

CFS:BULLETIN

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Can eDNA Be Used to Monitor Invasive Species?

Assessing the presence and distribution of an invasive species is often an expensive and logistically difficult undertaking. The use of environmental

DNA (eDNA) monitoring Can eDNA Be Used to Monitor Invasive Species? has been proposed as an alternative that is both less expensive and easier to implement, but can it be used to track population trends? To help answer this question, a team of CFS scientists is working with the Burns Pauite Tribe on a twovear pilot study. The



study is investigating the use of eDNA to monitor brook trout population trends in High Lake (Oregon) in conjunction with a removal effort, as nonnative brook trout threaten endangered bull trout. CFS scientists developed a qPCR assay specific to brook trout and used it to investigate eDNA as a metric to track trends in the brook trout population. In pre-removal monitoring, brook trout DNA was detected at several sites in the lake [click the picture for a larger view], though not in sufficient amounts to estimate brook trout abundance. These eDNA results provide a baseline which can be used to validate the effectiveness of brook trout removal efforts. CFS recently released an interim report covering the year-1 summer and fall field sampling and the use of qPCR. A report summary and the full report are available as PDF downloads. For more information, contact Dr. Scott Blankenship at 360-456-0310.

Off-Channel Habitat Restoration in the Willamette Basin

CFS has contracted with the City of Eugene (Oregon) to monitor fish use of Delta Ponds and Heron Slough in a project funded by a grant from the NOAA Restoration Center. Access to these offchannel habitat areas from the mainstem Willamette River has recently been restored. As part of the project. CFS scientists have installed a rotary screw trap at the inlet to Delta Ponds. Since January, over 50 juvenile Chinook salmon have been captured and released from the trap. Fish were also found in the interior ponds and in Heron Slough, A photo essay of progress to date is available as a PDF download.

January 2012 Workshop Addresses Columbia Basin Sturgeon Passage

Construction of a series of dams in the Columbia and Snake rivers has fragmented and severely reduced white sturgeon numbers. Few attempts have been made to minimize these impacts by providing fish passage in the Columbia River Basin. Working with the Columbia Inter-Tribal Fish Commission, the Northwest Power and Conservation Council, and the Oregon and Washington Departments of Fish and Wildlife, CFS recently organized a technical workshop to consider the potential value, risk, and opportunity for sturgeon passage improvements. The workshop brought together over 85 participants with a broad range of scientific, technical, and management expertise. See the project website for more information.