

Species Gap Analysis: Introduction and Overview

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Fish and Aquatic Conservation (FAC)

FAC uses a science-based approach to work with partners and the public to maintain, enhance, and restore fish and other aquatic resources for the continuing benefit of the American people.

This mission is carried out through a boots-on-the-ground network of field biologists dedicated to the protection, restoration, and recovery of our nation's freshwater ecosystems and everything that lives in them. We work with partners and local communities to:

- Monitor native fish and other aquatic species population status and trends
- Assess the condition of aquatic habitats
- Develop sound plans to conserve native aquatic species and their habitats
- Restore aquatic habitat function and remove barriers to fish migration
- Prevent, eradicate, and control aquatic invasive species
- Evaluate the effectiveness and biological outcomes of aquatic conservation efforts



Purposes of Gap Analyses

Assessment, evaluation, and refinement

- Evaluate conservation efforts for priority species
- Identify gaps to achieving conservation objectives
- Identify and make program refinements

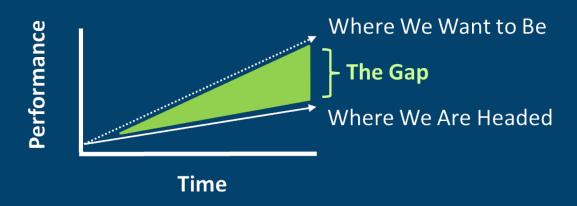
Communication, messaging, and building support

Engage with partners on shared priorities



Gap Analysis Framework

- Describes the conservation gap between the current and desired state
- Identifies actions that are largely achievable by the Service and partners
- Recommendations for reaching the desired state







Units of Study: Species Groupings

- Consider multiple species within a 'habitat area'
- Funding investment
- Relevant to FAC field activities
- Regional management feedback

Other factors discussed by Assistant Regional Directors

- Connection to other USFWS efforts (e.g., propagation programs)
- Opportunity for USFWS to affect change

Species Groupings

Upper Northwest Alaska Rivers Bull trout Pacific lamprey Chinook salmon Chum salmon Coho salmon Sockeye salmon Inconnu (sheefish) **Lahontan Complex** Bering cisco Lahontan cutthroat **Arctic lamprey** Cui-ui Salt and **Upper Gila** Gila trout Gila topminnow Apache trout

Italics = Focal species used to define geographic scope Underline = Priority Propagation Program report

Rockies

Yellowstone cutthroat Bonneville cutthroat Colorado River cutthroat Greenback cutthroat Westslope cutthroat Arctic grayling **Bull trout**

Rio Grande

Rio Grande cutthroat Rio Grande silvery minnow Rio Grande sucker Rio Grande chub

Upper Great Lakes

Lake sturgeon Lake trout **Brook trout** Lake whitefish Lake herring Walleye

Upper Mississippi

Pallid sturgeon Lake sturgeon Topeka shiner Niangua darter Smallmouth bass Walleye Sauger

Lower Mississippi

Pallid sturgeon American paddlefish Yoknapatawpha darter Alligator gar____

Gulf sturgeon

Lower Great Lakes

Lake sturgeon Lake trout Lake herring

Northeast Coast

American shad American eel Alewife Blueback herring Atlantic salmon - GOM DPS Striped bass Atlantic sturgeon – Chesapeake Bay DPS

Gulf Coast

Striped bass



Some Recommendation Themes

- Numerous local-scale technical recommendations
- Improve range-wide planning for non-ESA-listed species
- Improve coordination on stocking of nonnative sportfish
- Increase partner engagement and coordination
- Address gaps in technical capacity
- Emphasize proactive conservation



Some Rocky Mountain Region Recommendations



- Reconvene a range-wide coordination team for Western cutthroat trout conservation
- Build intra-agency communication / collaboration
- Validate contributions of fish passage projects
- Seek increased funding for fish habitat restoration
- Conduct a review and evaluation of Service practices for rearing and stocking nonnative salmonids
- Convene summit on cutthroat trout lineages and introgression





How Gulf States Marine Fisheries Commission Can Help

- Support collection and synthesis of information
- Identify GSMFC and partner contacts
- Review gap analysis report drafts
- Provide feedback on analyses and recommendations
- Facilitate briefings for technical committees as needed
- Connect with region and field offices to identify opportunities





I crave human contact.

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Some Lower Great Lakes Report Recommendations

- Articulate USFWS goals and objectives that stem from the Great Lakes Fish Commission lake committee objectives
- Restore pre-COVID 19 communications protocols with partners
- Lower Great Lakes FWCO should lead more deep-water habitat assessment work for lake trout and coregonines
- Focus fish passage activity on historic spawning habitats for lake sturgeon in the Lake Ontario basin
- Encourage a more aggressive timeline to advance steps towards coregonine restoration



