

**Survey of Natural Environment**

Code: 100829  
ECTS Credits: 6

Degree	Type	Year	Semester
2500251 Environmental Biology	OB	1	2

**Contact**

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**Use of languages**

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

**Teachers**

Juan Antonio Calleja Alarcon  
Ana Morton Juaneda  
Francesc Xavier Munill Bernardich  
Emilio Javier Valbuena Ureña

**Prerequisites**

There are no prerequisites to follow the course successfully.

**Objectives and Contextualisation**

The goal of this subject is to be an introduction to the study of biodiversity through the direct exploration of the natural environment. So, the subject includes the learning of different techniques applied in the location and identification of organisms in their own environment. It is therefore a subject with a great dedication to field work through the prospection of different natural environments.

It allow a general vision to introduce students s in different sampling techniques from different groups of organisms (the knowledge of which will be deepened in other subjects) in different environments, as well as in the quantification of this diversity

They also include to work different methodological and transversal skills that will be useful for the subjects of the rest of the studies of Environmental Biology.

The most specific objectives of the subject are the following:

Know how to measure the diversity and richness of species and their spatial and temporal variability.

Learn that is necessary identify the different habitats previous to prospect a zone.

Recognize how environmental factors influence the diversity of species.

Know how to measure the spatial distribution of organisms.

Understand the concept of functional group.

Learn about the main techniques of terrestrial invertebrate sampling and the advantages and disadvantages of each one.

Know the main techniques of marine fauna sampling and the advantages and disadvantages of each one.

Recognize the main groups of terrestrial invertebrates and for insects recognize the main orders.

Recognize the main groups of marine animals in the Mediterranean coastline.  
Recognize the main families of plants.  
Recognize some of the most abundant seaweed and marine plants on the Mediterranean coast.  
Recognize the most abundant trees and shrubs of the Mediterranean and mountain forests.  
Learn how to correctly collect (preservation, labeling, etc.) the different organisms

## **Content**

Concept of diversity, biodiversity and species richness and its quantification

Main plants, algae and fungi sampling techniques

Main various faunistic groups sampling techniques

Methodological bases for the organisms identification.

Methodological bases for the conservation and cataloging of organisms.

Basic statistical treatments of diversity censuses

Spatial and temporal variability effects of on biological diversity.

Effect of abiotic factors on species diversity at local and regional scale

Effect of the sampling effort on diversity measures: sampling design, calculation and interpretation of species accumulation curves