

The Coccinellidae (Coleoptera) of the Maritime Provinces of Canada: new records, biogeographic notes, and conservation concerns

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Abstract

New records of Coccinellidae in the Maritime Provinces of Canada are reported. The known fauna of the region consists of 47 species: 41 in Nova Scotia, 39 in New Brunswick, and 21 in Prince Edward Island. Of these, records are provided for 13 species newly recorded from Nova Scotia and 14 from Prince Edward Island. Two species, *Diomus amabilis* (LeConte) and *Naemia seriata seriata* Melsheimer, are newly recorded in Canada. *Didion punctatum* (Melsheimer) is removed from the fauna of PEI, and *Coccidula lepida* LeConte is removed from the fauna of NS, and *Scymnus impexus* Mulsant is removed from the faunas of NS and NB. Records of two adventive species not established in the region are also reported. Collecting effort in the three provinces and their sub-regions is briefly analyzed and compared. Biogeographic observations are provided in relation to the composition of the fauna as a whole, and of disjunct populations of six Nova Scotia coccinellids, several of which appear to be members of a coastal plain fauna that extends from New England to southern Nova Scotia. The potential vulnerability of the coccinellid fauna is discussed in the context of both adventive species in the region, and habitat loss and conservation.

Key words: Coleoptera, Coccinellidae, Canada, Maritime Provinces, Nova Scotia, New Brunswick, Prince Edward Island, biodiversity, biogeography

Introduction

The Coccinellidae is a well-known and diverse family of beetles. They are of considerable interest and importance to agriculture and forestry since adults and larvae of most species are predators of herbivorous pests such as aphids, adelgids, psyllids, mealy bugs, and scale insects. Gordon (1976, 1985) provided the contemporary basis for an understanding of this family in North America. McNamara (1991) compiled information on the fauna of