Schweizerische Eidgenossenschaft
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Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
Agroscope

2 Postdoc Positions in Entomology
Agroscope, Biosafety Research Group, Zurich, Switzerland

In the Biosafety Research Group at Agroscope, we assess the effects of macroorganisms for plant protection, genetically modified plants and insects, and invasive species on agricultural production and the agroecosystem. For details see:
https://www.agroscope.admin.ch/agroscope/en/home/topics/environment-resources/biosafety.html

The group currently has two open postdoc positions:

1) Pre-emptive assessment for biocontrol agents

Invasive species cause damage to biodiversity and agriculture. Natural enemies from the pests' area of origin can provide control, yet potential benefits and risks need to be evaluated prior to their release. With a pre-emptive approach, high-risk pest species are identified prior to their appearance and candidate biological control agents are identified early. This prevents long delays in control, which are common nowadays. The project is embedded in a Euphresco project to establish a control network to increase preparedness for incursions of invertebrate invasive species. With a focus on relevant high-risk pests for Switzerland, we will assess their potential natural enemies in detail.

Tasks
- identify and evaluate candidate natural enemies from databases and literature
- conduct environmental risk assessments for the natural enemies in a Swiss context
- model the potential distribution of the pests and their natural enemies
- participate in the establishment of a web-based knowledge exchange repository

Competences
- PhD in biology, agronomy or similar
- Exact and independent working method and problem solving skills
- Good communication and writing skills in English
- A background in at least one of the following and high motivation to learn the others: biological control, species distribution modelling, risk assessment

Salary: According to Swiss National Science Foundation
Employment: 80%
Duration: 1 year
Start: 1. August 2022, or by agreement

The position is located at the Biosafety Research Group at Agroscope Zürich Reckenholz, but requires several stays at CABI in Delemont and Agroscope Cadenazzo.

For more information, please contact: Jana Collatz, jana.collatz@agroscope.admin.ch

2) Insecticide effects in flower strips

Insecticides applied to agricultural crops may also drift to semi-natural habitats and ecological infrastructure designed to foster biodiversity. This position is embedded in a project on the deposition and risks of insecticides for non-target arthropods in off-crop habitats. Within the project, potential risks of selected insecticides for arthropod assemblages in flower strips will be assessed. Literature work as well as experiments under laboratory and field conditions are planned.

Tasks

- Identify literature on toxicological data and hazard indices for selected insecticides and arthropods
- Conduct lab experiments to assess the sensitivity of highly exposed arthropods against selected insecticides
- Conduct field experiments to assess effects of spray drift on arthropods and ecological functions in flower strips
- Compile scientific publications and present at national/international conferences

Competences

- PhD in biology, agronomy or similar
- Exact and independent working method and problem solving skills
- Good communication and writing skills in English
- Experience in entomology, ecotoxicology, laboratory studies and field experiments, scientific writing
- Ability to work in a team with other scientists and technical personnel

Salary: According to Swiss National Science Foundation
Employment: 80%
Duration: 2 years
Start: 1. October 2022, or by agreement

The position is located at the Biosafety Research Group at Agroscope Zürich Reckenholz

For more information, please contact: michael.meissle@agroscope.admin.ch