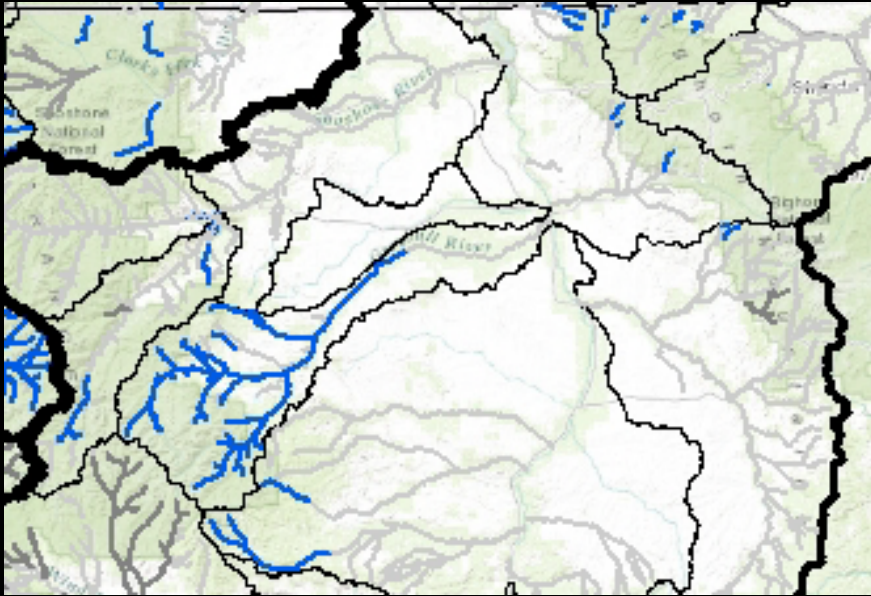


How Much is Enough?



Conservation Biology

Management of nature with aim of protecting species, their habitats, and ecosystems from excessive rates of loss and/or extinction.

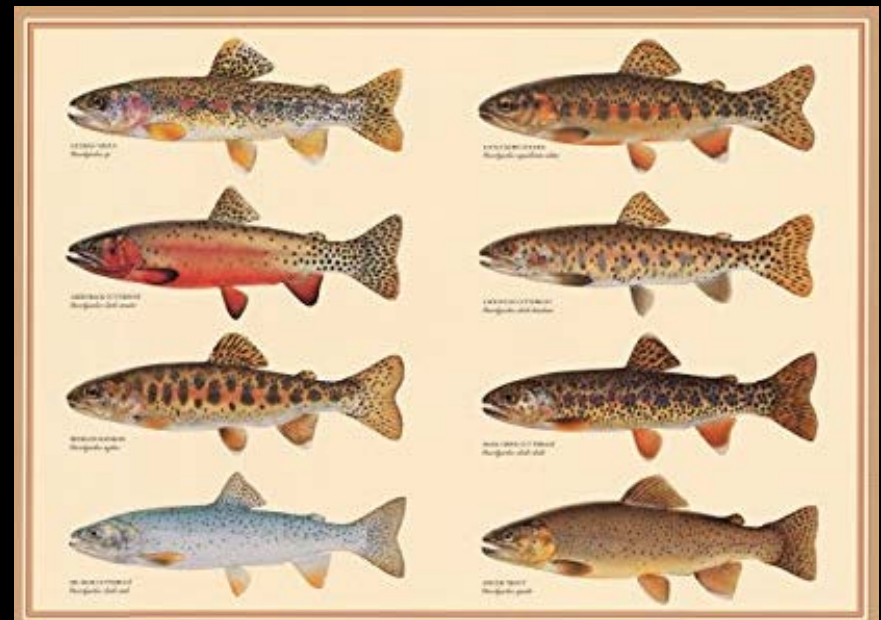
Conservation Biology

- Prevent species extinction
- Focused on individual populations– minimum number of individuals to avoid loss of population (e.g., Isolate size)



Conservation Biology

- Field has grown to look at conservation of species across landscapes
- Multiple populations across a larger geographic area



Guiding Principles of Conservation Biology

- 3 R's of conservation biology
 - 1) Representation
 - 2) Resiliency
 - 3) Redundancy

Guiding Principles of Conservation Biology

- 3 R's of conservation biology
 - 1) Representation
 - Genetic



Guiding Principles of Conservation Biology

- 3 R's of conservation biology

- 1) Representation

- Genetic
 - Life History: migratory and resident

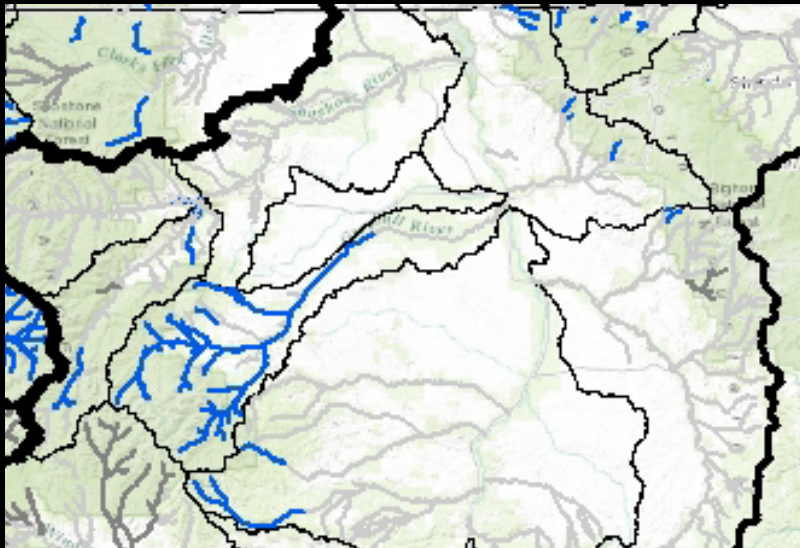


Guiding Principles of Conservation Biology

- 3 R's of conservation biology

- 1) Representation

- Genetic
 - Life History
 - Geographic



Guiding Principles of Conservation Biology

- 3 R's of conservation biology
 - 1) Representation
 - 2) Resilience
 - Ability of a population to withstand or rebound from disturbance events.



Guiding Principles of Conservation Biology

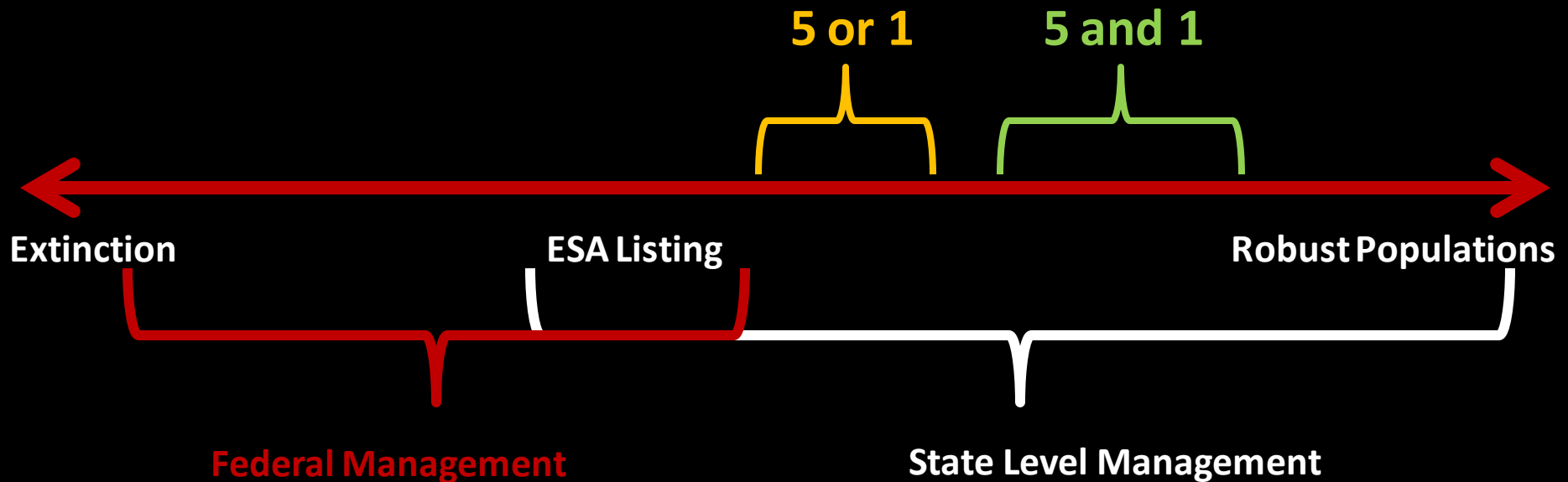
- 3 R's of conservation biology
 - 1) Representation
 - 2) Resilience
 - 3) Redundancy



Ideal Recommendations

Minimum: 5 Isolates OR 1 Metapopulation in each drainage

Better: 5 Isolates AND 1 Metapopulation for each drainage



Ideal Recommendations

Minimum: 5 OR 1 in each drainage

Better: 5 AND 1 for each drainage

Big Horn Lake

Nowood River

North Fork Shoshone River

South Fork Shoshone River

Clark's Fork River

Lower Shoshone

Upper Bighorn River

Greybull River

Upper Yellowstone