

Managers Course: Presentations and Activities

Module 1. General overview (Day 1) *General Goals:* General Goals: Review of Systematic Conservation Planning using current examples.

Presentation 1a: Introduction to SDMs: Their uses, ecological basis, and assumptions
Activity 1a:

Presentation 1b: Understanding uncertainties inherent in SDMs and ways to manage and integrate them into decision making
Activity 1b:

Presentation 1c: Review the basic components within a modeling workflow
Activity 1c:

Module 2. Resources available *General Goals:* Review current sources of data for the different types of model inputs (occurrence and environmental variables) and understand important differences between each.

Presentation 2a: Understanding species occurrence data
Activity 2a:

Presentation 2b: Review of occurrence data sources
Activity 2b: Participants will review online data sources of occurrence data, describe limitations of each, and match each to a set of pre-defined modeling goals and management objectives

Presentation 2c: Understanding environmental data sources including climate data

Activity 2c: Participants will review online environmental data sources, describe the limitations of each, and list the resolution, extent, and file format for each source and how these were identified

Presentation 2d: Review of existing SDM-based decision-support tools and web applications

Activity 2d: Participants will review tools and list sources of data, evaluation and testing used, and strengths and weaknesses as they relate to specific decision and management needs

Module 3. Species Distributions Models *General Goals:* Review the different types of SDMs, their basic evaluation, applications, and limitations.

Presentation 3a: Overview of SDM types, their similarities and differences, and how they can help inform decision making needs

Activity 3a:

Presentation 3b: Best practices for SDM testing

Activity 3b:

Presentation 3c: An overview of Maxent output, assumptions, limitations, and potential applications.

Activity 3c: Review a set of management and decision needs and how Maxent output can or cannot inform them.

Module 4. Conservation planning tools *General Goals:* Review different uses, goals, and available types of reserve selection software. Go through a prioritization example workflow using Marxan

Presentation 4a: Review of reserve selection goals, appropriate uses, and tool types

Activity 4a:

Module 5. Modeling with rapid environmental change *General Goals:* Understand unique issues, problems and challenges associated with using species distributions for developing adaptation strategies in the context of rapid environmental change.

Module 6. Getting outside technical support

General Goals: