

The Netherlands Institute of Ecology (NIOO) is a top research institute of the Royal Netherlands Academy of Arts and Sciences (KNAW). NIOO-KNAW focuses on fundamental and strategic research into individual organisms, populations, ecological communities, and ecosystems. The mission is to carry out excellent research in ecology.

The department of Terrestrial Ecology at NIOO-KNAW offer two positions for a

**PhD-candidate on Aboveground – Belowground Interactions (2x)**
**Vacancy number PhD-TE-015024**

**Project description**

The PhD students will participate in the VICI project: “Living legacies: Influence of plant-mediated changes in soil communities on aboveground plant-insect interactions”. Soils house an overwhelming abundance and diversity of (micro) organisms. The local composition and abundance of these organisms depends greatly on the identity of the plant that is growing in the soil. The performance of plants, in turn, is determined by interactions with soil organisms. Hence, via their specific effects on soil organisms, plants can influence the growth of other plants that grow later in the same soil.

In this VICI project we examine the impact of such soil-borne ‘legacy effects’ on plants and aboveground insects in natural ecosystems. We focus on two mechanisms of soil legacy effects on plants and insects: through changes in the composition of plant communities, and through changes in the aboveground chemistry of individual plants. The PhD projects will examine when, how, and at what temporal and spatial scales plant-soil legacy effects influence aboveground plant-insect interactions in natural grasslands. One PhD project will focus on insect-plant interactions on individual plants while the other project will focus on aboveground belowground interactions in plant communities. Experimental approaches will include reciprocal soil and plant transplantations in grasslands, field experiments, and microcosm experiments in greenhouses. The ultimate aim of this project is to use knowledge about soil legacies to restore biodiversity in degraded ecosystems.

**Funding**

The VICI project is funded by the Innovative Research Incentives Scheme of the Netherlands Organisation for Scientific Research (NWO).

**Requirements**

-Strong motivation and enthusiasm

-MSc degree in Ecology, or a related field

-Research experience or demonstrated affinity with plant-soil and/or plant-insect interactions, field experiments.

-Taxonomic knowledge of plant and insects is considered advantageous

-Experience with molecular and/or plant chemistry analysis is considered advantageous

-Experience with data/statistical analysis

-Good communicative skills (fluency in English required)

-Driving license

**Appointment**

This is a temporary appointment, fulltime. PhD projects are 4-year appointments starting with a 1-year contract. After 1 year progress will be evaluated.

**Salary**

The gross salary starts at € 2.125,00 per month in the 1st year, and will gradually increase to a maximum of € 2.717,00 per month in the 4th year, scale P, Collective Agreement for Dutch Universities (CAO Nederlandse Universiteiten), plus 8% holiday pay and a year-end bonus. We offer an extensive package of fringe benefits.

**Information**

Additional information about this vacancy is available upon request from Dr. T.M. Bezemer (tel. 0317-47 3607, e-mail: m.bezemer@nioo.knaw.nl). Information on the Netherlands Institute of Ecology (NIOO), can be found at http://www.nioo.knaw.nl.

**Applications**

Written applications for this position should include names of at least two referees. Please send your application letter and CV by e-mail to: vacature@nioo.knaw.nl with reference to vacancy number PhD-TE-015024. Deadline for the application is 14 June 2015.