

Graduate student opportunity - Emerald ash borer biological control

We are currently seeking MSc or PhD candidates for a range of projects related to the classical biological control of emerald ash borer.

- 1) Factors influencing establishment of biological control agents. This project will investigate the mechanisms leading to the successful establishment of classical biological control agents in release sites, and in adventive sites throughout the release area. The goal of this project is to identify characteristics of release sites that lead to successful establishment and growth of introduced populations of the biological control agent
- 2) Dispersal of classical biological control agents. This project will investigate dispersal rates and dispersal distances of classical biological control agents in different ecosystems (urban, woodlot, natural forest) using an existing trapping network. The goal of this project is to develop tools and models to assess and predict the dispersal rate of classical biological control agents in Canadian forests.
- 3) Impact of biological control agents on emerald ash borer populations. This project will examine the impact on emerald ash borer population growth rates of classical biological control agents. The goal of this project is to quantify the impact of biological control agents on emerald ash borer populations and determine the likelihood of control.

All projects will be done in co-operation with the Canadian Forest Service using the existing network of classical biological release sites established throughout southern Ontario and Quebec and research facilities at the Great Lakes Forestry Centre in Sault Ste. Marie, Ontario.

Qualifications: Successful candidates will have the opportunity to integrate elements of field ecology, landscape ecology, behavioural ecology, population dynamics, insect pest management and statistical modelling. Experience with any of these techniques would be an asset. Furthermore, candidates should be independent, motivated and have an interest in entomology or invasive species. Candidates must be able to work independently and with a team that includes professional technical staff.

Inquiries should be directed to Dr. Sandy Smith or Dr. Chris MacQuarrie (Natural Resources Canada Canadian Forest Service)