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Bioimmigrants – Detecting invading species

NIBIO

The project

Invasive species and new plant pests are introduced into new regions at an accelerating rate due to increasing international trade with soil, plants and plant products. These invading species pose a severe threat to agriculture, forestry, urban and natural landscapes. Detecting and identifying plant pests and pathogens, like insects, nematodes, fungi, oomycetes, and bacteria requires various labour-intensive methods and expertise in several biological disciplines. In the 'Bioimmigrants' project, NIBIO experts from different fields collaborate on a common strategy to improve the detection and identification of invasive species, using metabarcoding that allows direct detection from soil and plant material.


Photo: M. J. Mazur

Photo: V. Talgø
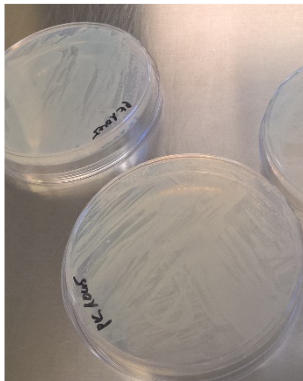
What you can learn

- Molecular biology methods (PCR, qPCR, DNA barcoding, metabarcoding by paired-end sequencing)
- A complete workflow for micro- and macrobiome analysis using next-generation sequencing
- Basic bioinformatics analysis using Bash script and R
- Presenting your project and results in talks and writing

What we offer

- Supervision and support in molecular biology, microbiology, plant pathology and bioinformatics
- A good track record of publishing high-quality research
- Laboratory equipment and routines of international standard
- An inclusive and friendly work environment
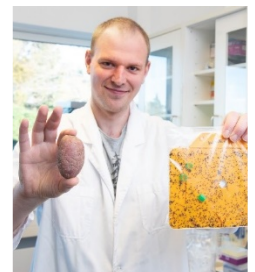
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