere. In Central Europe it lives mainly in the mountainous areas (Martens 1978).

Discussion

Both *O. dinaricus* and *M. chrysomelas* are widely distributed in Europe and both have been recorded at least in some neighboring countries of Finland. In Finland these species have been found so far only in one location. Because raw timber shipped from Russia is stored in the vicinity of



Fig. 2. *Opilio dinaricus* is a middle sized opilionid with brownish yellow or orange brown coloration. Photo: Annika Uddström.

the sites of these discoveries, we cannot reliably conclude if these species have established themselves in Finland.

Although it is quite probable that these species have been imported with raw wood, it seems that at least *O. dinaricus* has found suitable habitat and has established itself. The habitat matches with the habitat requirements of this species and several specimens were found. Unfortunately, all the records are from the same day, and we have not done any follow-up for this species yet.

The status of *M. chrysomelas* seems more uncertain. Only two specimens were found. However, the dry open field is a suitable habitat for this species even though it is not the habitat it prefers.

It should be noted that the occurrence of *Lacinius dentiger* in Finland was at first considered to be restricted only to this one location, where the species was found in 2013 (Uddström et al. 2013). *L. dentiger* has later been discovered in Lappeenranta and Imatra, locations over one hundred kilometers apart from Halla, Kotka. Although *L. dentiger* may have been imported to Finland with the help of human activities, it seems that it has gained here a firm foothold with breeding populations.

Whether *O. dinaricus* and *M. chrysomelas* have actually established themselves in Finland or not requires further investigations.

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