

# Symposium 9

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## Algae in their ecosystems: novel approaches to study algal ecology

### Conveners

Nico Salmaso, Christine Maggs

### Key-note speakers

Isabelle Domaizon, National Institute of Agricultural Research (INRA), France

Suzanne Fredericq, University of Louisiana at Lafayette, USA

### Symposium description

Biodiversity assessment is a fundamental requirement for studying ecological relationships, ecosystem functionality and biogeochemical processes. Advances in algal ecology have been severely hampered by the inefficient taxonomic identification of algal taxa and associated microorganisms. In this context, recent advances in the use of metagenomics and metabarcoding have opened new exciting and rapidly growing fields of research, allowing better identification of the diversity that characterize planktic and periphytic communities, including epiphytic microalgae and bacteria growing on macroalgae. At the same time, changes in functional genes evaluated by full shotgun approaches have the potential to reveal a wide range of relationships between metabolic pathways and environmental conditions mediated by community composition. This session will explore strengths, limits and perspectives in the application of metagenomic tools in the progress of algal ecology.

