Learning Outcomes: Mechanistic biodiversity modelling

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The students will receive an introductory lecture on ecology, biodiversity, methods in biodiversity. Among these methods is mechanistic modeling, the focus of the rest of the lecture. There will be a general overview on the steps to conceive and develop mechanistic models as well as to design simulation experiments. The lecture will finish with eco-evolutionary feedbacks involved in biodiversity modelling and some examples done in the working group.

The students should be able to 1) distinguish mechanistic models from other types of models; 2) identify the types of graphs associated with mechanistic models; 3) to go through the main steps of modeling and experimental design.