

# Jonathan McCellen

## Education

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### B.S. in Natural Resource Management: Wildlife Biology

December 2019

*Texas Tech University*

- Lubbock, TX

## Experience

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### Graduate Research Assistant

08/01/2024 - Current

*Texas Tech University | Lubbock, TX*

- Research Topic: Experimental Approaches to Improve Survival and Conservation of Swift Fox

### Biological Science Technician

10/23/2023 – 06/28/2024

*U.S. Geological Survey – Habitat Quality Project | Boulder City, NV | 40 hrs/wk*

- Using radiotelemetry to monitor adult and juvenile Mojave Desert tortoise (DT) movements and behaviors
- Changing and management of transmitters and data loggers on DTs
- Checking and maintaining rain gauges monthly
- Performing vegetation sampling protocol to characterize DT habitat
- Assisting with Black-Tailed Jackrabbit trapping as part of a Predator-Prey project
- Organizing camera trap photos/videos by species detected
- Assisting with a Mojave ground squirrel camera trap project
- Using Excel, ArcGIS, R, and FileMaker to organize and manage data

### Ecological Monitoring Field Technician

02/15/2023 - 09/29/2023

*Great Basin Institute – Desert Tortoise Habitat Project | Las Vegas, NV | 40 hrs/wk*

- Establishing sampling plots and transects
- Collecting vegetation data using AIM protocol (including species inventory/abundance, forb diversity, sagebrush shape, foliar cover, canopy gap, and herbaceous/woody heights)
- Identifying plants to species using dichotomous keys
- Digging soil pits, establishing horizons, and classifying soils using a Munsell color chart and by hand-texturing soils
- 4WD vehicle operation on rugged roads, use of GPS, topographic maps, and electronic data collection technology
- Walking up to 10km/day in challenging terrain and harsh and rapidly changing desert conditions
- Routine field vehicle maintenance
- Camping up to 7 nights in the field in a 8-on/6-off hitch schedule

### Urban Black Bear Field Assistant

06/05/2022 - 10/28/2022

*North Carolina State University - Urban/Suburban Black Bear Study | Asheville, NC | 40 hrs/wk*

- Assisted on black bear captures using chemical immobilization; included taking biological samples, vitals, body condition and measurements, dental examinations, and more
- Maintained and monitored culvert traplines
- Conducted bi-weekly early morning trash/attractant/trash-spill surveys by vehicle to assess residential compliance with municipal trash collection schedules in suburban neighborhoods
- Conducted door-to-door canvassing for human-dimensions data, and distributed bear education materials
- Conducted foraging and hard mast surveys in urban areas based on GPS collar data
- Office duties including data entry and maintenance, monitoring of GPS collar data, and processing biological samples
- VHF telemetry which includes: bear resights, collar retrieval, scanning for signals, and more

**Desert Tortoise Telemetry Monitor**

02/28/2022 - 05/20/2022

*Great Basin Institute | Las Vegas, NV | 40 hrs/wk*

- Gathered daily location data using radio telemetry on focal desert tortoises that serve as controls for the project
- 4WD vehicle operation on rugged roads, use of GPS, topographic maps, and electronic data collection technology
- Walked a minimum of 10km/day in challenging terrain and harsh and rapidly changing desert conditions
- Trained in Desert Tortoise handling procedure, taking body condition and measurement data
- Routine field vehicle maintenance

**Black Bear Technician**

05/15/2021 - 09/01/2021

*New Mexico Department of Game and Fish | 40 hrs/wk*

05/15/2020 - 08/31/2020

- Gila National Forest / Gila Wilderness / Aldo Leopold Wilderness
- Set up bear hair snare traps and cameras at 240 locations (2020) and 70 locations (2021)
- Drove on rugged, seldom used roads using 4x4 trucks in inclement weather
- Hiking several kilometers per day to set traps
- Checking each trap once a week and collecting hair samples
- Primitive camping in a different location each day
- Navigating through rugged backcountry with wildlife and wildfires
- Remote truck maintenance and repair
- Coordinating and scheduling bear crew (2021)
- Additional week of mountain lion trail camera retrieval in the Sacramento Mountains (2021)

**California Condor Crew**

09/15/2020 - 02/28/2021

*Ventana Wildlife Society | Big Sur, CA | 40 hrs/wk*

- Tracking and dialing signal strength/direction of attached patagial/tail transmitters belonging to 110 condors
- Picking up, storing, and providing 2-4 cow carcasses weekly for feeding
- Maintain a trail camera and review images from the feeding area
- Observing and taking care of 7 captive pre-release condors in a flight pen
- Assisted with expansion of the local flight pen for captive condors
- Cut and paint vinyl patagial tags for the condors
- General maintenance and fire prevention of the living area
- Handling of condors for new tag and transmitter attachment

**Yukon Red Squirrel Field Technician**

02/28/2020 - 03/31/2020

*Kluane Red Squirrel Project | University of Michigan | 40 hrs/wk*

- Haines Junction, Yukon Territory / Kluane National Park
- Snowshoed multiple kilometers through a research grid system
- Baiting and placing of tomahawk traps for use on Red Squirrels
- Handled and tagged squirrels
  - Palpated females for pregnancy status
  - Placed id tags and colors on ear to indicate individuals
- Used telemetry gear to triangulate and locate radio collared squirrels for behavioral observation
  - Followed squirrels for two minutes to observe behaviors such as feeding, vocalizing, traveling
  - Recorded male and female identification in mating chases
- Took notes of squirrel activity at known middens
- Climbed trees to reach nests to take DNA samples and data from squirrel pups
- Camp-wide daily chores such as chopping wood, shoveling driveway of snow, cooking dinner for the crew, cleaning camp and dishes, and changing propane tanks on heaters and freezers
- *Left position early due to State Department Covid19 travel advisories*

**Avian Field Technician**

05/15/2019 - 07/31/2019

*Texas Fish and Wildlife Cooperative Research Unit | Texas Tech University | 40 hrs/wk*

- Fort Stanton, New Mexico / Fort Stanton–Snowy River Cave National Conservation Area
- Surveyed the avian community via point counts in different forest treatment prescriptions
  - Hiking in rugged terrain and navigation using GPS and maps

- Mist netting for Juniper Titmouse using audio lures / passively for all species
  - Handling, banding, and measurements on all birds
- Nest searches and territory mapping for Juniper Titmouse
- Vegetation sampling via line point intercept, basal gap & canopy gap measurements, shrub counts, tree measurements, and visual obstruction with a Robel pole
- Data entry of point count surveys
- Operated Coop Unit 4WD trucks on rough roads
- Worked as part of a team and independently

### Research Technician

05/15/2018 - 09/05/2018

#### *Large Mammal Monitoring Project | Texas Tech University | 40 hrs/wk*

- Jemez Springs, New Mexico / Valles Caldera National Preserve / Santa Fe National Forest
- Surveyed and sampled vegetation in individual 100-200 m transects within different vegetation and treatment areas, both in a pair and independently.
- Surveyed woody biomass, tree density, herbaceous cover and biomass, and soil moisture
- Collected grass, forb, and woody species for nutritional analysis
- Operated a laboratory mill to grind plant samples for nutritional data
- Used radio telemetry equipment / triangulation to:
  - Track elk equipped with VHF/GPS collars in mountainous areas
  - Locate and collect dropped black bear and mule deer GPS collars
- Analyzed bear and mountain lion kill sites for information on ungulate predation
- Assisted with necropsies of adult and neonatal ungulates at kill sites, evaluated cause of death
- Assisted with mountain lion leg snare trap setup and capture, attaching a new collar, and collecting morphological measurements
- Efficiently navigated mountainous backcountry terrain using maps, GPS, and compass both in a team and independently
- Operated university 4WD trucks on rough and seldom-used backcountry roads
- Cross country hiked hundreds of kilometers at high elevations while carrying 20-40 pounds of equipment

### Research Technician

02/15/2018 - 05/14/2018

#### *Texas Fish and Wildlife Cooperative Research Unit | Texas Tech University | 20 hrs/wk*

- Maintenance of American Kestrel nest boxes and cameras
- Analyzed kestrel food habits and behavior from video data
- Used Bal Chatri traps to capture and band adult Kestrels
- Analyzed nest box use

## Volunteer Work

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### Lesser Prairie Chicken Capture

04/15/2019 - 04/17/2019

#### *Texas Tech University | 20 hrs*

- Constructed walk in traps on lek sites
- Handled and measured LPCs

### Large Mammal Monitoring Project

03/12/2019 - 03/14/2019

#### *Texas Tech University | 20 hrs*

- Valles Caldera National Preserve / Jemez Springs, New Mexico
- Snowshoed in rough terrain
- Tracked an Iridium and VHF collar via telemetry equipment and GPS point given from flyover

### Seedbank Project – Large Mammal Monitoring Project

09/01/2018 - 05/31/2019

#### *Texas Tech University | 4 hrs/wk*

- Watered, documented, and identified plants sprouting from New Mexico soil samples

### Volunteer Technician

11/15/2017 - 11/17/2017

*Texas Parks and Wildlife | 15 hrs*

- Texas Parks and Wildlife Department / Texas Tech University / Texas A&M University – Kingsville / Sul Ross State University
- Collaborative effort to capture >40 adult mule deer
- Participated in attaching numbered ear tags; tissue sampling for molecular analyses; recording body length measurements; collection of fecal samples

## **Certifications, Awards, and Roles**

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**Wilderness First Aid Certification**

March 2023

**Outreach Coordinator**

*Texas Tech Chapter of the Wildlife Society*

Spring 2019

- Planned for guest speakers to give talks at meetings
- Organized the spring camping trip
- Volunteered at public events

**Eagle Scout, Boy Scouts of America**