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| 2.0 credits | 24.0 h | 1q |
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| Teacher(s) : | Wesselingh Renate ; Jacquemart Anne-Laure ; Hance Thierry ; |
| Language : | Français |
| Place of the course | Louvain-la-Neuve |
| Main themes : | <p>Lectures in class room in three modules:</p> <ol style="list-style-type: none"> 1) Plant life history traits, 2) Population dynamics, 3) Basics of evolutionary ecology, and particularly, behavioural ecology. <p>During our lectures we use PowerPoint presentations, but also videos.</p> |
| Aims : | <p>Interactions between living organisms determine the dynamic and the structure of living communities. Moreover, they play an essential role in evolutionary process. In terms of knowledge, students will have to understand the principles underlying the modelling of individual interaction. Moreover, they will have to know the theories on coexistence, competition, herbivory, predation, parasitism and coevolution. At the end of the course they should be able to applied their knowledge to new situations.</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>The diversity of interactions in animal and plant kingdoms is discussed. Following an overview of this diversity, we focus on some types of interactions and their adaptive and evolutionary significance: symbiosis, plant defenses against herbivory, competition, predation. Both theoretical models including optimal foraging theory, and applications are included.</p> <p>Theoretical courses using diverse didactic supports (videos, PowerPoint). The focus is made on the elaboration and follow-up of experimental designs (with a personal critical analysis of one scientific paper on species coexistence including its oral presentation and a join common discussion on planning a competition experiment).</p> <p>The ecology of individuals and their populations is studied in both animal and plant kingdoms, using both theoretical and applied approaches.</p> <p>In the plant kingdom, the different life stages are developed : resource allocation strategies for growth, reproduction and survival, mating system diversity and evolution, pollination and dispersal syndromes, roles and types of soil seed banks and germination, as well as comparison of the advantages and disadvantages between asexual and sexual reproduction systems.</p> <p>Theoretical courses use diverse didactic supports (videos, PowerPoint). At the end of the plant ecology part, summary and comparison between all strategies focus on a recent problematic situation, the exotic invasive species.</p> |
| Other infos : | <p>Biology courses in the first and second years (particularly 'Introductory Ecology' of the second year)</p> <p>Evaluation: written, including both open and multiple choice questions</p> <p>Study material: course, PowerPoint handouts, and exercises on i-campus web site.</p> |
| Cycle and year of study : | <p>> Master [120] in Geography : General</p> <p>> Master [120] in Geography : Climatology</p> <p>> Master [60] in Biology</p> <p>> Master [120] in Biology of Organisms and Ecology</p> <p>> Master [120] in Agricultural Bioengineering</p> <p>> Master [120] in Forests and Natural Areas Engineering</p> |
| Faculty or entity in charge: | BIOL |