

Forest Ecology and Landscape Dynamic (RNM-296)

Coordinator: Dr. José Antonio Carreira de la Fuente (jafuente [arroba] ujaen [punto] es)



The “Forest Ecology and Landscape Dynamic” research group is engaged in the ecology discipline of Biogeochemistry, which studies the interaction between living beings (plants, microorganisms) and the Earth’s chemical and physical conditions. It analyzes how nutrient cycles and other compounds and the ecophysiology of plants respond, both in forest and agricultural ecosystems, to environmental problems such as climate change and uses of the territory, soil and atmosphere contamination, fires, or different forms of management (fertilization, soil management, forestry treatments, etc.).

The group has advanced equipment in place for analyzing samples of soils, tissues and water (Continuous Flow Injection AutoAnalyzer-FIA, TOC-TN AutoAnalyzer, etc.), and heads the Interdisciplinary Soils Laboratory ([LISUJA](#)) integrated into the center.

Research Lines:

- Nutrient cycles (C, N, P, water) and ecophysiology of the response of forest ecosystems to global change and disturbances.
- Soil ecology: microbiological and enzymatic activities as bioindicators of soil conditions, biomolecular techniques applied to the study of soil microbial communities (bacteria, mycorrhizae).
- Forest ecology and dendroecology - forest dynamic, growth-climate relations and resistance to drought
- Agroecology.
- Geomorphology and landscape dynamic in high mountain areas.

For more information please visit the following [link](#).