



## Ptiliidae of the Maritime Provinces of Canada (Coleoptera): new records and bionomic notes

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### Abstract

The Ptiliidae of the Maritime Provinces of Canada is surveyed. Twenty-nine new provincial records from the Maritime Provinces of Canada are reported including the first records of the family from Prince Edward Island. Fourteen species are recorded for the first time for the Maritime Provinces as a whole. *Acrotrichis josephi* (Matthews) is recorded for the first time in eastern North America and *Acrotrichis haldemani* (LeConte) is recorded for the first time in Canada. The genus *Pteryx* is reported for the first time in Canada. At least 29 species of Ptiliidae are now known to occur in the region. The fauna is briefly discussed in terms of its overall composition, introduced species, and species associated with particular habitats. Saproxyllic species found in mature forests are discussed and attention is drawn to their possible relationship to undisturbed forest conditions and the scarcity of old-growth habitats in the region.

**Key words:** Coleoptera, Ptiliidae, Canada, Maritime Provinces, biodiversity, new records

### Introduction

The Ptiliidae are an abundant, species-rich family found worldwide, primarily in leaf litter and in various kinds of decaying organic materials. It is believed that they play an important role in the decomposition cycle in many environments. Due to their small size, secretive habits, and difficult taxonomy the Ptiliidae have been comparatively little studied. Campbell (1991) wrote that, "Ptiliidae is probably the most poorly known family of beetles in North America. Undoubtedly, when the family is revised, many additional species will be found, particularly in eastern Canada."

Campbell (1991) published the first compilation of ptiliid records for Canada and Alaska in which six species were recorded in the Maritime Provinces. Sörensson (2003) added seven provincial records to the region. Majka & Sörensson (in press) provided a survey of the ptiliid fauna in the Atlantic Maritime Ecozone (the Maritime Provinces, the Gaspé Peninsula, and portions of Québec south of the St. Lawrence River). Not included, however, are details of the many new species records. The present account reports 29 new provincial records of Ptiliidae from the region as well as briefly discussing aspects of the fauna's composition, origins, zoogeography, and habitat associations in the Maritime Provinces.

### Methods, conventions, and identification

In the course of biodiversity research on the Coleoptera of the Maritime Provinces, specimens of Ptiliidae contained in collections throughout the region were examined and identified. The number of specimens is