

Spring 2020

BIOS 7970 SEMINAR in CONSERVATION BIOLOGY (2 credits)

SPECIES DISTRIBUTION MODELING

- Inferring Past, Present and Future Species Ranges -

Instructors:

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Location and time: TBD

Understanding species geographic distributions is a central tenet in ecology and evolution. Predictions of species distributions has evolved from placing imaginary boundaries on maps, to sophisticated algorithms that capitalize on massive publicly-available biodiversity datasets. In this seminar, we will explore the complexity of predicting species distribution, focusing on both theoretical aspects and hands-on computer-based exercises in program R.

Discussions will be focused on scientific papers that explore methodological advances, applications, and pros and cons of SDM's. Computer exercises will explore available SDM analytical methods, and their use in defining current and future conservation priorities.

SDM Species Distribution

Environmental Niche

Resource selection

Climate response

Habitat suitability

Ecological Niche

Bio-climate

Modelling

Modelling

Modelling

Modelling

Modelling

Modelling

Modelling



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<https://methodsblog.files.wordpress.com/2011/06/graphic-php.jpg>

This seminar contributes to the BIOS Graduate Conservation Biology Certificate