

The René-Martineau Insectarium: a Library of Insects

Located in Quebec City at the Laurentian Forestry Centre of the Canadian Forest Service (CFS), the René-Martineau Insectarium is the leading documentation centre on forest insects in Quebec and eastern Canada. It was named in honour of CFS researcher René Martineau, who dedicated his life to forest entomology research.

The René-Martineau Insectarium (RMI) was established in 1999 to promote education and research, particularly in the areas of biodiversity, taxonomy and the ecology of forest insects and certain insect pests. Its main roles are to assist with insect identification and to preserve and expand the insect collection from eastern Canada.

An extensive collection

Nearly 200,000 specimens, most of them forest insects, are preserved in the RMI, including the following:

- 3,273 species of Coleoptera
- 1,221 species of Lepidoptera
- 1,270 species of Hymenoptera
- 146 species of Homoptera
- 189 species of Heteroptera
- A smaller number of species of Orthoptera, Dermaptera, Blattodea, Mantodea and Odonata.



Photo: NRCan



Photo: NRCan

The RMI permanent collection includes a main collection and a reference collection. The main collection includes ordinary specimens and type specimens (original specimens that an expert has examined, published and classified as belonging to a species previously unknown to science). Specimens in the main collection are in the public domain, and can therefore be consulted by any individual or group for research purposes on request. The specimens can be examined on-site with microscopes and binocular loupes. Specimen loans can also be arranged with the consent of the Insectarium curator.



Photo: NRCan

The reference collection consists mainly of Quebec species, and is a select group of specimens from the main collection whose species-level identification has been validated by experts. Each species is represented by 1 to 10 specimens. The collection is currently used as a reference tool for identifying Coleoptera; other groups of insects that are important to forestry may be added in the future. Reference collection specimens cannot be borrowed.

A reference centre

The RMI also has a unique collection of 40,000 slides of over 900 insect species and a database of 13,000 selected digital images of forest phytophagous insects. The RMI databases can be used to find information in such areas as exotic alien species and species of a particular taxonomic group, as well as images of a particular insect group.



Photo: NRCan

The Insectarium: a natural research partner

Many research projects make use of the RMI's human and documentary resources. For example, to determine the quantity of biomass that can be harvested without disturbing biodiversity, CFS researchers are studying some Coleoptera species that, owing to their sensitivity to changes in soil composition and structure, are recognized as good indicators of forest disturbances. The research team works closely with ecologists, taxonomists, statisticians, soil experts and molecular biologists to identify indicator species for various biodiversity thresholds.



Photo: NRCan

Useful links

<http://www.nrcan.gc.ca/forests/research-centres/lfc/13483>

<https://apps-scf-cfs.nrcan.gc.ca/collections/en/insectarium>



Photo: NRCan

If you have any questions or would like to come and see the Insectarium specimens or visit the Insectarium facilities, contact:

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