



BIOL2262 Synecology

[30h+30h exercises] 4.5 credits

This course is taught in the 1st semester

Teacher(s): Thierry Hance, Anne-Laure Jacquemart, Renate Wesselingh (supplée Anne-Laure Jacquemart)
Language: French
Level: Second cycle

Aims

The "synecology" course completes on the masters level the teaching of ecology by bringing the most complex level of interspecific interactions. It includes two parts : the first (15-15) will be for the strategies of ground occupation by plants. The second (15-15) will carry on the problems of synecology on the community level and animal societies.

Main themes

First part : Adaptative ecology and competition of vegetal communities : ecophysiological data acquired from observing plants.
 a) Adaptation : concepts. b) Adaptations to edaphic sites : to ground movement, to lack or excess of N, Ca, Na. c) Adaptations to saturated or water-deficient grounds. d) Adaptations on light, seasonal and thermal cycle adaptations. e) Consequences of adaptations on structure and functioning of populations and biocenoses. f) Interactions between plants : competition, coexistence and other interactions.

Second part : Synecology of animal communities.

a) Interspecific competition : notions of ecological niche, Gauss model and its implications, consequences of interspecific competition. b) Prey-predator and host-parasite relations : a few models and their implications and consequences on the ecosystems. Ethological and demographic aspects. c) Highlighting the direct and indirect interspecific relations. d) Interspecific relations and coevolution. e) The populations constituted of structured society. Installing societies and conditions of appearance of a society. The relations between societies of different species, ethological and demographic aspects.

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

Prerequisites: Individuals and populations ecology course (BIOL2191).

Evaluation: oral examination preceded by written preparation. Written reports for practical works.

Support: articles, reference book (Crawford, 1989), syllabus, films.

Other credits in programs

BIOL22/B	Deuxième licence en sciences biologiques (Biologie des organismes et des populations)	(4.5 credits)
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