

Introduction to species distribution modeling

Emilio Berti

Lecturers

- ▶ Prof. Ulrich Brose
- ▶ Dr. Emilio Berti

Course overview

Ecological Niche Modeling (ENM) and Species Distribution Modeling (SDM) using the R programming language. This course assumes basic R knowledge.

In the first # days, etc.

A basic knowledge of Geographic Information Systems is required for ENM/SDM. I will introduce basic concepts and operations of GIS, but this is not a course about GIS.

Learning objectives

- ▶ Understand the theory behind ENM/SDM.
- ▶ Perform ENM/SDM in R.
- ▶ Apply ENM/SDM to real data.
- ▶ Produce maps.

Material

The material of this course is hosted at `asd`. It consists of:

- ▶ Lectures.
- ▶ Labs.
- ▶ Slides.

The only package that we will use is `terra`. You might want to install also `codetools`, which performs checks on the C++ code of `terra`.

```
install.packages(c("codetools", "terra", "randomForest"))
```

Note

`terra` is still in active development and some functionalities change with newer releases.