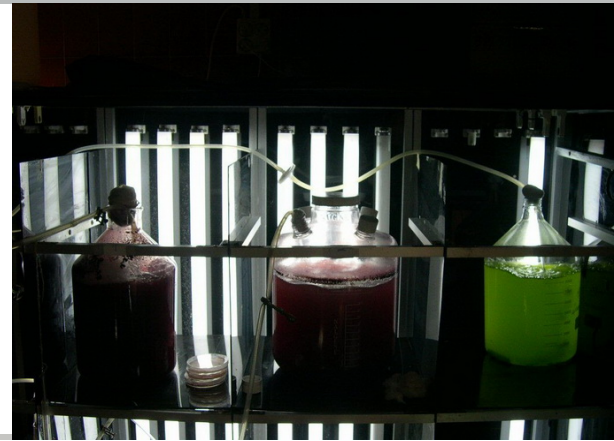


● **ECOPHYSIOLOGY OF AQUATIC SYSTEMS**



INTRODUCTION

The members of this research group belong to both Ecology and Plant Physiology research areas of the Faculty of Sciences. The research activity lies mainly on the study of the ecology of water systems and on the physiology and biochemistry of water plants, integrating the response of ecophysiological variables from a molecular perspective to the ecosystem level.

RESEARCH TOPICS

- Ecology of estuaries and seaside areas. Sediment-water relations. Diagenesis.
- Global Ecology. Biogeochemical cycles of C, N, P and S.
- Photocontrol of the growth and metabolism of the C, N and P in plants.
- Extraction and optimisation of the production of natural compounds in algae of commercial interest.
- Study of enzymes involved in the stress in water plants (MAP-Kinases).
- Electrophysiology. Transportation and homeostasis of ions in plants.
- Polar Biology. Acclimatisation strategies and responses by macroalgae to factors derived from the climate change.
- Molecular ecophysiology of phytoplankton and its relation to higher levels of the trophic network (micro and mesozooplankton) in the context of global change (CO₂, UVR and nutrients).
- Ecology and ecophysiology of invasive seaweeds.
- Molecular mechanisms involved in the ecophysiological response of aquatic organisms. Characterization of uptake and assimilation of inorganic carbon.

SCIENTIFIC-TECHNICAL SERVICES

- Establishing environmental quality norms in water systems.
- Environmental analysis. Assessment of environmental impact.
- Management of resources and environmental management for companies.
- Manipulation of the biomass quality. Extraction and optimisation of the production of natural compounds of algae of commercial interest.
- Nutritional quality of plant production.

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- Biorremediation and improvement of water quality by means of aquatic macrophytes.

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