

Malheur Lakes Redband Trout SMU

ESA Designation:
Not Warranted 2000

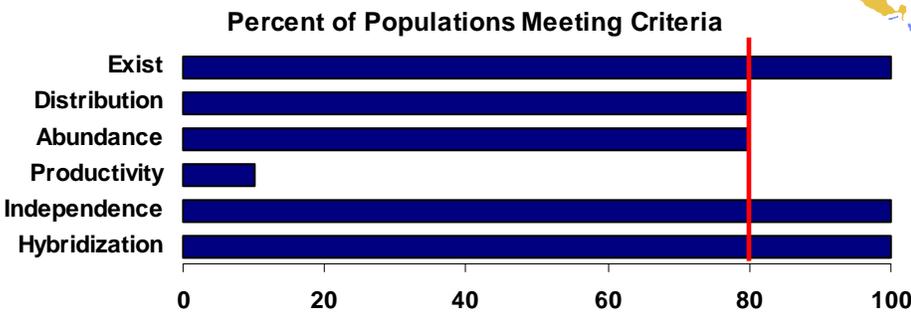
State Status:
Vulnerable

Interim Assessment:
Potentially at Risk

The Malheur Lakes Redband Trout SMU includes ten populations in the closed interior basin of Harney and Malheur lakes. Historically, all streams were interconnected and fish could move to the lakes and among populations. Currently, populations are isolated by natural and manmade barriers. Only the Blitzen population is known to express a migratory life history. Redband trout in the SMU are widely distributed in small and medium sized streams and moderately abundant during high water years. The SMU meets five of the six interim criteria and is classified as ‘potentially at risk’. Population status varies significantly within the SMU. Limited data sets and inferences from other information for populations in this SMU provide a qualified level of confidence in the assessment of the interim criteria.

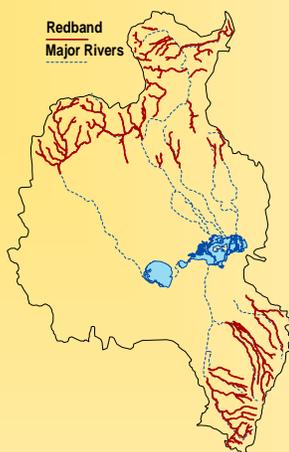
Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Silver	Pass	Pass	Pass	Fail*	Pass	Pass
Silvies	Pass	Pass	Pass	Fail*	Pass	Pass
Poison	Pass	Pass	Pass	Fail*	Pass	Pass
Prater	Pass	Fail*	Fail*	Fail*	Pass	Pass
Coffeepot	Pass	Fail*	Pass*	Fail*	Pass	Pass
Rattlesnake	Pass	Pass	Pass	Fail*	Pass	Pass
Cow	Pass	Pass	Fail*	Fail*	Pass	Pass
Riddle	Pass	Pass	Pass	Fail*	Pass	Pass
McCoy	Pass	Pass	Pass	Fail*	Pass	Pass
Blitzen	Pass	Pass	Pass	Pass*	Pass	Pass

*Inferred



■ All criteria met
■ 4-5 criteria met
■ < 4 criteria met
■ Extinct

Distribution - Pass



- Year around distribution occurs in small and medium sized streams. Access to lakes and lower mainstem habitats is limited due to warm water temperatures, low flow conditions, and natural and manmade barriers.
- Most populations are isolated from lakes and other populations, which limit the expression of a migratory life history, prevents mixing between populations, and increases risk of extinction. However, many of these populations are naturally isolated; consecutive high water years or a change in climate may be required to reconnect these populations.

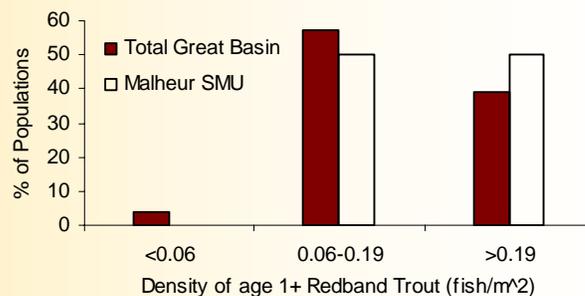
Productivity – Fail

- Quantitative productivity data are not available. The criterion is assessed based on the qualitative evaluation of distribution, abundance, presence of large fluvial fish, habitat quality, and presence of non-native species.
- Only the Blitzen population expresses a migratory life history and passes the criterion. Other populations are limited by distribution, a lack of connectivity to other populations, and a migratory life history, poor habitat quality, and presence of non-native species.

Additional Information

- Non-native cutthroat trout are not present in the Malheur Lakes Basin and not a threat to redband trout. All populations pass the hybridization criterion.
- Redband trout abundance and distribution fluctuates considerably between drought and high water years.
- Reduction in the complexity of streamside vegetation, the presence of artificial barriers, and reduced stream flows have degraded habitat quality and availability for redband trout.
- Exotic species (i.e., carp, large mouth bass, small mouth bass, and yellow perch) in lakes and lower mainstem rivers alter habitat, compete for resources, and modify community structure.
- ODFW is currently developing a conservation plan for this species management unit.
- The Steens Mountain Cooperative Management and Protection Act of 2000 improved protection of Riddle, McCoy, and Blitzen populations.

Abundance - Pass



- A population estimate counted 414,551 (+/- 43%) age 1+ redband trout across all ten populations in 1999.
- Overall mean density (0.156 fish/m²) was considered moderate relative to densities through out eastern Oregon, although half of the populations had high densities. These estimates were made during high water years and are expected to fluctuate with habitat quality and instream flows.
- Abundance of Prater and Cow populations is severely depressed. Recent surveys for Malheur mottled sculpin did not document redband trout.

Independence - Pass

- Hatchery rainbow stocking programs were eliminated in rivers and streams by 1993. Brood stocks used in these programs were not local. Effects of interbreeding do not appear to be significant, however genetic analysis found evidence of minimal introgression in Silvies and McCoy populations. No introgression was detected in Blitzen.
- Current stocking activities occur only in lakes and reservoirs where trout are thought to be unable to escape.