

Dale A. Jackan

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[ArcGIS Online Profile](#) [LinkedIn Profile](#)

EDUCATION

American River College, Sacramento, CA

A.S. Geographic Information Systems

Appalachian State University, Boone, North Carolina

– completed 24 credit hours of graduate study

North Carolina State University, Raleigh, North Carolina

Bachelor of Science, Zoology

GIS SKILL SET

- ArcMap/ArcGIS Pro/ArcGIS Online/QGIS
 - Spreadsheets (Excel, Calc)
 - General Office Skills (MS Office, LibreOffice)
 - Computer Literate (Linux, Windows, OSX)
 - Geodatabase and SQL skills (ArcSDE, MSSQL Express, PostGIS)
 - Remote Sensing
 - Field Collection of Data (GPS, ESRI Collector, Survey 123, QField)
 - Spatial Analyses
 - Geoprocessing
 - Cartography
 - UAV operation
 - Python, ArcPy, and R programming skills (data cleaning, scripting, exploratory data analysis, and visualization)
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BIOLOGY SKILL SET

Proficient with numerous field survey, tracking, trapping, and marking techniques. Adept at the identification of amphibians, reptiles, and birds.

JOB EXPERIENCE

GIS Teaching Assistant- University of California, Davis, CA

February 2020 - Present

Assist with course testing, design, implementation, student questions, and grading for intermediate level GIS online course offerings by the UC Davis Continuing and Professional Education Program. Courses I assisted with: “Spatial Analysis and Data Handling” and “Introduction to Remote Sensing”.

GIS Intern – University of California, Davis, CA

September 2019 - December 2019

Worked under the mentorship of Dr. Jaylee tuil. I managed, cleaned, and wrangled experiment data using the R programming language and tools with r notebooks. Conducted exploratory data analyses (EDA) with an output of relevant graphs and tables. Presented EDA utilizing rmarkdown. I also tested to see what interpolation methods in r were most appropriate for the conversion of experimental point data into a raster/surface. Used leaflet, mapview, and other R packages to map and visualize data for presentation.

On-Call Senior Wildlife Biologist - Bargas Environmental Consulting, Sacramento, CA

June 2018 - August 2018

The projects entailed pre-construction surveys, nesting bird surveys, and monitoring pole replacement and vegetation management activities. The hazardous tree removal activities were conducted in areas of bark beetle infestation and were removed by standard logging practices. Some of the potential special status species were Foothills Yellow-legged frog (*Rana boylei*), Kings River Salamander (*Batrachoseps regius*), Yosemite Toad (*Anaxyrus canorus*), and Northwestern Pond Turtle (*Actinemys marmorata*). I also observed and reported bat roosting trees during maternity season. Data collection with the ESRI Collector application.

Wildlife Biologist-Garcia and Associates (GANDA) Oakland, CA

May 2005 - July 2005

March 2010 - March 2015

- Participated in reconnaissance, biological assessments, presence-absence, protocol-level, and pre-construction surveys. *Conducted protocol-level surveys for Desert Tortoises, Swainson's Hawks, Mohave Fringe-Toed Lizards and Western Burrowing Owl.* Wrote survey reports summarizing techniques and findings.
- Aided botanists in vegetation surveys and inventories, and wetland assessments.
- Experience with bird identification, identifying nesting bird behavior, and conducting nesting bird surveys.
- Working knowledge of federal and state environmental laws pertaining to ESA Sections 7 and 10, Migratory Bird Treaty Act of 1918, and Section 404, 401, and 1602 permits. Supervised construction operations as a biological compliance monitor. Monitored for impacts to special-status species, recommended minimization and avoidance measures for sensitive biological resources, marked sensitive biological resource areas, performed Worker Environmental Awareness Program, inspected BMP and SWPPP related protection measures, and prepared daily and compliance reports.
- Conducted field surveys, biological assessments, and construction monitoring activities involving special status birds, turtles and tortoises, lizards, snakes, and invertebrates.

Biological Technician-University of Illinois- Snake and Bird Project, Fort Hood, TX

March 2008 - November 2008

Radio-telemetry of Texas Rat Snakes (*Elaphe obsoleta lindheimeri*) and surveys for nesting bird including the Black-capped Vireo (*Vireo atricapilla*). Collected data on nest location, the status of nest, identified the species and recorded fledging success. Utilized Automated radio-telemetry units (ARUs), collected radio-telemetry data on all rat snakes found on the study plots, and conducted a small mammal trapping and marking effort. I also entered and managed project data.

Environmental Inspector-TRC Solutions-PG&E Delta Substation Project, Antioch, CA

July 2007 - November 2007

As an Environmental Inspector on the project, ensured compliance with federal and State environmental regulations, including USFWS Biological Opinion, Army Corps of Engineers permits, CDFG permits, SWPPP and the CPUC mitigation measures. During construction, I monitored for California Tiger Salamander, California Red-legged Frog (*Rana draytonii*), San Joaquin Kit Fox (*Vulpes macrotis mutica*) and Western Burrowing Owl (*Athena cunicularia hypugaea*).

Desert Tortoise Surveyor and Handler(contractor)-Upgrade Professional Solutions- Marine Corp Logistics Base Desert Tortoise Plot Survey Project, Barstow, CA (permit TE-066452-0)

September 2006 - October 2006

As an independent federal contractor and desert tortoise surveyor and handler, conducted plot surveys for desert tortoise and collected data on tortoises found. Overall, data collection included evidence of tortoise presence on plot (i.e. burrows, scat, carcasses, drink basins etc) and physical data and health assessments for every tortoise found within the plots. *Handled 45 of 100 Desert Tortoises (Gopherus agassizi observed during the survey, and assisted with the remaining 55 desert tortoises. Total survey hours conducted was greater than 300.*

Biological Technician- ITS Corporation- Gopher Tortoise Project, Hattiesburg, MS

June 2006 - August 2006

Conducted telemetry study on Gopher Tortoises (*Gopherus polyphemus*) which included setup and maintenance of the automated telemetry system. Assisted with transmitter, track, and install standalone video monitoring equipment to monitor gopher tortoises. Several technologies were used on this job such as hobo loggers, hobo tidbits, hobo weather stations, ARUs, digital and analog video equipment powered by solar panels, and burrow cameras. *Observed approximately 10 gopher tortoises and handled 5 of those gopher tortoises.*

Environmental Inspector- Opus Environmental (Insignia Environmental)-PG&E Tri-Valley Capacity Increase Project, Dublin, CA

July 2005 - February 2006

As an Environmental Inspector on the project, ensured compliance with State and federal laws and SWPPP regulations. Special-status species on the project site included San Joaquin Kit Fox, Western Burrowing Owl, California Tiger Salamander (*Ambystoma californiense*) and California Red-legged Frog. *Identified and observed 11 adult California Red-legged Frogs (*Rana draytonii*) and 1 California Tiger Salamander (*Ambystoma californiense*) onsite.*

Crew Leader (GS-404-07) - USFS-Sierra Nevada Amphibian Monitoring Project (part of the Sierra Nevada Amphibian Framework Project), Sonora, CA

June 2004 - August 2004

As a crew leader, managed technicians, data collection, and data integrity in the field. The ability to ID amphibian larvae was essential for this position. The major species of concern identified were *Sierra Nevada Yellow-legged Frogs (*Rana sierrae*) (35 adults and numerous larvae)** and *Yosemite Toad (*Bufo canorus*) (10 adults and 20 larvae)*. We collected a wide variety of environmental data that required special skills such as operation of a GPS unit, backpacking (8 day trips), use depth sounders, digital cameras, navigate by topo map, and follow operation protocol for forest service radios. The Southern Long-toed Salamander (*Ambystoma macrodactylum sigillatum*) adults and larvae were also observed in the field. *Learned to identify Chytridiomycosis and we followed strict sterile protocols to prevent the spread of diseases from site to site.*

Biological technician- Charis Corporation-CERL-Desert Tortoise Project, Fort Irwin, CA, (permit TE-066452-0)

April 2003 - July 2003

*Handled (8) Desert Tortoises (*Gopherus agassizii*)**, and attached a transmitter on *(1) Desert Tortoise* under the supervision of Dr. Alice Karl. Also, conducted focal observations on fighting, courtship, as well as on individual tortoises. Assisted with the running and setting up of an automated telemetry and activity monitoring system. PDAs, GPS units, and hobo weather stations were also used during the project to collect data. We also conducted desert plant surveys, and above ground biomass sampling. Traditional telemetry techniques were used for ground truthing and data collection. Also, assisted with data entry, and using ESRI's ArcGIS. Trained to handle desert tortoises and use sterile technique to avoid the spread of diseases by Dr. Alice Karl. *During this project >200 desert tortoises were observed and I worked > 600 survey hours.*

Biological Technician (GS-05) - USGS- Giant Garter Snake Project, Colusa, CA

May 2002 - September 2002

Assisted with a radio telemetry study on *Giant Garter Snakes (*Thamnophis gigas*) (100)** which included trapping GGS, PIT tagging, and tracking. Helped maintain traplines and boats with electric motors. Assisted in management of MS Access database, and recorded basic biological and environmental data. Palm PDAs and a GPS were used for the collection and recording of data.

*approximate number

Biological Technician- Salamander Survey and Population Monitoring, Great Smoky Mountains National Park, TN

May 1998 - August 1998

I assisted with setting up coverboard arrays and conducting survey transects in order to collect data for monitoring the terrestrial salamander populations in the Great Smoky Mountains National Park.

Biological Technician - Neotropical Migratory Bird Project, North Carolina State University, Highlands, NC

May 1995 - August 1995

My duties were to find and collect nesting data for neotropical migratory birds, and identify all birds by sight and sound.

ACADEMIC FUNDED RESEARCH

- A Distributional Survey of the Southern Zigzag Salamander (*Plethodon ventralis*) In North Carolina- (NCHS Grant) Dale Jackan PI, 1/98 – 12/98.
- Effects of salamander abundance on leaf litter decomposition and soil arthropod communities in the Blue Ridge Mountains of northwestern North Carolina - (NCHS Grant and Appalachian State University Graduate School Grant Program) Dale Jackan PI, 1/2001.

WORKSHOPS/CONFERENCES/SOCIETIES

2021 NC GIS virtual Conference

2020 North Carolina Herpetological Society

2020 Society for Conservation GIS Conference- remote

2019 Society for Conservation GIS Conference- Monterey, CA

2019 CA-NV Amphibian Population Task Force Meeting- Arcata, CA

2018 March 7-9 Drone Technology & Regulation: A Workshop for Biologists

2018 CA-NV Amphibian Population Task Force Meeting- Auburn, CA

2017 CA-NV Amphibian Population Task Force Meeting- Santa Barbara, CA

2016 CA-NV Amphibian Population Task Force Meeting- Davis, CA

PUBLICATIONS

J.C. Beane, T.J. Thorp, and D.A. Jackan. 1998. *Heterodon simus* (Southern Hognose Snake).Diet. Herpetological Review 29 (1): 44 – 45.