



NEVADA

DIVISION OF

NATURAL HERITAGE

STATE OF NEVADA
Department of Conservation & Natural Resources

Steve Sisolak, *Governor*
Jim Lawrence, *Acting Director*
Kristin Szabo, *Administrator*

Fly Ranch Bio Blitz Proposal

Proposal prepared by Chantal Iosso, Wetland Program Coordinator, Nevada Division of Natural Heritage

Overview

The proposed Fly Ranch Bio Blitz will bring in biologists from a wide variety of specialties and several organizations. Together, we will find and identify as many species at Fly Ranch as possible in an intensive three-day period of surveying. We will also document many of the hot and cold springs as ecosystems.

Fly Ranch is a unique landscape. The patchwork of hot and cold springs (and one of the only geysers in the state) among the drier expanse of the Black Rock provides varied, isolated microhabitats that could support a broad range of species. We expect to be able to document many species—rare, endemic, and common—that inhabit or utilize the property. The results of this work will greatly increase our understanding of the plants and animals that rely upon Fly Ranch and may contribute to publications that share findings with the broader scientific community. Additionally, detailed species information will help managers at Fly Ranch make conservation decisions.

Intended Outcomes

- Raw data on species and the locations they were found at Fly Ranch
- Genetic identification of species (as necessary, ex. Springsnails)
- Final report on species of Fly Ranch
- Level 2 assessments (descriptions and measurements of hydrology, water chemistry, botany, zoology, and geomorphology) of 10-20 springs onsite. Each level 2 assessment will result in a final report for that spring
- Rapid/level 1 assessments of many other spring sites, as time allows
- Contributions to future publications

All Bio Blitz participants will commit to sharing their raw data and any follow-up species identification work completed at their home institutions with Fly Ranch and the group within a reasonable time frame (potentially 4 months, external genetic testing can take longer). We will aim to finalize a report on all the species within 6 months of the Bio Blitz.

Logistics

Based on recommendations from Erika and Lisa, we think a three-day period June 9 - 11 would be the best timing for the Bio Blitz. The exact dates will be determined later to maximize convenience for Fly Ranch and participant availability. Participants' arrivals and departures may be staggered within the Bio Blitz window. Surveying work will occur throughout the day and night, based on the optimal times to observe specific species.



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All participants will be encouraged to bring their own equipment for camping, including tents and water. All invitees are experienced in minimally impactful fieldwork and Leave No Trace, but this will be emphasized on the invitations and at orientation. They will also bring any necessary equipment for data collection. From Fly Ranch, we are requesting access to a large space suitable for 10-20 tents, toilets, and some shade shelters.

If Fly Ranch has equipment for a group kitchen or any volunteers interested in being a camp chef that would be beneficial in supporting Bio Blitz participants that will be gathering data at all hours (not required, but helpful).

Personnel

We have a preliminary list of potential invitees; this list can be extended or truncated based on the camping area capacity and desires of Fly Ranch. Many additional graduate students and professors at UNR with a broad range of specialties (herpetology, entomology, ornithology, botany, etc.) may also be interested in attending a Bio Blitz. We could extend an invitation for a set number of additional attendees from UNR if more participants or participants with specific specialties not covered by the above list are desired.

About the Organizations

Nevada Division of Natural Heritage- NDNH is a division within the Nevada Department of Conservation and Natural Resources. Their mission is to maintain biodiversity data for Nevada's at-risk plants, animals, and ecological communities to support informed land use planning and conservation planning decisions and to help prevent species from becoming threatened or endangered. NDNH has a team of biologists and ecologists to collect and manage data on hundreds of sensitive species statewide.

Springs Stewardship Institute- SSI is a nonprofit organization dedicated to promoting and improving understanding of springs as ecosystems worldwide, with a focus in the American west. They have surveyed thousands of springs, gathering biological, ecologic, and geological data at sites. They also created and maintain [Springs Online](#), a publicly accessible springs database with hundreds of users and thousands of surveys.

Nevada Department of Wildlife- NDOW is responsible for the restoration and management of fish and wildlife resources statewide, including managing hundreds of animal species.