Evaluation of Native and Non-Native Fish Distribution in the Rarely Sampled Escalante River and Tributaries 2017

Erik Woodhouse
Utah Division of Wildlife Resources

Three Species

Flannelmouth Sucker
(*Catostomus latipinnis*)

Bluehead Sucker
(*Catostomus discobulus*)

Roundtail Chub
(Gila robusta)

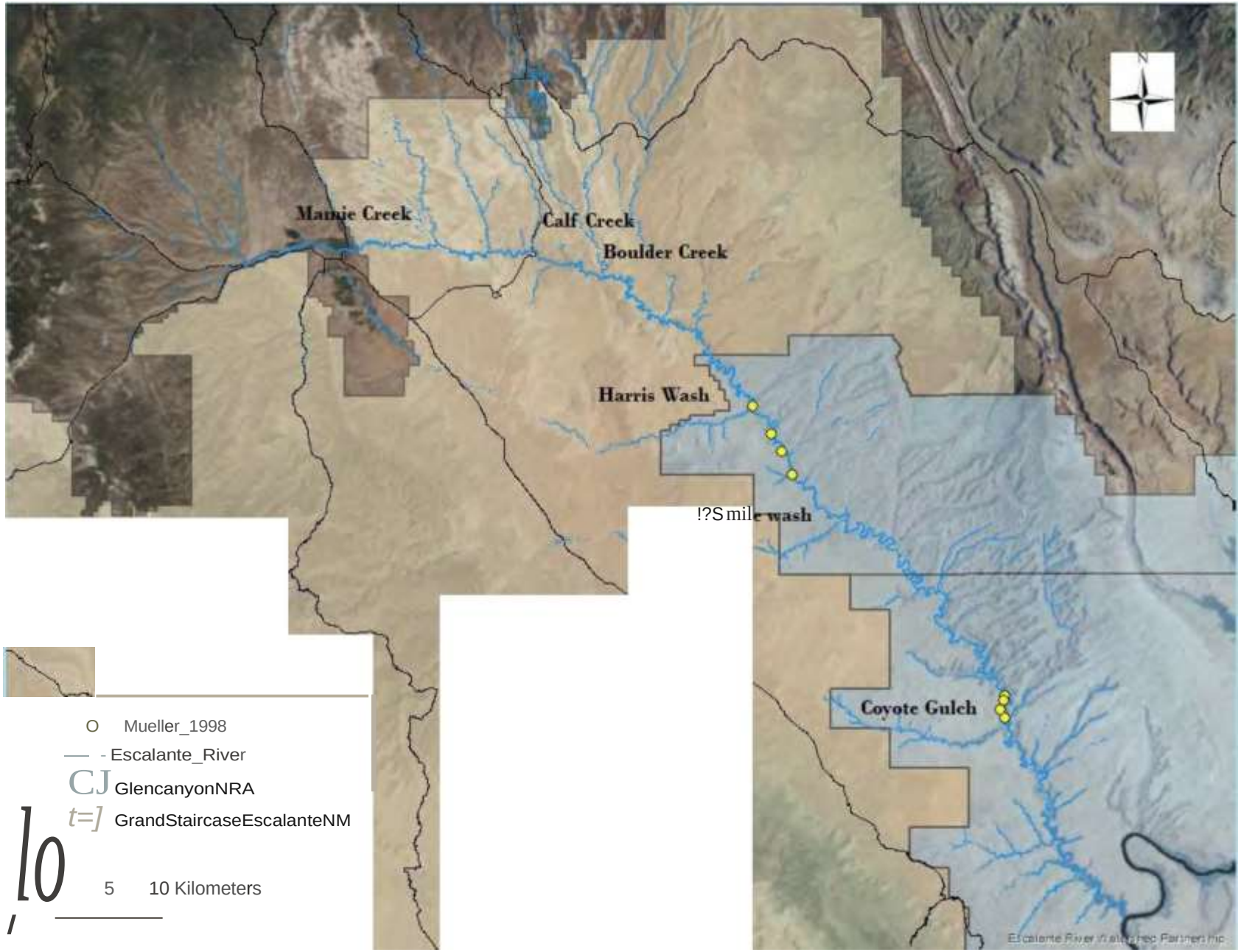
Escalante River

- Last large river drainage mapped in the United States (1872)
- Flows ~90 miles through GSENM, GCNRA before being inundated by Lake Powell
- Remote and rugged canyons have made it a popular hiking, backpacking, packrafting destination

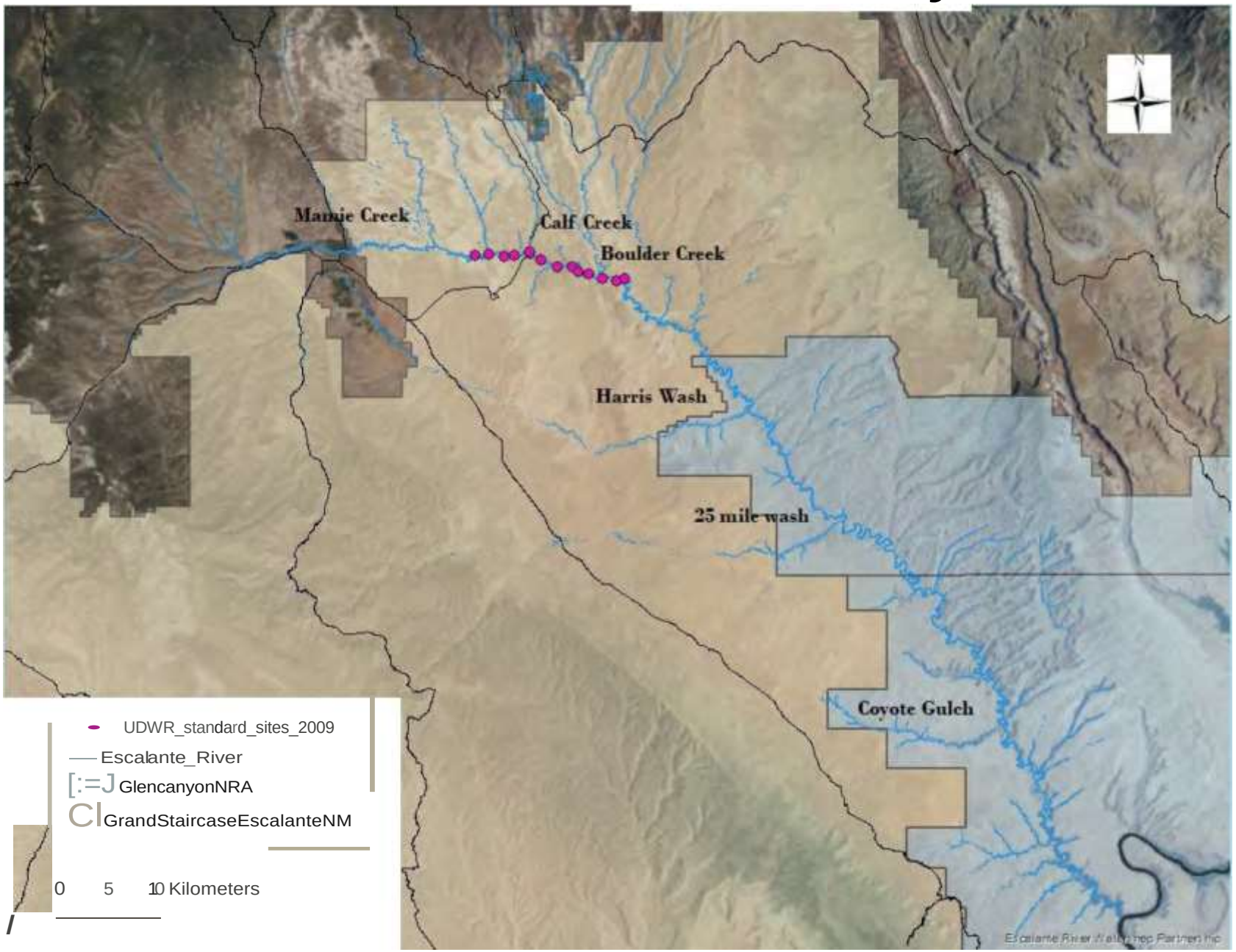
Escalante_River
GlenCanyonNRA
GrandStaircaseEscalanteNM

0 5 10 Kilometers

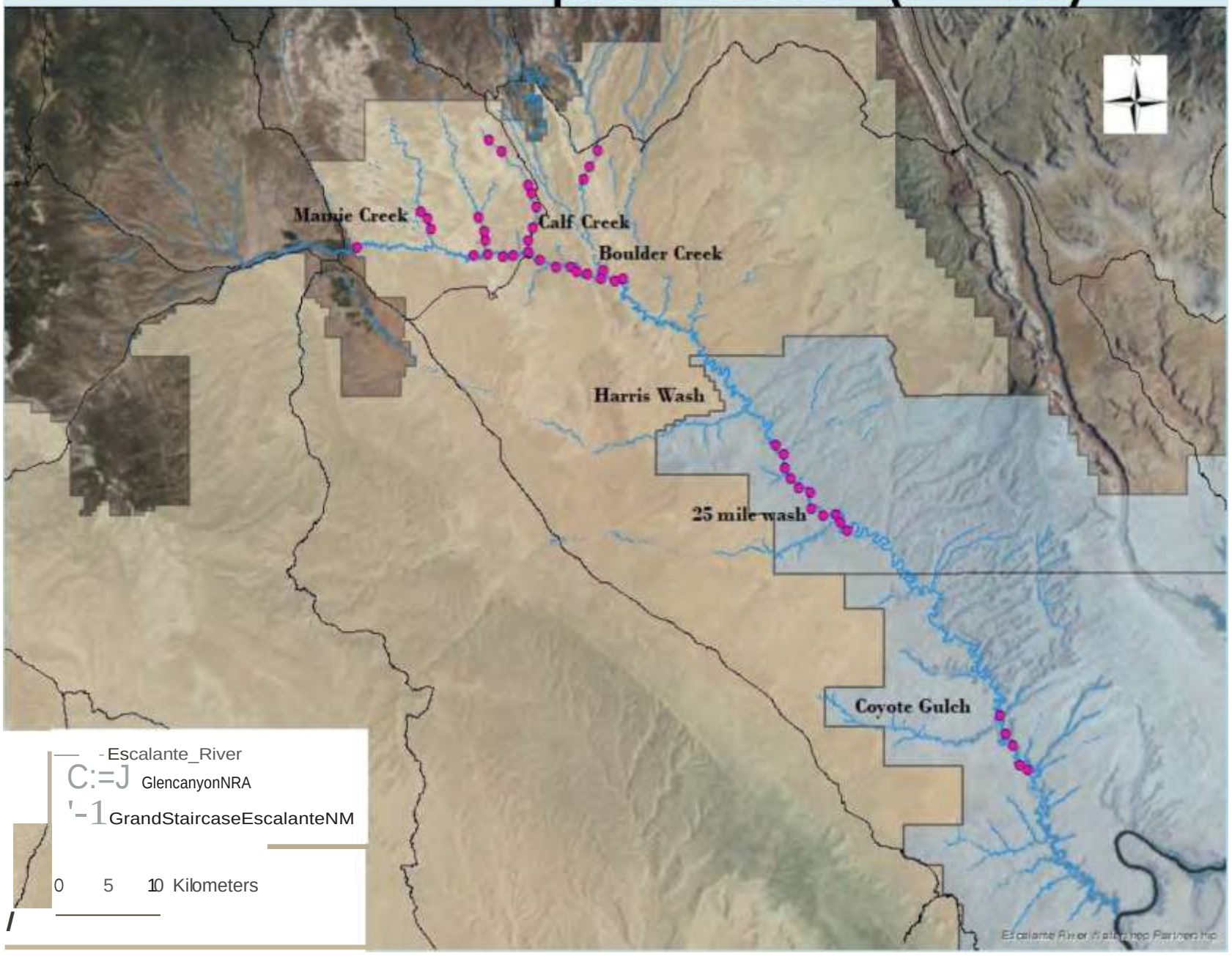
Previous Surveys



Previous UDWR Surveys



Stations Sampled 2017 (n=47)



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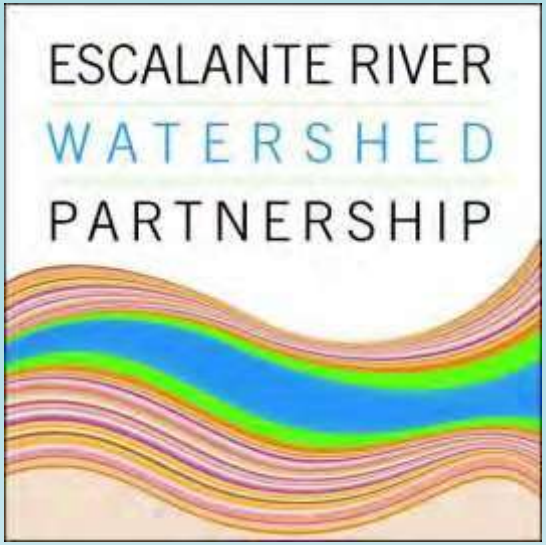
HEMINGWAY
FOUNDATION

The Great Seal of The Ute Indian Tribe
Uintah and Ouray Reservation

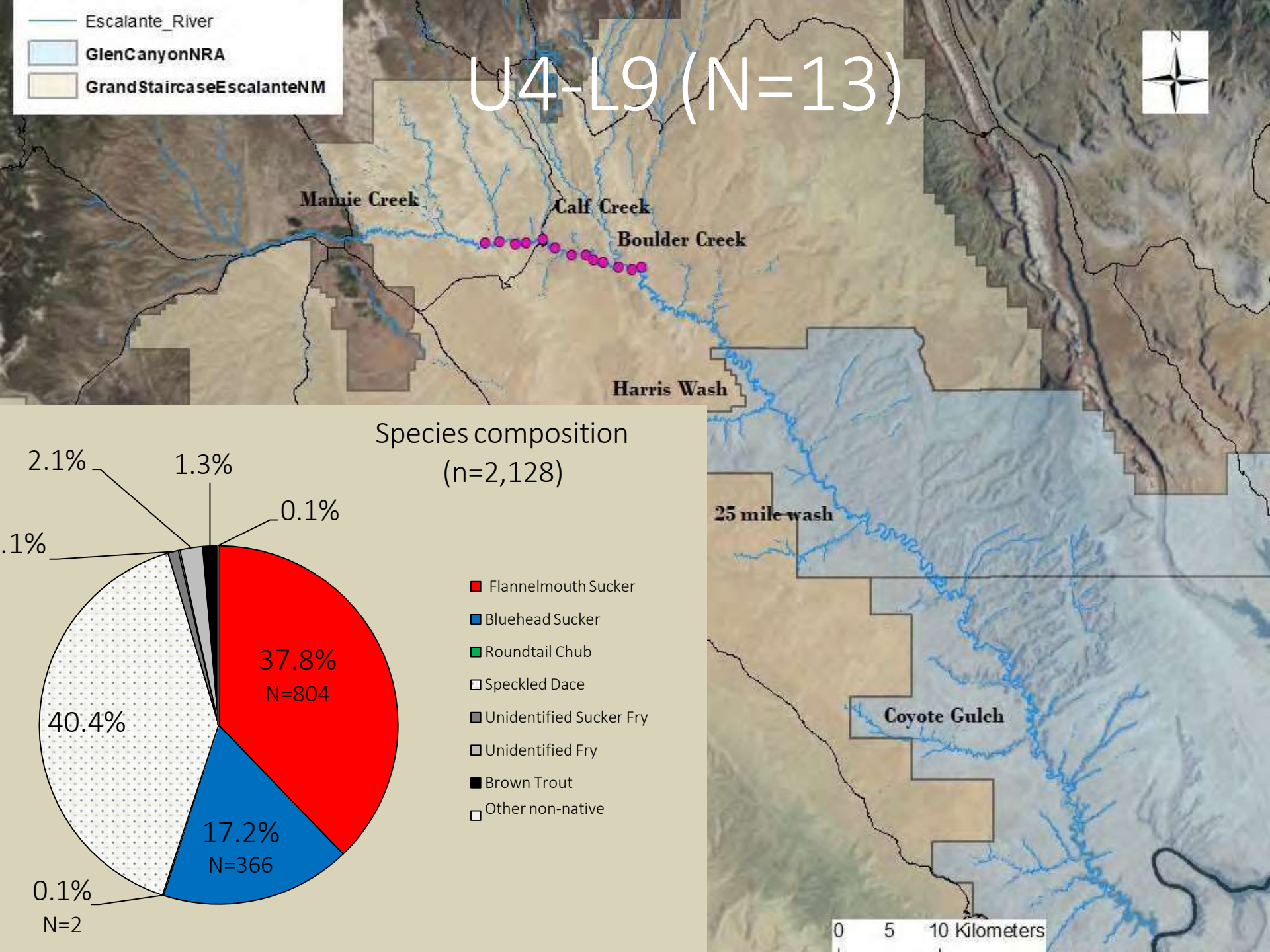
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT


ESCALANTE RIVER
WATERSHED
PARTNERSHIP

Sampling Methodology

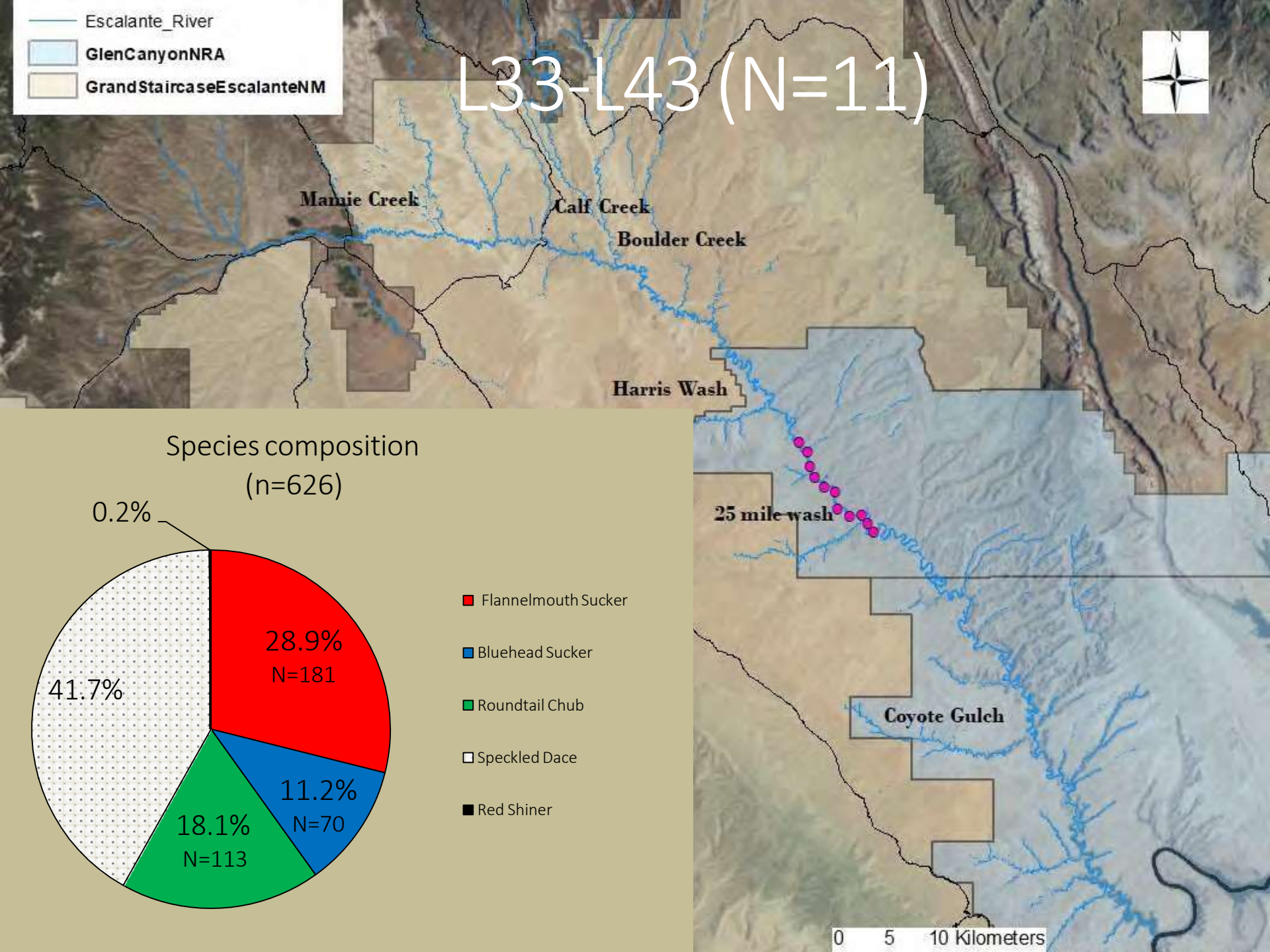
- Sample 20 sites within each station; select individual sites in proportion to habitat availability
- Conduct three-pass depletion seining
- Categorize site according to: Habitat and dominant substrate type
- Measure width, length, avg. depth of *area seined*; used to calculate relative abundance (# fish per m^3)

U4-L9 (N=13)

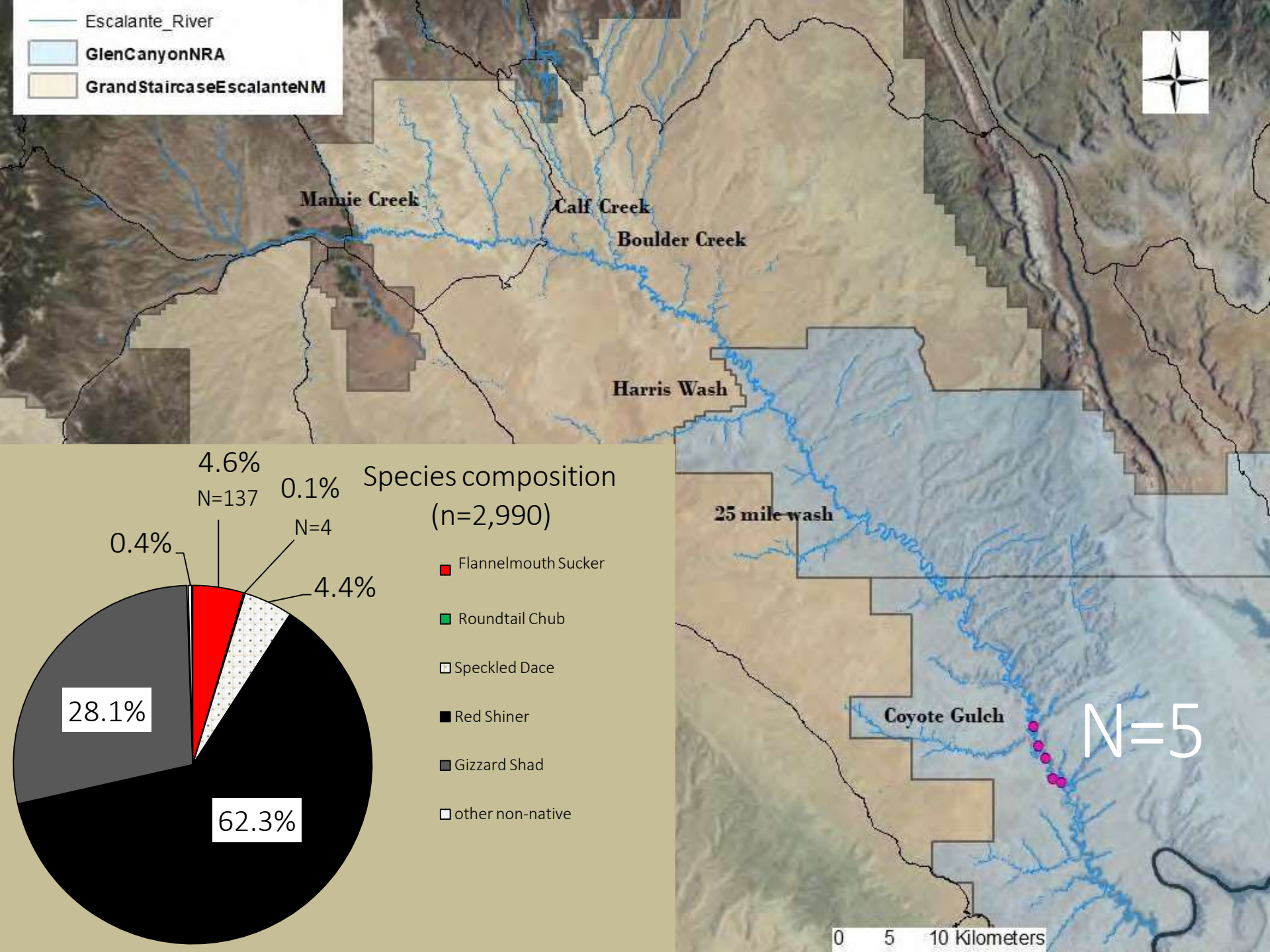


Species composition (n=2,128)

L33-L43 (N=11)

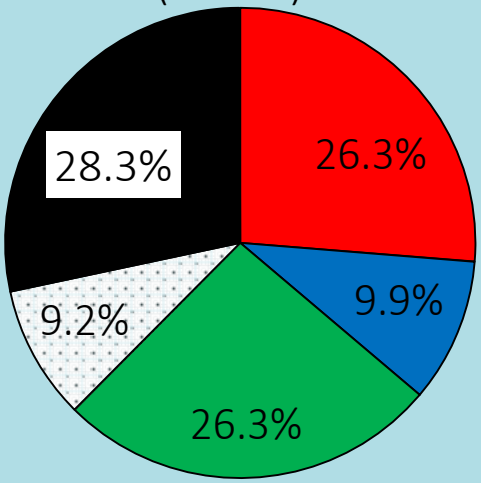


Species composition
(n=626)


Escalante_River
GlenCanyonNRA
GrandStaircaseEscalanteNM
N
Mamie Creek
Calf Creek
Boulder Creek
Harris Wash
25 mile wash
Coyote Gulch
N=5
0 5 10 Kilometers
Species composition
(n=2,990)
4.6%
N=137
0.1%
N=4
0.4%
4.4%
28.1%
62.3%
Flannelmouth Sucker
Roundtail Chub
Speckled Dace
Red Shiner
Gizzard Shad
other non-native

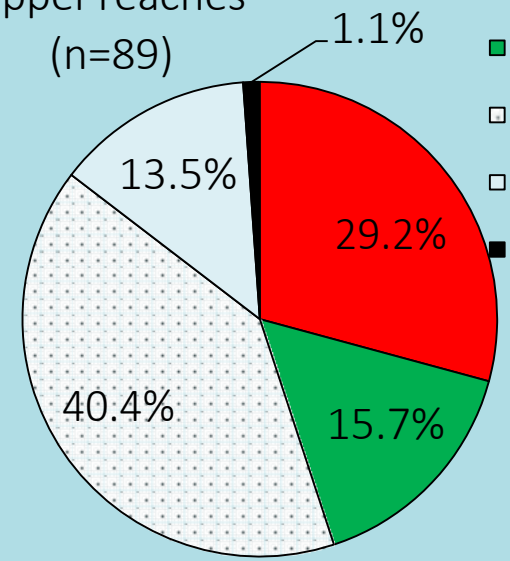
Species Composition: Previous vs. Current Surveys

Holden and Irvine 1975
upper reaches
(n=338)



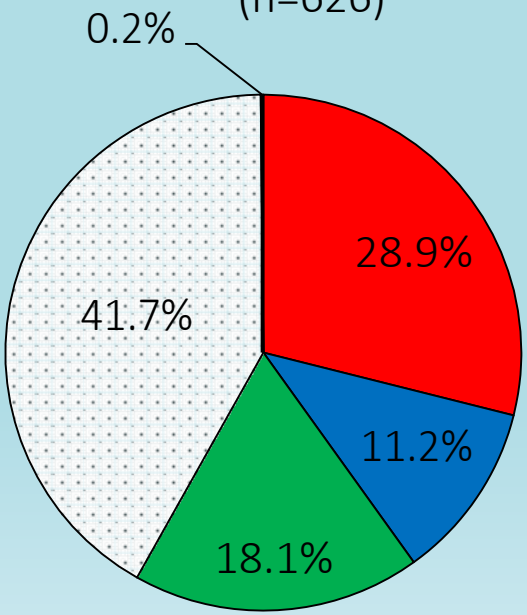
Flannelmouth Sucker
Bluehead Sucker
Roundtail Chub
Speckled Dace
Non-native

Mueller et al. 1998
upper reaches
(n=89)



Flannelmouth Sucker
Roundtail Chub
Speckled Dace
Juvenile Sucker
Non-native

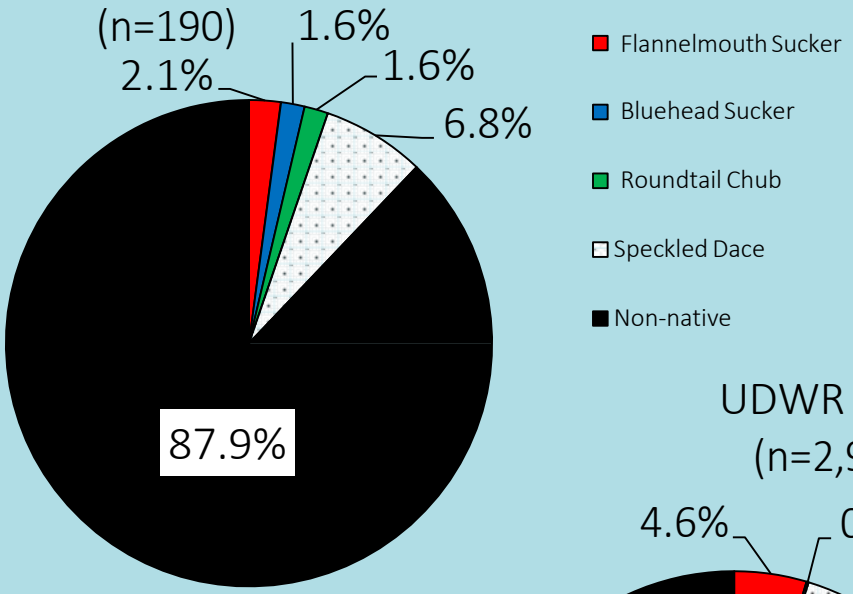
UDWR 2017
(n=626)



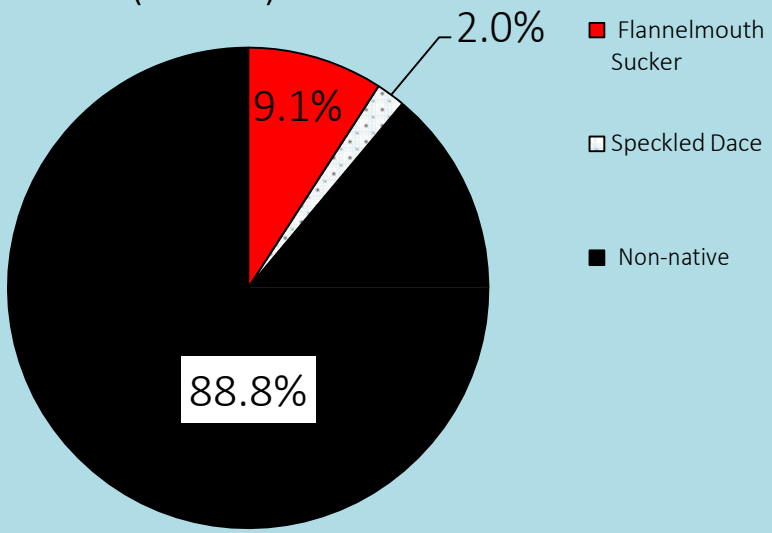
Flannelmouth Sucker
Bluehead Sucker
Roundtail Chub
Speckled Dace
Non-native

Species composition: previous vs current surveys

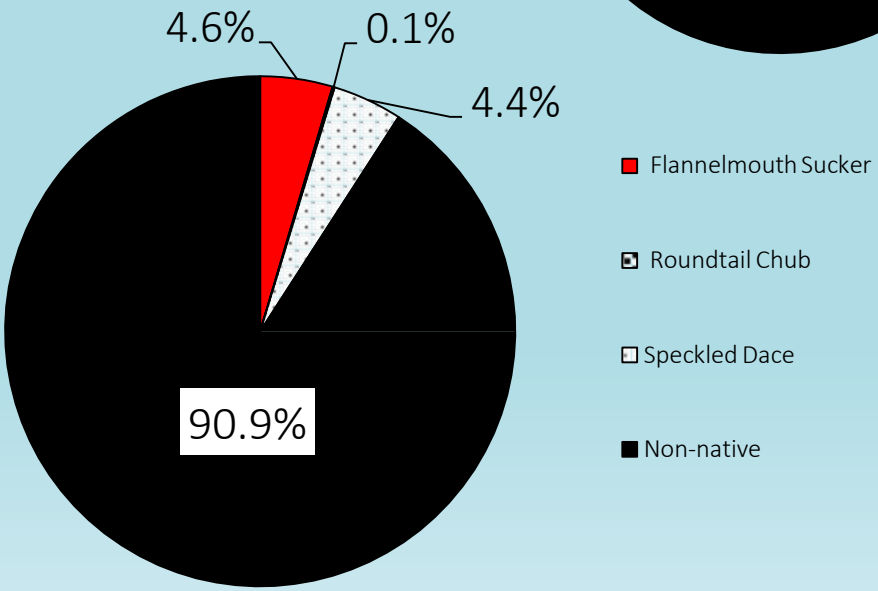
Holden and Irvine 1975
lower reaches
(n=190)



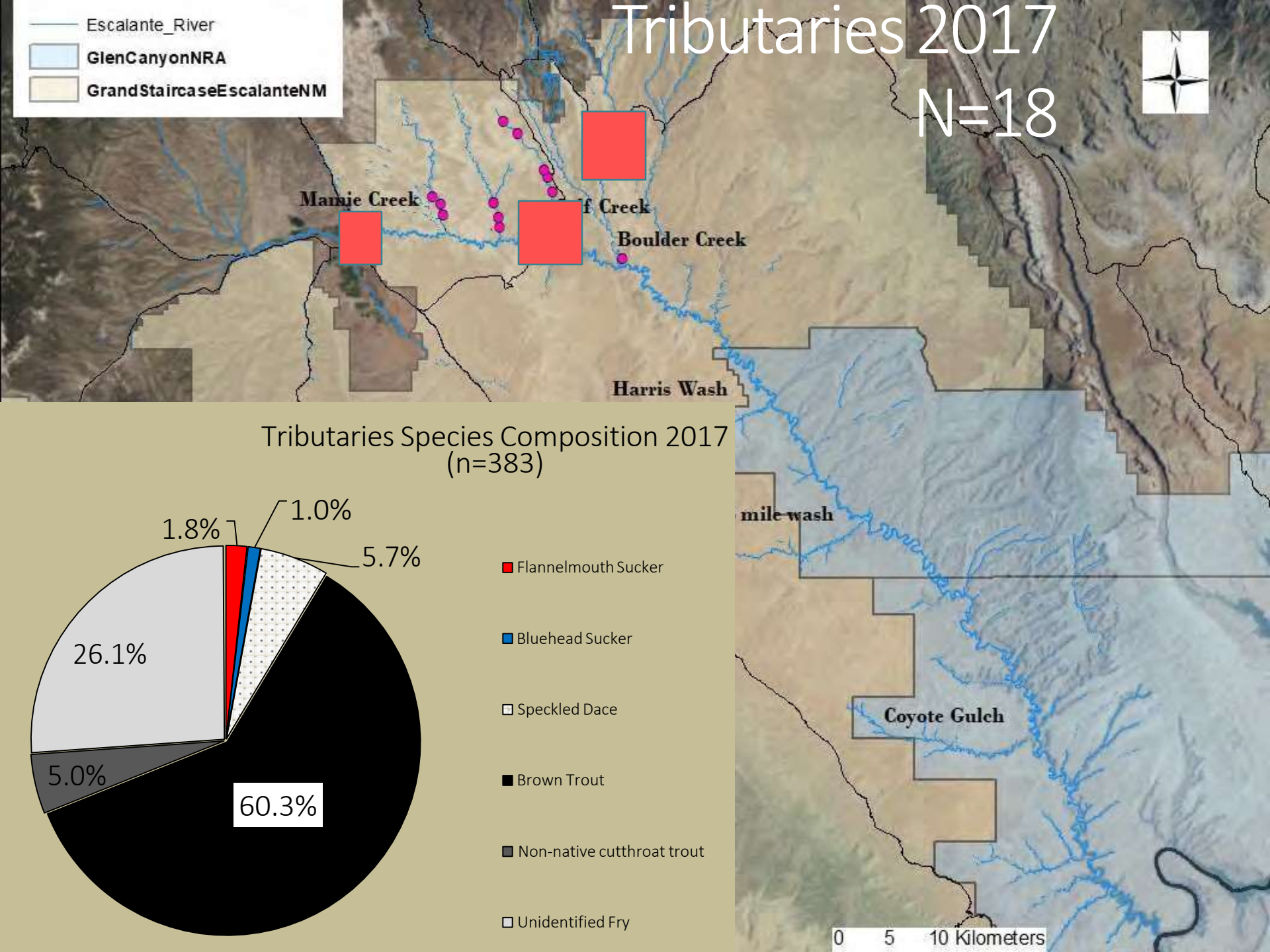
Mueller et al. 1998
lower reaches
(n=197)



UDWR 2017
(n=2,990)

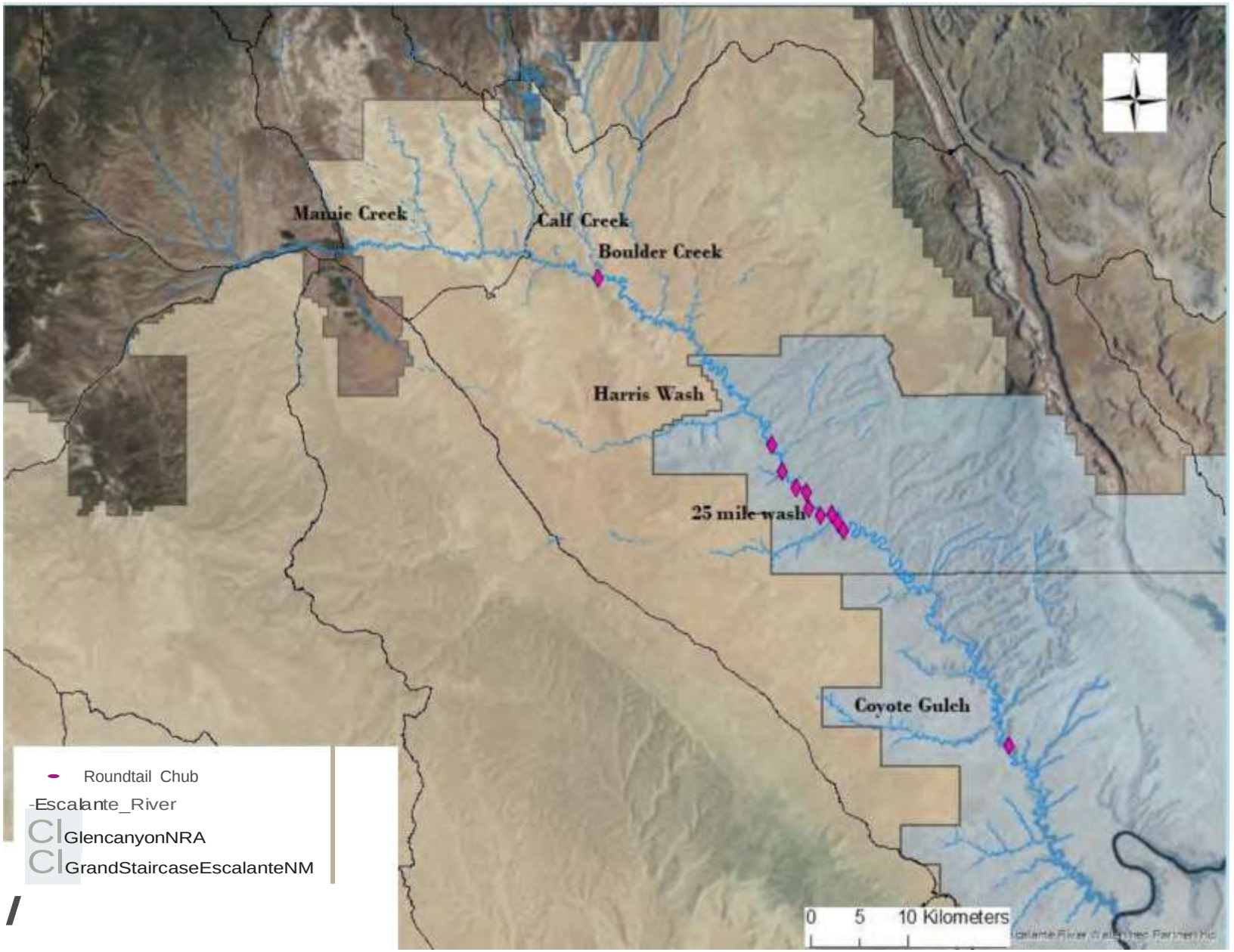


Tributaries 2017
N=18



Tributaries Species Composition 2017 (n=383)

Three Species Distribution 2017



Questions ?