

Synopsis of Relative Status/Risk Assessment for Pacific Lamprey

NatureServe and its member programs and collaborators use a suite of factors to assess the extinction or extirpation (regional extinction) risk of plants, animals, and ecosystems (or “elements” of biodiversity). By researching and recording information on a set of conservation status factors, biologists can assign a conservation status rank to these elements at both global and regional (i.e., national/subnational) scales. The protocol for assigning a conservation status rank is based on scoring an element against ten conservation status factors, which are grouped into three categories based on the characteristic of the factor: rarity, trends, and threats. Once assigned, scores for the individual factors within each of these categories are pooled and the resulting three summary scores are combined to yield an overall numeric score, which is translated into a calculated rank¹.

We have chosen this approach to rank the relative risk of Pacific lamprey for various watersheds, given the lack of demographic information available across the range. Information for all ten conservation status factors is not required to assign a status rank. We will be using a modified suite of factors (seven) to assess the relative risk/status ranking of Pacific lamprey by watershed throughout its range.

The set of factors we will use to assess conservation status, by category, are:

- **Rarity:** Population Size, Range Extent, Area of Occupancy, and Number of Occurrences;
- **Trends:** Short-term Trend in population size;
- **Threats:** Threat Impact (generated by considering the scope and severity of the major threats).

Information on the conservation factors above will be collected at the regional meetings and this data will be entered into the NatureServe model to aid in assessing the relative health of Pacific lamprey by watershed throughout its range. The goal of the USFWS Pacific Lamprey Conservation Plan is to implement a strategy for restoring Pacific lamprey populations that includes identification and prioritization of: threats; restoration actions; research, monitoring, and evaluation needs; and finally identification of partnerships and potential funding sources to implement priority actions. The relative ranking of risk using the NatureServe conservation status assessment tool will aid us in achieving this goal.

¹Faber-Langendoen, D., L. Master, J. Nichols, K. Snow, A. Tomaino, R. Bittman, G. Hammerson, B. Heidel, L. Ramsay, and B. Young. 2009. NatureServe Conservation Status Assessments: Methodology for Assigning Ranks. NatureServe, Arlington, VA (http://www.natureserve.org/publications/ConsStatusAssess_RankMethodology.jsp)