UCL Université catholique de Louvain

LBIRF2106

2015-2016

Gestion des habitats et des espèces

4.0 credits	22.5 h + 22.5 h	1q

Teacher(s) :	Licoppe Alain ; Titeux Nicolas ; Jacquemart Anne-Laure (coordinator) ;
Language :	Français
Place of the course	Louvain-la-Neuve
Inline resources:	iCampus
Prerequisites :	Basic notions in ecology and population ecology; phytosociology *The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Main themes :	Population dynamics in heterogeneous landscapes, spatial distribution of habitats and species, assessment of species conservation status at landscape or regional scale, evaluation of habitat suitability for particular species, biodiversity monitoring schemes, identification of key elements within a landscape for species survival and reproduction, threats and solutions in biodiversity conservation from the population to the landscape levels, techniques in restoration and management of natural and semi-natural biotopes, hunting and game management practices, game biology and management, monitoring techniques of game populations, analysis of the habitat used by red deer and equilibrium between game populations and forests.
Aims :	Evaluating the suitability of habitats for the species at local scale (with a particular focus on open biotopes), but also at landscape or regional scale, in order to implement appropriate environmental management strategies with a particular view to preserving, maintaining or restoring fauna and flora, as well as ecosystem functioning. Evaluating the status of (game) animal or plant species and estimating the suitability of their habitat in a region in order to implement appropriate management strategies: conservation, regulation or eradication. AA M1.1, M1.2, M1.3, M1.4, M2.4. Students will be able to - Evaluate the quality of biotopes and of habitats for different animal species - Present and compare different techniques in habitat restoration and management - Propose techniques for species monitoring including game species - Develop game management strategies *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Evaluation methods :	Oral or written exam (depending on the number of students) on theoretical courses and applied seminars, and field trips
Teaching methods :	Support : Slides of lectures and seminars in English or French available via the iCampus website. Teaching team: 3 teachers and several invited speakers for seminars and field trips.
Content :	Lecture established in the form of interconnected modules based on theoretical courses with field trips (2 days) and several seminars on applied themes (invited speakers). Module 1: Biodiversity monitoring: theoretical background and applications. Principles and techniques of biodiversity inventory: sampling design and data collection across a variety of spatial and temporal scales. Evaluation of conservation status for species and biotopes.'Module 2: Spatial modelling of species distributions: conceptual background and applications from landscape to continental scale. Identification of environmental requirements for species to guide appropriate management practices. Prediction of species distribution dynamics in space and over time under changing environmental conditions. Module 3: management and conservation of natural and semi-natural biotopes. Techniques of restoration and management applied to open biotopes. Forest management and biodiversity: importance of open areas in forests and dynamics in forest cycles. Managing and restoring ecological networks: Natura 2000 network in Wallonia. Module 4: game species management in Wallonia. Historical and present backgrounds of game management. Biology and management of several game species: monitoring techniques of game populations, use of indicators, calculation of shooting plans, tools and guidelines in habitat use analysis. Module 5: field visits including game species management, management and restoration techniques applied in protected areas and LIFE projects,. data collection for biodiversity monitoring purpose.
Bibliography :	Recommanded readings: Perrow, M. R. & mp; Davy, A.J. (eds). Handbook of ecological restoration. Cambridge Univ. Press. 2004. Hill, D. A., Fasham, M., Tucker, G., Shewry, M. & mp; Shaw, P. (eds). Handbook of biodiversity methods - Survey, evaluation and monitoring. Cambridge Univ. Press. 2005. Franklin, J. (ed). Mapping species distributions - Spatial inference and prediction. Cambridge Univ. Press. 2010.

Faculty or entity in charge:	AGRO

Programmes / formations proposant cette unité d'enseignement (UE)

Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Forests and Natural Areas Engineering	BIRF2M	4	LBIRF2104	