

Invasive American Bullfrog & Turtle Removal

A partnership project



2022 Montana Invasive Species Summit

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Montana Fish, Wildlife & Parks

The partnership



+



project proposal

AIS grant application



Project planning team

MCC fellows do the hard work!



Supervision & logistics



Hire MCC fellows



Project staff

2021 season MCC Crew

- Clo Smytheman
- Jackie Becker
- Grace Spella
- Ethan Weisgerber
- Nick Goelkel

2022 season MCC Crew

- Andy Martinez
- Kayla Olness
- Haaken Bungum
- Abigail Hendra

Supervisors & support

Fish Wildlife & Parks

- Torrey Ritter
- Jessy Coltrane

Confederated Salish & Kootenai

- Art Soukkla

MT Natural Heritage Program

- Dan Bachen
- Bryce Maxell

MCC – Placement Program

- Bryan Wilson
- Mitch Lassa



What is the problem?

- Invasive bullfrogs & turtles threaten native species
- Apex predator in pond ecosystems
- Out-compete native species for food and habitat.
- Populations are expanding



Aquatic reptiles & amphibians of Montana

Frogs & Toads: 10 native, 1 non-native

Salamanders: 4 native

Turtles: 3 native, 1 non-native



Special Status Species: 7 Species of Concern / SGCN

S1 (Critically Imperiled) – Northern Leopard Frog (western Montana only)

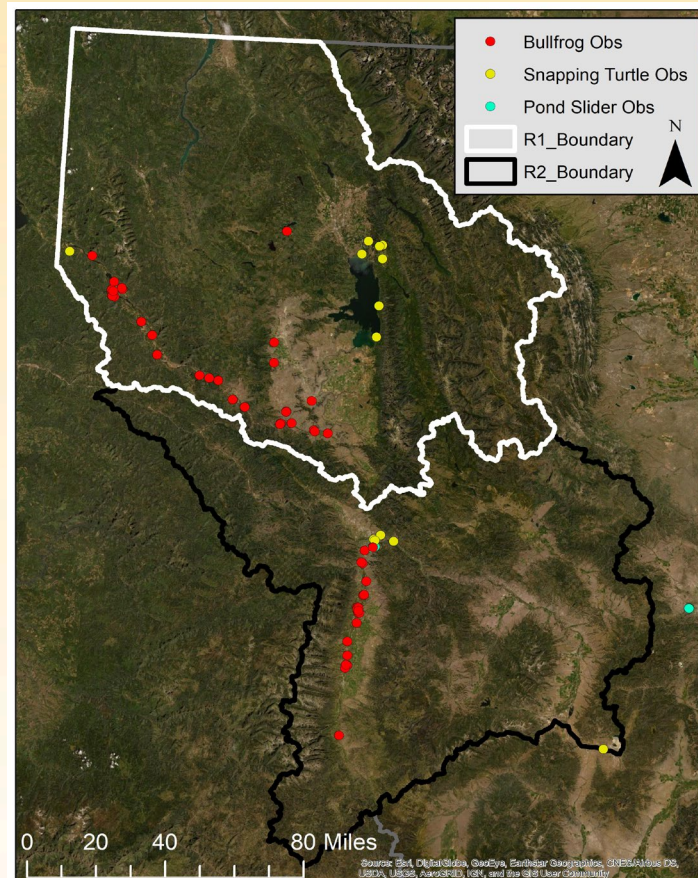
S2 (Imperiled) – 4 species: Coeur d'Alene Salamander, Idaho Giant Salamander, Western Toad, Great Plains Toad

S3 (Vulnerable) – 2 species: Snapping Turtle (eastern Montana only), Spiny Softshell



What did we need to know?

- Baseline surveys
 - No major bullfrog surveys since early-2000s in R1/R2.
 - 2010-2020 = Scattered reports of snapping turtles
 - Status of pond sliders unknown
- **What is the extent and severity of the infestations?**
- **Can they be controlled or contained?**



Target Species

Snapping turtle



American bullfrog
Prohibited



Pond slider
Prohibited



Snapping turtle

- Native and SOC in eastern Montana.
- Invasive west of the Continental Divide.
- Prey on many native species
- Can reach up to 60 lbs
- Live up to 40 years



American bullfrog

- Highly invasive.
- Much larger than native frogs
- Threaten native amphibians and other pond-dwelling wildlife.
- Direct competition, predation, and likely disease transmission.
- Complete eradication is nearly impossible.



Pond sliders

- Out-compete native painted turtles for food and basking space.
- Can take over wetlands and ponds completely from native turtles.
- Most kept as pets and released into local ponds and waterways.



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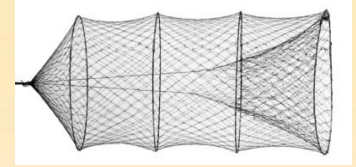


Project Goals

1. Use surveys to collect data on the extent of current infestations of invasive herptiles in western Montana (FWP Regions 1 and 2).
2. Use control efforts to eliminate invasive herptiles from key wetlands and reduce spread.
3. Use outreach to educate the public about these invasive herptile species and how citizens can help control their spread and impact.



Snapping Turtle Survey and Control



- Hoop nets act as survey and control.
 - + visual encounter surveys and public reports.
- Traps set in shallow, muddy areas of wetlands. Baited with fresh fish or chicken. Checked every 2 days.
- Native species released unharmed.
- Snapping turtles are dispatched.

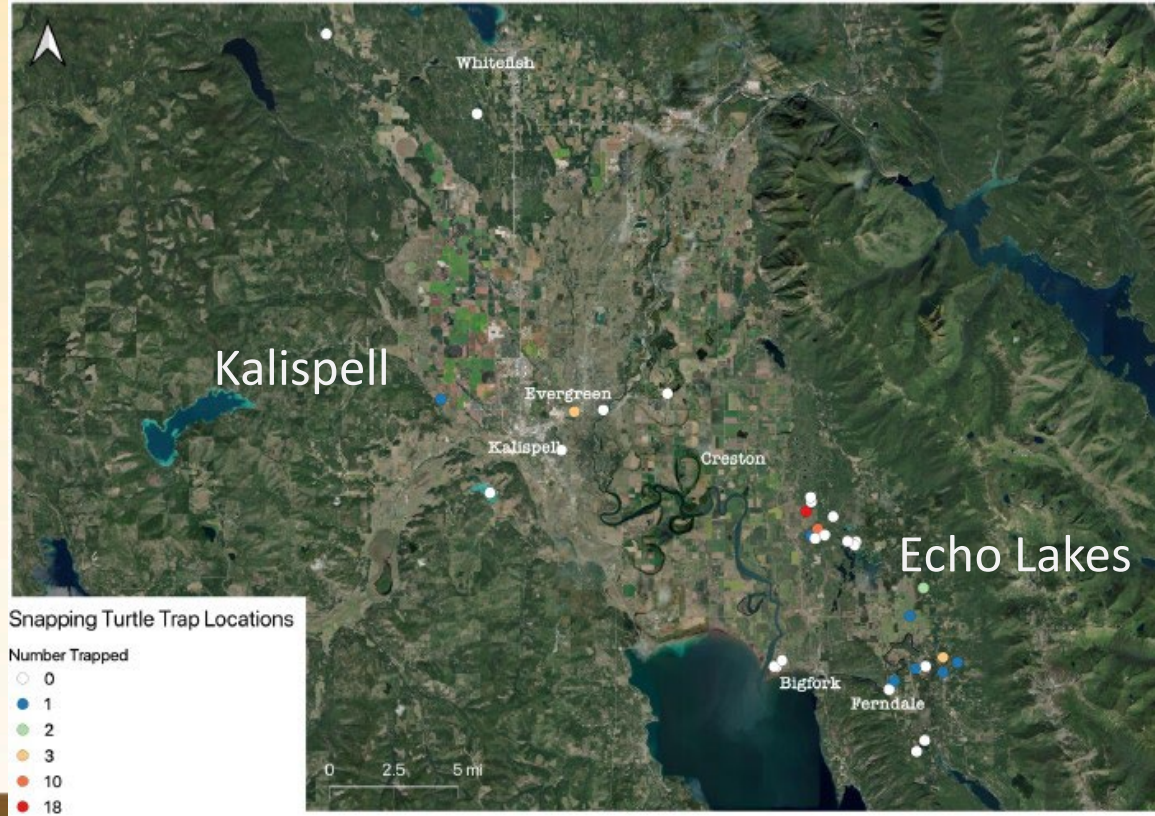


Snapping Turtle Surveys

2022: North of Flathead Lake

2021

- Extensive trapping on the Clark Fork & Bitterroot Rivers
- 1 turtle
- 1 nest
- Focus turned to a pilot season in R1



Results

Year	2021	2022	Total
Traps set	78	312	390
Trap-nights	593	1072	1665
Wetlands	40	33	73
Turtle captures	11	40	51



Snapping Turtle Recommendations

- Education to homeowners very effective
- Capture numbers decreased as season progressed
- Continue at a low effort – follow up on reports
- Transplant to eastern MT?
 - Risk of transplanting disease & AIS
 - Genetic relatedness is unknown



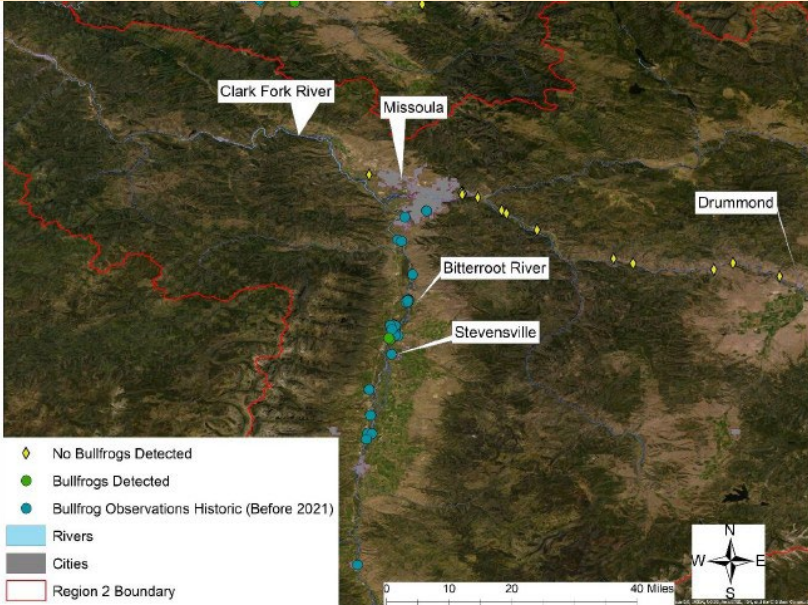
Bullfrog Survey and Control

- Nocturnal calling surveys
- Daytime visual encounter surveys
- 2021 – Follow up with gigging at night
- 2022 – used 3 methods:
 - Gigging at night
 - Seining by day
 - Traps along drift fence

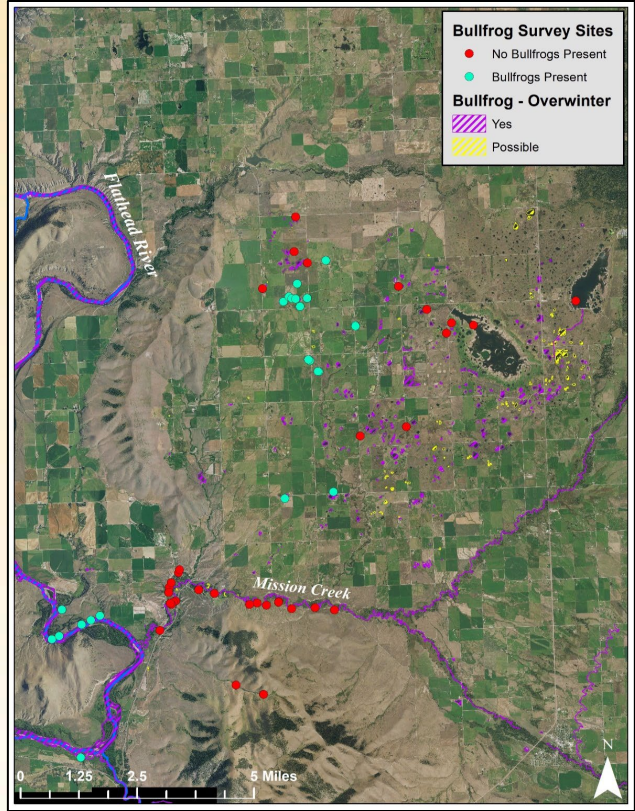


Bullfrog Surveys 2021

Clark Fork & Bitterroot Rivers



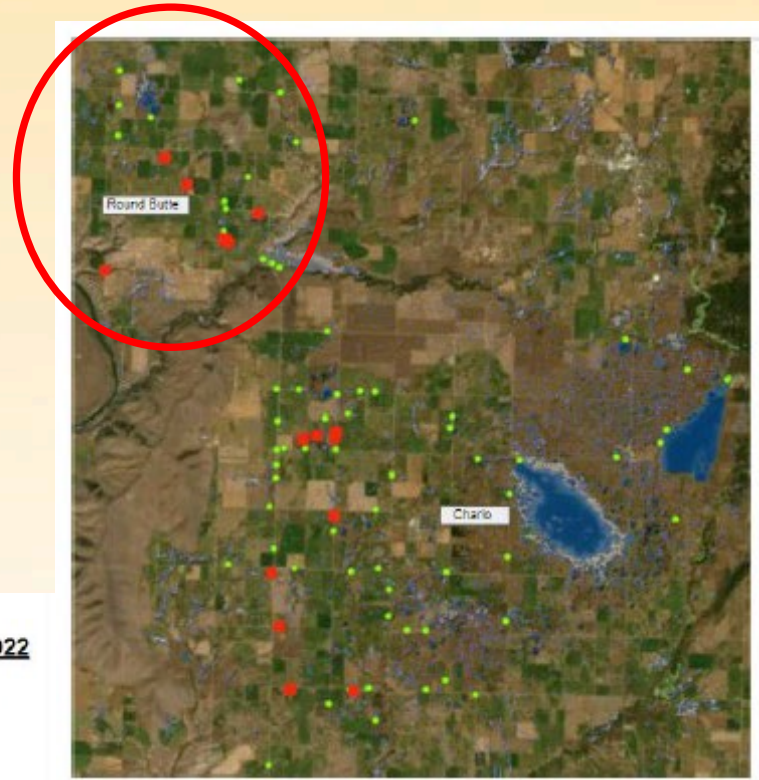
Mission Valley



Mission Valley

Bullfrog Surveys 2022

- Expanded surveys in Mission Valley
- Confirmed bullfrogs in a new area
- Found a new breeding pond
- Landowner support & access is key
- Perfected new capture techniques



American Bullfrog Presence 2022

- No Presence Observed
- Presence Observed



Results

Method	Gigging		Traps	Seining
	2021	2022	2022	2022
Effort (days)	11	15	6	36
Adults	118	372	138	0
Metamorphs		7	229	110
Tadpoles			44	1048
Total removed	118	379	411	1158

Total =1948



Bullfrog Recommendations

- Are bullfrog numbers lower in 2023?
- Focus effort on known breeding ponds
 - Goal: prevent entry into Ninepipe National Wildlife Refuge system
- Continue to expand surveys north
 - Build landowner relationships



Education and Outreach

Please Report **SNAPPING TURTLES** in Western Montana

Snapping turtles are very rare in west-central Montana.

These non-native turtles can still significantly harm our native pond-dwelling species.



If you see or hear reports of snapping turtles in the Blackfoot, Clark Fork, or Bitterroot watersheds please contact FWP at 406-542-5551 or torrey.ritter@mt.gov.

Please Report **SNAPPING TURTLES** in Western Montana



In Western Montana, snapping turtles are non-native and can cause significant harm to native populations of pond-dwelling species.

If you see a snapping turtle anywhere in the Blackfoot, Clark Fork, or Bitterroot watersheds, or hear reports of one, please contact FWP at 406-542-5551 or torrey.ritter@mt.gov.

PROTECT OUR WATERS MONTANA FWP



MONTANA FWP



You can help your local wildlife!



Dear Missoula Valley landowner,

Though native to eastern Montana, Snapping Turtles are considered an invasive species in west-central Montana. These non-native turtles are rare in this area, but if they increase in numbers they can significantly harm our native pond-dwelling species.

The bodies of water on your private property are likely suitable habitat for this species, and we would like the opportunity to talk with you about potential monitoring and removal of snapping turtles on your land.

We respectfully ask for your help in maintaining these delicate wetlands and their native inhabitants. If you



Education and Outreach



- Education and early detection
- Bullfrogs near Charlo concentrated in ponds are very likely “bucket introductions”



Education and Outreach



- Bullfrogs near Charlo concentrated in ponds are very likely “bucket introductions”
 - Limiting spread might be possible
- Little chance of curtailing bullfrogs in the Flathead and Little Bitterroot Rivers



Next Steps

- Re-assess project goals
 - What are the objectives
 - Where to target work
 - Do we have the capacity
- Best strategy for education & outreach?



Questions?

