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**Friday March 16, 2012**

## **CREST Quarterly Newsletter**

Greetings CREST Members and Partners:

I hope this note finds you all well. I'm sure everyone is looking forward to longer days and warmer weather. It continues to be cold and blustery here in Astoria, but there are signs of spring all around -- like these budding willows.



Caron Anderson: <http://travel.nationalgeographic.com>

Please take a moment to read the following brief newsletter. The CREST monitoring department is proud to show off some of their latest techniques. Also, we are privileged to display the works of two local artists in our offices and I am pleased to provide more information about them.

Finally, this newsletter gives me occasion to make a bittersweet announcement. June 15<sup>th</sup> will be my last day at CREST. My wife, Danielle, and I are going to fulfill our long-postponed dream to travel abroad for a year. It is the right time for me, personally, to make this departure, although it is difficult to leave such an excellent staff and an exciting slate of ongoing projects. I'm confident, however, that CREST has the right people to continue advancing our planning, restoration and monitoring efforts. This organization is poised to accomplish more than ever.

I am making this announcement now to allow ample time to assist the CREST Council with recruiting and training a new Director. This will also leave time to complete the budget process for the upcoming fiscal year and a few finish special projects. The past five years with CREST have been an incredible opportunity for professional growth and I am very grateful. I would like to thank everyone who in any way helped us increase our budget, capacity, staffing, and services. Please get in touch if you would like my new contact information. I hope to return to similar work in our region, so no doubt we will cross paths again.

All the best,

A handwritten signature in cursive script that reads "Micah Russell".

*Micah Russell, CREST Director*

## Artwork at CREST

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"Smoke On The Water"

Mike Cullom: <http://mike-re-vision.blogspot.com>



"Quiet Time"

Brian Cameron: <http://www.briancameronart.com>

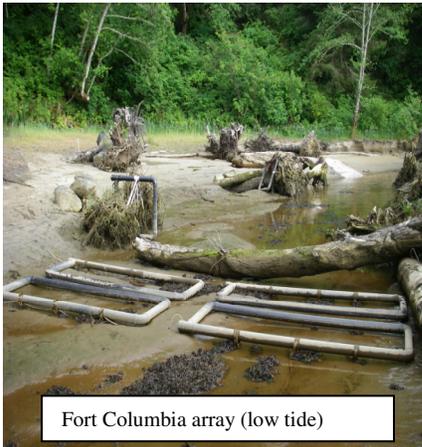
With expansion of our offices, CREST has been able to make room for display of works by local artists. Currently, we have three photographic prints of beautiful Lower Columbia River scenes from Puget Island artist, Mike Cullom. We are also honored to have oil paintings ("Quiet Time", "Across the River", and "Willapa Bay") on loan from Seaside artist, Brian Cameron. These three paintings are available for purchase. Please stop by to appreciate these remarkable pieces in person, or consider viewing and purchasing their art at the websites listed above.

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## Monitoring Department Updates

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The monitoring department has installed two PIT tag arrays for monitoring juvenile salmonid use of two completed CREST habitat restoration projects: Fort Columbia (Washington State Park land near Chinook, Washington) and South Clatsop Slough (National Park Service land near Astoria). The following is a description of these systems provided by *Habitat Restoration Biologist* Jason Smith and *Lead Ecologist* April Silva:



PIT tag arrays are traditionally stationary antennas capable of sampling the entire width of culverts, streams, spillways, or fish ladders. With careful planning PIT tag arrays can be adapted to most naturally and regulated stream environments. The system requires implanting fish with a small Passive Integrated Transponder (PIT) tag. Tagging procedures follow the guidelines established by the Columbia Basin Fish and Wildlife Authority's PIT tag markings procedure manual. Each tag contains a code specific to each individual fish. All anadromous PIT tag data in the Columbia River Basin are entered and stored in the PIT Tag Information System (PTAGIS) data repository.

The general procedure is as follows;

1. Fish are collected and sorted into small groups;
2. Fish are anesthetized and tagged;
3. Data about each animal is recorded and correlated with its uniquely coded injected tag; and,
4. The fish are allowed to recover from the affects of the tagging, handling, and anesthetic before they are returned to their cohorts in the general population.

Once a PIT-tagged fish swims through or in the vicinity of an antenna, a receiver detects and records the tag's number, date, and time of passage. The benefit of PIT tag arrays is that they present a cost-effective and passive way to monitor fish populations.

Seasonal migrations, distribution, population abundance, individual growth, life stage and survival history can all be monitored with these systems. In addition, data collection is automated and continuous with minimal maintenance, which helps to reduce field monitoring costs. One of the largest benefits comes from the reduction in fish capture and handling, reducing deleterious impacts on fish growth and survival. In many applications, fish are only captured and handled for the initial PIT tag insertion, while data can be passively collected on that fish at antennas for weeks or years, depending on the life span of the individual.

