

Dongmin (Dennis) Kim

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Education

Ph.D. in Ecology, Evolution and Behavior	2019-2024
<ul style="list-style-type: none">• University of Minnesota, Twin Cities• (Advisors: Allison Shaw, John Fieberg)	
B.A. in Statistics	2013-2019
<ul style="list-style-type: none">• University of Minnesota, Morris	

Academic Experience

Max Planck Institute of Animal Behavior	2024-present
<ul style="list-style-type: none">• Drylands Project and Vulture Research Consortium	
Smithsonian's National Zoo & Conservation Biology Institute	2022-present
<ul style="list-style-type: none">• Scimitar-horned Oryx Reintroduction• Tracking and Migratory Connectivity	
University of Minnesota, Twin Cities	2023-2024
<ul style="list-style-type: none">• Doctoral Dissertation Fellow (The University's most accomplished Ph.D. candidate)	

Professional Experience

Max Planck Institute of Animal Behavior	2024-present
<ul style="list-style-type: none">• Google Earth Engine, Generalized Mixed Effects Models (GLMMs)• Advisor(s): Anne K. Scharf, Martina Scacco, Kamran Safi	
Smithsonian Conservation Ecology Center	2022-present
<ul style="list-style-type: none">• Hidden Markov models (HMMs), simulation of animal space use• Advisor(s): Katherine Mertes, Jared Stabach, Théo Michelot	
National Science Foundation (NSF) INTERN	2022-2023
<ul style="list-style-type: none">• SIR models, Ordinary differential equations (ODEs)• Advisor(s): Allison Shaw	
Smithsonian Migratory Bird Center	2022
<ul style="list-style-type: none">• Visualization of NOAA satellite images, animal migration• Advisor(s): Autumn-Lynn Harrison	
University of Minnesota, Twin Cities	2019, 2022
<ul style="list-style-type: none">• Bayesian hierarchical model, integrated step selection analyses (iSSAs)• Advisor(s): Todd Arnold, John Fieberg	

Honors, Awards, Fellowships

University of Minnesota - Doctoral Dissertation Fellowship (\$26,000)	2023-2024
National Science Foundation (NSF) - INTERN Award (\$50,329)	2022-2023
Smithsonian Institution Fellowship (\$11,200)	2022
World Wildlife Fund (WWF) BRIDGE Data Science and Visualization Graduate Intern (declined)	2022
University of Minnesota - Graduate Summer Fellowship (\$6,570)	2021, 2023
Howard Hughes Medical Institute (HHMI) Inclusive Excellence Teaching Assistant Fellowship (\$1,000)	2019

Publications

Published

- **Kim D**, Shaw AK. [“Migration and tolerance shape host behavior and response to parasites infection”](#) *Journal of Animal Ecology* (2021)
- Chatterjee N, Wolfson DW, **Kim D**, Velez J, Freeman S, Bacheler N, Shertzer K, Christopher Taylor J, Fieberg J. [”Modeling individual variability in habitat selection and movement using integrated step-selection analyses”](#) *Methods in Ecology and Evolution* (2024)

In Review

- **Kim D**, Thompson PR, Wolfson DW, Merkle J, Oliveira-Santos L. G. R., Forester J, Avgar T, Lewis MA, Fieberg J. [”Identifying signals of memory from observations of animal movements”](#)
- Gould E, Fraser HS, Parker TH, Shinichi N, Griffith SC, Vesik PA, Fidler F,... **Kim D**, ..., Tompkins EM. [”Same data, different analysts: variation in effect sizes due to analytical decisions in ecology and evolutionary biology”](#)
- Shaw AK, Ales R, Bisesi AT, **Kim D**, Lutz P, Narayanan N, Shao C, Torstenson MS, Wojan CM. [”Six strategies for framing theoretical research questions”](#)
- Torstenson MS, Wolfson DW, Safran SM, Walton DJ, Halberg AB, **Kim D**, Tan YF, Kramer GR, Andersen DE. [”North American bird migration in the context of conservation: a review”](#)

In Preparation

- **Kim D**, Michelot T, Mertes K, Fieberg J, & Stabach JA, [”Detecting disease from animal movement using Hidden Markov models”](#)
- Chatterjee N, Wolfson DW **Kim D**, Freeman S, Kelly A, Hodson J, & Fieberg J, [”Synthesis of methods to analyze responses to linear features using telemetry data”](#)
- Shaw AK, Cagnacci F, McCoy K,... **Kim D**, ..., Wolfson DW, Yanco S. [”Perceived and observed biases in the field of movement ecology: a case study”](#)

Selected Invited Talks

Smithsonian National Zoological Park, Remote Sensing Group	Oct 2023
Harvard University, Moorcroft Lab	Sep 2023
University of Minnesota, EEB Seminar	Sep 2023

Conference Presentations

The Wildlife Society (TWS) Annual Conference, KY, USA (Poster)	Nov 2023
Gordon Research Conference (GRC), Lucca, Italy (Poster)	May 2023
Gordon Research Seminar (GRS), Lucca, Italy (Poster)	May 2023
North American Duck Symposium (NADS), Winnipeg, Canada (Poster)	Aug 2019

Teaching Experience

University of Minnesota, Twin Cities:

FW 5051: Analysis of Population	Spring 2022
EEB 3407/5407: Ecology	Fall 2019, 2021
EEB 1961: Foundations of Biology Lab I	Spring 2021

University of Minnesota, Morris:

STAT 3601: Data Analysis	Fall 2018
STAT 1601: Intro to Statistics	Spring 2018

Service & Outreach

Non-academic Career Seminar | *Lead organizer* 2021-2023

- Initiated and organized informal informational interviews with early-career researchers in non-academic positions (PhDs in Ecology, Evolution, Behavior, and Conservation Science)

Field Guides | *Mentor* 2022-2024

- Mentored undergraduate students broadly interested in ecology, evolution, and behavior to help them find on-campus research positions, connect them with potential employers, help them apply to summer research positions

Data Competition

Interdisciplinary Health Data Competition | *Machine Learning* 2021

- Analyzed Covid-19 data to identify possible factors that shape Covid-19 responses (cases, deaths, hospitalization)
- Performed variable selection in the data by using Lasso methods and fit the model with Generalized Linear Mixed Model (GLMM)

Midwest Undergraduate Data Analytics Competition (MUDAC) | *Decision tree learning* 2018

- Identify relevant fan retention metrics in order to maximize the renewal rate of season ticket holders for the Minnesota Wild
- Analyzed the dataset provided by the Minnesota Wild by using classification analysis

Technical Skills

Programming languages: Bash, R

Miscellany: Google Earth Engine, GitHub, HTML, Knitr, LaTeX, Markdown