

Chewaucan Redband Trout SMU

ESA Designation:
Not Warranted 2000

State Status:
Vulnerable

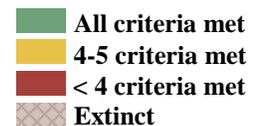
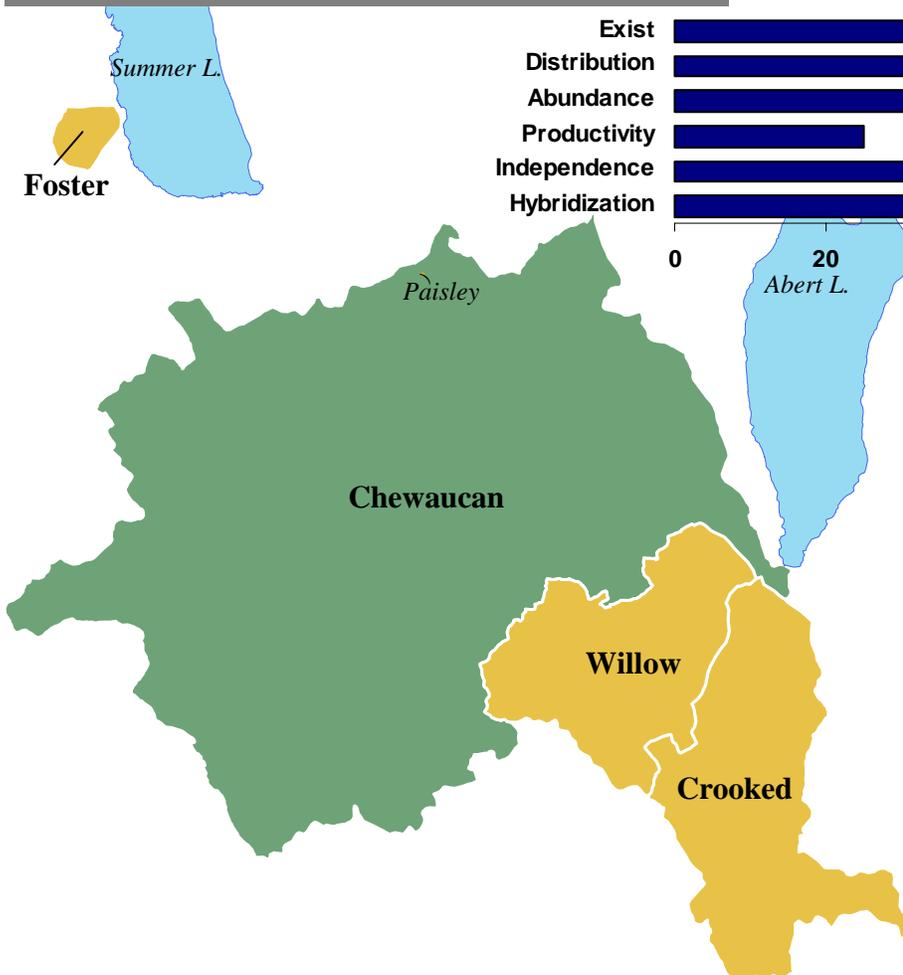
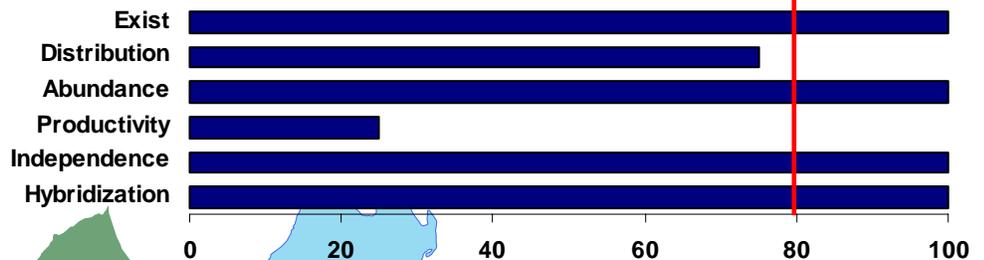
Interim Assessment:
Potentially at Risk

The Chewaucan Redband Trout SMU consists of four populations, three in Lake Abert Basin and one in Summer Lake Basin. Lake Abert and Summer Lake are remnants of ancient Lake Chewaucan and naturally separated by large sand dunes. Redband trout in Lake Abert Basin are distributed throughout the basin and moderately abundant. Degraded habitat conditions and barriers to migration are the most persistent threats to populations in the SMU. Foster Creek population has an extremely limited distribution and is isolated from large water bodies and other populations. The SMU met four of the six interim criteria and is classified as 'potentially at risk'. 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
Chewaucan	Pass	Pass	Pass	Pass*	Pass	Pass
Willow	Pass	Pass	Pass	Fail*	Pass	Pass
Crooked	Pass	Pass	Pass	Fail*	Pass	Pass
Foster	Pass	Fail	Pass*	Fail*	Pass	Pass

* *Inferred*

Percent of Populations Meeting Criteria



Distribution - Fail



- Year-around distribution is widespread in headwater and mid order streams.
- All streams in the Lake Abert Basin are connected to Rivers End Reservoir where migratory redband trout rear before returning to their natal streams. However three large irrigation weirs exist on the Chewaucan River, as well as one on each of Willow and Crooked creeks. The weirs on Willow and Crooked creeks are impassable preventing upstream migration and inter-population mixing. Fish ladders on all Chewaucan River weirs will be completed in 2006 ensuring passage.
- Foster Creek population (Summer Lake Basin) is extremely limited, < 2 km of habitat, and isolated from other populations and water bodies. The Foster population fails the criterion.

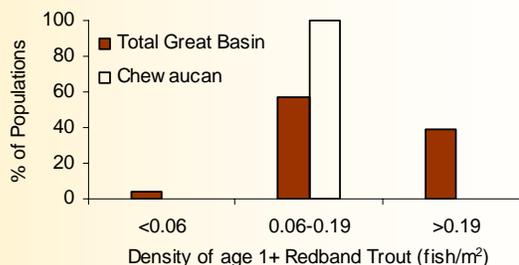
Productivity - Fail

- Quantitative data necessary to accurately assess productivity do not exist. The criterion is assessed based on the qualitative evaluation of current distribution and abundance, presence of large migratory individuals, habitat quality, and presence of non-native species.
- The Chewaucan population passes the productivity criterion based on diverse habitats in the upper basin and connectivity to the Rivers End Reservoir through trap and haul efforts.
- The other populations fail the criterion due to degraded habitat conditions and the inability of migratory individuals to return to the spawning grounds.

Additional Information

- Non-native cutthroat trout are not present in the Fort Rock Basin and not a threat to redband trout. All populations pass the hybridization criterion.
- Non-native largemouth bass and brown bullheads are present in the lower reaches of Chewaucan River and brook trout inhabit the headwater streams.

Abundance - Pass



- A population survey estimated 147,878 (95%CI +/- 41%) age 1+ redband trout in the Lake Abert Basin in 1999.
- All sites had moderate densities of age 1+ fish relative to densities throughout the Great Basin. Estimates were made during high water years and are expected to fluctuate with habitat quality and instream flows.
- Survey data from Foster Creek suggests density of redband trout is comparable to populations in the Lake Abert Basin. It is unknown if a 2002 forest fire impacted densities in this population.
- All populations pass the abundance criterion.

Independence - Pass

- The hatchery rainbow trout stocking program in the Chewaucan Basin was eliminated in 1998. The extent and effects of interbreeding between hatchery and wild stocks are uncertain.
- Hatchery rainbow trout were not stocked in Foster Creek.
- All populations pass the criterion since stocking of hatchery rainbow trout in the basin has ceased.