



Open PhD position



Assessing non-target risks of candidates for the biological control of *Ambrosia artemisiifolia* in Europe

Background: The North American plant *Ambrosia artemisiifolia*, common ragweed, has become one of the flagship invasive alien species in Europe, causing severe health issues (allergies) and yield reductions in agriculture. While herbicides and mechanical control are well suited as local and short-term measures to control *A. artemisiifolia*, sustainable control strategies to reduce its abundance and spread as well as its pollen production in badly infested areas are lacking in Europe. One of the main objectives of the recently launched European COST action SMARTER ('Sustainable management of *Ambrosia artemisiifolia* in Europe'; ragweed.eu) is to develop sustainable control strategies such as biological control (BC), an approach which has been successfully implemented against *A. artemisiifolia* in other continents.

PhD Position: Within this project, an exciting PhD position funded by the Swiss State Secretariat for Education and Research (SER) is available at CABI in Switzerland (cabi.org/about-cabi/cabi-centres/Switzerland), with the coordinator of the Working Group 1 (Biological Control) in SMARTER. The PhD aims to conduct biosafety studies with exotic insect species that are considered for BC of *A. artemisiifolia* in Europe. The goal is to combine standard biosafety tests (assessment of fundamental host-range) with new, innovative approaches that will strengthen the scientific quality of non-target risk assessment, specifically with regard to i) host-range testing under open-field conditions, and ii) prediction of the population dynamics of BC candidates prior to their release into a new environment, and iii) their impact on the population dynamics and spread of common ragweed.

The student will be based at the CABI Centre in Delémont, Switzerland, and registered at the University of Fribourg (www.unifr.ch). He/she will be closely collaborating with the research group of Prof. Heinz Müller-Schärer (University of Fribourg; www.unifr.ch/ecology/groupmueller, Action chair of SMARTER) and conduct field work in North America and Israel.

Required competences

- Master in natural science or related fields, preferably with a background in insect-plant interactions or biological invasions
- Good skills in statistical analysis
- Experiences with population modelling are an asset
- High social competences in interacting with other research colleagues and stakeholders
- Excellent skills in oral and written communications (English)
- Highly dedicated and motivated student

What the research project offers

- Work in a strong international and interdisciplinary team
- PhD salary according to Swiss National Science Foundation standards during 3 years
- Field expenses, travel allowances
- Close collaboration with research partners and stakeholders of the European COST action SMARTER (presently 180 participants from 33 countries, cf. ragweed.eu).

Application: Please send a CV, academic transcript, contact details for at least two academic references, and a brief outline of research interests to: Dr Urs Schaffner (u.schaffner@cabi.org), by 31 December 2014. Informal inquiries are welcome. Review of applications will begin immediately, and short-listed candidates will be interviewed. The envisaged start date for the project is 1 February 2015.