

# Species Distribution Modelling

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*2 February 2019*

## Step 1: Expected outcomes

By the end of the lesson, students should be able to:

Understand the concepts of Landscape ecology and Species Distribution Modelling (SDM) and how it fits within the broader framework of landscape ecology.

### Topics to be covered:

- Patch-corridor-matrix
- Scientific principles of landscape ecology
  - Fragmentation
  - Structure and Function
  - Connectivity
  - Individual focal species
  - Generic focal species
- Applications and themes
  - SLOSS tradeoffs
  - Corridor linkage
  - Inter-disciplinary studies
- Species Distribution Modelling
  - Current trends
    - \*  $\Delta$ TraitSDM

## Step 2: Assessing outcomes

Students will be assessed through discussion.

## Step 3: Learning plan

- New concepts regarding landscape ecology will be introduced and help them relate to the ones studied in the spatial ecology lectures.
- This might probably be review at this point of time for some. Try to understand the underlying concepts and the current trends in field.
- Learn why it evolved and how interdisciplinary science and technological advances are helping it grow.

- Try to answer some in-class questions and discuss various ideas within groups.

## **Step 4: Reflections**

### **What went well:**

- A healthy discussion was initiated between students regarding various concepts taught in class.
- Covered a lot of the basic's required by the student's for taking up and learning landscape ecology and SDMs on thier own.
- Student's participated and helped in giving better explanation and examples for different topics and scenarios.

### **What could be improved:**

- Certain concepts was not clearly explained and was lacking in examples. Needs to get in more details (e.g. spatial autocorrelation). This could have been solved, if I had spend more time in less topics to cover.
- There was a lack of cohesive flow and I unknowingly ommitted certain portions of the presentation. A properly ordered notes would have helped in conveying all the required info to the class.
- More details about SDMs with simpler explantaions backed by explaining the individual elements of SDM.

### **What would I do differently next time:**

- A more cohesive storyline approach with properly ordered notes to follow through.
- Simplify and explain with examples along with better use of the visual aid.
- Providing some materials for the students to go through before class help them understand the topics better and participate efficiently.