FURBEARER MANAGEMENT PROGRAM UPDATE

MARK VIEIRA
CPW CARNIVORE AND FURBEARER PROGRAM MANAGER
MARCH 2023 PWC MEETING- AURORA

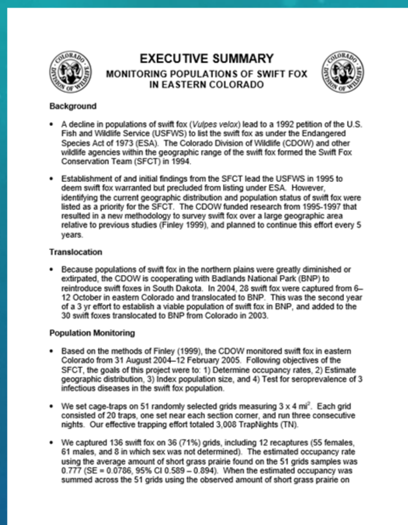
LIVE LIFE OUTSIDE

LONG TERM COMMITMENT TO SWIFT FOX MONITORING: *1995-2021*

Special Section: The Value and Utility of Presence–Absence Data to Wildlife Monitoring and Research

ESTIMATION OF SWIFT FOX POPULATION SIZE AND OCCUPANCY RATES IN EASTERN COLORADO

DARBY J. FINLEY,[1] Colorado Division of Wildlife, Meeker, CO 81641, USA
GARY C. WHITE, Department of Fishery and Wildlife Biology, Colorado State University, Fort Collins, CO 80523, USA
JAMES P. FITZGERALD,[2] Department of Biological Sciences, University of Northern Colorado, Greeley, CO 80639, USA



EXECUTIVE SUMMARY
MONITORING POPULATIONS OF SWIFT FOX IN EASTERN COLORADO

Background

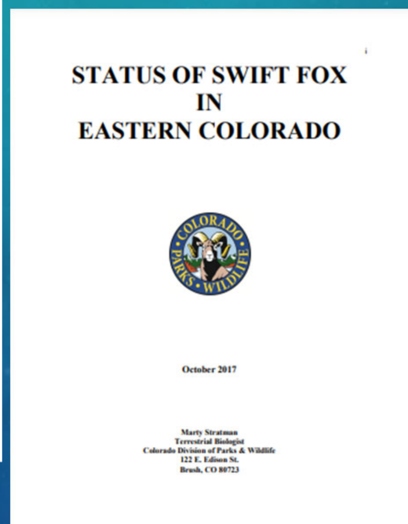
- A decline in populations of swift fox (*Vulpes velox*) lead to a 1992 petition of the U.S. Fish and Wildlife Service (USFWS) to list the swift fox as under the Endangered Species Act of 1973 (ESA). The Colorado Division of Wildlife (CDOW) and other wildlife agencies within the geographic range of the swift fox formed the Swift Fox Conservation Team (SFCT) in 1994.
- Establishment of and initial findings from the SFCT lead the USFWS in 1995 to deem swift fox warranted but precluded from listing under ESA. However, identifying the current geographic distribution and population status of swift fox were listed as a priority for the SFCT. The CDOW funded research from 1995-1997 that resulted in a new methodology to survey swift fox over a large geographic area relative to previous studies (Finley 1999), and planned to continue this effort every 5 years.

Translocation

- Because populations of swift fox in the northern plains were greatly diminished or extirpated, the CDOW is cooperating with Badlands National Park (BNP) to reintroduce swift foxes in South Dakota. In 2004, 28 swift fox were captured from 6–12 October in eastern Colorado and translocated to BNP. This was the second year of a 3 yr effort to establish a viable population of swift fox in BNP, and added to the 30 swift foxes translocated to BNP from Colorado in 2003.

Population Monitoring

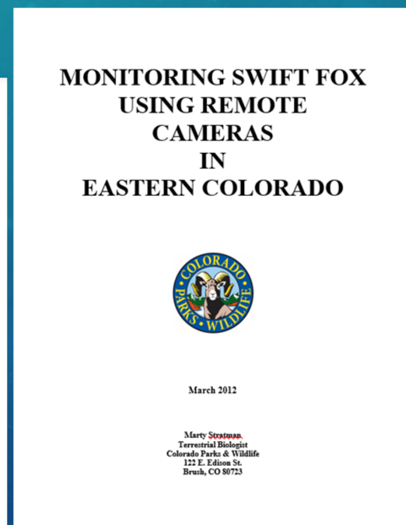
- Based on the methods of Finley (1999), the CDOW monitored swift fox in eastern Colorado from 31 August 2004–12 February 2005. Following objectives of the SFCT, the goals of this project were to: 1) Determine occupancy rates, 2) Estimate geographic distribution, 3) Index population size, and 4) Test for seroprevalence of 3 infectious diseases in the swift fox population.
- We set cage-traps on 51 randomly selected grids measuring 3 x 4 mi^2. Each grid consisted of 20 traps, one set near each section corner, and run three consecutive nights. Our effective trapping effort totaled 3,008 TrapNights (TN).
- We captured 136 swift fox on 36 (71%) grids, including 12 recaptures (55 females, 61 males, and 8 in which sex was not determined). The estimated occupancy rate using the average amount of short grass prairie found on the 51 grids samples was 0.777 (SE = 0.0786, 95% CI 0.589 – 0.894). When the estimated occupancy was summed across the 51 grids using the observed amount of short grass prairie on



STATUS OF SWIFT FOX IN EASTERN COLORADO

October 2017

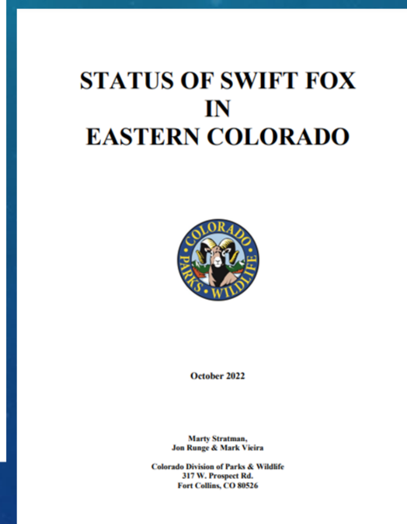
Marty Stratman
Terrestrial Biologist
Colorado Division of Parks & Wildlife
122 E. Edison St.
Brush, CO 80723



MONITORING SWIFT FOX USING REMOTE CAMERAS IN EASTERN COLORADO

March 2012

Marty Stratman
Terrestrial Biologist
Colorado Parks & Wildlife
122 E. Edison St.
Brush, CO 80723



STATUS OF SWIFT FOX IN EASTERN COLORADO

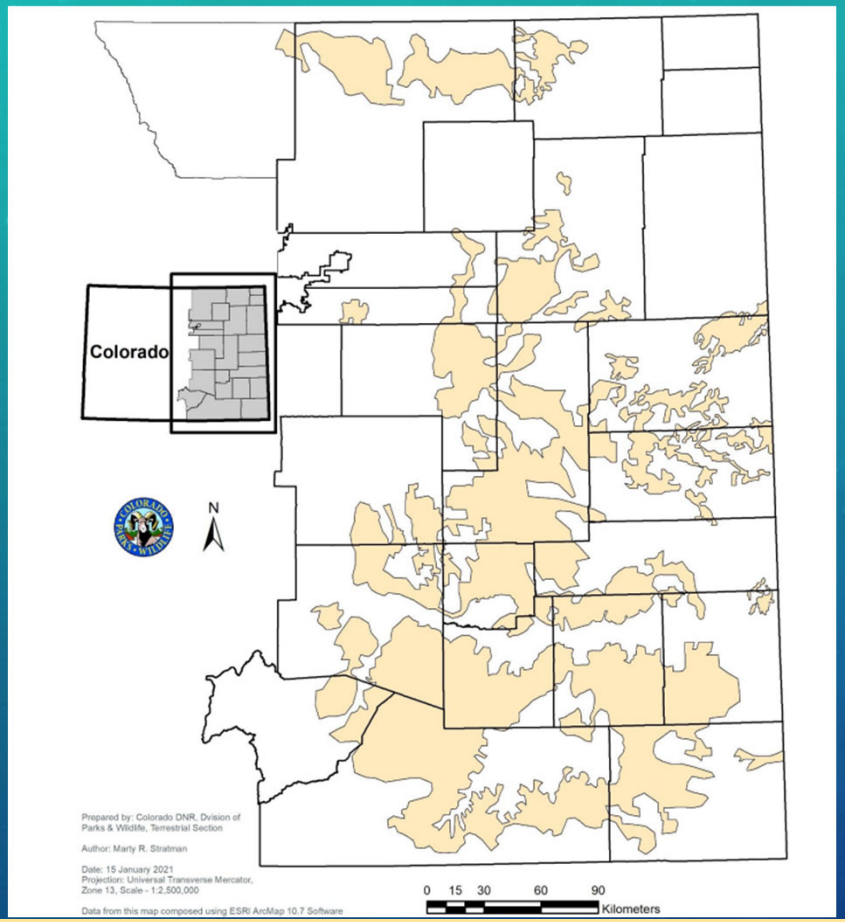
October 2022

Marty Stratman,
Jon Runge & Mark Vieira

Colorado Division of Parks & Wildlife
317 W. Prospect Rd.
Fort Collins, CO 80526

LIVE LIFE OUTSIDE

2021 OCCUPANCY MONITORING RESULTS



- SGP patch size matters
- ~34,000 km^2 occupied SGP
- Very low projected harvest rate

PINE MARTEN

- *Conservative* statewide abundance = ~5,000
- Annual statewide harvest = ~320
- Annual harvest rate = ~6 %