M1 bop - 2013-2014
Training period

Supervision :

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Tittle of the training period :

Taxonomic and functional composition of ant communities along a Mediterranean altitudinal gradient

Keywords :

Altitudinal gradients, ants, community ecology, functional traits

Summary :

The trainee will:

- (1) *compile* a data base of the ant species that could be found in the center of the Iberian peninsula, to develop a (1a) *list of the potential species* that could be found in the sampling that will follow after the trainee's work, and (1b) *a list of their main functional traits* and (1c) their *phylogenetic relationship* (or at least a rough guide on this).
- (2) help to *develop working hypotheses* on the distribution of both those species and their functional traits and phylogenetic relationships along the altitudinal gradient, according to the relevant knowledge on ecological biogeography (particularly on niche conservancy).
- (3) by *perusing* scientific papers, grey literature (local reports, zoological records) and *browsing* web-based resources (such as GBIF, biodiversidad virtual, AIM web).
- (4) Also, the trainee will help with the actual sampling of the ant species, which includes (4a) doing field work to *set and recover pitfall traps* and (4b) *help to handle the samples* to both conserve and identify the specimens in the laboratory.

Activities (1) to (3) are expected to be done during March to May, while activity (4) will be done in May to July.

Two references bibliographics :

- Sanders et al. 2007. Temperature, but not productivity or geometry, predicts elevational diversity gradients in ants across spatial grains. Global Ecol. Biog., 16 :640-649.
- Machac et al. 2011. Elevational gradients in phylogenetic structure of ant communities reveal the interplay of biotic and abiotic constraints on diversity. Ecography, 34 :364-371

Technique developped :

- Sampling with pitfall traps (for terrestrial insects)
- Qualitative meta-analysis

Particular skills required :

- Language skills (both Spanish [reading, speaking] and English [reading])
- Best if having driver's license