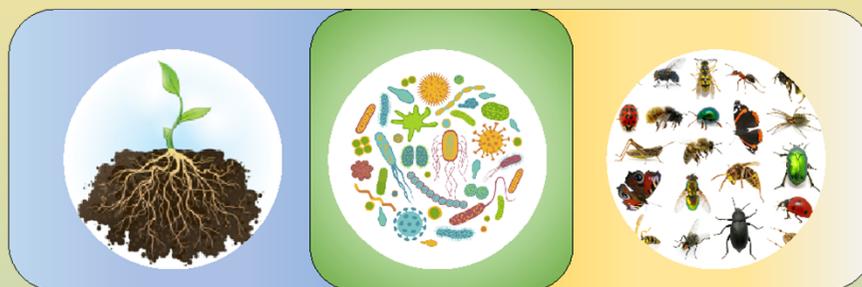




Postgraduate Course Frontiers in Microbial Ecology

When?
8 – 13 April 2018



Eco-evolutionary dynamics of microbial host interactions

Scope of the course

Microbes colonize each inch of our planet and play key roles in biogeochemical processes of all of Earth's ecosystems. Microbes also colonize every single living creature on earth, be they plants, coral reefs, insects or humans, playing a vital role in host homeostasis. In addition to being omnipresent, microbial-host interactions vary both in the strength –from tight host-symbiont coevolution to non-specific association – and in the type of ecological interaction, ranging from mutualistic to negative associations. The microbiome can also influence host mating choice, success and directly impact host fitness and survival, being thus a key component of host evolution. Although the microbiome has been accepted as a host trait, we still lack knowledge on how the microbiome is transmitted from one generation to another, the mechanisms driving the natural microbiome fluctuation, and their consequences for host fitness.

This course will examine our current understanding of the eco-evolutionary dynamics controlling host-microbiome interactions, by focusing on questions such as how and why microbial-host associations are formed, how they are maintained, and what the relevance is of these associations for host survival and adaptation to a changing world. These questions will be addressed using two main hosts – plants and insects – allowing us (i) to provide an overview of the current ecological and evolutionary overarching knowledge underlying host microbiome associations, (ii) to identify key aspects as well as the gap of knowledge inherent to each host and (iii) to use the knowledge built on each system to move towards a unified view of microbial-host interactions.

Aims of the course

To provide students with an appreciation of the most important current developments in the field of microbial-host interactions. The main goal of the course will be achieved if the participants acquire novel ideas and techniques for their own research. The course is primarily aimed at PhD level students, but is also open to advanced Master level students with interest in microbial ecology.

Course fees¹

PE&RC, RSEE & SENSE PhD students: € 350
All other PhD students and Postdocs: € 500
All others: € 725

¹ this includes accommodation, meals and course materials

Where?
Field station
'The Herdershut',
Schiermonnikoog



Organizers

Under the auspices of the Research Schools RSEE, PE&RC & SENSE:

Prof.dr [Joana Falcao Salles](#) (Microbial Community Ecology, University of Groningen)

Prof.dr [Wietse de Boer](#) (Microbial Ecology, NIOO-KNAW)

Prof.dr [Toby Kiers](#) (Evolutionary Biology, Free University of Amsterdam)

Dr [Alexandre Jousset](#) (Environmental Biology, Utrecht University)

Dr [Corine Eising](#) (Coordinator Research School Ecology & Evolution)

Guest lecturers

Dr [John McCutcheon](#) (Microbial Genomics and Symbiosis, University of Montana, USA)

Dr [Fabrice Roux](#) (Plant-Microbe Interactions, INRA, France)

Prof.dr [Jos Raaijmakers](#) (Microbial Ecology, NIOO-KNAW)

Prof.dr [Jennifer Lau](#) (Community and Evolutionary Ecology, Michigan State University, USA)