Mahdieh Tourani

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Website: University of Montana, Google Scholar, ResearchGate

Education

Norwegian University of Life Sciences, Ås, Norway
PhD in Applied Quantitative Ecology, 2020
Dissertation: "Leveraging non-invasive monitoring of carnivores using hierarchical models"

University of Oxford, Oxford, UK
Postgraduate Diploma in International Wildlife Conservation Practice, 2015

Lund University, Lund, Sweden
Master of Science in Biology: Animal Ecology, 2013
Thesis: "Predicting potential distribution for *Equus hemionus* in a changing world"

National University (Shahid Beheshti), Tehran, Iran
Bachelor of Science in Biology: Zoology, 2010

Academic positions

University of Montana, Missoula, USA
Assistant Professor of Quantitative Ecology, 2024 - present

University of California, Davis, USA
Quantitative Wildlife Ecology Postdoctoral Researcher, 2021-2023
Analysing global camera trap data to explore regional-to-global trends in wildlife occupancy across space and time and producing analytics for Wildlife Insights.

Norwegian University of Life Sciences, Ås, Norway
Postdoctoral Researcher, 2021
Estimating red deer density in the Bohemian Forest Ecosystem

Swedish University of Agricultural Sciences,
Grimsö Wildlife Research Station, Riddarhyttan, Sweden
Research assistant, 2014
Conducting a systematic review of interventions to reduce large carnivore predation on livestock.

Books & Book Chapters

2. Mills S, Whitely A, **Tourani M** (2025) Conservation of Wildlife Populations: Applications of ecological, evolutionary, and genetic concepts, 3rd edition, Oxford University Press http://dx.doi.org/10.1093/oso/9780192898166.001.0001

1. Moqanaki EM, Farhadinia MS, **Tourani M**, Akbari H (2016) The caracal in Iran - current state of knowledge and priorities for conservation. *Cat News Special Issue 10*, 27-32. https://tinyurl.com/y7wom9bn

Peer-reviewed Publications

13. **Tourani M**, Sollmann R, Kays R, Ahumada J, Fegraus E, Karp D. (2023) Maximum temperatures determine habitat affiliations of North American mammals. *PNAS,* 120(50): e2304411120. https://doi.org/10.1073/pnas.2304411120

12. **Tourani M**, Franke F, Heurich M, Henrich M, ..., Peters W. (2023) Spatial variation in red deer density in relation to forest disturbance and ungulate management in a transboundary forest ecosystem. *Scientific Reports,* 13: 4561. https://doi.org/10.1038/s41598-023-31283-7

11. Dey S, Moqanaki E, Milleret C, Dupont P, **Tourani M**, Bischof R. (2023) Modelling spatially autocorrelated detection probabilities in spatial capture-recapture using random effects. *Ecological Modelling,* 479: 110324. https://doi.org/10.1016/j.ecolmodel.2023.110324

10. **Tourani M** (2022) A review of spatial capture–recapture: Ecological insights, limitations, and prospects. *Ecology and Evolution,* 00:1–13. https://doi.org/10.1002/ece3.8468

9. Moqanaki EM, Milleret C, **Tourani M**, Dupont P, Bischof R (2021) Consequences of ignoring variable and spatially-autocorrelated detection probability in spatial capture-recapture. *Landscape Ecology*, 1-17. https://doi.org/10.1007/s10980-021-01283-x

8. Dupont P, Milleret C, **Tourani M**, Brøseth H, Bischof R (2021) Integrating dead recoveries in spatial capture-recapture models. *Ecosphere*, 12(7): e03571. https://doi.org/10.1002/ecs2.3571

7. **Tourani M**, Dupont P, Nawaz MA, Bischof R (2020) Multiple observation processes in spatial capture-recapture models: how much do we gain? *Ecology,* 101(7): e03030. https://doi.org/10.1002/ecy.3030

6. **Tourani M**, Brøste E, Bakken S, Odden J, Bischof R (2020) Closer, sooner, or longer: detectability of mesocarnivores at camera traps. *Journal of Zoology,* 312(4): 259–270. https://doi.org/10.1111/jzo.12828

5. Bischof R, Milleret C, Dupont P, Chipperfield C, **Tourani M**, et al. (2020) Estimating and forecasting spatial population dynamics of apex predators using transnational genetic monitoring. *PNAS,* 117(48): 30531-30538. https://doi.org/10.1073/pnas.2011383117

4. van Eeden LM, Eklund A, ..., **Tourani M**, Treves A (2018) Carnivore conservation needs evidence-based livestock protection. *PLoS Biology*, 16(9): e2005577. https://doi.org/10.1371/journal.pbio.2005577

3. Eklund A, López-Bao JV, **Tourani M**, Chapron G, Frank J (2017) Limited evidence on the effectiveness of interventions to reduce livestock predation by large carnivores. *Scientific Reports*, 7: 2097. https://doi.org/10.1038/s41598-017-02323-w

2. **Tourani M**, Moqanaki EM, Boitani L, Ciucci P (2014) Anthropogenic effects on the feeding habits of wolves in an altered arid landscape of central Iran. *Mammalia*, 78(1): 117–121. https://doi.org/10.1515/mammalia-2012-0119

1. **Tourani M**, Moqanaki EM, Kiabi BH (2012) Vulnerability of striped hyaenas, *Hyaena hyaena*, in a human-dominated landscape of central Iran. *Zoology in the Middle East*, 56: 133-136. https://doi.org/10.1080/09397140.2012.10648948

Talks & Posters

10. *A user-friendly online platform to analyse your wildlife community data* (oral presentation)
30th International Congress for Conservation Biology, Rwanda (virtual) – December 2021

9. *A review of spatial capture-recapture in ecology* (poster)
EURING 2021 Analytical Meeting and Workshop, Quebec (virtual), Canada – June 2021

8. *Landscape-level patterns in wolverine home range size using non-invasive monitoring and hierarchical modelling* (oral presentation)
International Statistical Ecology Conference (vISEC), Sydney (virtual), Australia – June 2020

7. *Estimating animal density by integrating non-invasive DNA sampling and camera traps* (poster)
Wildlife Research and Conservation Conference, Berlin, Germany – October 2019

6. *What are hierarchical models and why do we use them in ecology?* (oral presentation)
IRSAE's 9th Summer School in Applied Ecology, Holar, Iceland – August 2019

5. *Revealing anthropogenic impacts on the carnivore guilds using non-invasive sampling and hierarchical models* (oral presentation)
IRSAE's 7th Summer School in Applied Ecology,
Evenstad, Norway– August 2017

4. *Moving from diagnosis to action: a conceptual framework for carnivore conservation* (poster)
Student Conference on Conservation Science,
University of Cambridge, Cambridge, UK – March 2016

3. *Is there any room for the Asiatic wild ass?* (oral presentation)
WildCRU's Masters Day, University of Oxford, Oxford, UK
– May 2015

2. *King or queen in the African savanna: what matters for lion habitat use?* (oral presentation)
Symposium on Carnivore Ecology, University of Oxford, Oxford, UK – September 2015

1. *Evaluating conservation priority landscapes for the endangered Asiatic wild ass under climate change scenarios* (poster)
Student Conference on Conservation Science, University of Cambridge, Cambridge, UK - March 2015

Teaching experience

University of Montana, Missoula, US
1. Course instructor for *Conservation of Wildlife Populations*, Spring 2025

2. Course instructor for *Research Design Lab*, Autumn 2025

Norwegian University of Life Sciences, Ås, Norway
3. Lecturer and lab assistant in *Methods in Natural Sciences*, Spring 2018-2019

4. Lecturer and teaching assistant in *Exploring and Analysing Data in Ecology and Natural Resource Management*, Autumn 2017-2020

5. Course coordinator and lecturer in *Human-Wildlife Interactions*, Spring 2019

6. Course coordinator and lecturer in *Ecology and Management of Natural Resources in the Tropics*, Spring 2019

Student supervision & mentoring

University of Montana, Missoula, US:
Main and co-advisor for three master's theses in Wildlife Biology
3. Katherine Garrett *Quantifying the impact of animal behavior on estimators of wildlife population size*

2. Lilia Membrino *Using camera traps to estimate ungulate population size and recruitment in Northwest Montana*

1. Andrei Dinu *Ecology of large carnivores in relation to human activity in the Romanian Carpathians*

Graduate thesis committees
6. Phil Douchinsky *Genetics and demographics of Yellowstone cutthroat trout across Montana*

5. Morgan McDonnell *Predator-prey interactions in the Great Yellowstone Ecosystem*

4. Milan Vinks *Investigating the influence of forest disturbance on grizzly bear habitat ecology and fitness in the Northern Continental Divide Ecosystem*

3. Grace Erba *Leveraging camera trap data to understand alpine and boreal mammal responses to a changing world*

2. Pei-Shan Sandy Hsu *The Purrtector: An embedded system that detects movement, captures and classifies images, and sends a notification to an Android mobile app when an image is flagged*

1. Brenna Cassidy *Ecological and evolutionary drivers of lifetime reproductive success of gray wolves in Yellowstone National Park*

Norwegian University of Life Sciences, Ås, Norway:
Co-advisor for two master's theses in Ecology
2. Sigurd Bakken *Evaluating the effect of olfactory lures on detection probability during camera trapping*, 2018

1. Laura Bartra Cabré *Disentangling the drivers of European badger activity at multiple temporal scales*, 2020

Mentoring analytical modules for the 2nd eLearning *Wildlife Conservation Course* for early-career conservationists based in Africa, **University of Oxford**, Autumn 2019

Workshops & Internships

11. *Analysis of animal movement data using hidden Markov models* by M. Chimienti at **IRSAE's 9th Summer School in Applied Ecology**, Holar, Iceland – August 2019

10. *Introduction to NIMBLE: the fanciest member in the BUGS family* by P. de Valpine at **Swiss Ornithological Institute**, Sempach, Switzerland – May 2018

9. *Modelling demographic processes in populations using BUGS and JAGS* by M. Kery & .M. Schaub at **Centre for Biodiversity Dynamics**, Norwegian University of Science and Technology NTNU, Trondheim, Norway – August 2017

8. *Exchange stay* at **Patuxent Research Refuge**, US Fish and Wildlife Service, Maryland, USA, hosted by A. Royle – July 2017

7. *Camera trapping study design and data analysis for occupancy and density estimation* by J. Nichols, C. Sutherland, A. Royle & J. Kolowski at **Smithsonian-Mason School of Conservation**, Virginia, USA – June 2017

6. *Internship* at **Wildlife Conservation Research Unit (Wild-CRU)**, University of Oxford, Oxord, UK, hosted by A. Loveridge & D. Macdonald – May 2016

5. *The Camera Trapping Workshop* by L. Talent & R. Amin at **Student Conference on Conservation Science (SCCS)**, University of Cambridge, Cambridge, UK – May 2016

4. *Exploring data in R* by L. Talent at **University of Oxford** (online course), UK – November 2015

3. *Resource Selection Function analysis* by R. Montgomery at **WildCRU**, University of Oxford, Oxford, UK – July 2015

2. *Conservation and landscape genetics in a changing world* at **Graduate Research School in Genomic Ecology (GenEco)**, Lund University, Lund, Sweden – April 2013

1. *Internship* at Biology and Biotechnology Department "C. Darwin", **Sapienza University of Rome**, Rome, Italy, hosted by L. Boitani & P. Ciucci – July 2011

Service to the community

1. Associate Editor of two scientific journals
Journal of Applied Ecology and Ecology and Evolution 2020 - 2025
2. Reviewer for 14 scientific journals
3. Scientific committee of Euring Analytical Meeting 2023, France
4. External grant reviewer for the National Science Center, Poland