Reza Goljani Amirkhiz
Conservation Science & Solutions Lab
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CURRICULUM VITAE

EDUCATION

2017- 2023	Ph.D. Biological Science, University of South Dakota, SD, USA.
2014-2017	M.S. Wildlife Science, Minor in Applied Statistics, New Mexico State University, NM, USA.
2007-2009	M.S. Natural Resources Engineering- Biodiversity and Habitat, Azad University, Science and Research Branch, Tehran, Iran.
2001-2005	B.S. Natural Resources Engineering, Tehran University, Tehran, Iran.

PROFESSIONAL EXPERIENCE

Starting July 2024	UC Santa Cruz Chancellor's Postdoctoral Fellow, Department of Ecology & Evolutionary Biology, University of California Santa Cruz, Santa Cruz, CA
Starting Sep. 2024	D. H. Smith Conservation Research Postdoctoral Fellow, Department of Ecology & Evolutionary Biology, University of California Santa Cruz, Santa Cruz, CA; California Department of Fish and Wildlife
2023 - Present	Postdoctoral researcher, Department of Ecology & Evolutionary Biology, University of California Santa Cruz, Santa Cruz, CA
2021- 2023	Postdoctoral researcher, Department of Biology, University of South Dakota, SD.
2017 - 2021	Research Assistant, University of South Dakota, SD
2019 (May-August)	Quantitative geospatial specialist, Jornada Long Term Ecological Research (LTER) site, NM
2015- 2016	GIS Specialist, BLM, Las Cruces District Office (contracted through New Mexico Association of Conservation Districts), NM
2014- 2017	Research Assistant, New Mexico State University, NM
2012-2014	Wildlife Specialist, Persian Wildlife Heritage Foundation, Tehran, Iran
2010 – 2012	Wildlife Specialist, United Nations Development Program, Department of Environment, Iran
2008-2010	Research Assistant, Tehran University, Tehran, Iran

RESEARCH EXPERIENCE

2020-2021	Research assistant, evaluation of land surface temperature and NDVI relationship trends for drought and disturbance assessment in the Mongolian Plateau, University of South Dakota, SD.

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2018-2019	Field assistant, impact of invasive tree species on floodplain bird nesting success along the Missouri National Recreational River, University of South Dakota, SD.
2015-2017	Research & field assistant, survey for the Penasco least chipmunk (*Tamias minimus atristriatus*), New Mexico State University, NM.
2016- 2017	Research & field assistant, New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) surveys, New Mexico State University, NM.
2015 - 2016	GIS specialist, Chihuahuan desert rapid ecological assessment, BLM, Las Cruces district office (contracted through New Mexico Association of Conservation Districts), NM.
2010	Project manager, management action plan of Alvand protected area, Iran, Aban-pajouh consulting company, Iran.
2010	Project manager, habitat network design for ungulates in Markazi province, Iran, Tarlan Society, Iran.
2009	GIS specialist, the central Zagros mammalian fauna, Iran, Mohitban Society, Iran.
2009	Project manager, the status of Wild sheep and Wild goat in Markazi province, Iran, department of environment (Markazi Province), Iran.
2009	Project manager, a mitigation plan to reduce the impacts of road construction on Khojir national park, Iran, Tehran University, Iran.
2008	Wildlife specialist, ecology, and reintroduction of gazelle population in Sorkhe Hesar national park, Tehran University, Iran.
2008	Field assistant & GIS specialist, the ecology of Pleske's Ground Jay (*Podoces pleskei*) in Iran, Tehran University, Iran.
2008	Wildlife specialist, Atlas of mammals of Iran, Tehran University, Iran.
2008	Wildlife specialist, Atlas of birds of Iran, Tehran University, Iran.
2008	Wildlife specialist, action plan for wildlife management in Iran, Tehran University, Iran.

TEACHING AND MENTORING EXPERIENCE

Spring 2024	Teaching graduate seminar BIOE 215, Advanced Applied Statistics - Analysis of Distribution and Abundance, UC Santa Cruz, Department of Ecology and Evolutionary Biology
2023- Present	CAMINO undergraduate mentor: 3 undergraduate students, Center to Advance Mentored, Inquiry-Based Opportunities (CAMINO) to advance their GIS and statistical analysis skills.

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2023- Present	Mentoring graduate students at the conservation Science and Solution lab, University of California Santa Cruz in learning and performing advanced statistical modeling techniques.
2021-2023	Mentoring graduate students: designing research projects, learning and performing statistical analysis, Department of Biology, University of South Dakota, SD
2018	Guest Speaker: Introduction to models (landscape ecology course). Department of Biology, University of South Dakota, SD
2017	Teaching Assistant: Principles of Fish and Wildlife Management (FWCE 255), Department of Fish, Wildlife, Conservation and Ecology, New Mexico State University, NM
2016	Teaching Assistant: Individuals, Populations & Communities (Biology 111), Department of Biology, New Mexico State University, NM
2015	Graduate Mentor: mentoring an undergraduate student in GIS and statistical analysis to build a habitat suitability model for dusky grouse in New Mexico, Department of Fish, Wildlife, and Ecology, New Mexico State University, NM

PUBLICATIONS

Swanson, D.L., Stager, M. Vézina, F. Liu, J. McKechine A.E. **Goljani Amirkhiz, R**. 2023. Evidence for a maintenance cost for birds maintaining highly flexible basal, but not summit, metabolic rates. *Scientific Reports 13, 8968* https://doi.org/10.1038/s41598-023-36218-w.

Shirkey, G., John, R. Chen, J. Venkatesh, K. **Goljani Amirkhiz, R**. et al. 2023. Land cover change and socioecological influences on terrestrial carbon production in an agroecosystem. *Landscape Ecology 38, 3845-3867* https://doi.org/10.1007/s10980-023-01647-5.

Saraf, S., John, R. **Goljani Amirkhiz, R**. Venkatesh, K. Jain, K. Rigge, M. Giannico, V. Boyte, S. Chen, J. Henebry, G. Jarchow, M. Lafortezza, R. 2023. Biophysical drivers for predicting the distribution and abundance of invasive yellow sweetclover in the Northern Great Plains. *Landscape Ecology 38, 1463-1479* https://doi.org/10.1007/s10980-023-01613-1.

Goljani Amirkhiz, R., John, R. Swanson, D.L. 2023. A Bayesian approach for multiscale modeling of the influence of seasonal and annual habitat variation on relative abundance of ring-necked pheasant roosters. *Ecological Informatic 75: 102003* *https://doi.org/10.1016/j.ecoinf.2023.102003*.

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Liu, M., Kinnicutt, P. **Goljani Amirkhiz, R.** Swanson, D.L. 2022. Arthropod prey and diets of woodland migrants are similar between natural riparian woodlands and anthropogenic woodlots in the northern prairie region. *Avian Conservation and Ecology 17, 45* https://doi.org/10.5751/ACE-2317-170245.

Venkatesh, K., John, R. Chen, J. Jarchow, M. **Goljani Amirkhiz, R.** Giannico, V. Saraf, S. Jain, K. Kussainova, M. Yuan, J. 2022. Untangling the impacts of socioeconomic and climatic changes on vegetation greenness and productivity in Kazakhstan. *Environmental Research Letters 17, 095007* https://iopscience.iop.org/article/10.1088/1748-9326/ac8c59/meta.

Venkatesh, K., John, R. Chen, J. Xiao, J. **Goljani Amirkhiz, R.** Giannico, V. Kussainova, M. 2022. Optimal ranges of social–environmental drivers and their impacts on vegetation dynamics in Kazakhstan. *Science of the Total Environment 847, 157562* https://doi.org/10.1016/j.scitotenv.2022.157562.

Youtz, J., **Goljani Amirkhiz, R.** Frey, K.J. 2022. Modeling the impact of climate change and wildfire on the Dusky Grouse (*Dendragapus obscurus*) in the American Southwest: implications for conservation. *Avian Conservation and Ecology 17, 35* https://doi.org/10.5751/ACE-02222-170135.

Goljani Amirkhiz, R., Dixon, M.D. Palmer, J.S. Swanson, D.L. 2021. Investigating niches and distribution of a rare species in a hierarchical framework: Virginia's Warbler (*Leiothlypis virginiae*) at its northeastern range limit. *Landscape Ecology 36, 1039-1054* https://doi.org/10.1007/s10980-021-01217-7.

Swanson, D.L., and **Goljani Amirkhiz, R**. 2021. Mid-summer arrival by Blue Grosbeaks at the northern extent of their breeding range: evidence for dual breeding? *Journal of Field Ornithology 92, 127-142* https://doi.org/10.1111/jofo.12367.

Swanson, D.L., and **Goljani Amirkhiz, R**. Dixon, M.D. 2020. Patterns and potential causes of changing winter bird distributions in South Dakota. *The Prairie Naturalist 52, 45-57* https://digitalcommons.unl.edu/tpn/319/

Goljani Amirkhiz, R., Frey, K.J. Breck, S.W. Cain, J.W. Oakleaf, J. Bergman, D.L. 2018. Predicting spatial factors associated with cattle depredations by the Mexican wolf (*Canis lupus baileyi*) with recommendations for depredation risk modeling. *Biological Conservation 224,327-335* https://doi.org/10.1016/j.biocon.2018.06.013.

Goljani Amirkhiz, R., Kaboli, M. Karami, M. Ghodsizadeh, Z. Nourani, E. 2012. Male Alborz red sheep (*Ovis gmelini* × *O. vignei*) migration corridors selection from summer to fall habitats in Jajroud Protected Area Complex, Iran. *Journal of Russian Ecology 43, 67-76* https://doi.org/10.1134/S1067413612010067.

Hadipour, E., Karami, M. Abdoli, A. **Goljani Amirkhiz, R**. 2011. A study on Eurasian otter (*Lutra lutra*) in Amirkelayeh wildlife refuge and International Wetland in Guilan

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Province, Northern Iran. *IUCN Otter Specialist Group Bulletin 28, 84-98*
https://www.iucnosgbull.org/Volume28/Hadipour_et_al_2011.html.

Satei, N., Kaboli, M. Cheraghi, S. Karami, M. **Goljani Amirkhiz, R**. 2010. Breeding activities
and successes of Pleske's ground jay (*Podoce spleskei*) in Touran Biosphere Reserve,
Semnan Province, Iran. *Podoces 5, 35-41*
https://api.semanticscholar.org/CorpusID:53462561.

Goljani Amirkhiz, R., Kaboli, M. Karami, M. Naimi, M. Alizadeh, A. 2009. Fall habitat
suitability modeling of Central Alborz Wild Sheep (*Ovis gmelini X O. vignei*) in Jajrood
Protected Complex, Iran. *Journal of Natural Environment 63, 173-186*
https://jne.ut.ac.ir/article_29170.html?lang=en

Chalani, M., Ghoddusi, A. Ghadirian, T. **Goljani Amirkhiz, R**. 2008. First Pallas cat (*Felis
manul*) photo trapped in Khojir National Park, Iran. *Cat News 49, 7*
https://savemanul.org/docs/Chalani_etal_2008_pc_iran.pdf.

Mostafavi, S.M., Alizadeh, A. **Goljani Amirkhiz, R.** Mohammadi, S. 2008. Spring and summer
habitat suitability mapping for wild goat (*Capra aegagrus aegagrus*) in Lar National
Park. *journal of Sciences and Techniques in Natural Resources 5, 111-121*
https://www.sid.ir/paper/143830/en.

SELECTED PRESENTATIONS

Goljani Amirkhiz, R., Dixon, M.D. John, R. Swanson, D.L. 2022. Relationships between
changes in relative abundance of male Ring-necked pheasant *(Phasianus colchicus)* and
its habitat components at multiple scales in South Dakota. The 56th Annual Meeting and
Virtual Conference of South Dakota Chapter of Wildlife Society

Goljani Amirkhiz, R., Dixon, M.D. Palmer, J.S. Swanson, D.L. 2019. Applying an ensemble of
small models to predict breeding distribution of Virginia's warbler in South Dakota.
American Ornithological Society Meeting. Anchorage, Alaska.

Baltensperger, AP., **Goljani Amirkhiz, R**. Dixon, M.D. Swanson, D.L. 2019. Modeling the
Implications of Future Bioenergy Scenarios on Bird Diversity and Abundance in the
Northern Great Plains. *American Ornithological Society Meeting*. Anchorage, Alaska.

Goljani Amirkhiz, R., Dixon, M.D. Palmer, J.S. Swanson, D.L. 2019. Applying an ensemble of
small models to predict breeding distribution of a rare species: Virginia's warbler
(*Oreothlypis virginiae*) at the northeastern periphery of its range. *US- International
Association for Landscape Ecology Meeting*. Fort Collins, Colorado.

Goljani Amirkhiz, R., Dixon, M.D. Palmer, J.S. Swanson, D.L. 2018. Ensemble modeling to
predict Virginia's Warbler (*Oreothlypis virginiae*) breeding distribution at the

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northeastern periphery of its range. *The Ecological Society of America Annual Meeting*. New Orleans, Louisiana.

Goljani Amirkhiz, R., Frey, K.J. Bergman, D.L. Breck, S.W. Cain, J.W. Oakleaf, J. 2017. Predicting spatial factors associated with cattle depredations by the Mexican wolf (*Canis lupus baileyi*) in Arizona and New Mexico. *The 24th annual conference of the Wildlife Society*. Albuquerque, New Mexico.

Goljani Amirkhiz, R., Frey, K.J. Bergman, D.L. Breck, S.W. Cain, J.W. Oakleaf, J. 2017. Predicting spatial factors associated with cattle depredations by the Mexican wolf (*Canis lupus baileyi*) in Arizona and New Mexico. *The 50th joint annual meeting of Arizona and New Mexico chapters of the wildlife society*. Farmington, New Mexico.

Youtz, J., **Goljani Amirkhiz, R.** Frey, K.J. 2017. A habitat suitability model for the dusky grouse in the American Southwest (Accepted for oral presentation). *The 50th joint annual meeting of Arizona and New Mexico chapters of the wildlife society*. Farmington, New Mexico.

Youtz, J., **Goljani Amirkhiz, R.** Frey, K.J. 2016. A habitat suitability model of dusky grouse in New Mexico. *The 49th joint annual meeting of Arizona and New Mexico chapters of the wildlife society*. Flagstaff, Arizona.

Goljani Amirkhiz, R., 2011. A potential distribution map for leopard (*Panthera pardus*) in central Zagros. *The conference of Conservation of biodiversity in central Zagros*. Isfahan, Iran.

Goljani Amirkhiz, R., Khosravi, R. Kaboli, M. 2009. Studying some Ecological characteristics of Goitered Gazelle (*Gazella subguturosa*) at Sorkhe Hesar national park. *The first national conference on the conservation ecology*. Tehran, Iran.

Goljani Amirkhiz, R., Khosravi, R. Kaboli, M. 2009. A spring potential distributing map of gazelle (*Gazella subguturosa*) in Sorkhe Hesar national park. *The first national conference on the conservation ecology*. Tehran, Iran.

Moshtaghi, N., **Goljani Amirkhiz, R.** 2008. Predicting noise damper on subway in Khojir National Park. 2008. *The conference of worldwide day of environment*. Tehran, Iran.

THESES

Goljani Amirkhiz, **R**. Application of hierarchical species distribution models to avian species of South Dakota and Upper Missouri River Basin, University of South Dakota (in press).

Goljani Amirkhiz, R. 2017. Predicting spatial factors associated with cattle depredations by the Mexican wolf (*Canis lupus baileyi*) in Arizona and New Mexico, New Mexico State University.

Goljani Amirkhiz, R. 2009. Spatial modeling of Habitats and corridors of Alborz red sheep (*Ovis gmelini× O. vignei*) in Jajroud protected area. Azad University, Tehran, Iran.

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Goljani Amirkhiz, R. 2005. Rodents of Miandasht Wildlife Refuge. Tehran University
　　　Bachelor dissertation, Tehran University, Iran

JOURNAL REVIEWER

Landscape Ecology, Ecology and Evolution, Plus One, Remote Sensing, Land

SCHOLARSHIP, AWARDS & HONORS

2024　Chancellor's Postdoctoral Fellowship, University of California Santa Cruz, $5000 and UC faculty hiring incentive

2024　Smith Conservation Research Fellowship, Cedar Tree Foundation, Society for Conservation Biology, Washington, DC, $135,000

2023　Distinguished PhD Dissertation Award, University of South Dakota

2021　Cable Fellowship, University of South Dakota, $20,000

2021　Award, Husmann Memorial Scholarship, South Dakota Ornithology Union, $800

2019　Summer Graduate Research Fellowship, Jornada Long Term Ecological Research (LTER) site, $6000

2018　Travel award, University of South Dakota's Graduate Research and Creative Scholarship Grant, $750

2017　Travel award, Bernice Dillon Memorial Foundation, $1070

2016　New Mexico View Geospatial Scholarship, $250

2016　Travel award, 6th Natural History of the Gila Symposium, Western New Mexico University: $200

2012　Scholarship, International Visitor Leadership Program on Wildlife Conservation and Habitat Management in the United States of America, United States Department of State, Bureau of Educational and Cultural Affairs: $6000

PROFESSIONAL DEVELOPMENT

2024　FieldFutures Training: Preventing Sexual Harassment & Assault in Fieldwork

2024　The Sierra Rescue International Wilderness First Aid

2023　NASA's Applied Remote Sensing Training (ARSET), Biodiversity applications for airborne imaging Systems.

2022　NASA Topical Workshop: Broadening the use of NASA datasets by the Species Distribution Modeling community.

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2018   Applications of Spatial Data: Ecological niche modeling tutorial, National Institute for Mathematical and Biological Synthesis, Dec 3-5th, Knoxville, TN.

2016   Incorporating climate change data. Feb 4th, Flagstaff, AZ, taught by Jeremy Weiss

2016   New Technologies in Wildlife/Fisheries Management. Feb 4th, Flagstaff AZ, taught by Michael Shafer.

2015   Multi-Model Inference. Nov 6th, Las Cruces, NM, taught by David R. Anderson

2013   Habitat Suitability Modelling in R, Azad University, Science and Research Branch, Tehran, Iran, taught by Babak Naimi.

2012   Habitat Management and Wildlife Conservation, A Joint U.S./Iran Workshop, Apr 2 – 4th, UCI, Irvine, CL, taught by Tim Bradley, Frank Davis, Barry Noon, and others

2007   Advanced Analyses in GIS. Azad University, Science and Research Branch, June 2–20th, Tehran, Iran, taught by Babak Naimi

PROFESSIONAL SKILLS

- Bayesian inference: BUGS, WinBUGS, JAGS, NIMBLE, Stan
- Programing Skills: R, SAS
- Geographic Information Science and Technology: Arc GIS, Arc GIS Pro, ENVI, Google Earth Engine, FRAGSTATS, IDRISI, R
- General statistical estimation and modeling: Excel, Minitab, R Studio, SPSS, STATISTICA
- Habitat suitability modeling: Biomod, Maxent, Biomapper, GARP, Open modeler, ENMTools