

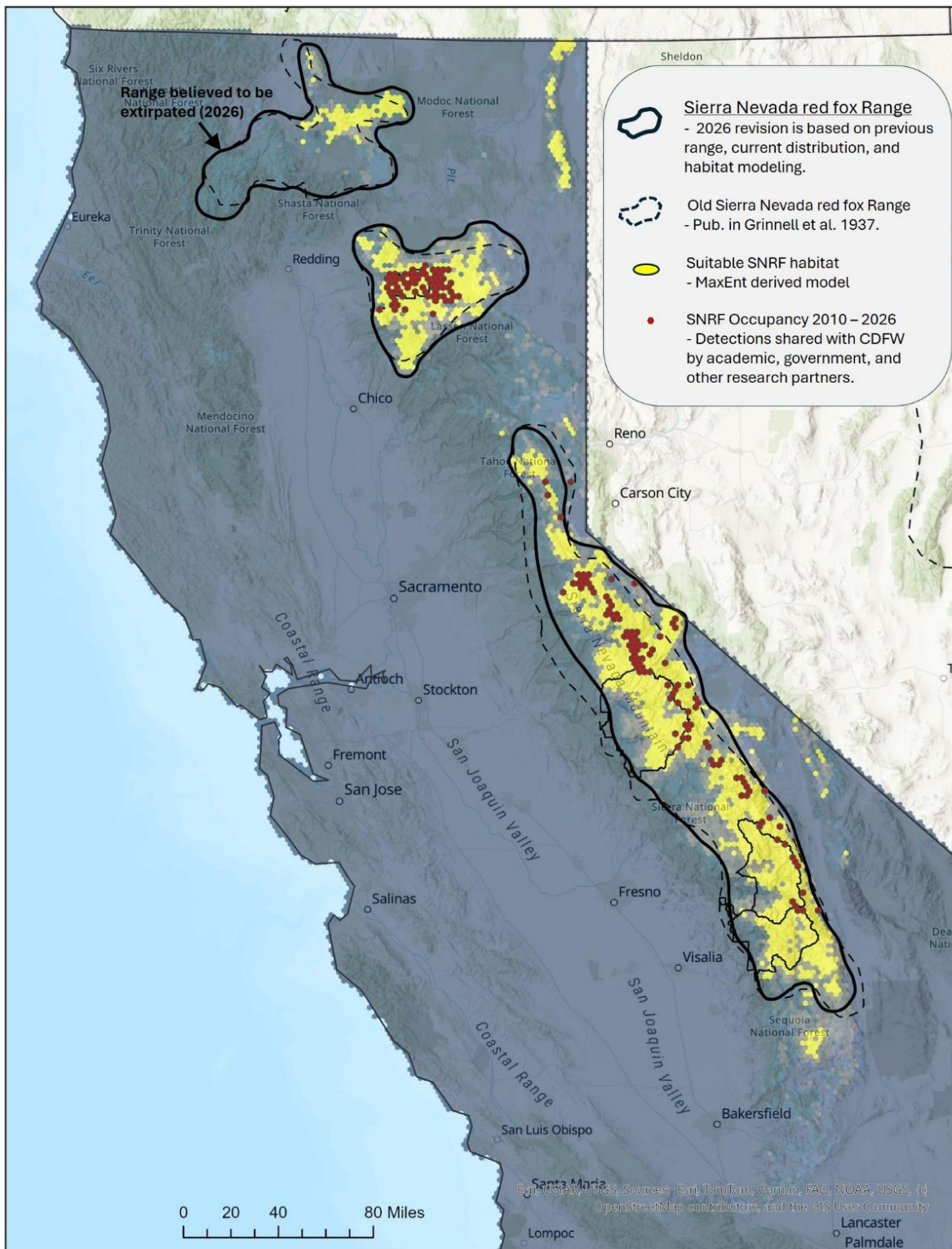
*Vulpes vulpes necator*  
Sierra Nevada red fox  
Specis Habitat Model Metadata

Model developed by Chris Stermer of the California Department of Fish and Wildlife

Table 1. Area in Sq km.

Population	Updated Range	Grinnell et al. 1937 Range
Sierra Nevada DPS	23,424	24,762
Lassen VNP	7,117	5,696
Shasta	7,994	6,798

Figure 1. An update to the estimated Range for the Sierra Nevada red fox (*Vulpes vulpes necator*) in California. Updated Range is based primarily on the previous Range map (Grinnell et al. 1937), and revised using contemporary distribution and MaxEnt (Phillips et al. 2006) derived habitat suitability modeling.



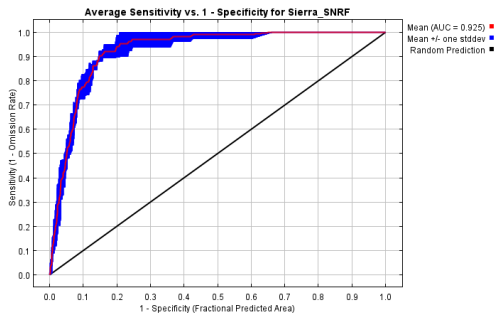
# Appendix 1. MaxEnt results for the SNRF Habitat Suitability Model – (Sierra Nevada DPS)

**Training AUC = 0.95; Test AUC = 0.92; 10 percentile training presence Cloglog Threshold = 0.49**

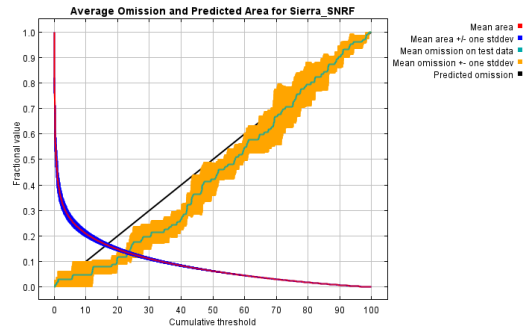
## Relative contribution of environmental variables

Environmental Variables	Percent contribution	Permutation importance
Vancouverian Alpine Cliff, Scree & Rock Vegetation (m120)	66.2	8.4
Snow Water Equivalent (SWE)	12.8	22.9
Southern Vancouverian Montane & Foothill Forest (m023)	8.3	41.6
Vancouverian Subalpine Forest (m025)	7.9	12.9
Intermountain Singleleaf Pinyon-Western Juniper Woodland (m026)	3.2	8.4
Rocky Mountain Subalpine & High Montane Conifer Forest (m020)	1.5	5.7

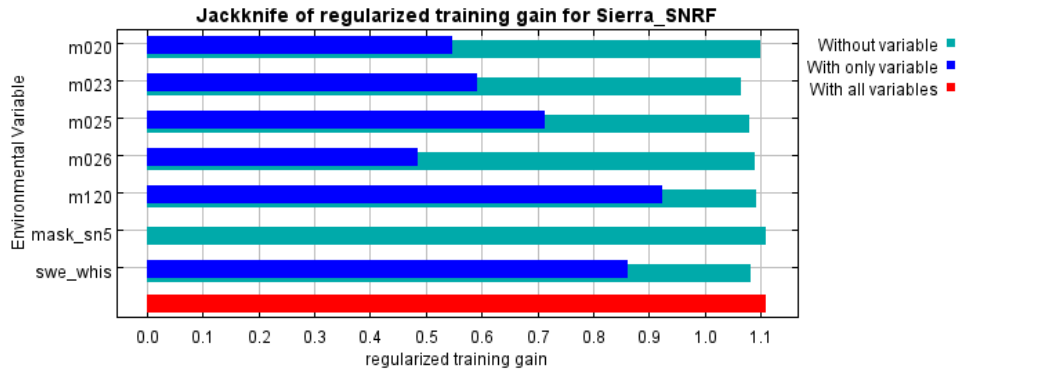
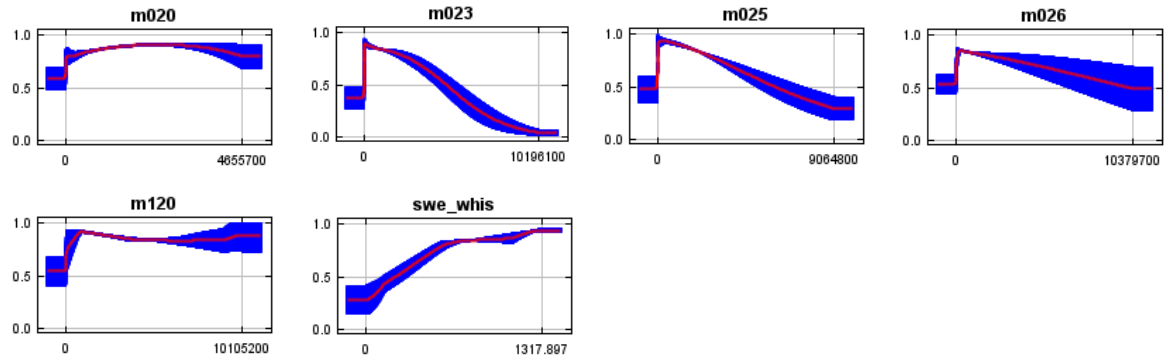
## Receiver operating curve (ROC) curve



## Assessment of omission/commission



## Response curves indicating each variable's effect on the Maxent model



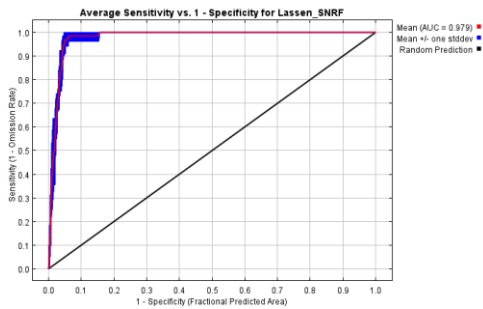
## Appendix 2. MaxEnt results for the SNRF Habitat Suitability Model – (Lassen Peak Population)

**Training AUC = 0.99; Test AUC = 0.98; 10 percentile training presence Cloglog Threshold = 0.70**

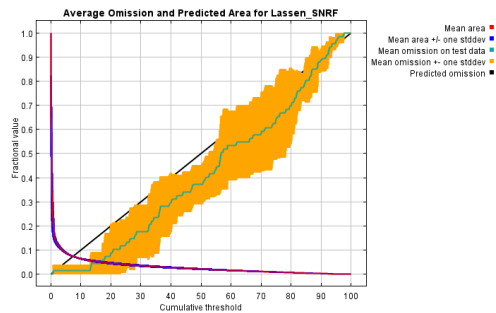
### Relative contribution of environmental variables

Environmental Variables	Percent contribution	Permutation importance
Rocky Mountain Subalpine & High Montane Conifer Forest (m020)	47.3	22.3
Vancouverian Subalpine Forest (m025)	27.9	9
Snow Water Equivalent (SWE)	22.4	22.4
Intermountain Singleleaf Pinyon-Western Juniper Woodland (m026)	2.2	27.1
Average Annual Temperature (Bio1)	0.1	19.3

### Receiver operating curve (ROC) curve



### Assessment of omission/commission



### Response curves indicating each variable's effect on the Maxent model

