



Faculty of Sciences

BIOL3308 Conservation de la biodiversité

[30h+7.5h exercises] 3 credits

This course is taught in the 2nd semester

Teacher(s): Michel Baguette
Language: French
Level: Third cycle

Aims

To introduce the scientific bases of biodiversity conservation and the juridical aspects and its daily practice like the survey of natural grounds and endangered populations. The course desires to present the scientific bases of conservation biology, privileging a multi-disciplinary approach integrating ecology, biogeography, genetics, to get to a modelisation approach. Then the course will come upon the applied aspect of this discipline, integrating a political and socio-economical reflexion.

Magistral course with constant use of projections (transparents, slides and computer screens). Presentation of cartographic documents.

Constant interaction with the students in the form of question-answers.

Main themes

Part 1 (15h) : Scientific bases of biodiversity conservation. The course will start by defining the three levels of biodiversity (genetic, specific and ecosystematic). Then the particularity of the actual extinction crisis is compared to the previous ones. The consequences of human activity on environment (fragmentation of living grounds and isolation of populations) are detailed and the solutions of land engineering (conservation halls, ecological grid, network) are proposed presenting the tools and methods of looking after endangered populations (metapopulation fonctionning models, population transfert). Part 2 (15h) - The consertion of biodiversity in the real world. This part begins on the historical of conserving nature, integrating evolution of human-nature relations. Then the course presents the methods used to evaluated the biologic value of a site or specie, then the tricks of looking after a site or natural parc, presenting the history of the use of soil in occidental europe, comparing it to the use in the oriental part of the american continent. The juridical aspect of biodiversity conversation is looked upon on the Wallon level, then Belgian and European through the study of cases. Finally the importance of associative movements to conversation nature is treated in Belgium and Europe. The practical work consists of an initiation of computer modeling of the way endangered populations function and to demonstrate the problematics of conserving particular sites.

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

Prerequisites: thorough knowledge of biology.

Evaluation: theoretical oral examination preceeded by written preparation. Personnel work of about ten pages on a subject related to the course and chosen in accordance with the teacher.

Support: available bibliography is presented to students at the beginning of the course. Complete syllabus (firts part), detailed plan with documentation (second part).

Programmes in which this activity is taught

ENVI3DS Diplôme d'études spécialisées en science et gestion de l'environnement

SC3DA Diplôme d'études approfondies en sciences

Other credits in programs

ENVI3DS/3	Diplôme d'études spécialisées en science et gestion de l'environnement (Gestion de l'espace et environnement)	(3 credits)	Mandatory
SC3DA/B	Diplôme d'études approfondies en sciences (Biologie)	(3 credits)	
SC3DA/G	Diplôme d'études approfondies en sciences (Géographie)	(3 credits)	