



BIOL2261 Evolutionary ecology

[30h] 3 credits

This course is taught in the 1st semester

Teacher(s): Renate Wesselingh
Language: French
Level: Second cycle

Aims

Evolutionary ecology is the study of how organisms have evolved to become adapted to their environment, including their interactions with members of their own and other species (the biotic environment) as well as the physical environment; it examines the selective pressures imposed by the environment and the evolutionary response to these pressures.

Main themes

The course starts with an introduction to the principal elements of evolutionary ecology: natural selection, variation, heritability, and other agents of evolutionary change. It will then continue with diverse subjects such as co-evolution, modes of reproduction, life history theory (timing of reproduction, reproductive effort), sex allocation, kin selection, sociality, game theory (evolutionary stable strategies), fluctuating environments, etc.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Knowledge of ecology is a prerequisite for this course, as well as some notion of (population) genetics.

The course consists of lectures and discussion of recent articles in the field from leading journals such as *Evolution* and *Journal of Evolutionary Biology*, which are chosen and introduced by the students themselves. The evaluation is a discussion of an article, of which the student will have made an analysis in advance.

Other credits in programs

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| BIOL22/B | Deuxième licence en sciences biologiques (Biologie des organismes et des populations) | (3 credits) |
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