

HAWLEY CREEK

Pre and Post Treatment

Stacey Feeken

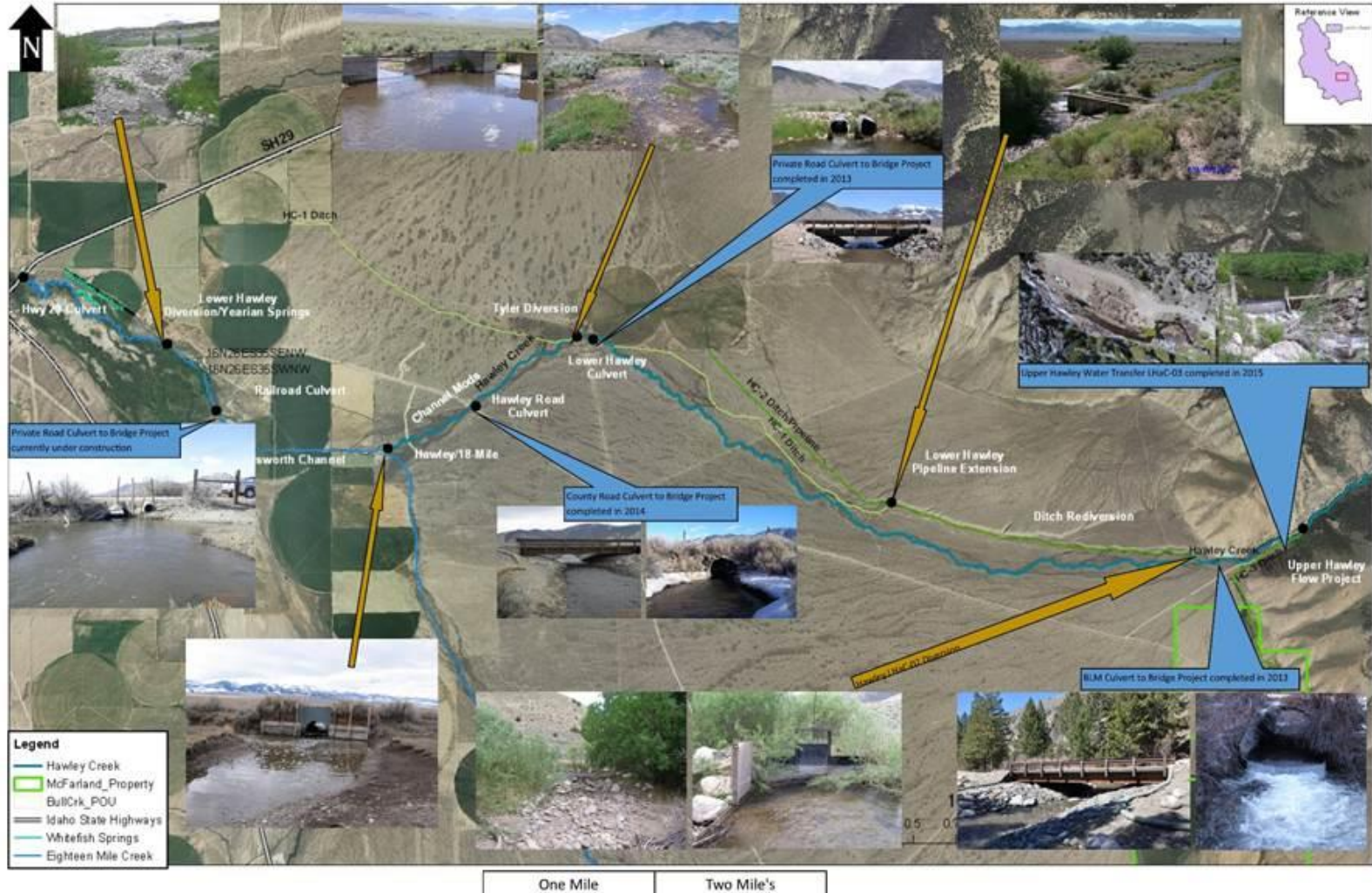
Hawley Creek



Hawley Creek Restoration

- Flow
- Physical Barriers
- Instream Habitat

Hawley Creek Habitat Improvement Projects



Hawley Creek

- Multiple Barriers Removed or Modified



BDAs

- BDAs installed in 2018
- 5 BDAs



Photos: Daniel Bertram

Research Objectives

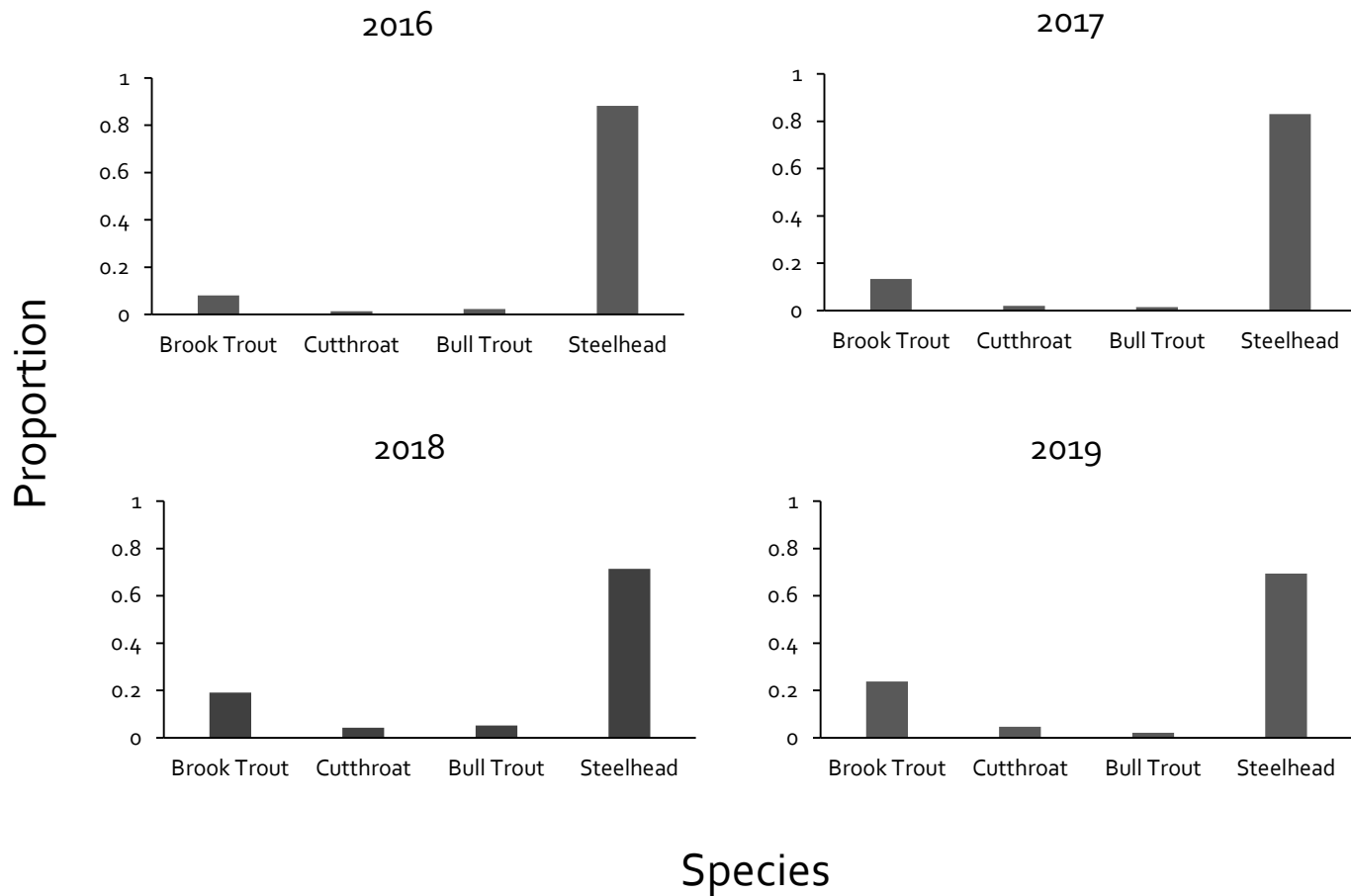
- What is the abundance and composition of species in Hawley Creek?
- Describe non target (Brook Trout) response to BDAs (pre and post treatment)
- Describe target (steelhead) response to BDAs (pre and post treatment)

Sampling

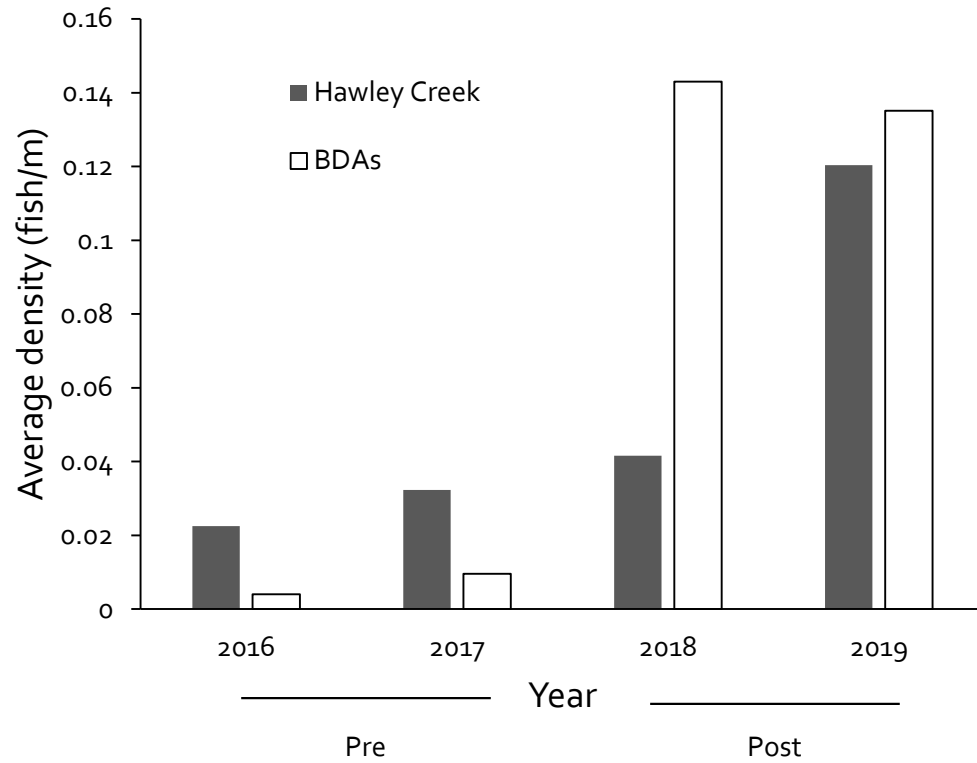
- Mark-recapture electrofishing



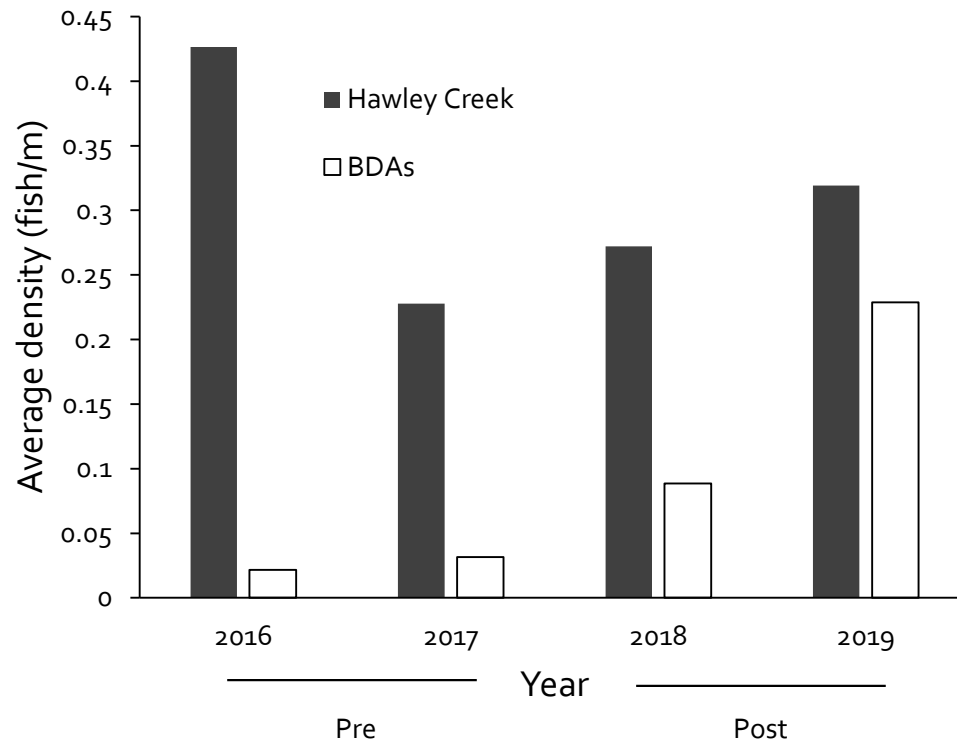
Hawley Creek Species Composition



Brook Trout

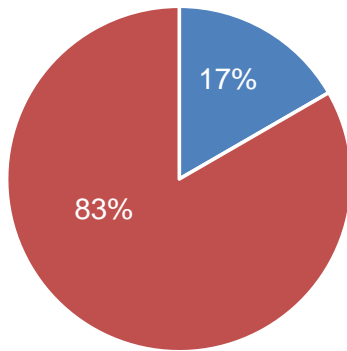


Steelhead



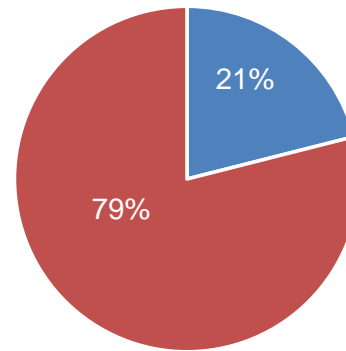
Species Composition - BDAs

2016



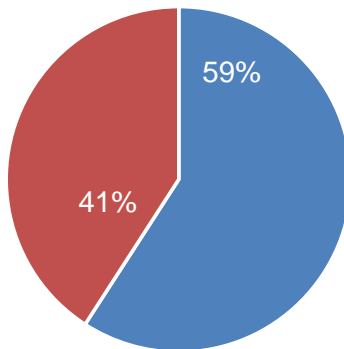
■ Brook Trout ■ Steelhead

2017



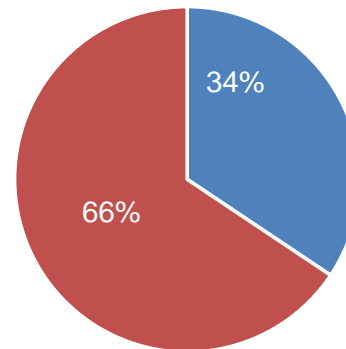
■ Brook Trout ■ Steelhead

2018



■ Brook Trout ■ Steelhead

2019



■ Brook Trout ■ Steelhead

Conclusions

- Hawley Creek is dominated by steelhead
- Brook Trout and steelhead densities have increased in the creek and in BDAs
- Steelhead densities are greater than Brook Trout densities in BDAs
 - Steelhead and Brook trout densities increased substantially post treatment in BDA locations
 - Brook Trout densities increased at a faster rate
 - BDAs provide good habitat
 - Greater proportion of Brook Trout in BDAs in 2018.

Next Steps

- Increase in species abundance?
- Species movement and distribution?
- Factors to consider:
 - Trout move short distances during summer (50-100m)
 - Vacated habitats will be colonized by new cohorts
 - Timeline (>5 years to observe increases in survival and abundance)
 - Other habitat projects



Future Direction

- Solutions and methods
 - Continue to collect data and PIT-tag fish
 - Control reach
 - Temporary PIT arrays
 - Standardize sampling



Questions

