

**** Conservation Genetics and Movement Ecology of Swift Fox on Fort Belknap Indian Reservation (Poster)**

Tevin Messerly, Fort Belknap Fish & Wildlife Department, Harlem, Montana

Justine Becker, Montana State University, Bozeman, Montana

Ethan Linck, Montana State University, Bozeman, Montana

Owen Kanter*, Montana State University, Bozeman, MT

Jesse Boulterice, Smithsonian's National Zoo & Conservation Biology Institute; Conservation Ecology Center; Great Plains Science Program, Helena, MT

Nucharin Songsasen, Smithsonian's National Zoo & Conservation Biology Institute; Center for Species Survival, Fort Royal, Virginia

*Indicates Presenter

**Indicates Student Presentation

Ensuring the persistence and expansion of swift fox (*Vulpes velox*) in the Great Plains will require conservation efforts that support a robust, connected population across core prairie habitat. The Fort Belknap Indian Community (FBIC) and Smithsonian's National Zoo and Conservation Biology Institute (NZCBI) partnered to reintroduce 138 swift fox, from 2020 to 2024, to the Fort Belknap Indian Reservation (FBIR). The swift fox holds cultural importance to tribal nations across the Great Plains including both the Aaniiih and Nakoda Nations of the FBIR. The species had not been observed on the reservation for 50 years prior to the project, thus presenting an opportunity to collaborate to accomplish a conservation objective that holds both ecological and cultural value. Initial monitoring efforts demonstrated that swift foxes had established territories and reproduced. Our partnership team of researchers from NZCBI and Montana State University will work with the FBIC to assess the status of the Fort Belknap swift fox population utilizing genetic and movement data. Genetic analyses will assess genetic diversity, kinship to founders, and potential gene flow between the FBIR population and adjacent populations. We will use movement data to analyze habitat utilization and dispersal movements. Our synthesis of the genetic and movement analyses will provide a basis for a conservation plan for the reintroduced population and will speak to factors that impact reintroduction success. Here we present our proposed plans for this research as well as some preliminary observations from our first field season in fall 2025