



Agroscope Job Advertisement

Position

PhD position: Bird damages in crops

Introduction

Sunflower and maize are often subject to bird damages at sowing or emergence, causing yield losses and cost increases due to a second sowing in some extreme situations. This could even threaten the production of sunflower, as farmers are tempted to give up this crop and choose another one with less risk of failure. Bird population control through shooting or nest destruction is poorly effective and with the ban of seed coating with repulsive substances, farmers are left without any solution to protect their crops against crows, rooks and pigeons.

In this project, we will study birds' population dynamic and their feeding behavior in order to better understand the impact of agricultural landscape on damage risk for crops. The collaboration with agriculture and nature protection services of several Swiss regions will allow to estimate birds' population and damages in various environments, and to develop and test new crop protection systems (frightening devices, intercropping, attractive strip, etc.) together with agriculture advisers and farmers.

The work will be organized in three main tasks:

- Studying bird population trends and potential links to damages. What are the spatial and temporal trends of crow, rook, raven and wood pigeon numbers in Switzerland? Linking bird trends and habitats, including urban, farmland and protected areas. Linking landscape, agricultural systems, and biodiversity to damages to crops.
- Studying bird food preferences and behaviours to help defining new strategies of crop damage reduction. Experimental tests with familiar and wild crows. GPS tracking of wild crows.
- Which new technical itineraries are efficient to reduce damages caused by pigeons and crows to various crops? Implementing the new strategies in the field with voluntary farmers to test their efficiency.

Tasks

- You will:
- Proactively participate to the experimental set-up establishment
- Conduct surveys and field observations
- Collect and manage data
- Conduct statistical analyses
- Publish your research in peer-reviewed journals and present if at scientific conferences

Requirements

- Master degree in crop sciences, biology or ecology
- A strong interest in ornithology
- Interest for applied research and field work
- Knowledge in advanced statistical analysis
- Communicative and flexible personality with the ability to work independently and accurately
- Achievement-oriented, open-minded personality with good capacity for teamwork
- Good communication and writing skills in English and French

Information on the Employer

Agroscope is the Swiss federal center of excellence for research in the agriculture and food sector. Its researchers carry out their work at a number of sites in Switzerland. Headquartered in Bern-Liebefeld, Agroscope is attached to the Swiss Federal Department of Economic Affairs, Education and Research EAER.

The position is offered by Agroscope (Varieties and crop management) and the Museum National d'Histoire Naturelle (MNHN, UMR7204 CESCO, Centre d'Ecologie et des Sciences de la Conservation, with Ecole doctorale ED227 : Sciences de la Nature et de l'Homme : écologie et évolution).

Place of Work
Salary Category
Employment Level

1260 Nyon VD (Switzerland)
According to standards of the Swiss National Science Foundation
100 %

Application

If you are interested, we look forward to receiving your online application (cover letter, CV and references, all documents in a single PDF file) at (human.resources@agroscope.admin.ch, Ref.nr. 46945).

For further information, please contact Alice Baux, tel. +41 58 460 47 22, alice.baux@agroscope.admin.ch. Do not send applications to this email address.

Start date: 1 January 2022 or as per arrangement. The contract duration is for 3 years (with a possible extension of 6 months).