
	United States Department of Agriculture	Agricultural Research Service	European Biological Control Laboratory	
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INTERNSHIP FOR A MASTER LEVEL - 2012

Topic: Weed Biological control

Title: « Life traits, specificity tests of the potential biocontrol agent *Abrostola asclepiadis* (Lep., Noctuidae) against the invasive *Vincetoxicum* spp. (Apocynaceae) in North America »

Background and Purpose of the study:

Swallow-worts (*Vincetoxicum nigrum* and *V. rossicum*) (Apocynaceae) are highly invaded alien plant species in pastures and forest areas in North America. Both species are indigenous to Eurasia. A Biocontrol programme started in 2006 at the European Biological Control Laboratory in Montpellier, for finding and testing the efficacy of potential BC agents in order to propose candidates to release into North America. Since 2008, a field survey of phytophagous insects in France on the local species, *V. hirundinaria*, indicated that two candidates have a potential for biocontrol. In 2009 and 10, we firstly conducted specificity tests with the chrysomelid beetle *Chrysochus asclepiadeus*, resulting in a feeding activity on non target species such as *Asclepias* sp.. In 2010 and 2011, we investigated the impact of a new candidate, the noctuid *Abrostola asclepiadis*. Specificity tests and life traits were conducted showing a high specificity to the target weeds. In 2012 we aim to repeat specificity tests in a quarantine greenhouse, and conduct additional studies to understand the life cycle of the candidate in open and lab conditions.

Timetable:

6 months from March 2012 (to be discussed)

Tentative table of content:

- Literature survey
- Insect field collection (if necessary)
- Conduct host specificity tests,
- Specify life traits
- Optimizing rearing

Internship candidate:

Master student (level 2 in France): knowledge in entomology, botany and ecology, as well as a particular interest in biocontrol (« naturalist's spirit »), are appreciated and welcome ; autonomy; English and French (even basic) speaking necessary; Driver's licence required.

The internship will take place at EBCL, 5km North of Montpellier in Southern France. Interested students will send their application (resume+letter) to :

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