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SARP Hosts Webinar on Community Engagement and Involvement

On December 18th, coastal restoration practitioners in the Southeast came together to discuss ways that they are engaging communities through outreach, education and hands-on volunteer opportunities in association with on-the-ground projects. This webinar featured presentations by Nancy Hadley, Manager of the Shellfish Management Section of the South Carolina Department of Natural Resources, about the South Carolina Oyster Reef and Enhancement (SCORE) Project, and Jody Palmer, Assistant Director of Conservation for the Brevard Zoo in Melbourne, Florida, who discussed oyster reef restoration and monitoring in Indian River Lagoon. There was dynamic, open group discussion about various ways to successfully engage, educate and involve volunteers and communities in coastal restoration efforts.

Anchialine Pool Restoration and Invasive Mangrove Control at Alula Bay, Hawaii Island

Hawaii Fish Habitat Partnership

Anchialine pools are unique coastal habitat features that are benefiting from restoration efforts supported by the Hawaii Fish Habitat Partnership. Anchialine (pronounced "AN-key-AH-leen") pools are brackish waterbodies that are fed by subsurface groundwater (freshwater) and seawater, but have no surface connection to the ocean. They are physically connected to the coastal marine environment via porous subsurface bedrock, and their water surfaces rise and fall with the tides.

Anchialine pools provide important habitat for rare invertebrate species, including native shrimp, snails, and damselflies. A number of these species are endemic to the Hawaiian Islands and exhibit unusual adaptations that allow them to live in waters that undergo extreme variation in salinity, water temperature and exposure to sunlight. Six of the shrimp species found in Hawaiian anchialine pools are candidates for listing as threatened or endangered under the Endangered Species Act. Because of the habitat value of the remaining anchialine pools that support at-risk species, they are considered a priority habitat type for protection and restoration efforts in the Hawaii Fish Habitat Partnership Strategic Plan.



A community constructed reef in South Carolina. Photo credit: Nancy Hadley, SC DNR.

This was the final webinar in a four-part series that SARP hosted as part of its NOAA Community-based Restoration Program offerings in order to share lessons learned with project partners and other members of the aquatic restoration community and provide insights into how to improve upon/enhance activities, including the design, planning and execution of future projects.



Volunteer reef building in Florida. Photo credit: Jody Palmer, Brevard Zoo.

To listen to the recording of Webinar #4 [click here](#). SARP encourages you to share this link with colleagues and other practitioners that you feel may benefit from these presentations and discussion. To learn more about the SARP/NOAA CRP Coastal Restoration Lessons Learned Webinar Series, please contact Lindsay Gardner, SARP Program & Communications Manager at lindsayg@southeastaquatics.net.

"You don't have to be near the ocean to care about it and to make a difference. From our food choices to our energy use, each of us can make a positive impact."

~ Vicki Nichols Goldstein

PMEP Makes Progress on Coastwide Nursery Habitat Assessment



Halocaridina rubra.

The shoreline area in the vicinity of Alula Bay on the Kona coast of the Big Island is home to over 20 anchialine pools and an extensive archaeological complex, but both the aquatic habitat features and the ancient Hawaiian structures had been severely degraded by invasion of non-native red mangrove (*Rhizophora mangle*) and pickleweed (*Batis maritima*).

This project removed the invasive non-native vegetation and replaced it with appropriate native vegetation to restore the anchialine pool ecosystem; to remove sources of pollution for anchialine pool and adjacent reef ecosystems; and to preserve the numerous cultural features including a heiau, or ancient Hawaiian temple structure.

Project implementation was led by the environmental non-profit Malama o Puna, who coordinated a number of agency and NGO partners including the Big Island Invasive Species Committee (BIISC); Pacific Coast Joint Venture (PCJV); Kaloko-Honokohau National Historical Park (K-HNHPP); representatives from the International Union for the Conservation of Nature (IUCN). In addition, Malama o Puna communicated project benefits to the local community and native Hawaiian groups and enlisted support from the Kona Hawaiian Civic Club; Na Wai Iwi Ola, a hula school that uses the area; and Hale o Papa, a native group consisting of lineal descendants of the area and local families that consider the heiau (temple) at Alula Bay an important religious feature.

Between November of 2013 and March 2014 volunteers and participating agency staff cut and removed the entire 0.7 acre stand of dense mangrove and pickleweed. Community volunteers contributed over 900 service hours to the project. Approximately twelve anchialine pools of various sizes were "daylighted" by this effort and represent a significant area of newly available habitat for recolonization by anchialine pool dependent shrimp such as `opae ula (*Halocaridina rubra*) and *Metabetaeus lohena*. Follow-up revegetation work by Malama o Puna and BIISC staff have re-established a variety of native plant species at the site including 'akulikuli (*Sesuvium portulacastrum*), naupaka (*Scaevola sericea*), kou (*Cordia subcordata*), hala (*Pandanus tectorius*), alaha'e (*Canthium odoratum*), loulou (*Pritchardia affinis*), pohuehue (*Ipomoea pes-caprae*), 'ohai (*Sesbania tomentosa*), pohinahina (*Vitex rotundifolia*), Hibiscus furcellatus, nanea (*Vigna marina*), milo (*Thespesia populnea*) and maiapilo (*Capparis sandwichiana*).

PMEP and its partners completed two key initial pieces of its West Coast-wide nursery assessment, including the [Inventory and Classification of U.S. West Coast Estuaries](#), and [Nursery Functions of U.S. West Coast Estuaries: The State of Knowledge for Juveniles of Focal Invertebrate and Fish Species](#).

The inventory and classification is a comprehensive inventory of U.S. West Coast estuaries created by tallying 691 coastal confluences for Washington, Oregon, and California. Experts drew from previous efforts to inventory estuaries and included additional estuaries identified through the National Wetlands Inventory and aerial imagery. The inventory and classification includes four physiographic types of estuaries on the West Coast, including sounds, bay/embayments, lagoonal estuaries, and riverine estuaries. The report determined that 303 natural estuaries likely support nursery habitat for West Coast marine and anadromous species.

The state of knowledge report, produced in concert with the inventory and classification, synthesized information on juvenile nursery requirements of 15 focal species. Information on juvenile presence in the 303 natural estuaries was compiled in a geodatabase associated with this report.

The inventory and classification was produced by The Nature Conservancy, Central Coast Wetlands Group, and IEC, and the state of knowledge report was produced by SeaSpatial Consulting, LLC. PMEP steering committee members and science and data committee members as well as experts throughout the West Coast played an integral role in each report.

California Fish Passage Forum to Tackle Fish Passage Monitoring

The California Fish Passage Forum recently awarded a contract to Ross Taylor and Associates to summarize the current extent of fish passage monitoring activities in California, investigate and gather representative fish passage monitoring protocols used throughout the world, and propose a tiered fish passage monitoring protocol that will be used to monitor future fish passage projects in California. Stay tuned for the results of the work!



Alula site before.



Alula site after.

1st Annual Alaska Fish Film Festival

This past fall the Southeast Alaska Fish Habitat Partnership (www.seakfhp.org) partnered with the Alaska Chapters of the American Fisheries Society and American Water Resources Association in co-hosting the conference "Bridging disciplines to solve today's challenges in resource management."



During this conference SEAKFHP sponsored the first annual Alaska Fish Film Festival, bringing together a collection of over 20 short films that focus on the connections between people and fish, the unique life cycle and habitat needs of different species, and how resource practitioners and others are helping conserve fish and their habitats.

These films are from a variety of perspectives—from fishermen to subsistence users, researchers, volunteers, landowners, and the fish themselves.

The festival seeks to inspire fisheries conservation, grow appreciation for and awareness of Alaska's fisheries and the many ways in which we're connected to fish and all the goods and services they provide - as well as grow a collection of short films that can be shared with Alaskans and beyond. The festival program, including film descriptions and associated

parent weblinks can be downloaded on our website at:
<http://www.seakfhp.org/resources/1st-annual-alaska-fish-film-festival/>.

[Atlantic Coastal Fish Habitat Partnership](#) | [California Fish Passage Forum](#) | [Hawaii Fish Habitat Partnership](#) | [Kenai Peninsula Fish Habitat Partnership](#) | [Mat-Su Basin Salmon Habitat Partnership](#) | [Pacific Marine and Estuarine Fish Habitat Partnership](#) | [Southeast Aquatic Resources Partnership](#) | [Southwest Alaska Salmon Habitat Partnership](#) | [Western Native Trout Initiative](#)

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