

Arizona Gila Trout Update

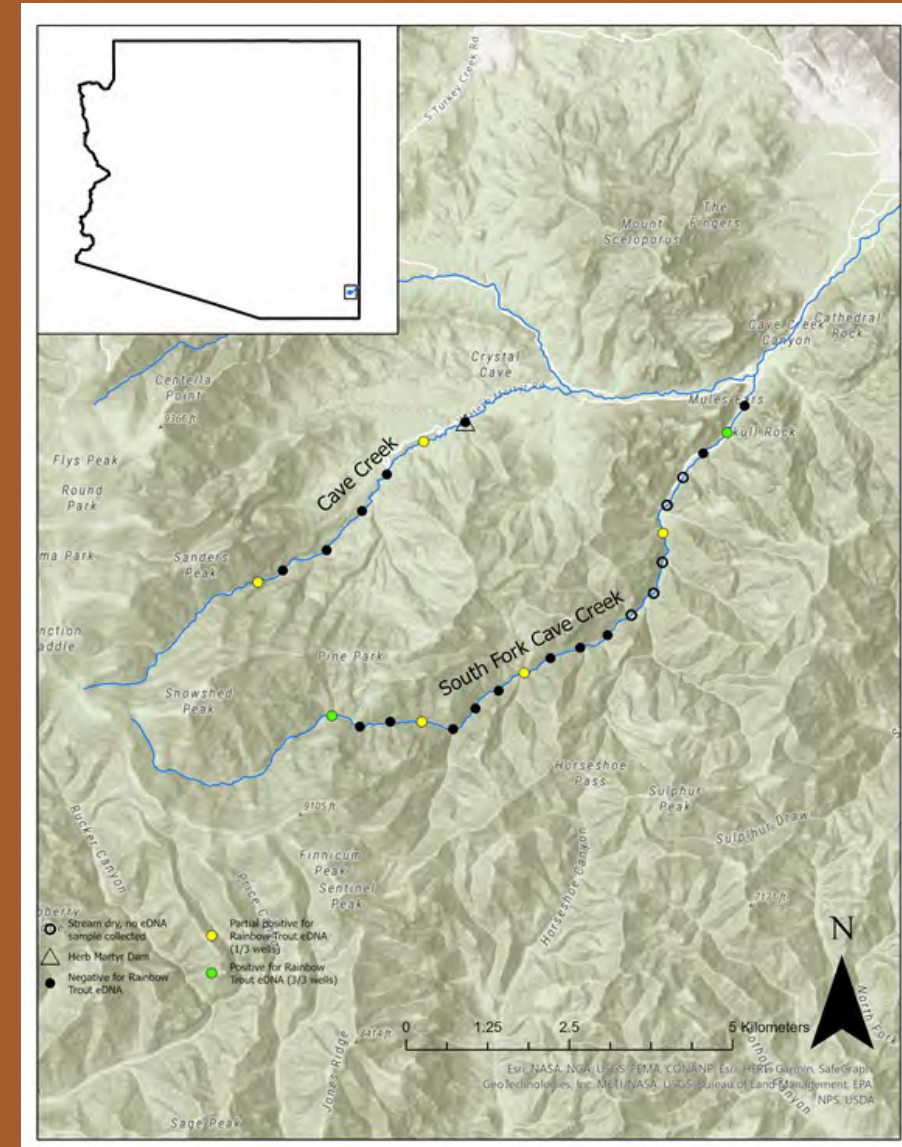


Zachary S Beard
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Cave Creek Complex (San Simon River Drainage)

- 2022 work
 - eDNA sampling – May
 - Collected 22 eDNA samples from South Fork Cave Creek and Cave Creek
 - Tested for Rainbow Trout, Brook Trout, and Brown Trout
 - All sites negative for Brook and Brown Trout
 - 2 sites positive for Rainbow Trout DNA
 - 5 sites partial positive for Rainbow trout DNA



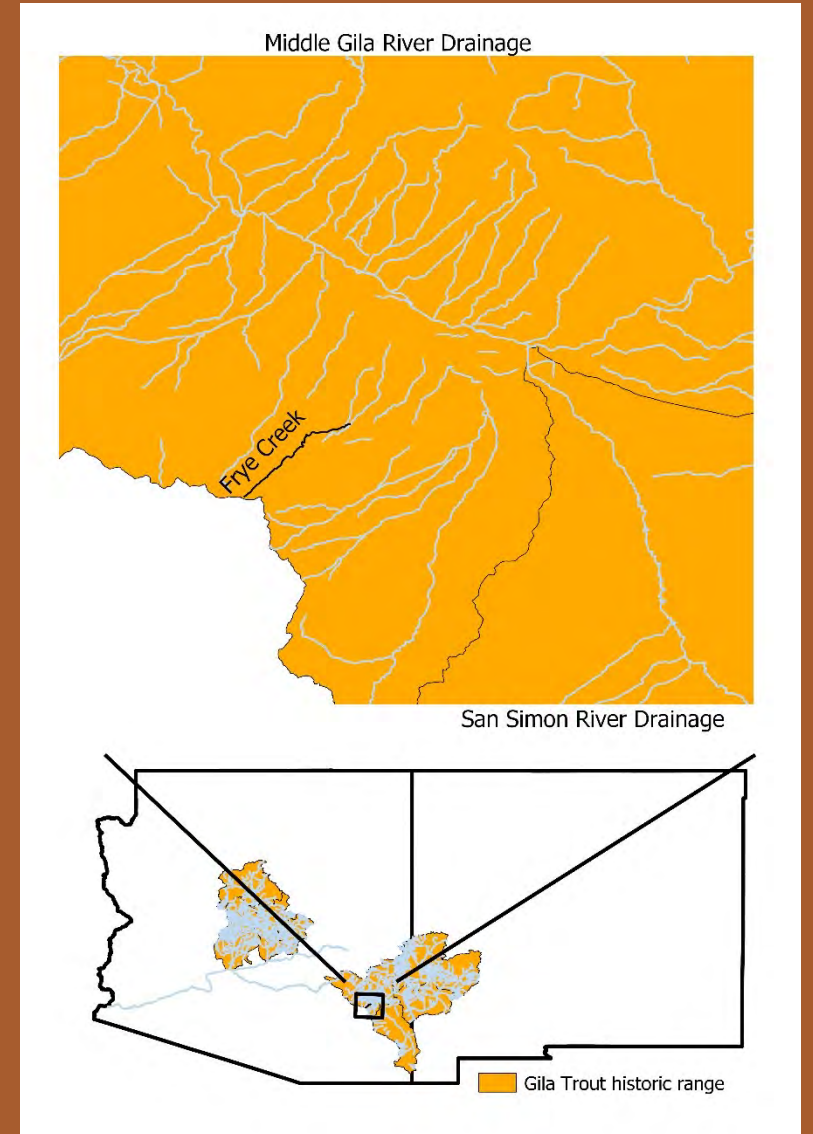
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 - eDNA sampling – May
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 - Tested for Rainbow Trout, Brook Trout, and Brown Trout
 - All sites negative for Brook and Brown Trout
 - 2 sites positive for Rainbow Trout DNA
 - 5 sites partial positive for Rainbow trout DNA
 - Electrofishing – June
 - Completed single pass backpack electrofishing through 4 positive or partial positive eDNA sites
 - 500 m sites
 - No Rainbow Trout sampled



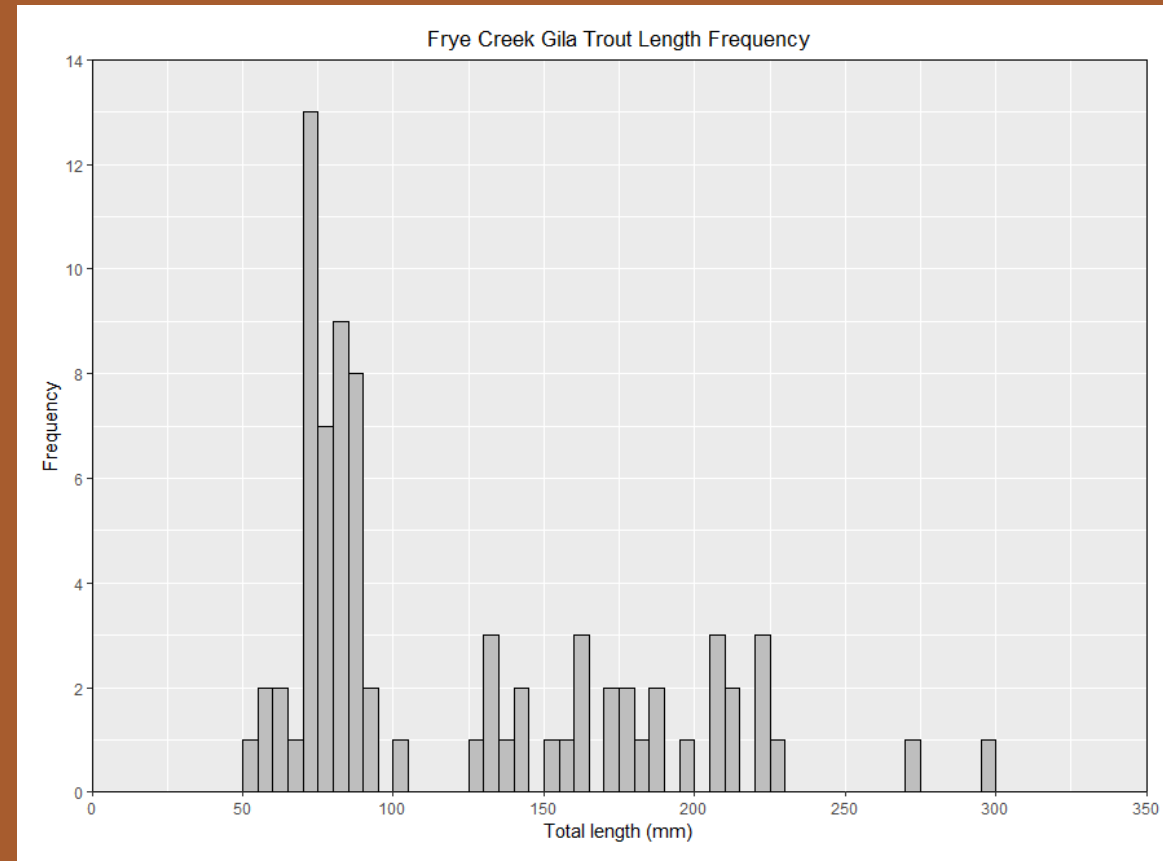
Frye Creek (Middle Gila River Drainage)

- 2022 work
 - Population Estimate



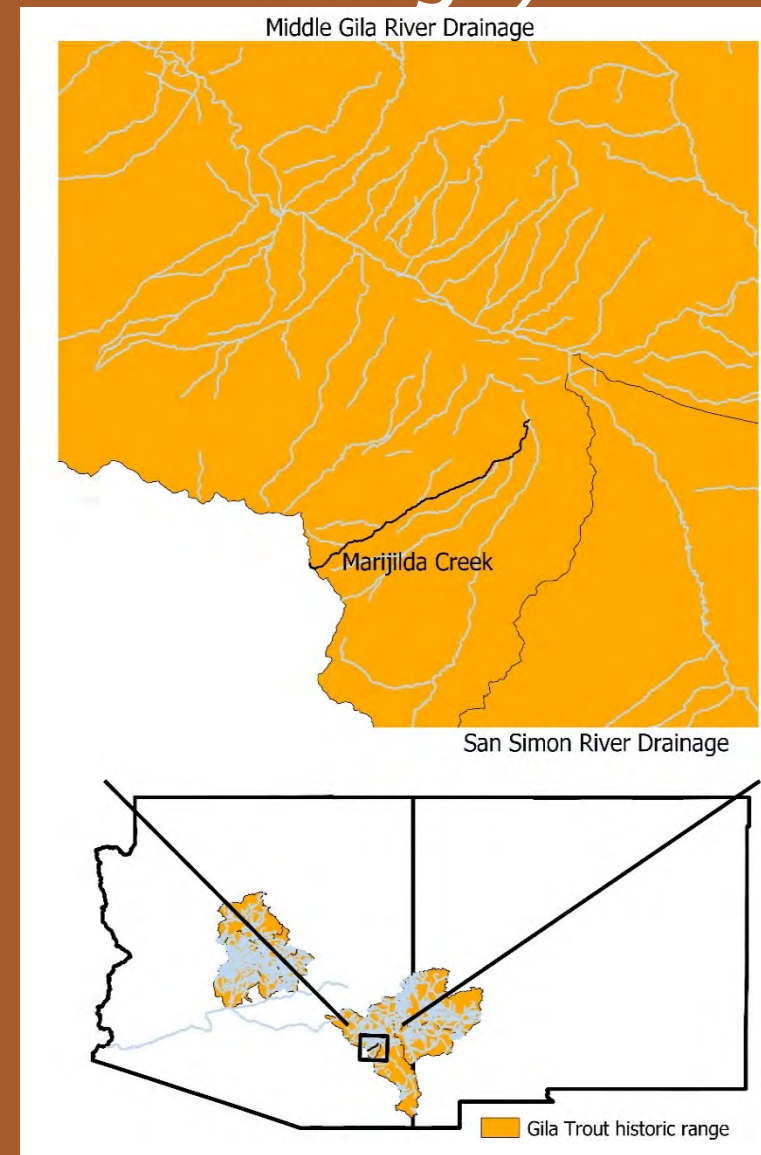
Frye Creek (Middle Gila River Drainage)

- 2022 work
 - Population Estimate
 - 77 Gila Trout Sampled
 - Varied in length from 54 to 297 mm
 - Total population estimate - 231 (71, 392; 80% confidence interval)
 - Adult population estimate – 90 (41, 141)



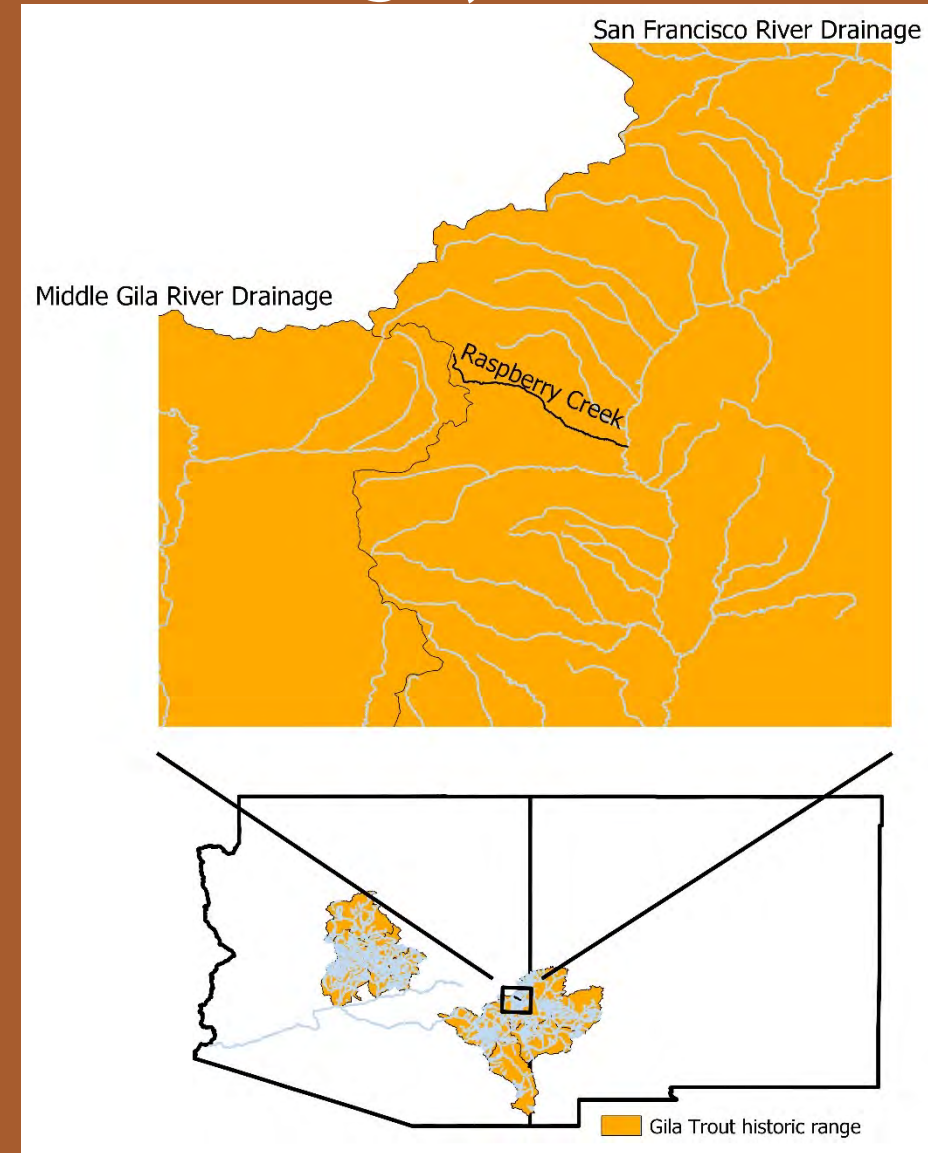
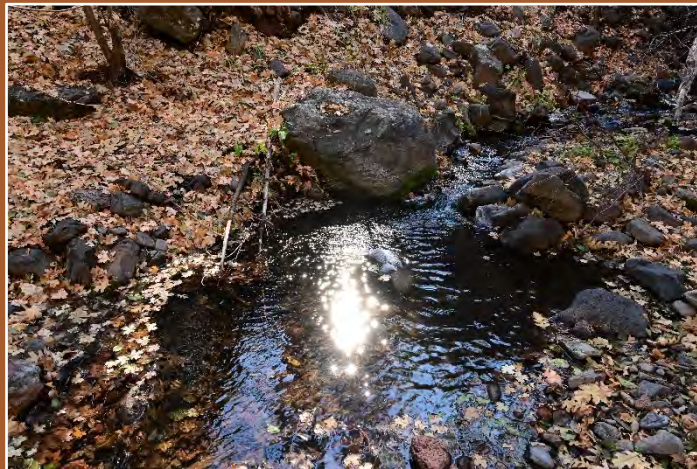
Marijilda Creek (Middle Gila River Drainage)

- 2022 work
 - November 10th
 - Stocked 500 Gila Trout (South Diamond) into lower Marijilda Creek
 - Stocked 100 Gila Trout (Whiskey Creek) into upper Marijilda Creek



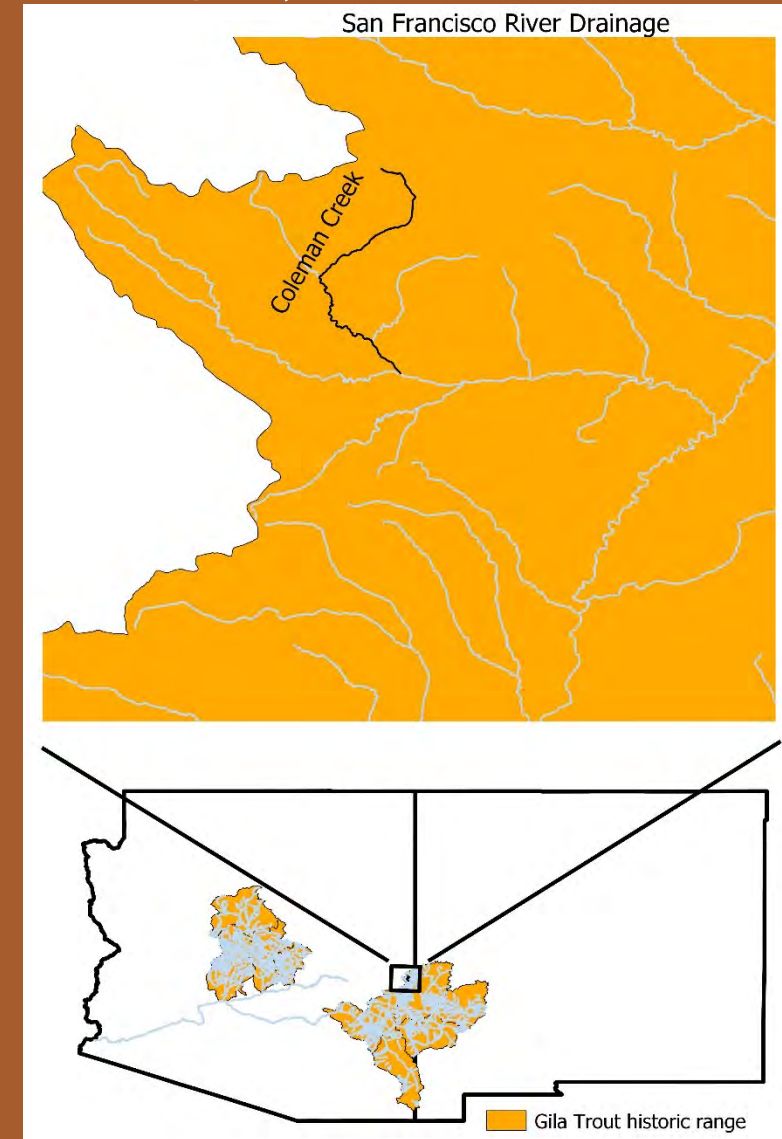
Raspberry Creek (Blue River Drainage)

- 2022 work
 - Visual encounter survey - June
 - 3 Gila trout observed in two separate pools
 - Augmentation - November
 - Stocked 250 Gila trout (Whiskey Creek)



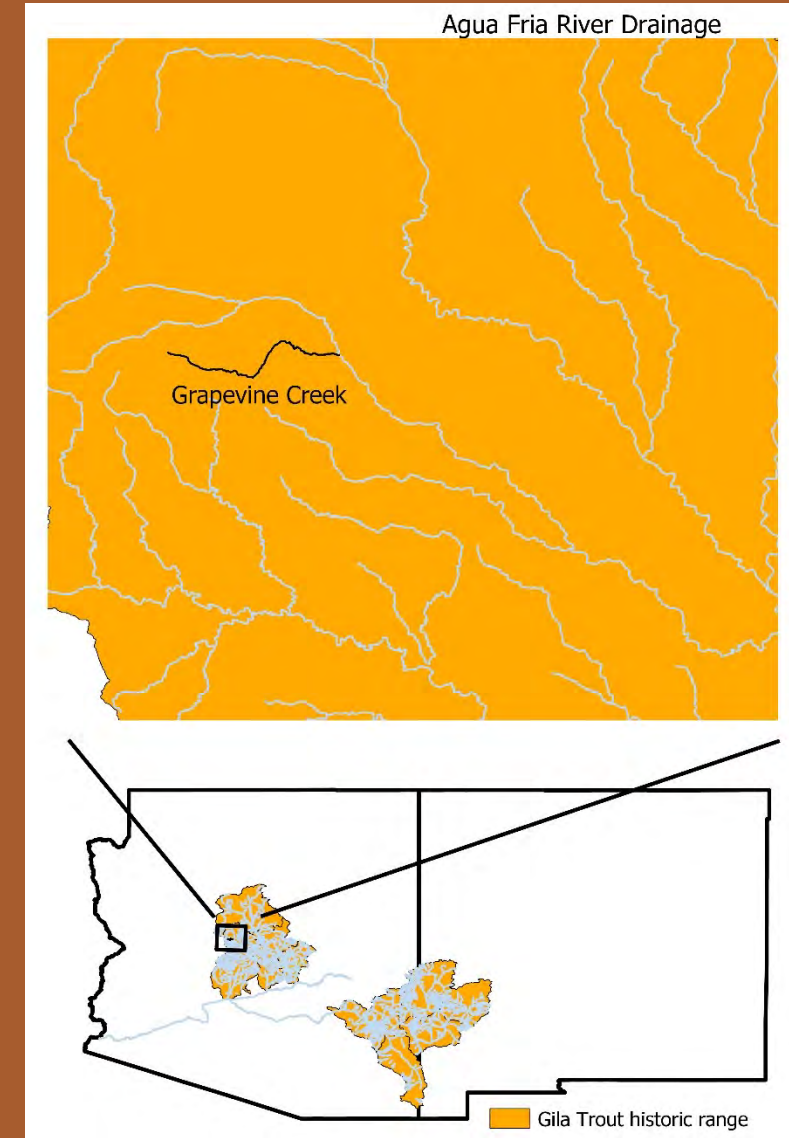
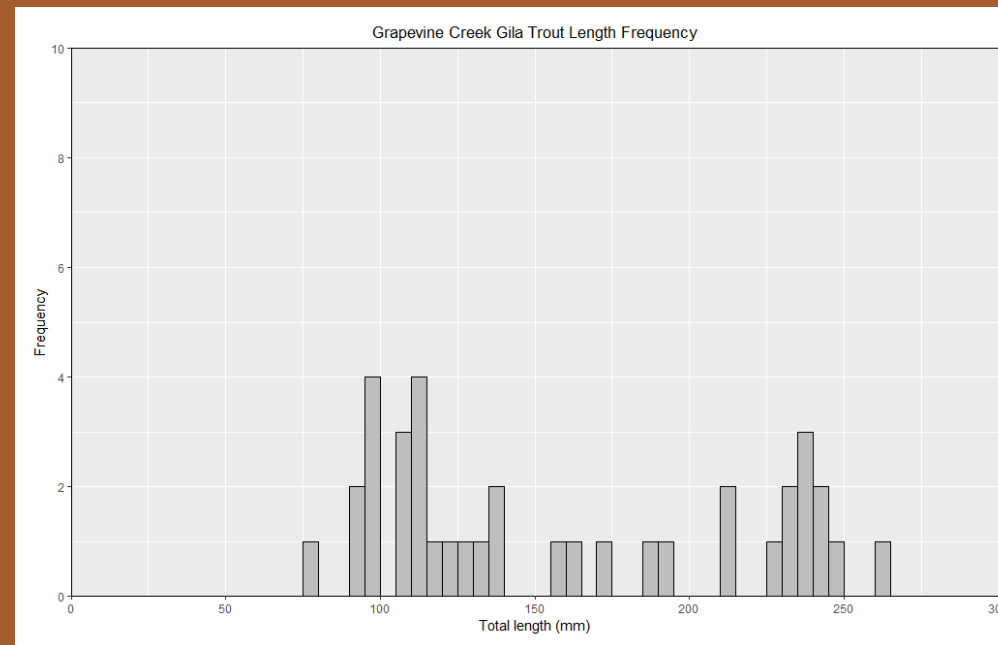
Coleman Creek (Blue River Drainage)

- 2022 work
 - Visual encounter survey – June
 - Observed 5 Gila Trout



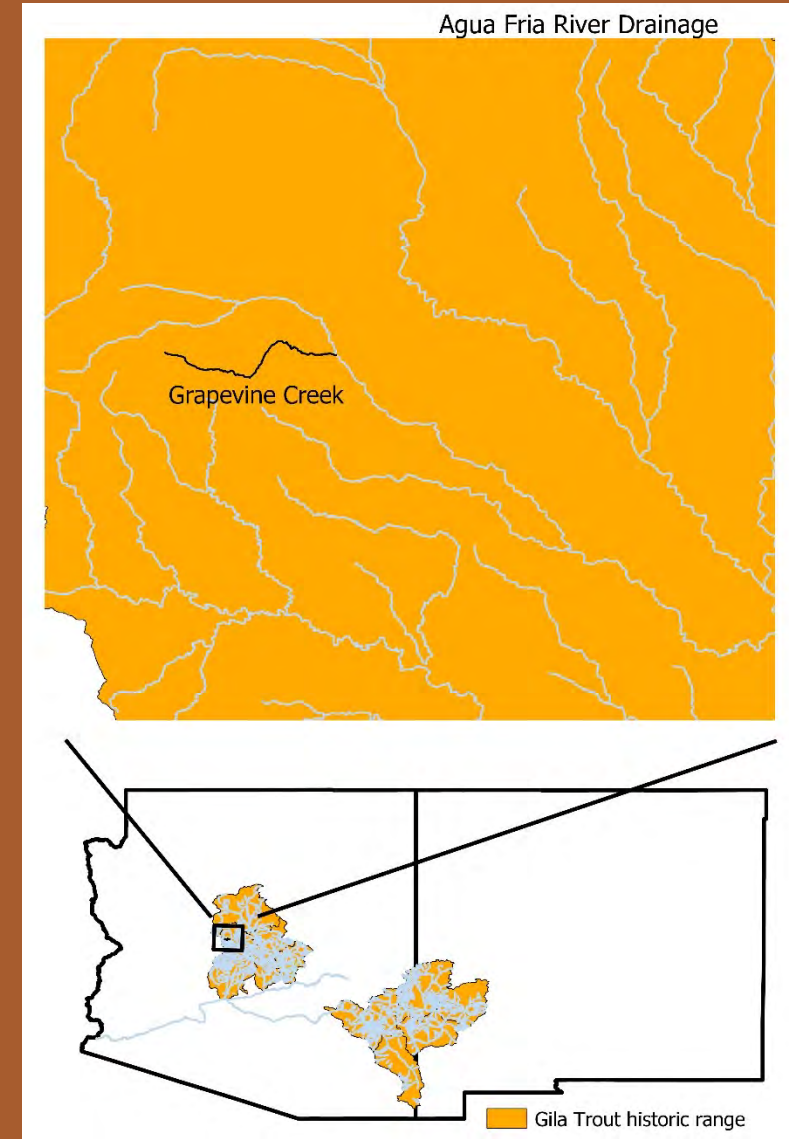
Grapevine Creek (Agua Fria River Drainage)

- 2022 work
 - Population Estimate - November
 - 37 Gila Trout sampled
 - 77 to 265 mm
 - 111 Gila Trout (55, 167; 80% confidence interval)
 - 2021 estimate - 336 (142, 531)



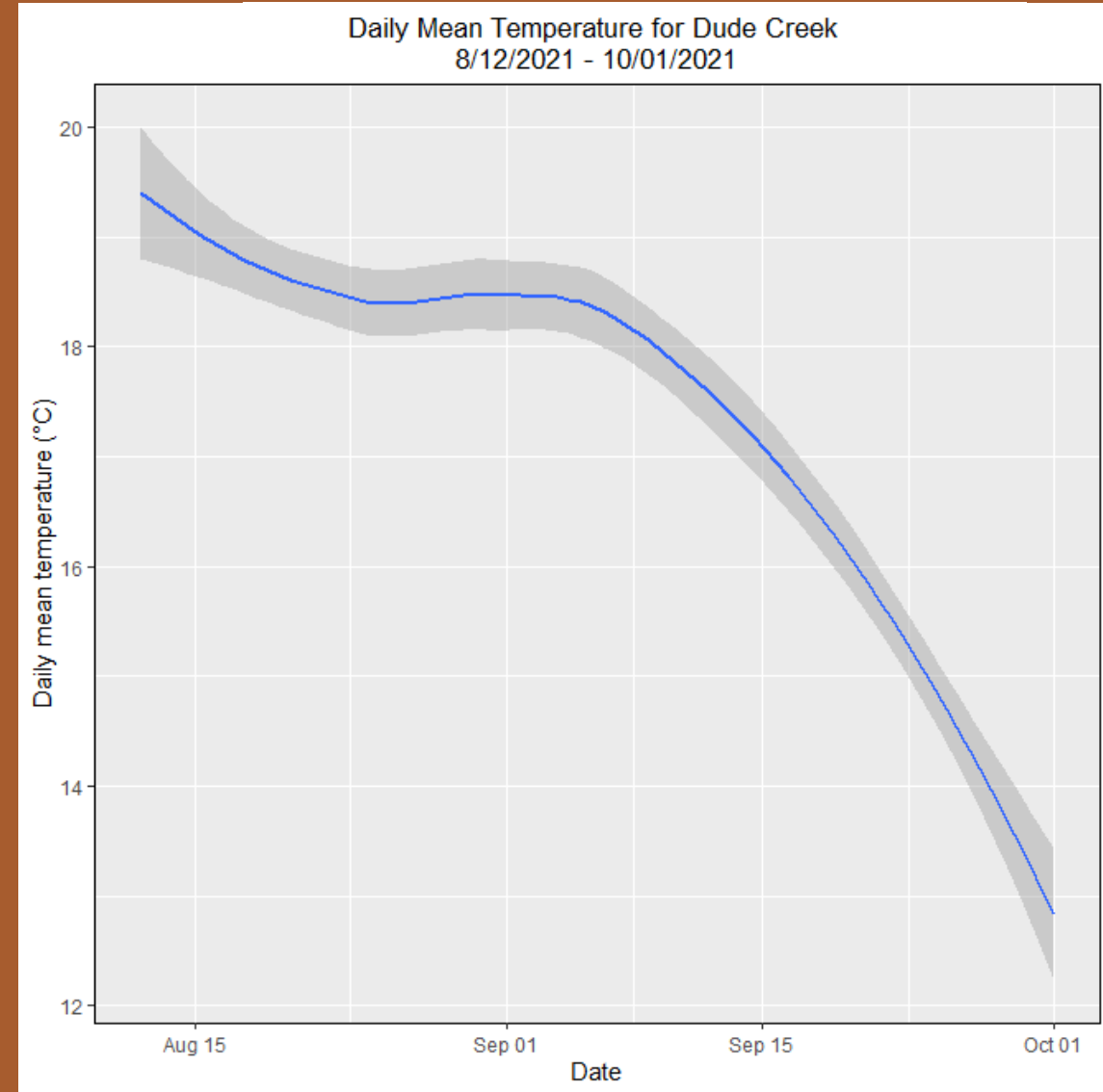
Grapevine Creek (Agua Fria River Drainage)

- 2022 work
 - Population Estimate - November
 - Angling
 - 20 responses (out of 97 total)
 - Average CPUE – 1.17 fish per hour
 - Average catch rate satisfaction – 95%
 - Average overall satisfaction – 95%



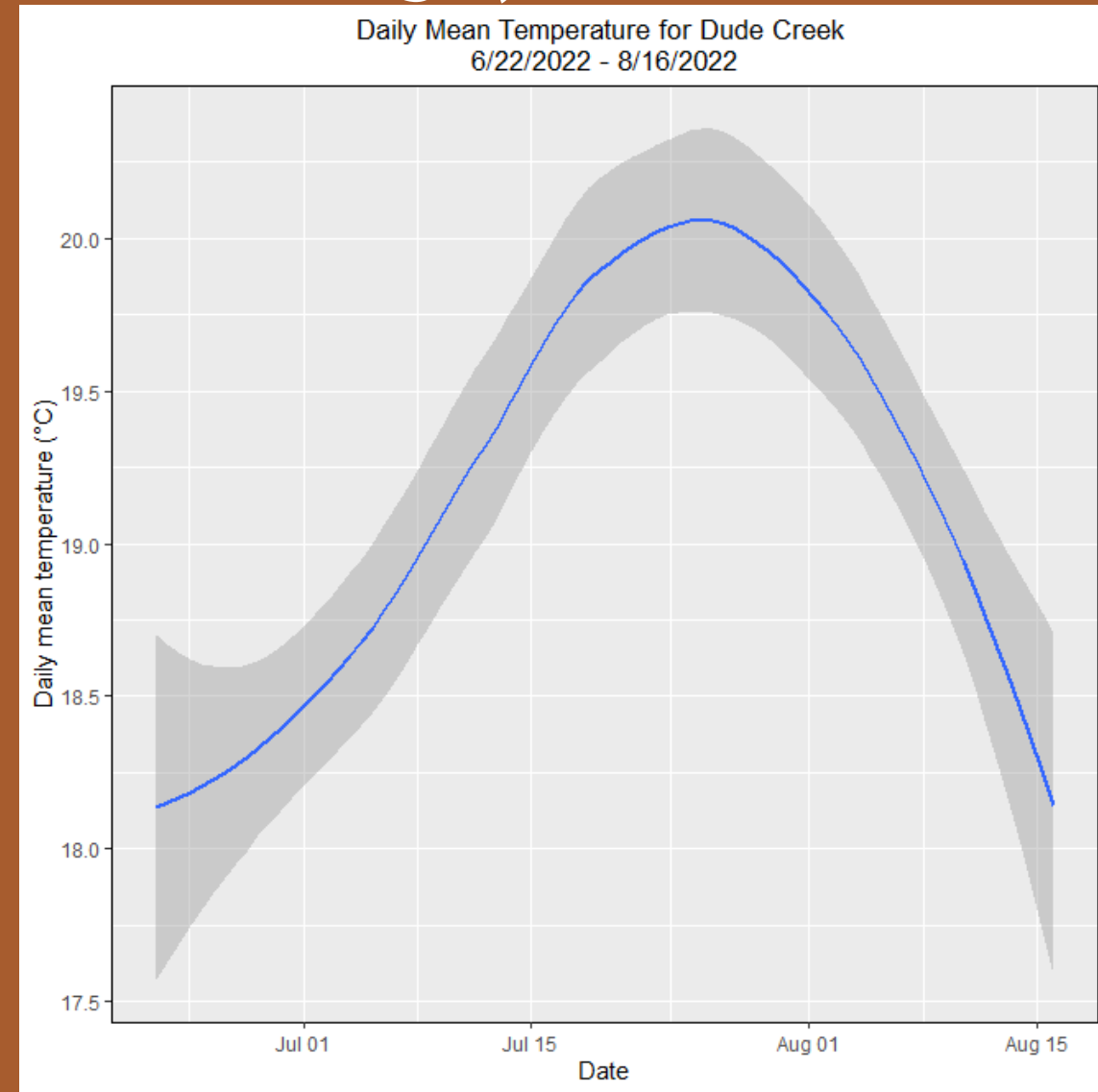
Dude Creek (Verde River Drainage)

- 2022 work
 - Stream temperature monitoring
 - 8/12/2021 – 10/01/2021
 - Maximum temperature – 22.9
 - Maximum mean daily temperature – 20.3



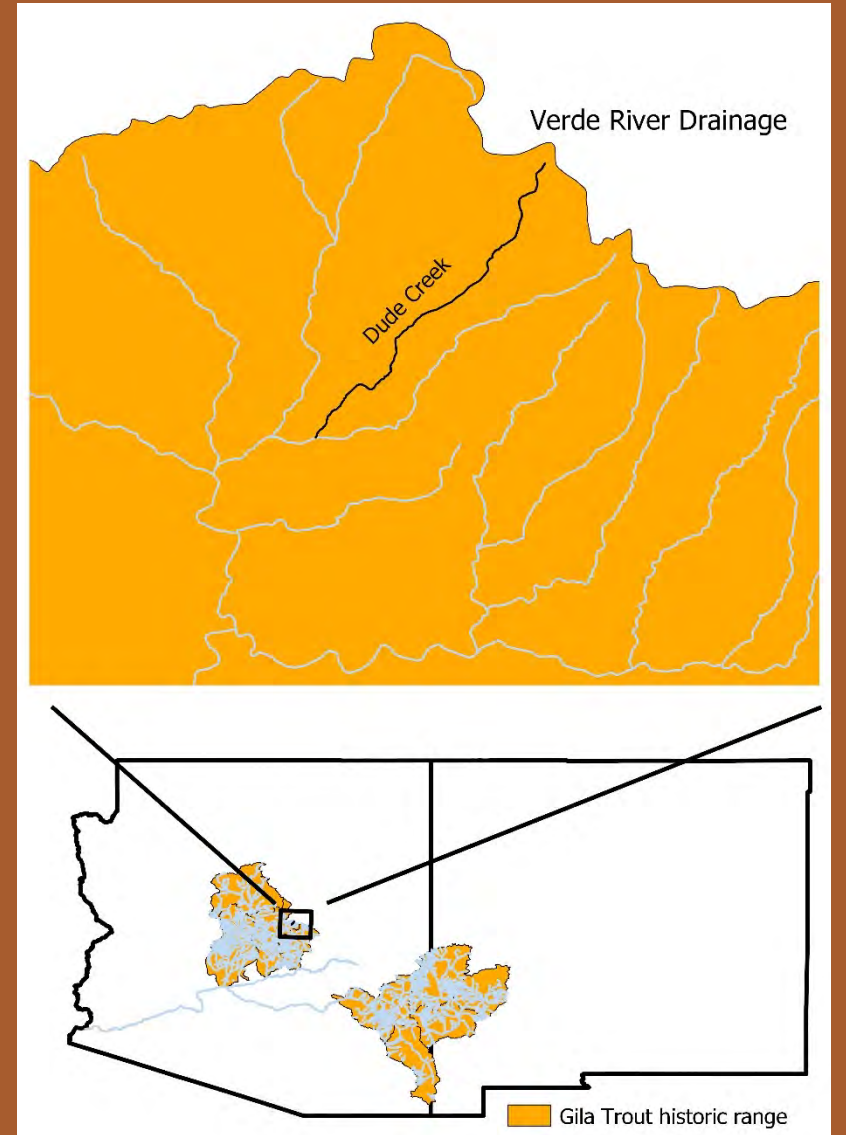
Dude Creek (Verde River Drainage)

- 2022 work
 - Stream temperature monitoring
 - 8/12/2021 – 10/01/2021
 - Maximum temperature – 22.9°C
 - Maximum mean daily temperature – 20.3°C
 - 6/22/2022 – 8/16/2022
 - Maximum temperature – 24.4°C
 - Maximum mean daily temperature – 21.3°C



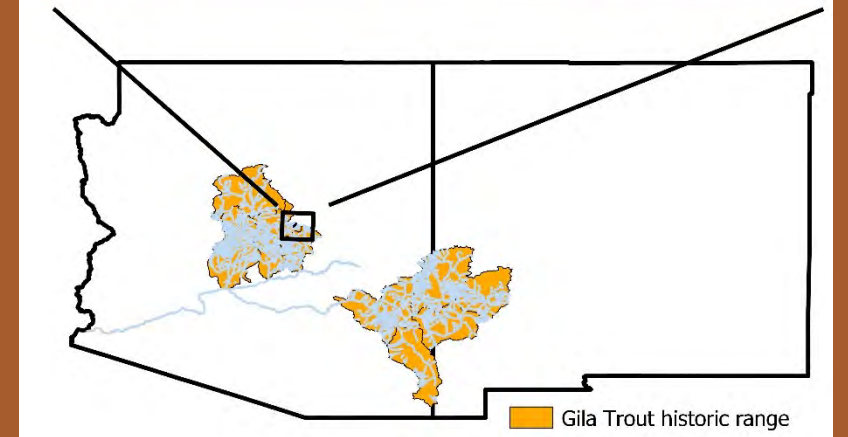
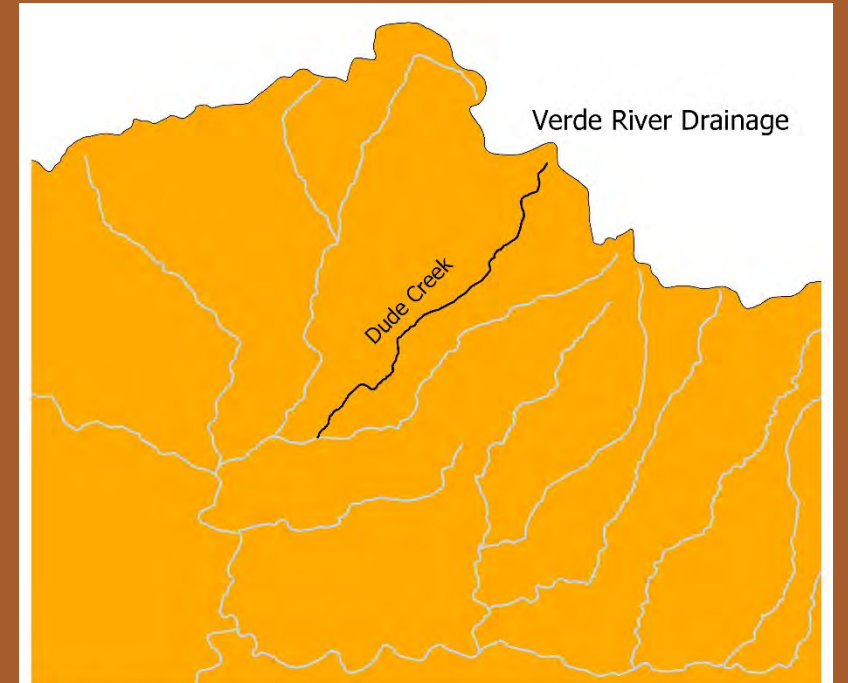
Dude Creek (Verde River Drainage)

- 2022 work
 - Stream temperature monitoring
 - Visual encounter survey - August
 - 17 young-of-year
 - 8 adults
 - 2 sub-adults



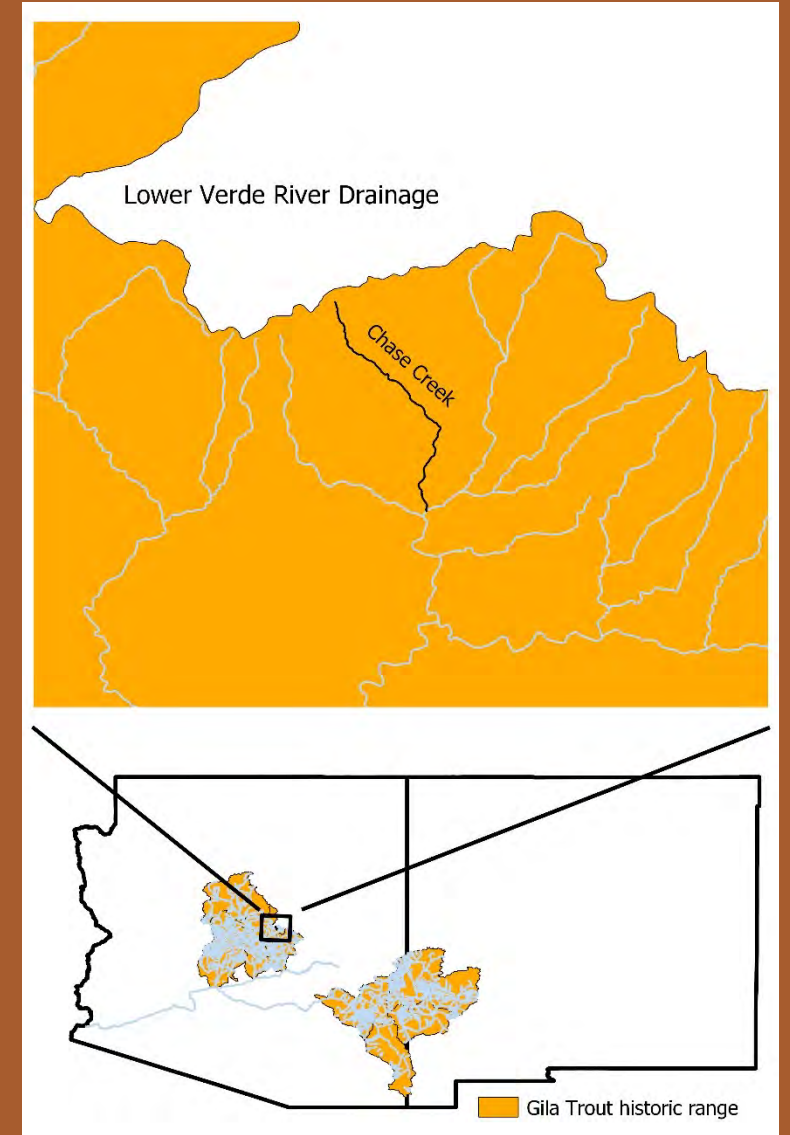
Dude Creek (Verde River Drainage)

- 2022 work
 - Stream temperature monitoring
 - Visual encounter survey
 - Angling
 - 44 responses (out of 97)
 - Average CPUE – 0.71 fish per hour
 - Average catch rate satisfaction – 65.8%
 - Average overall satisfaction – 81.6%



Chase Creek (Verde River Drainage)

- 2022 Work
 - Population Estimate - September
 - 13 Gila Trout sampled
 - 61 to 272 mm
 - Total population estimate - 39 (13, 65)



Current Status in Arizona

- Eight occupied recovery streams consisting of nine populations

Population	Stream Mileage	Population Estimate	Year of Estimate	Year Founded
Chase Creek	1.2	39	2022	2017
Coleman Creek	2.5	NA	NA	2020
Dude Creek	1.9	966	2020	2015
Frye Creek	5.0	231	2022	2019
Grapevine Creek	2.0	111	2022	2019
KP Creek	9.3	NA	NA	2021
Lower Marjilda Creek	3.0	NA	NA	2020
Upper Marjilda Creek	1.2	NA	NA	2020
Raspberry Creek	2.5	26	2021	2018

Planned Work for 2022

- eDNA
 - Cave Creek Complex
 - Chitty Creek



Planned Work for 2022

- eDNA
- Population Estimates
 - Coleman Creek
 - Dude Creek
 - Upper and Lower Marijilda Creek



Planned Work for 2022

- eDNA
- Population Estimates
- Visual Encounter/Snorkel Surveys
 - Chase Creek
 - Frye Creek
 - KP Creek



Planned Work for 2022

- eDNA
- Population Estimates
- Visual Encounter/Snorkel Surveys
- Habitat Surveys
 - Ash Creek



Planned Work for 2022

- eDNA
- Population Estimates
- Visual Encounter/Snorkel Surveys
- Habitat Surveys
- Stockings
 - Chase Creek
 - Coleman Creek
 - KP Creek



Photo Credit: Sheldon Clouse



Acknowledgements

- Arizona Game and Fish
- USDA Forest Service
- US Fish and Wildlife Service
- Mora National Fish Hatchery
- New Mexico Department of Game and Fish
- Trout Unlimited
- Back Country Hunters and Anglers

