Prompt

Assume a conservation-oriented non-profit organization asks you to conduct a climate change vulnerability assessment using species distribution models (SDMs) for two species. They selected these species because they are of conservation and cultural significance. They want you to model (1) the present distribution of each species, (2) the distribution of each species in the mid-21st century, and (3) the late-century distribution of each species. They do not specify the particular years for what they mean by present and near- and distant-future. They do not provide you with any data on the species or any environmental data to use in your models. They only request that you provide them with your raster maps and a description of your inputs and modeling methods (to be reported using the ODMAP protocol; Zurell et al. 2020) once you complete your models.

Protocol

Target Species

Species A: Indian leopard cat (*Prionailurus bengalensis*, family Felidae) native to Southeast Asia

Species B: Cycad plant species *Zamia prasina* (family Zamiaceae) native to Central America and southern North America

Please submit

- To streamline the influx of results from different modelers and modeling teams, please download, complete, and submit these Species A and Species B spreadsheets, in addition to the ODMAP protocol. The spreadsheets each contains four tabs, including a README tab and tabs for the following:
    - Occurrence data (after cleaning)
    - List of predictors and definitions of predictors used in the models
    - Statistics used to assess model accuracy
- At least one current raster and rasters for 2 future time periods in GeoTIFF format (not thresholded, but please also submit thresholded if you would probably normally do this)
    - Please provide rasters as you would to an organization that contracted you for this work. That is, we do not really want a “data dump” of every model outcome you produce, but rather your best guess(es) you’d advise using for decision-making.
- One raster or vector file with the region you used for calibrating the model.
- Completed ODMAP protocol (this is essentially a standardized version of your methodology). You can use this online tool to complete your ODMAP protocol.
- All scripts for data acquisition, cleaning, modeling, evaluation, and post-processing

How to submit

All materials (spreadsheets, rasters, ODMAP protocol, etc.) will be submitted via a Google form. The link to this Google form will be sent to all modeling teams at a later date.

We want to assure you that we have a pre-defined methodology for comparing outputs of these models. However, to avoid biasing outputs, we will divulge these later.