

4.0 credits	22.5 h + 22.5 h	1q
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Teacher(s) :	Titeux Nicolas ; Licoppe Alain ; Jacquemart Anne-Laure (coordinator) ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Population dynamics in heterogeneous landscapes, spatial distribution of habitats and species, landscape fragmentation and impact on species, assessment of species conservation status at the landscape- or regional-scale, evaluation of environmental conditions 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 level to the biogeographical level, techniques in restoration and management of natural and semi-natural habitats, hunting and game management practices, game biology and management, monitoring techniques of game populations, analysis of the habitat used by red deer, the impact of deer on biodiversity, management of risks associated with invasive species
Aims :	<p>Evaluating the quality of the environment at the local-scale (with a particular focus on open environments), but also at the 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 the functions of this ecosystem.</p> <p>Evaluating the status of 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.</p> <p><i>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".</i></p>
Content :	<p>Lecture established in the form of interconnected modules based on theoretical courses and punctuated with seminars on more applied themes (invited speakers).</p> <p>Module 1: Animal and plant populations in heterogeneous landscapes Population dynamics within landscapes: some conceptual reminders Destruction, degradation and fragmentation of natural and semi-natural environments: threats for biodiversity and conservation issues Climate change and biodiversity: a recent threat of high magnitude</p> <p>Invasive species - risk assessment, early-warning systems,</p> <p>Module 2: Managing with detailed knowledge of the facts Principles and techniques of biodiversity inventory: basic information across a variety of spatial scales Principles of biodiversity monitoring over time: establishment of a dashboard Determination of conservation status for species and environments Identification of species requirements for appropriate management: characterisation of species-habitats relationships</p> <p>Module 3: Management and conservation of natural and semi-natural environments Techniques of habitat restoration and management applied to open environments principally in Europe 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</p> <p>Module 4: Game species management in Wallonia Historical and present backgrounds of big game management in Wallonia Biology of big game species Small and big game management: monitoring techniques of game populations, use of indicators, calculation of shooting plans, tools and guidelines in habitat use analysis</p> <p>Module 5: Field visits Illustration of game species management techniques Illustration of management and restoration techniques applied in a protected area et LIFE projects</p>
Other infos :	<p>Precursory courses : Basic notions in ecology and population ecology</p> <p>Evaluation : Personal work related to species and/or habitat management in Belgium (written report of maximum 10 pages) Oral exam on theoretical courses and applied seminars, based on the personal work</p> <p>Support : Slides of lectures and seminars in English or French available via the iCampus website</p> <p>Teaching team : 3 teachers and several invited speakers for seminars</p>

Cycle and year of study :	> Master [120] in Forests and Natural Areas Engineering
Faculty or entity in charge:	AGRO