

2023 Yosemite Aquatic Wildlife Species Updates for the Tuolumne River Watershed



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Outline

- Mainstem Tuolumne River in-reach surveys – *not conducted in 2023*
 - *FYLF and NWPT presence/absence surveys* – below OSD and tributaries.
- FYLF and NWPT listing status update
- Birch Lake & Mud Lake – Bullfrog removal update
- Ackerson Meadow Restoration Project (Phase I)
- Swamp Lake & Gravel Pit Lake – CRLF reintroductions
- Next steps for FYLF, NWPT, and CRLF
- Pack stock meadow monitoring

Foothill Yellow-legged frog listing status

- Endangered – South Sierra DPS*
- Foothill streams and rivers of the west slope of the Sierra
- ***“strong pattern of declining stream occupancy, rapid reductions in occupied range and predicted inability to survive a catastrophic event”***
- Extirpated from Yosemite Valley and most streams in El Portal (parkline) to Briceburg/Railroad Flat (Sherlock Creek, NF Merced River).
- <https://www.fws.gov/species/foothill-yellow-legged-frog-rana-boylii>



Northwestern Pond turtle listing status

- Under review since April 2015 (90 d), warranted for listing 10/2023, open comment period until Dec
- 4(d) rule: “threatened” allows actions deemed beneficial to continue
- Streams, ponds, lakes, perm. and ephem. wetlands, require land for nesting and aestivation.
- Long-lived (50 yrs), reproduce slowly, females not sexually mature until 10 yrs, lay 6-10 eggs/yr.
- ***“Loss of a few individuals can lead to rapid decline. Bullfrog predation on hatchlings curtails recruitment”***
- <https://www.fws.gov/species/western-pond-turtle-actinemys-marmorata>



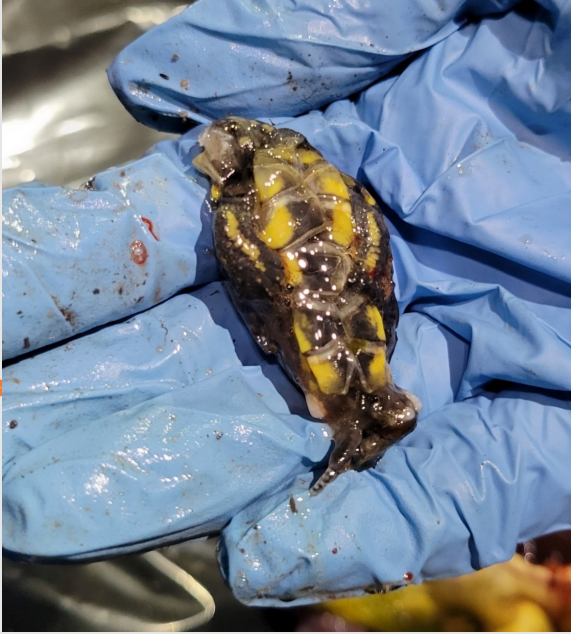
Birch (SFPUC) and Mud Lake (STF) – Bullfrog status

- OBJECTIVE: prevent the spread of bullfrog invasion into YOSE, Tuolumne River, Ackerson Meadow (restoration project), protect Western pond turtle population.
- Incidental bullfrog detections (e.g., tadpoles, eDNA) mainstem Tuolumne River above Early Intake.
- Birch Lake: conduct removal post Labor Day (fall) – pre Memorial Day (spring).
- Mud Lake: conduct removal year-round.
- UPDATE: Both sites estimated to over >75% of adult biomass removed. Some undetected late-breeding (July – Aug) occurred in 2022.
- Estimate complete eradication could be reached as early as 2025, but anticipate 2028 depending on precipitation years.

Birch Lake



Mud Lake

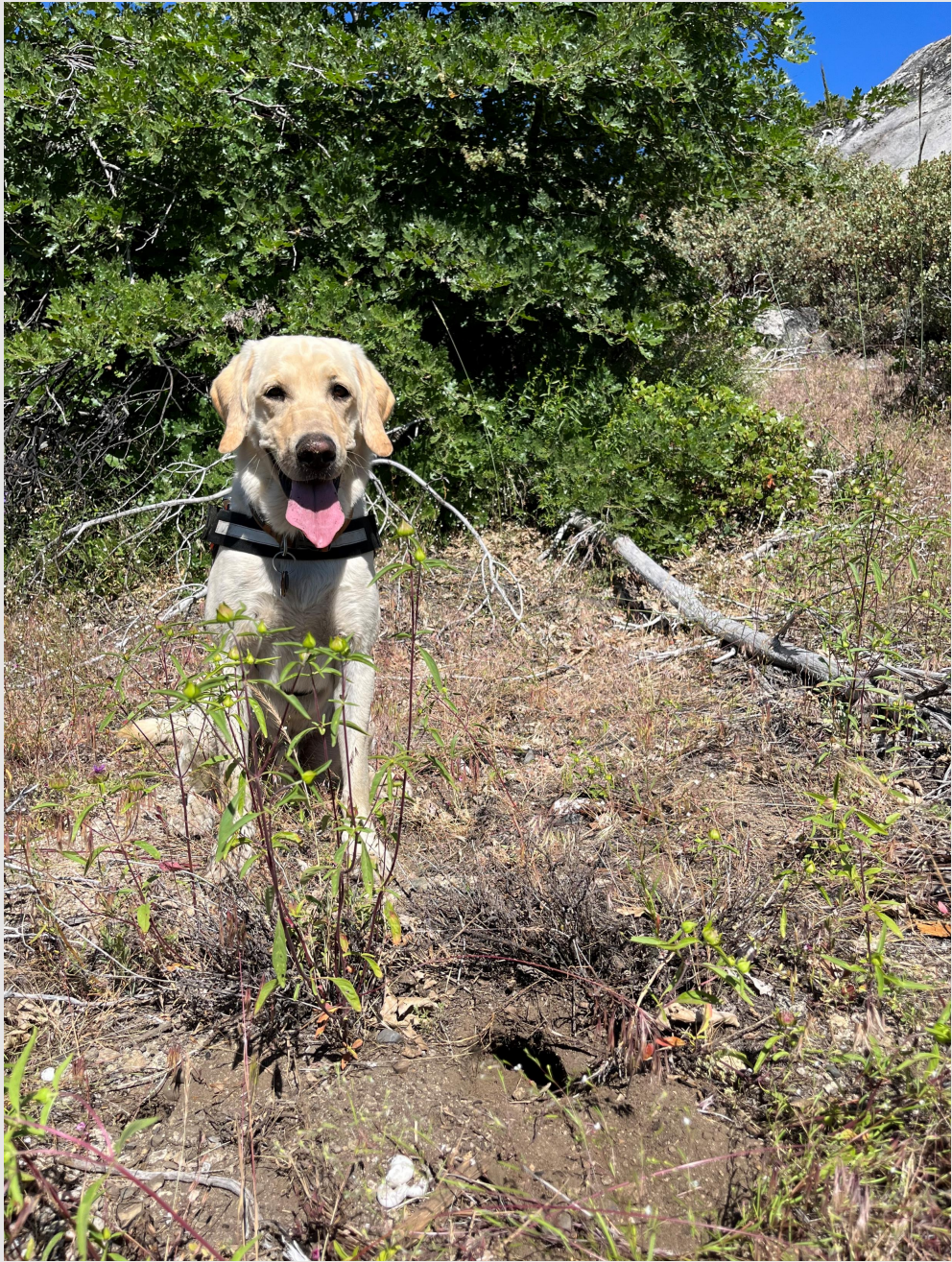


Ackerson Meadow Restoration Project

- Estimate NWPT meadow population at 150-200 individuals
- Full-fill of entrenched gully. Impacts
- Big deal and our attention has been drawn to this project for 2 years.
- Scent detection dog work for locating turtles and nesting habitat

Ackerson Meadow – Phase I





Swamp & Gravel Pit Lake – California Red-legged frog

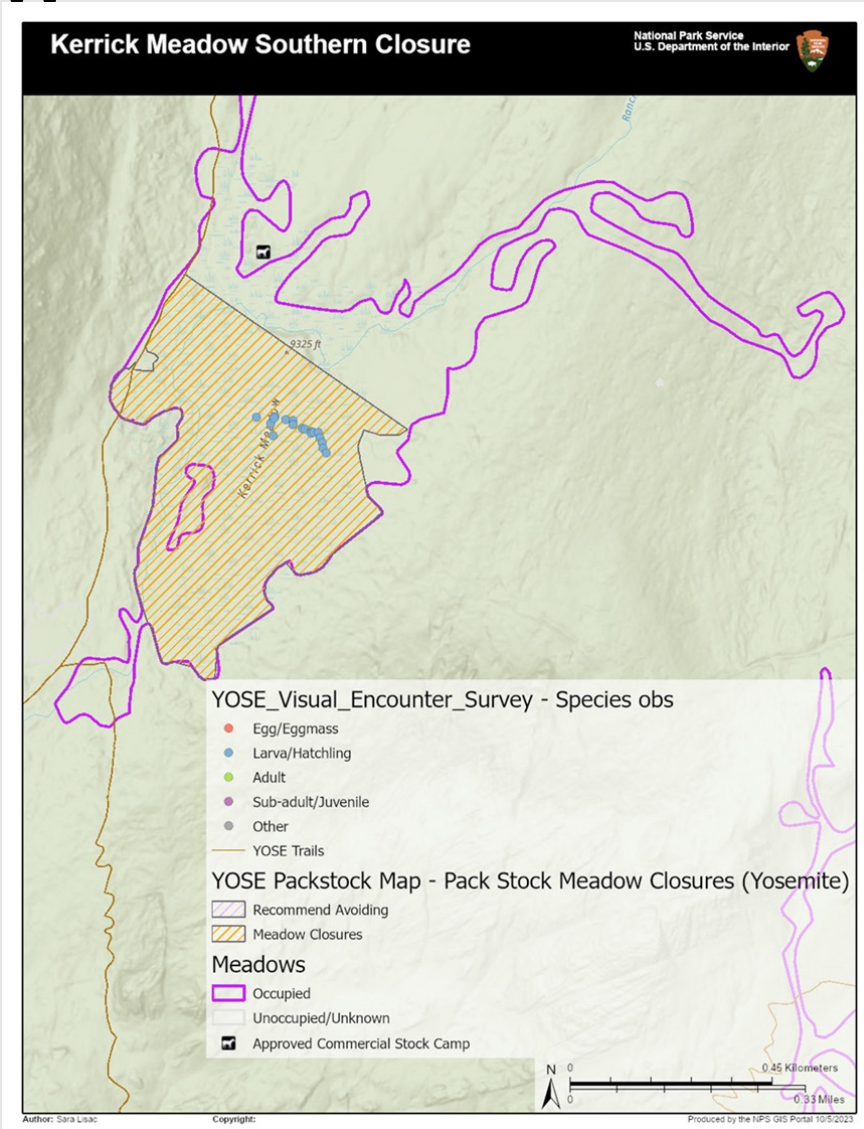
- 400 CRLF released to Gravel Pit Lake (July 2023)
 - No bullfrogs observed in 2023
- 330 CRLF released to Swamp Lake (August 2023)
 - Bullfrogs still present, estimate >85% removed
- Conduct spring summer surveys for CRLF tadpoles
- Continue bullfrog removal Swamp Lake
- Other opportunities in the Tuolumne River Watershed



Next steps for NWPT, FYLF, and CRLF

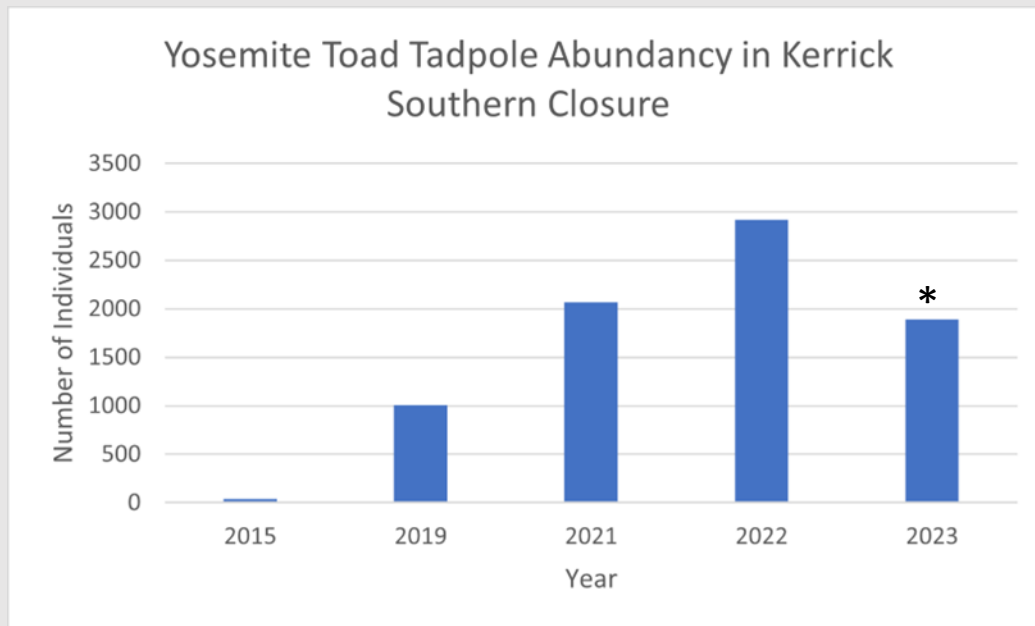
- Continue FYLF surveillance monitoring in the Tuolumne and tributaries (formerly UTREP)
- Continue and develop long-term monitoring plan for trapping and marking (CMR) NWPT in the Tuolumne River and tribs.
- Looking for data gathering and collection opportunities for science-based management, stewardship and conservation.
- Reintroduction opportunities in the Tuolumne Watershed

Pack stock Meadow monitoring – Kerrick Mdw



Kerrick Meadow

- Upper Kerrick survey (8/20/23)
- 2,000 tadpoles observed* in so mdw closure area. Most close to metamorphosis



Questions?

