

Homework 2
Conservation Ecology
Summer 2009
50 points

Evaluating the primary literature: Climate change and extinction risk

Being able to read and understand the primary literature (i.e., peer-reviewed papers authored by scientists) is an important skill for scientists to develop. You will evaluate some key aspects of a peer-reviewed paper by identifying 1) the major objectives and hypotheses, 2) the principal methods used to answer the authors' questions, 3) the key results found, and 4) why it is an important contribution to the conservation literature. Be sure to use your own words—don't just copy from the paper. Type your answers to the questions listed below:

Paper: Thomas et al., 2004. Extinction risk from climate change. *Nature* 427:145-148.

Questions/tasks:

- 1) Describe the primary questions asked by the authors.
- 2) What (if any) hypotheses were stated by the authors?
- 3) This paper uses two major tools to assess whether climate change affects the risk of extinction: climate envelopes and the species-area relationship. Briefly describe how the authors used these two tools to assess extinction risk.
- 4) Based on the authors' results, does climate change affect extinction risk? What was the range of effects?
- 5) Compare the expected effects of climate change to that of habitat loss/degradation. Be specific.
- 6) Do you believe the authors' findings? Why or not? You may want to address some of the key assumptions of the paper to help answer this question.