

Dongmin (Dennis) Kim
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Education

2019–2024 **Ph.D.**, Ecology, Evolution, and Behavior, University of Minnesota, Twin Cities
(Advisors: Allison Shaw and John Fieberg)
2013–2019 **B.A.**, Statistics, University of Minnesota, Morris

Appointments

2024+ **Postdoctoral Researcher** (Advisor: Jesús Pinto-Ledezma)
Ecology, Evolution, and Behavior, University of Minnesota
2024+ **Postdoctoral Researcher** (Advisor: Paul Moorcroft)
Organismic and Evolutionary Biology, Harvard University
2024+ **Research Associate** (Advisor: Kamran Safi)
Max Planck Institute of Animal Behavior
2022–2026 **Research Associate** (Advisor: Jared Stabach)
Smithsonian Conservation Biology Institute
2022 **Pre-doctoral Fellow** (Advisor: Autumn-Lynn Harrison)
Smithsonian Migratory Bird Center

Fellowships, honors and awards

2026–2028 Smithsonian Institution - George E. Burch Fellowship (**\$144,000**)
2025 Institute on the Environment (IonE) Mini Grant (**\$3,000**)
2023–2024 University of Minnesota - Doctoral Dissertation Fellowship (**\$26,000**)
2022–2023 National Science Foundation (NSF) - INTERN Award (**\$50,329**)
2022 Smithsonian Institution Fellowship (**\$11,200**)
2022 World Wildlife Fund (WWF) BRIDGE Data Science Intern (**declined**)
2021–2023 University of Minnesota - Graduate Summer Fellowship (**\$14,570**)
2019 Howard Hughes Medical Institute (HHMI) Inclusive Excellence Teaching Assistant Fellowship (**\$1,000**)

Peer reviewed publications

Published/In Press

- J1. **Kim, Dongmin**, Michelot, T., Mertes, K., Stabach, J. & Fieberg, J. Detecting disease progression from animal movement using hidden Markov models. *Journal of Applied Ecology*. Featured on the cover of the Journal of Applied Ecology (2026).
- J2. Oliver, R. Y., Hébert, K., Hughey, L., Cooper, N. W., ..., **Kim, Dongmin**, ... & Pollock, L. J. A call to integrate animal movement into biodiversity indicators. *Nature Reviews Biodiversity* (2026).
- J3. Gould, E., Fraser, H., Parker, T., Nakagawa, S., ..., **Kim, Dongmin**, ... & Zitomer, R. A. Same data, different analysts: variation in effect sizes due to analytical decisions in ecology and evolutionary biology. *BMC Biology* (2025).
- J4. Selvarajah, K., Baek, S., **Kim, Dongmin**, Yamada, Y. & Koike, S. Variation in activity patterns of Japanese serow (*Capricornis crispus*) across different temporal scales. *European Journal of Wildlife Research* (2025).
- J5. Shaw, A., Fouda, L., Mezzini, S., **Kim, Dongmin**, Chatterjee, N., Wolfson, D., Abrahms, B., Attias, N., Beardsworth, C., Beltran, R., *et al.* Perceived and observed biases within scientific communities: a case study in movement ecology. *Proceedings of the Royal Society B: Biological Sciences* (2025).
- J6. Chatterjee, N., Wolfson, D., **Kim, Dongmin**, Velez, J., Freeman, S., Bacheler, N., Shertzer, K., Taylor, J. & Fieberg, J. Modeling individual variability in habitat selection and movement using integrated step-selection analyses. *Methods in Ecology and Evolution* **15** (2024).
- J7. **Kim, Dongmin**, Thompson, P., Wolfson, D., Merkle, J., Oliveira-Santos, L., Forester, J., Avagar, T., Lewis, M. & Fieberg, J. Identifying signals of memory from observations of animal movements. *Movement Ecology* (2024).
- J8. Shaw, A., Bisesi, A., Wojan, C., **Kim, Dongmin**, Torstenson, M., Narayanan, N., Lutz, P., Ales, R. & Shao, C. Six personas to adopt when framing theoretical research questions in biology. *Proceedings of the Royal Society B: Biological Sciences* **291** (2024).
- J9. Torstenson, M., Wolfson, D., Safran, S., Walton, D., Halberg, A., **Kim, Dongmin**, Tan, Y., Kramer, G. & Andersen, D. Conservation of North American migratory birds: insights from emerging technologies. *Avian Conservation and Ecology* (2024).
- J10. **Kim, Dongmin** & Shaw, A. Migration and tolerance shape host behavior and response to parasite infection. *Journal of Animal Ecology* **90** (2021).

Under review

- U1. **Kim, Dongmin**, Aikens, E., Pegan, T., Moorcroft, P. & Pinto-Ledezma, J. The emergence and persistence of partial migration. *Ecology Letters*.

In preparation

- I1. **Kim, Dongmin**, Safi, K., ..., Scacco, M. & Scharf, A. Shifts in scavenger movement reflect ecosystem-scale changes in resource availability. *In preparation*.

12. **Kim, Dongmin**, Teitelbaum, C., Cagnacci, F., Davidson, S., Valldeperes, M., Morelle, K., Rogers, W. & Schwantes, C. Move Disease Archive: Integrating Animal Movement and Infection Data to Advance Wildlife Eco-epidemiology. *In preparation*.

Teaching

- 2026 **Introduction to hidden Markov models (HMMs)**
Hidden Markov Models using R. Provides R code exercises that demonstrate how to fit hidden Markov models to different bio-logging data, such as GPS and accelerometers.
- 2022 **FW 5051: Analysis of Population**
Bayesian modeling using JAGS. Regulation, growth, and general dynamics of populations. Data needed to describe populations, population growth, population models, and regulatory mechanisms.
- 2019, 2021 **EEB 3407/5407: Ecology**
Principles of ecology from populations to ecosystems. Applications to human populations, disease, exotic organisms, habitat fragmentation, biodiversity, and global dynamics of the earth.
- 2021 **EEB 1961: Foundations of Biology Lab I**
Students develop a variety of laboratory skills and learn to think critically about experiments and research. Students practice following prescribed protocols, developing testable questions, designing experiments, and communicating their findings. Students learn about multiple research areas available within the course, and choose one area to specialize in for the second half of the semester.
- 2018 **STAT 3601: Data Analysis**
Nature and objectives of statistical data analysis, exploratory and confirmatory data analysis techniques. Some types of statistical procedures: formulation of models, examination of the adequacy of the models. Some special models; simple regression, correlation analysis, multiple regression analysis, analysis of variance, use of statistical computer packages.
- 2018 **STAT 1601: Intro to Statistics**
Scope, nature, tools, language, and interpretation of elementary statistics. Descriptive statistics; graphical and numerical representation of information; measures of location, dispersion, position, and dependence; exploratory data analysis. Elementary probability theory, discrete and continuous probability models. Inferential statistics, point and interval estimation, tests of statistical hypotheses. Inferences involving one and two populations, ANOVA, regression analysis, and chi-squared tests; use of statistical computer packages.

Mentoring

- 2023-2024 Henry Parks (undergraduate)

Presentations

Talks

- T1. Harvard University – Davies and Moorcroft Labs (*Invitation*). Apr. 2025.
- T2. Smithsonian National Zoological Park – Remote Sensing Group (*Invitation*). Aug. 2024.
- T3. Harvard University – Moorcroft Lab (*Invitation*). Sept. 2023.
- T4. University of Minnesota – EEB Seminar (*Invitation*). Sept. 2023.

Posters

- P1. The Wildlife Society (TWS) Annual Conference, KY, USA. Nov. 2023.
- P2. Gordon Research Conference (GRC), Lucca, Italy. May 2023.
- P3. Gordon Research Seminar (GRS), Lucca, Italy. May 2023.
- P4. North American Duck Symposium (NADS), Winnipeg, Canada. Aug. 2019.

Academic Service

[Movement Disease Archive \(MDA\)](#)

2025+ Data curator

Initiated MDA, a global collection of eco-epidemiological datasets that integrate animal movement and other animal-borne sensor data with diagnostic information (e.g., swabs, blood samples) from infected and susceptible wildlife.

Broadening Representation and Equity With Science (BREWS)

2024-2025 Committee Member

Brainstorm and help organize BREWS seminars and host events that broaden representation and equity within the EEB department.

Reviewer Experience

2024+ Manuscript Reviewer

- Ecological Monographs
- Ecology Letters
- Journal of Animal Ecology
- Ethology
- Nature Reviews Biodiversity
- Movement Ecology

Bell Museum Summer Camp

2024 Mentor

Taught kids learn about animal migration, reduced fear of math, introduction to using conceptual models to study the real world

Field Guides

2022-2024 Undergraduate Mentor

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

Non-academic Career Seminar

2021-2023 Lead organizer

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