CFS-ATLANTIC EXOTIC BEETLES AND ASSOCIATED FUNGI PROJECT 2002-2005

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Abstract

The arrival of "biological pollution" in the form of invasive insects like the brown spruce longhorn beetle in Halifax, Asian longhorn beetle in New York, Chicago and recently in Toronto, and emerald ash borer in Detroit and neighbouring Windsor, Ontario are the most recent examples of threats to the forested ecosystems of Canada. With Atlantic Canada's 500-year-history of European settlement, and with the continuous movement of people, their goods and trade cargo into and through the region since that time, we have experienced many damaging forest pest introductions (e.g. Dutch elm disease, beech bark disease, etc).

Across North America exotic beetles and their ability to introduce damaging fungal associates (e.g. bluestains), have recently been of great interest. Surveillance for beetle species of quarantine significance has been led by the Canadian Food Inspection Agency principally in and around major Canadian ports. This CFS-Atlantic team is directing its research activities in a range of forested locations, ensuring there is no duplication of effort.

The project goals include:

- determine the non-native versus native species composition and numerical relativity of Scolytidae and Cerambycidae;
- determine the presence of selected Scolytidae, Cerambycidae and Buprestidae of current North American regulatory concern; and
- establish validated culture and distribution records for ophiostomatoid fungal species (Ophiostoma, Ceratocystis and related genera) and their associated insects.

CFS-Atlantic is sensitive to the current high-risk environment for as yet undetected new introductions. This poster presents an overview of our overall project objective, goals and a general description of the methodology employed.