

Catlow Valley Redband Trout SMU

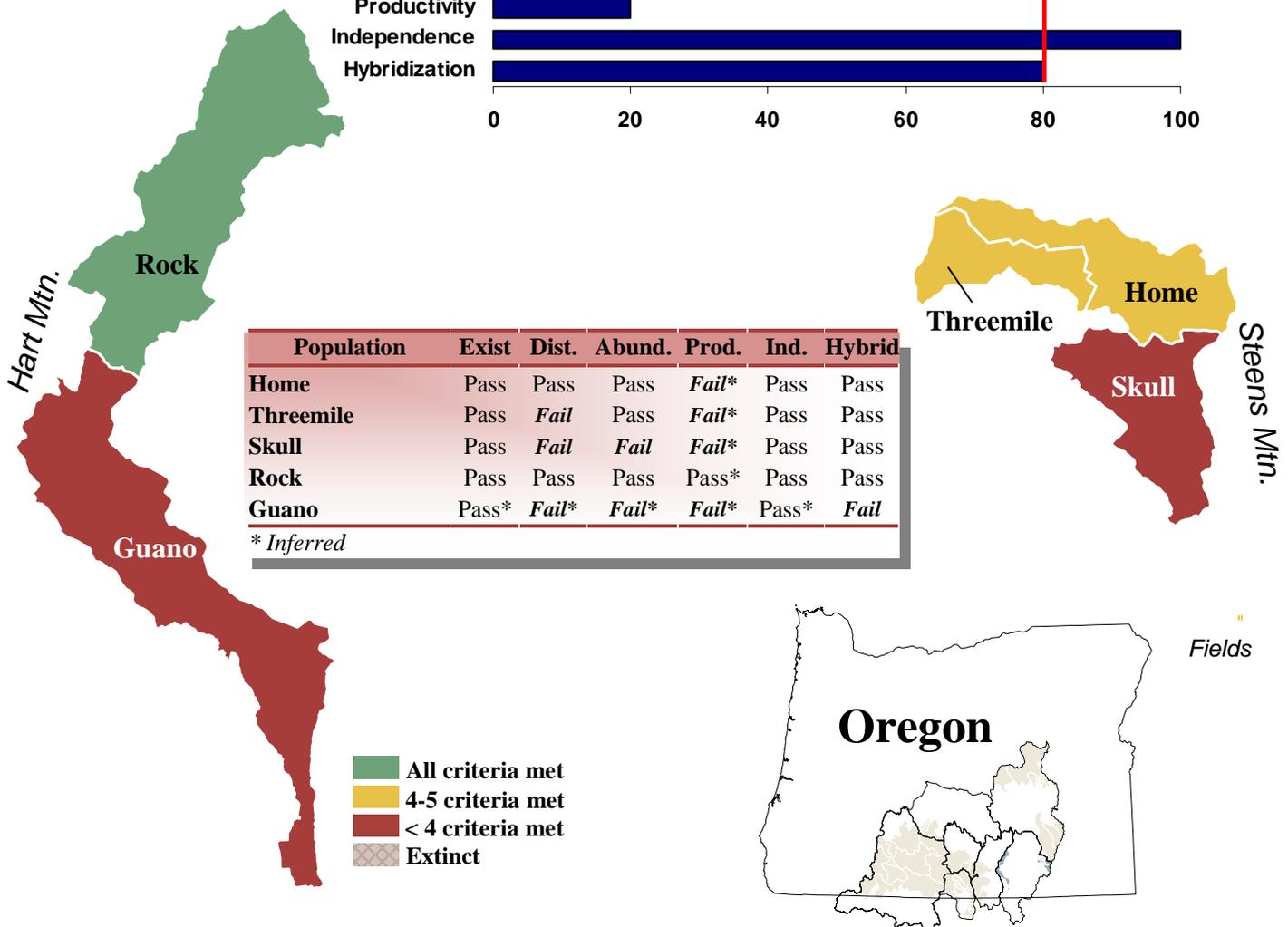
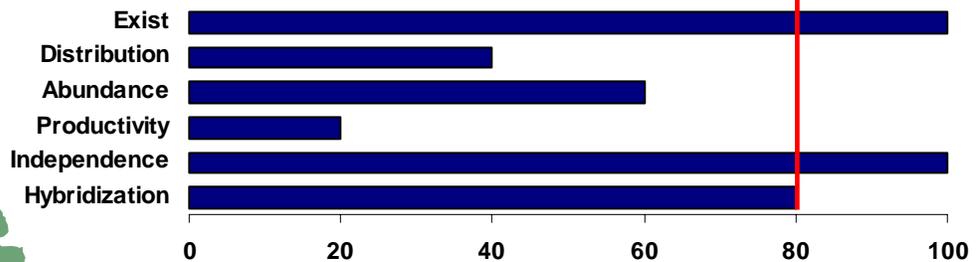
ESA Designation:
Not Warranted 2000

State Status:
Vulnerable

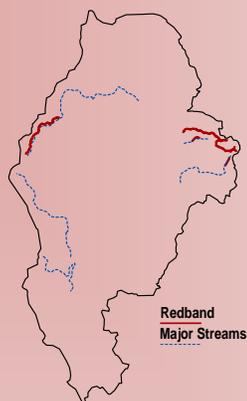
Interim Assessment:
At Risk

The Catlow Valley Redband Trout SMU includes five populations in the closed interior basin of Catlow Valley. Even though redband trout are present in most perennial streams in Catlow Valley, the distribution is highly fragmented. Connection does not exist between any populations, which prevents genetic mixing, limits opportunities to express a migratory life history, and increases risk of extinction from stochastic events. Populations have limited access to lakes minimizing the expression of migratory life history strategies. Densities fluctuate accordingly with water years, although Skull and Guano populations appear perilously depressed in all conditions. The Guano population is also potentially threatened by hybridization with cutthroat trout. Eighty percent of the populations met three of the six interim criteria thereby classifying this SMU as '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.

Percent of Populations Meeting Criteria



Distribution - Fail



- Year around distribution is fragmented. Lack of connection between populations or to habitats capable of producing large individuals prohibits inter-population mixing and minimizes the expression of multiple life history types.
- Threemile and Skull Creek distributions are limited to less than four kilometers each. Distribution in Guano Creek is undetermined but likely extremely limited. All three populations fail the criterion.
- The distribution of redband trout varies according to annual precipitation and fluctuation of instream flows.

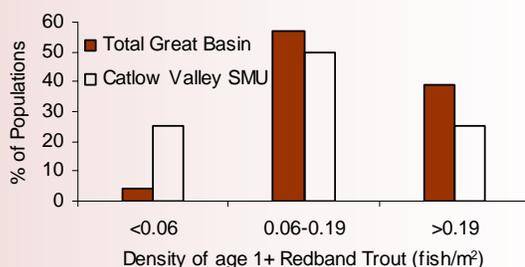
Productivity - Fail

- Quantitative productivity data are not available. The criterion is assessed based on distribution, abundance, presence of large migratory fish, habitat quality, and presence of non-native species.
- Only the Rock Creek population passes the criterion based on data that show re-colonization of previously dry stream reaches during a high water year.
- The remaining populations fail the criterion due to no evidence of a lack of a migratory life history, limited distribution or abundance, and degraded habitats.

Additional Information

- Lahontan cutthroat trout were stocked in Guano Creek in 1957, 1967, and 1973 and hybridize with redband trout. This population fails the hybridization criterion.
- Through the Catlow Valley Conservation Agreement, private landowners and Federal and State agencies have implemented a variety of habitat conservation activities on Home, Threemile, and Skull creeks. These actions include creating passage to Skull Creek Reservoir and adjusting grazing practices to allow regeneration of riparian communities. Fish and habitat response to these activities has not been documented.
- ODFW is currently developing a conservation plan for this species management unit.
- Rock and Guano creeks are located on Hart Mountain National Antelope Refuge.

Abundance - Fail



- A population survey estimated 54,866 (+/- 33%) age 1+ redband trout in four of the five populations in 1999. Guano Creek was not included in this estimate.
- SMU-wide mean density (0.423 fish/m²) was considered high relative to densities throughout eastern Oregon, although 25% of the sample sites had very low densities. Only a few sites supported extremely high densities. Estimates were made during high water years and are expected to fluctuate with habitat quality and instream flows. However, density in Skull Creek was estimated to be low even during high water years. This population failed the criterion.
- Abundance in Guano is undetermined but likely extremely low. This population also failed the criterion.

Independence - Pass

- Stocking of hatchery origin rainbow trout has not occurred in Threemile, Skull, and Home creeks.
- The hatchery rainbow trout stocking program on Rock Creek was eliminated in 1973. Guano Creek was stocked with coastal rainbow trout in the 1960s.
- All populations pass the criterion since rainbow trout are not currently stocked and all populations are managed for natural production.