

## ***SYC Research Update February, 2010***

Over the past two years since the East Yellowstone Chapter of TU initiated it's "Save the Yellowstone Cutthroat" campaign, significant progress has been made.

In August of 2008 some of the best coldwater fisheries minds in the world gathered at Chico Hot Springs in Montana for a week to review the current status of Yellowstone Cutthroat Trout in Yellowstone Lake ([read complete report pdf](#)) and to make recommendations to the Park Service for the best techniques to employ. The good news from that review was that everyone agreed that it was "not too late" to save this population. However, immediate steps had to be taken to increase the gill netting capture efforts in order to buy time for the researchers to develop new technology.

In response, the NPS entered into an agreement with a private commercial gill netter from Wisconsin to do a feasibility study with their boat and equipment on Yellowstone Lake while training the NPS staff on better techniques and systems of gill netting. That was done during two weeks of the summer of 2009. That resulted in a total gill netting and electro shocking capture of lake trout of over 100,000 that summer. Currently, the NPS has an RFP (request for proposal) to commercial gill netters and will pay them \$500,000 per year to gill net on the Lake starting during the summer of 2010 and continuing for 5 years. Without this massive effort to keep the lake trout in check, it was thought that the Yellowstone Cutthroat population would continue to decline to the point where it might never recover.

While this was happening, the researchers (led by Dr. Robert Gresswell of the USGS) began in earnest to initiate their research plans. Dr. Gresswell hired Dr. Jackson Gross ([resume pdf](#)) as a staffer to head the program and enlisted Dr. Molly Webb of the USFWS to participate. Their work has now identified several potential techniques that have been studied for feasibility in the laboratory and in some cases, have been actually tried on larger water bodies. They include the use of carbon dioxide, fine sediment, ultraviolet light, and sonic waves to smother or fracture lake trout eggs. In addition, they have demonstrated feasibility on the Lake using DC electrical voltage grids and a commercial vacuum system to respectively fracture or remove the eggs from the spawning grounds.

It is anticipated that the summer of 2010 will bring additional field studies to determine which of the techniques show the most promise for practical application.

An additional and very critical study has also begun. No matter what technique is ultimately chosen to destroy or remove lake trout eggs, the key will be to locate every major spawning ground in Yellowstone Lake. Fortunately, lake trout are swarm spawners meaning that they congregate in a relatively small number of areas, usually in very shallow and gravel substrate areas. A few are currently known, particularly around Carrington Island. But many others may also exist. Dr. Gresswell has proposed a study to use radio telemetry to track tagged lake trout to their spawning grounds ([read research proposal pdf](#)). This effort is key to impeding lake trout recruitment into the system. Grants for this work are currently being solicited.

On the funding side, the East Yellowstone Chapter's SYC campaign has now raised over \$26,000 from private sources. Some of this money has been used to buy equipment for the research efforts. The balance is available to the researchers for expenses not covered by their grants. Governmental agencies have also stepped up with significant multiyear grants totaling well over \$200,000. No doubt, some of those awards would not have happened without our efforts to raise the awareness of this major ecological problem. Our dedication to this valuable cause continues.

In future updates we will continue to report on the progress to ***"Save the Yellowstone Cutthroat"***