

***Linnaeomyia hortensis* gen. et spec. nov. (Diptera: Cecidomyiidae, Porricondylinae) from a backyard site in Öland, Sweden**

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Abstract. A new genus containing a single new species of Porricondylinae (Diptera: Cecidomyiidae) is described and named *Linnaeomyia* **gen. nov., spec. nov.** The sole known specimen of *L. hortensis*, a male, was Malaise trapped in a backyard site on the Baltic island of Öland, southeast Sweden, in summer 2014. Morphological evidence supports our hypothesis that *Linnaeomyia* is most closely related to *Neurepidosis* Spungis, 1987. Several male genital characters, notably the spine-bearing gonostyli and the vestigial ejaculatory apodeme, substantiate the generic distinctiveness of *L. hortensis*. Although a backyard discovery, *L. hortensis* is unlikely to be a synanthropic species.

Key words: Gall midges, Palearctic region, Northern Europe, new genus, new species

Introduction

One of the driving forces for looking closely at the biodiversity of backyards is taxonomic interest, or taxonomic and faunistic interest in combination. More than a few taxonomists take pleasure in maintaining species lists of their favorite taxa occurring around their homesteads. Other studies are broader in scope and scientifically more ambitious, focusing on various aspects of urban biodiversity and ecosystems (e.g. Brown *et al.* 2014). Either way, results of backyard surveys can be quite exciting, sometimes even spectacular, especially in groups of organisms that are generally poorly known (e.g. Harris 2004, Hartop *et al.* 2015). The discovery of “new species in our backyards” is a commonplace analogy for the wider realization that, *If we don't even know the creatures in our neighbourhood, how much more must be there to discover in remote places, such as tropical jungles and ocean floors*. The little we know of our own backyards shows our greater ignorance about the world, even though the concept of the backyard is sometimes too broadly conceived (e.g. Zloty *et al.* 2005).

Gall midges (Cecidomyiidae) are a family of two-winged insects (Diptera) that are evidently poorly known in terms of taxonomy and biodiversity. Even cecidomyiid faunas studied intensively for many years continue to reveal taxonomic novelties (e.g. Jaschhof & Jaschhof 2015). A typical instance of this situation is described in the present paper: a new genus of porricondyline gall midges found in the backyard of Station Linné, Öland, southeast Sweden, where the authors work.

Porricondylinae are a fungivorous subfamily of the Cecidomyiidae, which contains 71 genera and 460 extant species (Gagné & Jaschhof 2014), of which 53 genera and 213 species have been recorded in Sweden (Jaschhof & Jaschhof 2013, 2015). The new taxa described here belong to the tribe Dicerurini, whose taxonomy was recently revised (Jaschhof & Jaschhof 2013). The results presented are from an ongoing taxonomic research project focused on the Swedish fauna of Cecidomyiidae (see <http://www.stationlinne.se/sv/forskning/the-gall-midge-project>).

Material and methods

A single male specimen of *Linnaeomyia hortensis* was found in a sample from a Malaise trap placed in one of the corners of a large lawn surrounded by various, mainly native bushes and trees, and low natural stone walls—the setting of Station Linné in Öland’s Skogsby. Next to the trap was a compost pile (Fig. 1), which might have been the origin of our specimen. While the trap was run for several months (May–September 2014), the specimen in question was caught in July. It was mounted in Canada balsam for compound light microscope study and will be deposited in the Swedish