

The Matanuska-Susitna Basin Salmon Habitat Partnership is a broad-based, cooperative effort to better steward our salmon resources while maintaining economic prosperity. Our vision – thriving fish, healthy habitats, and vital communities in the Mat-Su Basin.

Northern Pike Investigations

By Lisa Ka'aihue of Cook Inlet Aquaculture Association

Because of the threat to wild salmon populations by invasive northern pike in the Mat-Su basin, the Cook Inlet Aquaculture Association(CIAA) has been investigating pike populations in the Susitna River Valley. In addition to previous work investigating salmon fry and smolt survivals in lakes with and without known pike populations, CIAA, with support from the Alaska Sustainable Salmon Fund, began investigating seasonal movement patterns and habitat use of northern pike in 2012.

The project involves work on three lakes in the Susitna River Valley (Chelatna, Whiskey, and Hewitt). At Chelatna Lake, CIAA staff targeted the limited known northern pike habitat for intensive northern pike removal. At Whiskey and Hewitt lakes, staff captured a subset of northern pike and fitted them with radio tags so they can be tracked over the next two field seasons. By gaining insight into the seasonal movement patterns and habitat use of northern pike, a cost effective northern pike management plan that protects salmon production in the Susitna River Valley can be developed. Other information being collected at these lakes include northern pike population estimates, habitat surveys, and water quality parameters. In 2012, a total of 1,679 northern pike were captured by CIAA staff and either sacrificed or tagged for research.

In 2012, an electric fish barrier called Neptun was field tested at Derks Lake as a viable method for harvest and control of northern pike movement. The field test was unsuccessful. However, additional laboratory testing occurred this past winter, at a U.S Fish and Wildlife facility in Montana to ensure that small fish (such as salmon smolt) would not be harmed by the system. Staff concluded after the trials that fish under approximately 150 mm in length would be able to swim through the electric barrier unhindered, which is optimal for maintaining smolt migrations from a lake, while at the same time, spawning-sized northern pike could be captured by the system. The barrier was deployed at Whiskey Creek at the outlet of Whiskey Lake in late May, 2013 and is being evaluated as a funnel-type system designed to trap northern pike while maintaining seasonal migrations of anadromous fish species.

The 2013 field season, which is underway, will bring more intensive northern pike harvesting at Chelatna Lake and more research into the movements, habitat associations, and behavior of northern pike in the Whiskey/Hewitt Lake system with the goal of protecting the wild salmon populations in the Mat-Su Basin.

For more information, contact CIAA at 907-283-5761 or email lisak@ciaanet.org.



Great Land Trust Celebrates Completion of a New Conservation Easement

Since 2002, as an active member of the Mat-Su Basin Salmon Habitat Partnership, Great Land Trust (GLT) has concentrated much of its conservation efforts on coastal wetlands and estuarine habitats within Upper Knik Arm. This strategic effort has been guided by the 2008 Mat-Su Salmon Partnership Strategic Action Plan. As a result of our focused efforts, GLT and Mat-Su Salmon Partnership partners including the U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, Environmental Protection Agency, National Oceanic and Atmospheric Administration, the Mat-Su Borough, The Conservation Fund, The Nature Conservancy, Pacific Coast Joint Venture, and many others have helped to permanently conserve 8 of the 19 undeveloped estuaries in Upper Knik Arm totaling over 6,000 acres of coastal habitat important for all five species of pacific salmon. Conserving estuarine and nearshore habitat is one of GLT's (and the partnership's) top priorities because of their essential importance to salmon.

The projects below are a summary of GLT's most recent coastal conservation efforts:

Historic O'Brien Creek Estuary Conservation Easement 2013

On March 7, 2013, GLT and the Harbeson, Chapman, and Barlow families celebrated a new conservation easement with a party. Together, we toasted with sparkling cider, hugs, and a few proud tears. With the families' final signatures, we were able to preserve their 30-acre homestead, including O'Brien Creek Estuary, for generations to come.

In early 2010, GLT began working to conserve their historic homestead in honor of their parents. Over the past three years, we had many visits with the family to draft the conservation easement and listen to their stories of homesteading. They regaled us with numerous wildlife encounters, seeing baby Beluga whales frolicking at the mouth of O'Brien Creek and stickleback fish marooned in puddles on the flats, as well as many touching memories of their parents. We are so thankful for the opportunity to get to know this special family and to help honor their parents with the conservation of the family homestead.

The O'Brien Creek property lies on the northeastern banks of Knik Arm, near the old Knik Townsite, and offers expansive views of the Inlet and the Chugach Mountains. The property was identified by GLT in 2010 following a GIS-based parcel prioritization that highlighted privately owned parcels in the Mat-Su Borough with estuarine habitat. The property ranked in the top 100 parcels out of over 100,000 parcels assessed for their conservation value. The property includes 20 acres of coastal wetlands, intertidal mudflats, salt marsh and portions of O'Brien Creek known to provide migration, spawning, and juvenile rearing habitat for Coho salmon. Funding for this project was contributed by the National Fish Habitat Partnership, National Fish and Wildlife Foundation, and the Mat-Su Borough. This property is private and not open to the public but still provides important habitat for fish and wildlife that move through its boundaries and provide public benefits.

Fire Creek and Eklutna River Estuary Conservation Easement 2012

In the Fall 2012, GLT completed the Fire Creek and Eklutna River conservation easement covering a spectacular eight mile section of coastline totaling 1,355 acres along the Eastern shoreline of Knik Arm containing the Fire Creek, Mink Creek, Edmonds Creek, Mirror Creek, Eklutna River estuaries. The conservation of this area protects important spawning and rearing habitat for all five species of salmon as well as provides habitat for federally endangered Cook Inlet Beluga Whales. The coastal wetlands on the parcels also provide important habitat for hundreds of nesting and migratory birds and serve as an important wildlife corridor along the coast.

Together with the 2011 Knik River Islands Conservation Easement, GLT Eklutna, Inc. with support from Mat-Su Basin Salmon Habitat Partnership, the U.S. Fish and Wildlife Service, the Army Corps of Engineers, NOAA Fisheries, AK Dept of Fish and Game, and Cook Inlet Regional Inc., have conserved 6,144 acres of important fish and wildlife habitat in Upper Knik Arm.

At the closing ceremony on November 4th 2012, Curtis Mc Queen, CEO of Eklutna, Inc. spoke about their corporation's interest in working with GLT. He shared that as an organization, they hold two perspectives when evaluating potential projects. He said they always acknowledge that their corporation, as the largest landowner in the Municipality of Anchorage, has a responsibility to their shareholders to develop their lands and to create jobs. They understand that their activities are an important economic driver for the region's growth. He also shared that as tribal people, they see the need to uphold their traditional and cultural values to care for the lands and habitats they have been given. He said that the partnership with GLT on the conservation easements for these lands allowed them to satisfy both perspectives as this particular project conserves lands historically and culturally important to their shareholders and the Native Village of Eklutna, while also generating revenue for the Corporation.

The easement allows the property to continue to be used by Eklutna, Inc. Shareholders for traditional and recreational uses and will be open to the public through special land use permits issued by Eklutna, Inc. Great Land Trust is a non-profit land conservation organization whose mission is to work with willing landowners and other partners to conserve Southcentral Alaska's Lands and Waters. GLT is one of 50 member organizations that make up the Mat-Su Basin Salmon Habitat Partnership, who collectively believe that thriving fish, healthy habitats and vibrant communities can co-exist in the Matanuska and Susitna River Drainages of Southcentral Alaska. To learn more about the work of GLT please visit <u>www.greatlandtrust.org</u>. To learn more about the Mat-Su Salmon Partnership go to <u>www.matsusalmon.org</u>.

For more information go to Great Land Trust website, or contact Kim Sollien at ksollien@greatlandtrust.org

