

Hyun Seok Yoon

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Education

University of Tennessee, Knoxville | Knoxville, TN

Ph.D. | 05/2024

Major: Ecology and Evolutionary Biology

Cornell University | Ithaca, NY

Bachelor of Science | 05/2017

Magna cum laude. Major: Biology; Minor: Natural Resources. (GPA: 3.82; Dean's list)

Publications

Academic peer-reviewed journal publication:

- (under review) Yoon, H. S., Armsworth, P. R. (2024). The Role of Wealth Inequality in Community Management of a Common-pool Resources through Voluntary Sanctioning. *People and Nature*.
- Yoon, H. S., Vijay, V., & Armsworth, P. R. (2022). Accounting for spatial heterogeneity in the added conservation value of land protection when prioritizing protected areas. *Conservation Biology*, 36(5).
- Yoon, H. S., & Armsworth, P. R. (2022). Timing land protection to exploit favorable market conditions. *Biological Conservation*, 270.
- Gibson, N. L., et al. (Yoon, H.S. included) (2021). Toward an ecology of disasters: a primer for the pursuit of ecological research on disasters. *Ecology and Society*, 26(4).
- Winkler, D. W., et al. (Yoon, H. S. included) (2020). Full lifetime perspectives on the costs and benefits of lay - date variation in tree swallows. *Ecology*, 101(9).
- Getz, W. M., et al. (Yoon, H. S. included) (2018). Modeling epidemics: A primer and Numerus Model Builder implementation. *Epidemics*, 25, 9–19.

Other Publications:

- Yoon, H. (2017). Effect of Temperature on Nematocera Flying Population Dynamics. Cornell Biology Honors Booklet.
- Carlson, C., et al. (Yoon, H. included) (2017). The Parasite Extinction Assessment & Red List: an open-source, online biodiversity database for neglected symbionts. *bioRxiv*: 192351.
- Yoon, H. (2011). Boy Asks for the Path on a Tideland - Essay on the Perspective of a Youth on Saemangeum Tideland Conservation Movement Against the Land Reclamation Project . Ddein-dol.*Korean Publication

Grants and Fellowship

- Graduate Student Senate Travel Award (2020 August); \$750
- Graduate Student Senate Travel Award (2021 April); \$960
- Ecology and Evolutionary Biology Departmental Grant (2021 May); \$2447
- Graduate Research Assistantship from Oak Ridge National Lab (2022 January); Tuition and Stipend for 2022 Spring.
- U.S. Department of the Interior Southeast Climate Adaptation Science Center Graduate Student Research Award (2022 January); \$1500
- Graduate Advancement & Training Education (2022 May); Tuition, health insurance, and stipend (\$30,000) for 2022 Fall and 2023 Spring.
- Graduate Advancement & Training Education, Renewed (2023 Feb); Tuition, health insurance, and stipend (\$30,000) for 2023 Fall and 2024 Spring.

Awards

- Minister Award from Korea Ministry of Oceans and Fisheries (March 2009)
- People who Brightened the World from Korea Green Foundation (Dec 2011)
- Bachelor of Science with Distinction in Research (May 2017)
- Tom Hallam award for "Outstanding Graduate Student with interest in Math Ecology or Environmental Ecology" (May 2022)

Presentations

Conference:

(Poster) Yoon, H., Vijay, V., Armsworth, P. Timing land protection to exploit favorable market conditions. North American Congress for Conservation Biology; July 2020; Remote.

(Presentation) Yoon, H., Vijay, V., Armsworth, P. Accounting for spatial heterogeneity in the added conservation value of land protection when prioritizing protected areas. North American Congress for Conservation Biology; July 2022; Reno, NV.

Workshop:

Yoon, H. Using Maxent for Ecological Niche Modeling. Aug 2023; Kangwon National University: The workshop discussed general methods and theories on Ecological Niche Modeling and the Maxent algorithm followed by using Maxent to predict species distributions on R.

Skills

- Species Distribution Modeling
- Mathematical process-based modeling
- Statistical and machine learning modeling
- Spatial data analysis
- Full stack web development
- Fluent in Korean and English
- Fluent in R, Python, MATLAB, C, Unix shell, QGIS, ArcGIS, JavaScript, HTML/CSS, OpenMP, and TensorFlow

Certificates

- Bachelor of Science with Distinction in Research (May 2017)
- Udacity Full Stack Web Development Nanodegree (Oct 2017)
- Udacity Full Stack Deep Learning Nanodegree (Feb 2018)
- National Outdoor Leadership School Diploma from Wilderness Semester in Patagonia (Dec 2014)
- PADI Advanced Diving (Aug 2015)
- AIARE Avalanche Training Level 1 (Jan 2017)

Work Experience

University of Tennessee, Knoxville | Knoxville, TN

Graduate Teaching Assistant (GTA) | 08/2019 - 12/2021

Served as a graduate teaching assistant for classes, such as Introductory Biology, Conservation Biology, and Genetics.

Oak Ridge National Lab Graduate Student Opportunity (GSO) Program | Oak Ridge, TN

Intern | 07/2021 - 08/2021

Started researching on the effect of power plants and climate change in the distribution shift of freshwater species. Gathered species occurrence data and environmental data to run species distribution modeling that would predict the distribution of freshwater fish and mussel. Also communicated with collaborators at CUNY to obtain and process the environmental data.

Yuseob Lab | Ewha Woman's University | Seoul

Research Assistant | 11/2017 - 05/2019

Worked in a theoretical population genetics lab studying the evolution of sexual reproduction on RNA viruses.

Meritz Securities Co., Ltd | Seoul

Intern | 02/2018 - 02/2018

Went to the winter internship program at Meritz financial group and learned about basics of accounting, trading, financial history, and leadership skills.

Greenfly Marketing | Seoul

Assistant | 10/2017 - 11/2017

Worked as an assistant to an online affiliate marketing freelancer. Learned search engine optimization techniques and researching websites with link index database.

Getz Lab | University of California, Berkeley | Berkeley

Research Assistant | 06/2017 - 09/2017

Developed a web application that features the Parasite Extinction Application and Red List (PEARL) research. Also made online video tutorials for Numerus Model Builder, a model building and analyzing software tool for prototyping, classroom teaching, and optimization.

Winkler Lab | Cornell University | Ithaca, NY**Undergraduate Research Assistant | 05/2013 - 07/2016**

Captured and recorded various morphological features and collected blood samples of Tree Swallows (*Tachycineta bicolor*) at an experimental field station under the advisory of professor David Winkler. I was part of the longitudinal study on the life history of Tree Swallows.