

Peer Review Plan for the Risk Assessment and Mapping Program

About the document

Subject and Purpose: The Fish and Wildlife Service (Service) developed a Risk Assessment and Mapping Program (RAMP) to provide a climate suitability score across North America for any species with spatial data available from online databases, such as GBIF.org. The process uses international databases of climate parameters, species distribution, scientific literature, and the CLIMATE algorithm (via 16 climate variables) to match climate, for a species, within its native/non-native range with climate in North America¹. Climate matching results will be available for both current and potential future climates. RAMP outputs are a series of maps that depict species climate match (geographic range) across North America currently and in the future (2050 and 2070), and list climate match score results. The species' history of invasiveness is factored into the risk-screening model.

Importance of Scientific Information: Although only a small fraction of the species imported into the United States escape and ultimately end up causing harm to society, those that do, collectively cost society billions of dollars each year. The most cost-effective and efficient approach to avoid these devastating effects is to prevent risky species from entering the country in the first place. The risk assessment and mapping program would provide efficient risk assessments of species potentially imported to the U.S. under current climatic conditions and potential future climatic conditions (2050 and 2070). This risk screening process will help the Service evaluate species to list as injurious through the rulemaking process under title 18 of the Lacey Act, which would prohibit their importation and interstate transportation. In addition, the results of the risk screenings will be made available to government, industries, and the public, thus more efficiently protecting the biosecurity of the United States by helping to categorize high-risk species and facilitating voluntary agreements and behaviors to not trade in those high risk species. Development of risk screening processes and the integration of screening results into regulatory and non-regulatory decision making have been identified as a prevention priority task for the Service within the National Invasive Species Management Plan. RAMP is an essential component of a risk screening process and we have determined that RAMP will provide influential scientific information.

About the Peer Review Process

Type of review: Independent Peer Review - The Service will solicit comments from independent scientific reviewers who will submit individual responses to questions posed to all invited reviewers, and any additional comments they have in writing.

Number of reviewers: The Service will use 3-5 independent expert reviewers. Letters to a minimum of three peer reviewers requesting their participation will be sent as soon as possible.

¹ Bomford, M. (2008). Risk assessment models for establishment of exotic vertebrates in Australia and New Zealand. Invasive Animals Cooperative Research Centre, Canberra.

Reviewer Expertise: Any one or combination of the following: invasive species biology, invasive species risk assessment, decision-support modeling, aquatic species biology, aquaculture, fisheries, climate change, and climate modeling.

Selection of Peer Reviewers: Peer reviewers will be selected by the Service based on their expertise with the subject matter and as described in the Office of Management and Budget (OMB) Peer Review Guidelines, including not having been involved in development of this Risk Assessment and Mapping Program.

Management of Peer Review: The peer review will be managed by the U.S. Fish and Wildlife Service. Peer reviewers will be given 30 days to complete their reviews. The estimated start of review is June 2014. Peer review comments and Service response to those comments will be made available to the public on a U.S. Fish and Wildlife Service website:

http://www.fws.gov/science/peer_review_agenda.html

About Public Participation

The public is invited to submit comments on this peer review plan by sending emails to prevent_invasives@fws.gov (please state “Risk Assessment and Mapping Program peer review” in the subject line) or by mail to U.S. Fish and Wildlife Service, Branch of Aquatic Invasive Species, Attn: Risk Assessment and Mapping Program peer review, 4401 N. Fairfax Drive, Room 740D (Mailstop 770), Arlington, VA 22203. The deadline for filing comments is July 14, 2014. We do not anticipate public review of RAMP given the highly technical nature of the model. We estimate the final version of RAMP will be disseminated in October 2014.

Contact: Mike Weimer, U.S. Fish and Wildlife Service, Fish and Aquatic Conservation Program at mike_weimer@fws.gov