Ecological Interactions of Wild and Hatchery Fish: Health & Disease Implications in Eagle Creek, Oregon

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In 1996, it was discovered that *Myxobolus cerebralis*, the causative agent of Whirling Disease, was decimating wild trout populations in the intermountain west. Because little was known about pathogens or disease among wild fish, the U.S. Fish and Wildlife Service received funding for the National Wild Fish Health Survey (NWFHS) which has been conducted by the Service's nine National Fish Health Centers since 1997. The issue of climate change points towards a refocusing of the NWFHS and the Service's National Fish Hatcheries (NFH) are proving to be viable index sites for evaluating potential environmental changes via shifts in pathogen loads in hatchery and wild fish. The Service's 2007 Assessments & Recommendation Report for Eagle Creek NFH buttressed the importance of managing hatcheries as a habitat within the watersheds in which they occur and supported the study of the interactions of wild and hatchery steelhead in Eagle Creek, Oregon. One component of this study evaluated the health status of the native fishes and assessed the potential pathogen interchanges between the wild and the hatchery fish stocks. Results indicate that the transmission of pathogens between the wild steelhead and Eagle Creek NFH stocks (coho and steelhead) is low risk. The fish health challenges of the spring Chinook salmon introduction and Pacific lamprey recovery projects in Eagle Creek will also be discussed.

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