



Pacific lamprey. Photo credit: Jeremy Monroe, Freshwaters Illustrated, USFWS.

Coastal Fish Habitat Partnerships

Spring 2016 Newsletter

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Fish Habitat Decision Support Tool Provides Access to Spatial Data and Analyses from Central and Eastern U.S. Regions

March 1st marked the official launch of the <u>Fish Habitat Decision Support Tool</u>, a multi-year collective effort of <u>Downstream Strategies</u>, <u>West Virginia</u> <u>University</u>, <u>Critigen</u>, <u>US Fish and Wildlife Service</u>, <u>North Atlantic LCC</u>, <u>The Nature</u> <u>Conservancy</u>, and many Fish Habitat Partnerships, including the <u>Atlantic Coastal</u> <u>Fish Habitat Partnership</u> (ACFHP). The decision support tool provides resource managers and the general public with access to extensive spatial data and analyses from multiple fish habitat assessments spanning much of the central and eastern portions of the United States.

ACFHP and the Eastern Brook Trout Joint Venture (EBTJV) provided guidance for the coastal assessments, which were funded by the North Atlantic LCC. The coastal assessments address brook trout in the Chesapeake Bay watershed (EBTJV), winter flounder in Narragansett Bay and Long Island Sound (ACFHP), and river herring and American shad along the Atlantic coast (ACFHP). For the winter flounder models, ACFHP and partners worked closely with local winter flounder experts to collect datasets, provide feedback on metrics, and verify outputs. For the diadromous fish assessment, TNC has played an integral role in providing data and feedback to ACFHP and partners and helping to ground truth the data with local experts.

The tool contains three different analyses for most of the assessments: visualization, ranking, and futuring. The visualization tool allows users to explore modeled fish distributions and individual (or multiple) variables that went into each model, and the ranking tool allows practitioners to prioritize fish habitat restoration and conservation areas based on the variables and weights that they choose. To predict future scenarios, based on factors such as development and climate change, the futuring tool is available for the Great Lakes Basin, Ohio River Basin, and Chesapeake Bay. With this tool users can determine whether a species will persist at a site as conditions change.

ACFHP is hopeful that this tool will help agencies and managers in a given region align priority areas, and help practitioners pick projects that will have the greatest positive impact on fish habitat. ACFHP is committed to using the latest science and data to guide its conservation efforts, and the partnership is excited to incorporate this tool in future planning and restoration.

To access the official press release, visit <u>http://www.atlanticfishhabitat.org/fish-habitat-decision-support-tool-launches/</u>

To access and use the Fish Habitat Decision Support Tool, visit <u>http://www.fishhabitattool.org/</u>.

ABOUT THE TOOL

This tool was created with funding from the United States Fish and Wildlife Service to provide resource managers and the general public with access to the extensive spatial data and results produced from multiple fish habitat assessments.

Additional assessments performed under funding and guidance from the North Atlantic Landscape Conservation Cooperative and the Atlantic Coastal Fish Habitat Partnership are also included within the same web mapping application.

Three main analytical tools (visualization, ranking, and futuring) are combined with intuitive basemaps and mapping features to allow users to explore the details of the assessments and perform subsequent analyses.

CLICK THE MAPS TO USE THE TOOL

RELATED LINKS & RESOURCES





Climate Change in Southeast Alaska - Informing Sustainable Management of Water Resources and Anadromous Fisheries, Spring 2016

April 12-15, 2016, Juneau, Alaska

In 2014, the <u>Tongass National Forest</u> worked with <u>EcoAdapt</u>, with support from the <u>Wilburforce Foundation</u>, to conduct a stakeholder workshop and complete a climate change vulnerability assessment of aquatic resources including snow, ice, water,

riparian vegetation, and fish. You can access this report <u>here</u>. With support from the <u>North Pacific Landscape Conservation Cooperative</u>, the <u>Southeast Alaska Fish</u> <u>Habitat Partnership</u>, and <u>State of Alaska Department of Environmental</u> <u>Conservation</u>, we plan to advance this work through convening a workshop this April (April 12-15, 2016) focusing on:

* Effects of hydrologic regime shifts on rivers, streams, and riparian corridors

* Effects of changes in the hydrologic regime on anadromous fish

The purpose of the workshop is to bring scientists together with resource management practitioners to enrich knowledge, foster collaboration, and inform sustainable management of priority aquatic resources. Key workshop sessions will address current climate projections for Southeast Alaska, local traditional ecological knowledge perspectives, current and future monitoring plans, opportunities for collaboration and emerging technological tools and resources. In addition, active working sessions planned for the workshop include focus on streamflow and watershed classification, freshwater temperature monitoring, and anadromous fish and habitat ecology. Our anticipated outcomes are as follows:

- * Share progress and findings of relevant studies
- * Distribute analytical tools that could be used for resource management
- * Identify knowledge gaps and identify strategic actions
- * Integrate traditional knowledge into studies and assessments
- * Identify long-term data platforms for aquatic resources
- * Endorse a regional watershed classification to discern hydrologic regime shifts
- * Develop tools to predict changing ice and snow conditions and implications for hydrologic regimes

* Develop tools to predict response of salmon habitat to changing hydrologic regimes in SE Alaska

For more information please contact: Julianne Thompson - Meeting Chair, USFS 907-772-5873, jethompson02@fs.fed.us Deborah Hart - Meeting logistics, SEAKFHP 907-723-0258, coordinator@sealaskafishhabitat.org

California Fish Passage Forum Carpinteria Creek Fish Passage Project



A project the California Fish Passage Forum funded in 2014, the Carpinteria Creek Fish Passage Project, was completed in 2015. The project addressed the last major barrier to steelhead in the watershed and opened up 1.27 miles of habitat by removing an undersized bridge and concrete channel to meet fish passage criteria for all steelhead life stages.

Project partners included the California Coastal Conservancy, US Fish and Wildlife Service, National Oceanic and Atmospheric Administration, South Coast Habitat Restoration, and California Fish Passage Forum.

Fore more information on the project, click here.

California Fish Passage Forum Proposes Pacific Lamprey Work



Three adult Pacific lampreys. Photo credit: USFWS.

Pacific lampreys, an anadromous fish that has

a single reproductive episode before death, have declined throughout their geographic range (rivers throughout the North Pacific Rim). In California, the southernmost range of the species, there is evidence Pacific Lampreys have been extirpated from coastal watersheds, where the range is contracting northwards. Similar to other anadromous fish species in California, habitat loss due to fish passage issues has been the major cause of population declines and remains a major threat to this species.

In California, fish passage barriers have been inventoried in a map-base database called the Passage Assessment Database (PAD), which includes known and potential barriers to anadromous fish in California. The Forum is proposing supporting a project to develop a standard PAD barrier assessment for Pacific lampreys that would complement existing assessments focused on salmonids. Data on Pacific lamprey could then be used in the Forum's emerging prioritization model, called FISH*Pass*, which would inform barrier removal prioritization to aid Pacific lamprey restoration efforts throughout California.

The project is intended to be a collaborative effort between the <u>Pacific Lamprey</u> <u>Conservation Initiative</u> - California Chapter, Pacific States Marine Fisheries Commission, and the Forum's Science and Data Committee. The Pacific Lamprey Conservation Initiative is currently a candidate National Fish Habitat Action Plan fish habitat partnership, thus this project also would be a collaborative effort among National Fish Habitat Partnership fish habitat partnerships. Stay tuned for more as this project is launched!



Fish passage-grade control rock structure. The rock features in the lower end of the alignment (pool-riffle) will be below groundwater, but they were designed and constructed to withstand southward migration of the Sixes River channel, which would change the overall slope of the lower Sullivan Gulch channel. Photo credit: Curry Watersheds Partnership.

Pacific Marine and Estuarine Fish Habitat Partnership Supports Sullivan Gulch Bottomland Restoration

Fish Passage and Working Landscapes

Sullivan Gulch is a 700-acre watershed on the south side of the Sixes River estuary. The gulch owes its existence to a prehistoric river that carved a large floodplain into the uplifted coastal terrace that terminates at the Pacific Ocean as Cape Blanco. The prehistoric floodplain is about 300 acres in size and dominated by wetland habitat.

The Sullivan Gulch bottomlands are a geologic anomaly on the southern Oregon coast that rival in scale and complexity the estuarine and floodplain habitats to the north-in New River, the Coquille Valley and Coos Bay. The location of the bottomlands relative to the Pacific Flyway and Cape Blanco make them of particular importance to waterfowl and migratory songbirds (for breeding habitat as well as refugia from winter storms and summer winds). The bottomlands also function as overwintering habitat for native fishes, including Oregon coast coho and large scale suckers. Overwintering habitat is of particular importance because the geology of the Siskiyou Mountains and the rate of tectonic uplift constrain valley development, and thus naturally limit floodplain size and connectivity. Furthermore, such overwintering habitat was ditched and drained by early settlers for conversion into pasture for sheep and cattle.

The objectives of the project were to:

• Construct fish passage and grade control that (a) provides upstream juvenile fish migration at winter base flow and greater discharge, (b) minimizes the risk that future beaver dams will create barriers, and (c) stabilizes hydrologic conditions upstream of the Cape Blanco road.

- Increase and enhance instream habitat by restoring channel morphology, installing log structures, and revegetating the riparian zone.
- Increase off-channel open water habitat and near-shore wetlands for fish rearing, waterfowl and shorebirds, amphibians, and plant diversity.
- Preserve the existing riverine oxbow.
- Revegetate the project area with native herbaceous and woody species to increase wildlife habitat (especially for migratory songbirds) and limit invasives.
- Preserve and enhance quality pasture for livestock production.

Coho salmon, Chinook salmon, coastal cutthroat trout, Pacific lamprey, and large scale suckers benefit from this project. Implementation of this project will restore consistent upstream passage for juveniles migrating into the bottomland overwintering habitat. By migrating into this habitat, juvenile fish can avoid being flushed to the ocean prematurely, and they can gain significant growth that will increase their ocean survival. Restoration within the project area, including the construction of unconfined sinuous stream channels and open-water off channel habitat, will greatly improve rearing conditions downstream of the Cape Blanco access road, which should also translate into increased rearing and ultimately lower ocean mortality.

Reenergizing Instream Flow Efforts in the Southeast

In February 2015, the Southeast Aquatic Resources Partnership (SARP) held a workshop to discuss the current state and future needs of instream flow science at the Southern Division American Fisheries Society meeting in Wheeling, West Virginia. This workshop built upon and reenergized previous



Little Harpeth River, Tennessee. Photo credit: Lindsay Gardner.

efforts to address instream flow in the southeastern United States. Previously, SARP and partners were actively involved in the Southern Instream Flow Network (SIFN), a science and communications network that addressed the impacts of flow alteration on the region's aquatic ecosystems.

During the workshop, experts from around the Southeast supported the creation of a SARP directed instream flow workgroup to follow up on SIFN-related efforts, and identified next steps to advance this work. Experts agreed that research, management and communication among agencies were vitally important and the workgroup could play in key role in facilitation. Even more critical, however, is the ongoing need for better instream flow messaging and outreach at a regional scale to communicate its importance to a broader audience.

For more information about SARP's instream flow work, contact Dr. Jessica Graham, SARP Coordinator, jessica@southeastaquatics.net.

Western Native Trout Initiative Small Grants Program

The Western Native Trout Initiative (WNTI) will be releasing its Request for Proposals for its Small Grants Program on April 8, 2016. Funds for



2013 Small Grant supported a Rio Grande Cutthroat Trout angler survey and educational materials.

WNTI's Small Grants Program come from our various fundraising efforts each year. WNTI accepts small project proposals to 'jump start' or complete smaller, high-impact efforts by community groups to restore or recover western native trout in the rivers, lakes and watersheds where they remain. Projects considered for funding must benefit the 21 species of western native trout covered by WNTI, and may include riparian or in-stream habitat restoration, barrier removal or construction, population or watershed assessments needed for prioritization and planning, water leases or acquisitions to improve in-stream flows, and native trout community outreach and education. Individual projects can be funded at a maximum of \$3,000. To view previously funded small grant projects, visit www.westernnativetrout.org and click on the "Projects" tab.

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