

Superintendent,
Sequoia and Kings Canyon National Parks,
47050 General Highway,
Three Rivers, CA 93271
SEKI_Superintendent@nps.gov
Cc. harold_werner@nps.gov

Dear Park Superintendent,

I am writing in support of your efforts to conserve native frogs in high Sierra Nevada lakes via the removal of introduced species of trout. I am strongly urging you to proceed with the preferred alternative because this alternative will positively affect the survival of the mountain yellow-legged frog and it will be beneficial to the biological diversity of these lakes.

The Xerces Society is an international organization dedicated to protecting biological diversity through invertebrate conservation. Your preferred alternative will benefit not only amphibians; it will also be beneficial to the native invertebrate component of these lakes. As you know non-native trout virtually eliminate large-bodied invertebrates from lakes. In the Sierra Nevada, high elevation lakes contain mayfly larvae (Ephemeroptera), caddisfly larvae (Trichoptera) aquatic beetles (Coleoptera), and true bugs (Corixidae) that are absent in lakes that contain introduced trout (Knapp 1996). Stoddard (1987) surveyed zooplankton in seventy-five Sierra Nevada lakes and found that small-bodied species were associated with fish and large-bodied species occurred only where fish are absent. Likewise, Bradford et al. (1994, 1998) found large-bodied planktonic microcrustaceans (e.g. *Hesperodiaptomus* and *Daphnia middendorffiana*) and epibenthic and limnetic macroinvertebrates (e.g. back swimmers, water boatmen, predaceous diving beetles, and larvae of some families of caddis flies and mayflies) to be relatively common in lakes without trout but rare or absent in lakes with trout.

The impacts of non-native trout can be broader than the direct loss of the organisms they eat or displace (Knapp 1996). Those organisms are important components of the ecosystem and their removal alters the balance of their food sources and the creatures that feed on them. Once removed, their loss will affect the organisms on which they fed as well as the creatures that depended on them for food.

Thank you for working to protect the mountain yellow-legged frog and the biological diversity of these wonderful Sierra Nevada high mountain lakes. Please proceed with the preferred alternative.

Scott Hoffman Black

Entomologist/Ecologist
Executive Director

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