Lake Trout Population Control In Lake Pend Oreille, Idaho: Reversing Lessons From The Great Lakes

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The lake trout *(Sali·elinus namaycush)* is widely distributed throughout the northern half of North America, but is generally thought lo be susceptible to recruitment over-fishing because of its long-lived, late-maturing life history. For example, in the Laurentian Great Lakes, the World's largest lake trout populations were nearly extirpated by excessive fishery exploita-tion and predation by non-native sea lampreys. Experience in the Great Lakes shows that lake trout stocks have been exceedingly slow to recover, largely because fishery exploitation has been excessive. Lake trout stocks have recovered only in Lake Superior and isolated areas of Lake Huron, whereas populations are sustained by hatchery production elsewhere in the basin. Therefore, lake trout populations in western lakes, where the species was introduced in the early 1900s, but is now negatively impacting native species such as bull trout (Salvelinus confluentus), should be relatively easy to control through intentional programs of excessive fishery exploitation. Why then has lake trout population control been elusive in most western lakes? We suspect that fishery exploitation has not been high enough to drive lake trout populations into collapse in most western lakes. In contrast, population modeling suggests that exploitation on the lake trout population in Lake Pend Oreille, Idaho, during 2005-2006 will cause the population to collapse, if maintained for at least several years. If successful, the lake trout population control program on Lake Pend Oreille will provide fishery managers throughout the West with a fo1mula for similar programs elsewhere.