



Pacific Lamprey

January 2018

Conservation Initiative - California



Pacific Lamprey (Entosphenus tridentatus) migrating up to spawning grounds on the Trinity River (Photo credit USFS).

Pacific Lamprey in Decline

Pacific Lamprey are a native species of anadromous fish that historically returned to spawn in large numbers into watersheds along the West Coast of the United States. Pacific Lamprey were widely distributed in salmon and steelhead bearing streams in California, but the distribution has been severely restricted and the abundance of remaining populations has declined. To respond to these changes, the U.S. Fish and Wildlife Service initiated the development of a comprehensive plan to conserve and restore Pacific Lamprey, working in close collaboration with tribes, federal, state, and local agencies, and other entities. The Pacific Lamprey Conservation Initiative is the strategy of the U.S. Fish and Wildlife Service and its partners to improve the status of the species by identifying, prioritizing, and helping to implement research and conservation actions.

Conservation Initiative Approach

The approach of the Pacific Lamprey Conservation Initiative is a three part process: an Assessment and Template for

Conservation Measures; a Conservation Agreement; and Regional Implementation Plans, reflecting a collaborative process that spans several states. In 2017, the effort was adopted as a National Fish Habitat Partnership, Regional Implementation Plans were completed for all anadromous streams in California and the Assessment was updated. The next steps in the Conservation Initiative are to work with partners to execute regional implementation plans by furthering on-the-ground conservation actions throughout California.

Assessment

The 2017 assessment tracks the current knowledge of Pacific Lamprey habitat requirements in California, as well as information on abundance, historic and current distribution, and threats and factors for decline. The assessment also identifies conservation actions and research, monitoring, and evaluation needs. To systematically characterize the conservation risk of Pacific Lamprey across its range, the assessment was conducted with a diagnostic tool adapted from NatureServe by using existing demographic and threat information. This information was collected through a series of 46 regional meetings attended by our local partners. Each individual watershed was analyzed to rank the relative risk of extirpation, and these risks were summarized by region.

The assessment established that Pacific Lamprey had been extirpated from at least 55% of their historical habitat north of Point Conception by 1985, primarily due to large impassible dams. In addition, no viable populations exist in drainages south of the San Luis Obispo River, which was re-colonized in 2017. Primary threats in California include passage impediments, streamflow management, stream dewatering, and prey availability. The majority of watersheds are at relatively high risk, with very few that are relatively secure.



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Agreement

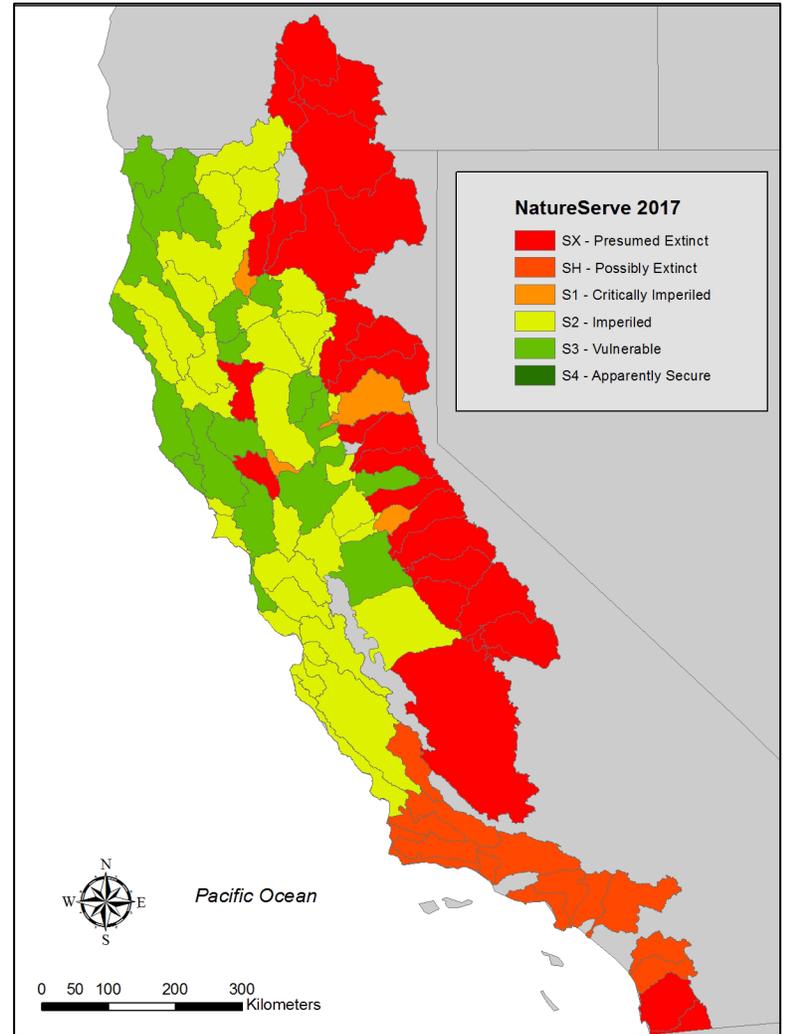
The agreement is a non-regulatory commitment by the interested parties to collaborate on efforts to reduce or eliminate threats to Pacific Lamprey to the greatest extent possible. Signatories included 12 tribes, 4 states and 14 federal entities. The goal of this agreement is to achieve long term persistence and support traditional tribal cultural use of Pacific Lamprey throughout their range. This agreement provides a mechanism for interested parties to collaborate and pool available resources to expeditiously and effectively implement conservation actions.

Regional Implementation Plans

Regional Implementation Plans are a toolset that facilitate prioritization of conservation actions, and promote the rapid initiation of on-the-ground projects. The plans identify 367 conservation actions needed in California at both the regional and the watershed scale to address threats and issues identified by local stakeholders and experts in fish biology. The Regional Implementation Plans build upon existing restoration plans for other species that include conservation actions such as: modifying fish ladders, removing barriers, restoring in-stream habitat, and consideration of lampreys during in-stream projects. However, the plans include lamprey-specific actions and projects needed to recover this important native fish species.



Credit: Rene Reyes



Relative risk ranks for Pacific Lamprey in California.

Pacific Lamprey Summit

The Pacific Lamprey Summit, held in December 2017, built upon the progress made at previous summits, which identified the importance of Pacific Lamprey and called for implementing specific conservation actions. The summit was held in Portland, Oregon in 2017, and was attended by over 110 partners. Partners solidified their commitment to Pacific Lamprey by re-affirming their support for the Conservation Agreement and answered the call for restoration actions through adopting the Regional Implementation Plan strategies.