# Justin Brice, B.S.

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LinkedIn Profile

## Summary

Conservation Biologist and Geospatial Analyst with professional experience applying spatial analysis to help conserve natural landscapes and working lands. Background in agriculture, wildlife field sampling/surveying work, species distribution, and connectivity modeling. Focus on conserving habitat cores and agricultural lands as corridors to allow for wildlife movements at the intersection of renewable energy development, protection of valuable farmland, and wildlife conservation.

## Education

B. S. Wildlife Management and Conservation — Humboldt State University, 2013
Geospatial Sciences, minor

Natural Resources Leadership Academy — Oregon State University, 2016
Course in Collaborative Governance

## Employment History

**Geospatial Analyst & Data Basin Support** - **Conservation Biology Institute** - Corvallis, OR
Oct 2015 to current (10 years 2 months)
Remote Office - Republic, WA (2021-2025)
Profile page links to some projects - https://consbio.org/people/justin-brice/

Conservation Planning & Management Team member providing natural resource analysis including work in regional conservation assessments, species and connectivity spatial modeling, managing outreach to project stakeholders. Gathering data, maintaining accurate records including metadata management, processing steps, and communications. EEMS agricultural land use modeling. Assisting and leading field staff with digital database creation/management, field sampling, ArcOnline and map development for reports. Grant and project report writing.

**Ringtail monitoring and trapping - volunteer**
2015
Conducted night-time telemetry surveys of ringtails (*Bassariscus astutus*) to record nighttime movements. Performed habitat and scat collection surveys. Data recording. Aided with live-trapping and chemical immobilization to measure animal's health condition.

**Scientific Aid - California Dept of Fish and Wildlife** California's White-footed Vole
2014
Lead field crew conducting small mammal trapping in Humboldt and Del Norte Counties, CA. Established pitfall trap grids, performed vegetation surveys, monitored captured white-footed voles for preferred food selection. Captured three WFV, the first known records since the 1990's.

**Biological Aid - US Forest Service**
2013
Member of four-person survey crew for Point Arena mountain beaver (Aplodontia rufa nigra) burrows in Mendocino County, CA. Produced navigational maps, coordinated site access with property owners, performed habitat surveys of randomly selected 25 hectare sample grids, data collection, field gear maintenance, and report of findings.

**Small mammal trapping technician - Northern Arizona University**
2012
Conducted small mammal live-trapping to monitor high-elevation wet meadows in the Apache-Sitgreaves National Forest. Vegetation plot samples, trap grid establishment, small mammal handling and measurements, produced maps to aid in navigation to sites.

**Wood duck Nest box monitoring - volunteer**
2010-2011
Maintained log of nest box visits. Recorded signs of active nesting, egg count, noting disturbances or other wildlife (e.g. barn owls, flycatchers). Nestbox maintenance and clean out. Recorded number of hatched egg caps, and failures. Scouted new box locations for suitability. Assisted with leg-banding efforts. Recorded body measurements. Additionally, assisted with mourning dove baiting/trapping/handling/banding effort.

**Habitat Restoration Volunteer - The Nature Conservancy - Cosumnes River Preserve**
2010-2011
Performed mechanical and chemical vegetation management, native vegetation planting, and managed field crews to support wetland restoration on collaboratively managed property.

## Skills and Experience

Community Engagement - Lived farm operation experience - Database Management - Team building - MS Office Suite - Biological Field Data Collection - Spatial Analysis - ArcGIS Suite - Google Suite - Community Engagement - Novice drone operator (pursuing Part 107 License)

## Example recent project work:

**Washington Columbia Plateau Least Conflict Solar Siting (WSU Energy Program)**

Scheduled and led working group meetings, spatial data acquisition/analysis and ecological modeling. Collaborated with group members and data providers to identify and source data to model Farmland, Ranchland, Solar suitability, and Environmental values for the Columbia Plateau, Washington. Working group representatives identified areas of least-conflict between solar energy PV development and ecological, economic, and social values when determining suitable locations.
Washington Columbia Plateau Least-Conflict Solar Siting Gateway

**USDA - CRP Toolkit**
Led project outreach efforts to USDA staff, native plant vendors, and producers across the country. Co-designed with early input from intended users - reviewed and gathered feedback on early designs and functionality of the system's tools-in-development. A collaborative project aimed to increase time and financial efficiency with the Conservation Reserve Program. Managing communications and feedback sheets for ease of quarterly report generation.

**USDA - Field Surveys - Mississippi**
Organized logistics and led colleagues on field surveys of Conservation Reserve Program lands in the state of Mississippi. Coordinated with state and local USDA field offices to schedule site visits with landowners and farm managers to conduct vegetation surveys of randomly located plots to gather ground-truthed measurements to compare with spatial modeling outputs (canopy cover, tree height, DBH, species composition).

**Stephens' Kangaroo Rat Rangewide Monitoring Program** - Southern California (remotely)
Over the course of 4 years (2021 - current), working closely with the project team to lead development and management of the spatial database and field data collection systems used by field biologists to facilitate digital recording of habitat and animal characteristics and assist in night-time navigation. Producing maps and figures for annual reporting. Have collected three years of environmental data and refined the system for efficiency.

**Santa Barbara Rangeland Fallowing Analysis** - Santa Barbara County (remotely)
Collaborated with University of California Cooperative Extension, Area Livestock & Range Advisor, Matthew Shapero, to perform parcel analysis on impacts of vineyards and cannabis to direct rangeland loss (field boundaries) and the impacts to the grazing practices on remaining rangelands on the parcel (rancher in-person meetings). A publication and links to the web mapping tools are included here:
https://sbcblueprint.databasin.org/articles/fdee77e78b0e4d97a281ca90def135d2/
Link to article - https://www.tandfonline.com/doi/full/10.1080/1747423X.2022.2086311

## Reports/Publications

Gallo, John A., Marc T. Mayes, Graham Wesolowski, Justin D. Brice, and Gladwin Joseph. 2024. **Modeling and mapping suitability for six vegetation-based wildfire resistance strategies, a case study on the South Coast of Santa Barbara County, California**. Conservation Biology Institute. Corvallis, OR. doi.org/10.6084/m9.figshare.26376514

Shapero, M. K. Siegel, J. A. Gallo, J. Brice and V. Butsic. 2022. **Land cover conversion and land use change combine to reduce grazing**, Journal of Land Use Science, 17:1, 339-350, https://doi.org/10.1080/1747423X.2022.2086311

Gallo, J., J. Strittholt, G. Joseph, H. Rustigian-Romsos, R. Degagne, J. Brice, and A. Prisbrey. 2019. **Mapping Habitat Connectivity Priority Areas That Are Climate-Wise and Multi-Scale, for Three Regions of California.** Conservation Biology Institute. https://doi.org/10.6084/m9.figshare.7477532

Spencer, W., J. Brice, D. DiPietro, J. Gallo, M. Reilly, H. Romsos. 2019. **Habitat Connectivity for Fishers and Martens in the Klamath Basin Region of California and Oregon.** Conservation Biology Institute. https://doi.org/10.6084/m9.figshare.8411909

## Select Posters

Hudgens, B., C. Wise, J. Brice and D. Garcelon. **Identifying Movement Barriers for Pronghorn in the Modoc Plateau.** Western Section of the Wildlife Society Conference, Yosemite, CA. February 2019. Poster.

Brice, J., R. DeGagne, M. Gough, A. Jacobs, H. Rustigian-Romsos and J. Strittholt. **Planning for conservation: A tool for identifying and analyzing species distributions.** Ecological Society of America Conference, Portland, OR. August, 2017. Poster.

Degagne, R. S., J. D. Brice, M. O. A. Gough, T. Sheehan, J. R. Strittholt (2017). **California's landscape condition: Spatial modeling to support conservation and renewable energy planning across the state.** Ecological Society of America Annual Meeting, Portland, OR, August, 2017.

Gallo, J., R. Greene, R. DeGagne, H. Rustigian-Rosmos, J. Brice, J. Strittholt, and W. Spencer. **Modeling the relative priority of habitat linkages, including climate considerations.** Society for Conservation GIS Conference, July 2017

Brice, J. B., A. M. Patrick, and M. A. Colwell. **Hot-Spot Analysis of Snowy Plover Breeding in Humboldt County.** Annual Conference of the Western Section of The Wildlife Society. Sacramento, CA. January 2013.

# GIS Analyst Job Description listed below:

Job Description
Track/Grade Geospatial Analyst-Data Basin User Support Modeler-GIS Analyst
Status
Full-time/Exempt

JOB OVERVIEW
Work on a diverse set of projects, independently or alongside other geospatial team members, to create, acquire and evaluate spatial data; create metadata; perform robust, innovative spatial modeling analyses; document methodologies/code; and clearly communicate results through writing, visualizations, and maps to a diverse audience, including decision-makers and non-scientists. Provide support to the Data Basin user community by responding to questions and requests, by troubleshooting errors and map services, by developing User Support resources, and by providing training to clients and the community. ESSENTIAL FUNCTIONS
The following are the essential functions of this position:

GEOSPATIAL ANALYSIS:
● Create new spatial datasets by digitizing and field data acquisition, using GPS and mobile technology.
● Acquire spatial data from clients, agencies, and online databases.
● Manage and document data, following CBI's standards, policies, and procedures for data management and other geospatial resources/workflows; adhere to organizational minimum metadata standards for all geospatial datasets produced or shared by CBI.
● Process, prepare, and analyze diverse spatial and tabular data, including vector and raster data, to identify spatial relationships, model phenomena, and display results of analyses, using maps, graphs, tabular data, and reports.
● Apply geospatial data and analysis to a wide range of applications, including conservation, planning, restoration, and natural resource management.
● Use automated, replicable approaches, such as Model Builder or scripting languages like Python and R, to create and run spatial analyses.
● Perform various spatial modeling tasks, such as those using CBI's EEMS modeling software.
● Design and prepare graphic representations of geospatial data, selecting cartographic elements needed for effective presentation, using various platforms and software applications.
● Document analysis methods via recommended geospatial team workflows, such as shared code or documentation.
● Share progress with team members, principal investigators, and project managers via written and oral communication, tailored to the given audience.
● Provide updates and progress reports on projects and make contributions to project technical reports via writing and production of maps, tables and figures.
● Independently learn and apply new approaches and tools on the job.
● Provide strategic leadership to CBI by serving on the Project Leadership Team.
● Perform other duties as assigned.
DATA BASIN USER SUPPORT SERVICES:

● Respond to user submitted questions and requests regarding Data Basin.
● Troubleshoot errors and broken map services with users.
● Develop and maintain new User Support resources and services.
● Provide training on Data Basin to the wider user community and specific clients.

KNOWLEDGE, SKILLS AND ABILITIES
To be successful in this position, you must:
● Understand geospatial science fundamentals, including principles/theory of GIS, cartography and/or remote sensing.
● Use a diverse suite of computer software, including ArcGIS, ArcGIS Model Builder, open source tools, utilities, and other associated/related applications and programming.
● Use spatial analysis and modeling to identify complex environmental issues and review related information to develop, evaluate, and communicate analysis results to end users.
● Use strong written and verbal communication skills to effectively communicate complex science and analyses to diverse groups of stakeholders involved in conservation issues.
● Adapt work and communication style to best fit new processes and procedures.
● Effectively engage and support Data Basin users on a wide variety of topics/tasks.

INSTITUTIONAL KNOWLEDGE AND EXPERIENCE
To be qualified for this position, you must have:
● A Bachelor of Science degree, plus at least 5 years of experience using GIS skills.
OR
● A Master of Science degree in a related field that includes practical application of GIS skills.

CAPABILITY REQUIREMENTS
In this position, you must be able to:
● Use fine motor skills.
● Talk to others to convey information effectively.
● Use direct, peripheral, near, and far vision.
● Recognize, interpret, and respond to a variety of sounds.
● Pick up, carry, hold, and deliver items of up to 10 pounds.
● Sit and stand for long periods of time. ACKNOWLEDGEMENT OF EXPECTATIONS