

Term Paper Outline: Species Distributions and Phylogeographic Histories

Outline due Feb 10th (in class Monday) – 10 points – NOTE EXTENDED DEADLINE

Develop an outline of your paper that includes the following:

1) **Animal group and list of members** - Indicate your choice of animal group (species, genus or family) and provide a list of subgroups. If you choose a species, the focus should be on subspecies, phylogroups, genetically distinct populations, ecotypes, etc. If you choose a genus, the focus can be on species within that genus. It's best not to choose a taxon with a higher rank than family. Your list should be no more than four or five subgroups.

2) **Published phylogeny that contains your members** - Determine whether the phylogenetic relationships within your animal group are known. In other words, is there an existing phylogeny for the group you have chosen? This will be essential for the portion of the paper that summarizes the phylogeographic history of your selected group. Use an academic search engine (e.g., Web of Science, Google Scholar) and/or the UBC Library "Indexes and Databases" (<http://resources.library.ubc.ca/>) to look for published papers that have complete phylogenetic hypotheses. In your outline, include a figure of this published phylogeny, citing the source, with a draft of a figure legend written *in your own words*. Do not simply use or restate the figure legend from the paper where the phylogeny is published.

A note on phylogenies: Ideally you should find a phylogeny that is molecular and dated. For example, the phylogeny itself is constructed using gene sequences (rather than morphometrics, traits or characters), and it should be an ultrametric tree, where edge lengths represent time.

3) **Initial literature search** - Once you have decided on an animal group and have confirmed that there is a phylogeny available, proceed with an initial literature search. Use the databases mentioned above to look for published articles, books and field guides with information on your chosen group. In your outline, provide a list of five citations (the publication including the phylogeny found above can count as one of the citations). Use consistent formatting for listing your citations, as you would in the literature cited section of your final paper.

4) Optional – the above three components of your outline are required and will be marked. You can, however, begin to develop various sections of the paper, to get feedback at this stage.

Stumped? Look for ideas on what animal group to write about by browsing the Tree of Life Website: <http://tolweb.org/tree/>. Here you can pick animal groups to get ideas and then conduct more specific database searches.