Biodiversity Informatics Training Module
NICHE MODELING: MODEL EVALUATION

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Abstract.—Ecological niche modeling has become a very popular tool in ecological and biogeographic studies across broad extents. The tool is used in hundreds of publications each year now, but some fundamental aspects of the approach have seen a fair amount of carelessness. Among these aspects is that of model evaluation or validation. This unit provides a simple introduction to the basic concepts that are important in model validation, using some very simple examples. The focus is on two solutions to the challenge of model evaluation: a simply cumulative binomial approach that can be used with binary model outputs, and partial ROC analysis, which can be used with continuous model outputs.

Exercises, Illustrations, and Reading Materials relevant to this training module can be downloaded from http://hdl.handle.net/1808/10059. Note that one file has the extension ".xyz". This extension must be changed to ".exe", as it is a program for partial ROC analyses and should be installed on your computer.

Video Links (via YouTube):
Part 1 – http://www.youtube.com/watch?v=nTLP8oPcPl8
Part 2 – http://www.youtube.com/watch?v=SCJcQj8m1RI
Part 3 – http://www.youtube.com/watch?v=XgajiIdwQH0
Part 4 – http://www.youtube.com/watch?v=Rvxnuq_yeDY
Part 5 – http://www.youtube.com/watch?v=qnljkZrA61Q

For More Information and More Training Modules:
http://biodiversity-informatics-training.org/