

EXERCISE 8

Species distribution modelling

Maxent is a widely used Species Distribution Modelling tool (Phillips et al., 2006) that produces maps of suitability for a species based on its occurrences and environmental layers of the area covered. This exercise shows the steps required in producing these maps.

Objectives (at the end of this module, the user should be able to)

1. Access and download species occurrence data used Maxent
2. Run Maxent using downloaded occurrence data and environmental layers processed in Exercises 6 and 7

Requirements:

1. Software required include ArcMap Version 10 and Maxent (download from <http://www.cs.princeton.edu/~schapire/maxent/>)
2. Web browsers such as Firefox and Chrome
3. Access to the Internet
4. Knowledge of ArcMap use

Expected time to finish: 1 Hour

Species Distribution Modelling Using Maxent

1. Search for the kiwi and download the occurrence data from <http://data.gbif.org>
2. Unzip the downloaded occurrence zip file
3. Edit the occurrence data so that only the Species, Longitude and Latitude data remains
4. Save the occurrence file as a CSV file
5. Run Maxent and in the Samples input use the occurrence file above; for the Environmental Layers input the Folder processed previously
6. In the Settings set the parameters as shown in the video
7. The outputs will be in the folders designated in the Maxent Window