

# YUCHEOL SHIN

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## EDUCATION

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### Ongoing Ph.D. Comparative Biology

Advisor: Dr. Frank T. Burbrink

Richard Gilder Graduate School, American Museum of Natural History (AMNH), New York, NY, USA

### 2016 – 2024 B.S. Biological Sciences

Advisor: Dr. Daesik Park

Kangwon National University, Chuncheon, South Korea

*Thesis:* Pleistocene range dynamics of the two distantly related lungless salamanders endemic to the Korean Peninsula

### 2018 Study Abroad, Biology

Advisor: Dr. Jenny Duggan

California State University, Monterey Bay, Seaside, CA, USA

*Project:* Comparing the efficiency of different survey methods for detecting herpetofauna at the UC Fort Ord Natural Reserve

## SELECTED PUBLICATIONS

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(All publications are available from: [https://www.researchgate.net/profile/Yucheol\\_Shin](https://www.researchgate.net/profile/Yucheol_Shin))

14. JY Jeon, **Y Shin**, AJ Mularo, X Feng, JA DeWoody. 2024. The integration of whole-genome resequencing and ecological niche modeling to conserve profiles of local adaptation. *Diversity and Distributions* 30: e13847.
13. I-K Park, **Y Shin**, H-J Baek, J Kim, D-I Kim, M Seok, Y Oh, D Park. 2024. Establishment potential across South Korea for two gecko species, *Gekko japonicus* and *G. swinhonis*, adapted to different climates. *NeoBiota* 93: 39-62.
12. A Borzée, **Y Shin**, Y Bae, D Jeong, H Amin, M-S Min, SN Othman. 2024. From Korean to northeast Asian endemism: on the occurrence of *Pelophylax chosonicus* along the Eastern Coastal Yellow Sea. *Frontiers of Biogeography* 16: e62301.
11. **Y Shin**\*, K Heo\*, SN Othman, Y Jang, M-S Min, A Borzée. 2024. Tracing the geographic origin of a nonnative Red-banded Snake (Colubridae: *Lycodon rufozonatus*) found on Jeju Island, Republic of Korea. *Herpetologica* 80: 30-39.
10. J Li, **Y Shin**, M Hong, Y Jang, A Borzée. 2023. Is ultra-violet fluorescence a trait related to breeding in the Mongolian racerunner (*Eremias argus*; Lacertidae, Reptilia)? *Journal of Biological Research – Thessaloniki* 30: 3.
9. **Y Shin**, K Kim, J Groffen, D Woo, E Song, A Borzée. 2022. Citizen science and roadkill trends in the Korean herpetofauna: the importance of spatially biased and unstandardized data. *Frontiers in Ecology and Evolution* 10: 944318.
8. SN Othman, **Y Shin**, H-T Kim, M-F Chuang, Y Bae, J Hoti, Y Zhang, Y Jang, A Borzée. 2022. Evaluating the efficiency of popular species identification methods, and comparative workflow using morphometry and barcoding bioinformatics for taxonomy and origin of traded cryptic brown frogs. *Global Ecology and Conservation* 38: e02253.
7. A Borzée, **Y Shin**, N Poyarkov, JY Jeon, HJ Baek, CH Lee, J An, YJ Hong, M-S Min. 2022. Dwindling in the mountains: description of a critically endangered and microendemic *Onychodactylus* species (Amphibia, Hynobiidae) from the Korean Peninsula. *Zoological Research* 43: 750–755.
6. **Y Shin**, M-S Min, A Borzée. 2021. Driven to the edge: Species distribution modeling of a Clawed Salamander (Hynobiidae: *Onychodactylus koreanus*) predicts range shifts and drastic decrease of suitable habitats in response to climate change. *Ecology and Evolution* 11: 14669-14688.

5. **Y Shin**, Y Jang, A Borzée. 2021. Snakebite envenomings in the Republic of Korea from the 1970s to the 2020s: a review. *Toxicon* 196: 8-18.
4. **Y Shin\***, KR Messenger\*, KS Koo, SC Lee, M Hou, A Borzée. 2021. How threatened is *Scincella huanrenensis*? An update on threats and trends. *Conservation* 1: 58-72.
3. D Macias, **Y Shin**, A Borzée. 2021. An update on the conservation status and ecology of Korean terrestrial squamates. *Journal for Nature Conservation* 60: 125971.
2. **Y Shin**, Y Jang, SJR Allain, A Borzée. 2020. Catalogue of herpetological specimens of the Ewha Womans University Natural History Museum (EWNHM), Republic of Korea. *ZooKeys* 965: 103-139.
1. A Borzée, KR Messenger, S Chae, D Andersen, J Groffen, YI Kim, J An, SN Othman, K Ri, TY Nam, Y Bae, J-L Ren, J-T Li, M-F Chuang, Y Yi, **Y Shin**, T Kwon, Y Jang, M-S, Min. 2020. Yellow sea mediated segregation between North East Asian *Dryophytes* species. *PLoS ONE* 15: e0234299.

## PRESENTATIONS

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\* denotes the presenter. All delivered in English unless stated otherwise.

- 2024 **Y Shin\***, A Borzée. Establishment potential of non-native brown frogs (*Rana*) in the Republic of Korea. Oral presentation. 15th Student Conference on Conservation Science-New York (SCCS-NY). American Museum of Natural History, New York, USA.
- 2024 **Y Shin\***, A Borzée, D Park. Climatic data sources influence the prediction of past habitat suitability and niche comparisons for two distantly related lungless salamanders. Oral presentation. 10th World Congress of Herpetology. Kuching, Sarawak, Borneo.
- 2024 **Y Shin\***, SN Othman, DB Kohler, I Maslova, K Messenger, A Borzée. Contributions to the knowledge of pitvipers (genus *Gloydus*) in the Democratic People's Republic of Korea. Poster. 10th World Congress of Herpetology. Kuching, Sarawak, Borneo.
- 2024 H Amin\*, SN Othman, **Y Shin**, M-S Min, KR Messenger, A Movahedi, D Ghosh, DB Kohler, VK Prasad, X Zhang, Y Yi, Y Jang, H Ruan, A Borzée. An integrative analysis for the reconsideration of species boundaries in East Asian *Pelophylax* species. Oral presentation. 10th World Congress of Herpetology. Kuching, Sarawak, Borneo.
- 2024 VK Prasad\*, A Ramachandran, X Zhang, **Y Shin**, R Rastogi, M Rais, B Shrestha, D Andersen, D Kohler, G Shahabuddin, KP Dinesh, A Borzée. Climatic modeling predicts high-elevation endemic amphibians habitat replacement by expanding generalist widespread amphibians in the Himalayas. Oral presentation. 10th World Congress of Herpetology. Kuching, Sarawak, Borneo.
- 2023 **Y Shin\***. Where did you come from? Using molecular phylogenetics to trace the geographic origin of a non-native Red-banded Snake (*Lycodon rufozonatus*) found on Jeju Island, Republic of Korea. Oral presentation [in Korean]. KNU College of Natural Sciences Undergraduate Research Competition.
- 2023 **Y Shin\***. Pleistocene range dynamics of the two distantly related lungless salamanders endemic to the Korean Peninsula. Oral presentation [in Korean]. KNU Department of Biological Sciences Senior Research Thesis Presentation.
- 2023 **Y Shin\***, D Park. Pleistocene range dynamics of the two distantly related lungless salamanders endemic to the Korean Peninsula. Poster. The 10th EAFES International Congress. Jeju, Republic of Korea.
- 2022 **Y Shin\***, K Kim, J Groffen, A Borzée. Citizen science and roadkill trends in the Korean herpetofauna. Poster. 13th Student Conference on Conservation Science-New York (SCCS-NY). American Museum of Natural History, New York, USA.

- 2021** Y Shin\*, M-S Min, A Borzée. Distribution modeling of *Onychodactylus koreanus* predicts drastic decrease of suitable habitats in response to climate change. Poster. Joint Meeting of Ichthyologists and Herpetologists. Phoenix, Arizona, USA (**SSAR George B. Rabb Undergraduate Poster Award**).
- 2021** JY Jeon\*, Y Shin, M-S Min, DK Lee. The effects of climate change on the distribution of Gori Salamander (*Hynobius yangi*). Oral presentation [in Korean]. Meetings of the Korean Society of Climate Change Research. Suwon, Republic of Korea (**Best Poster Presentation Award**).
- 2020** Y Shin\*, Y Jang, A Borzée. A metanalysis of snakebites in South Korea: bridging the knowledge gap in snakebite envenomation. Poster. 9th World Congress of Herpetology. Dunedin, New Zealand.
- 2018** Y Shin\*, JM Duggan. Comparing survey methods and habitat associations for herpetofauna at the UC Fort Ord Natural Reserve. Poster. The Wildlife Society Annual Wildlife Symposium. San Luis Obispo, California, USA.
- 2018** Y Shin\*, JM Duggan. Comparing efficiency of different survey methods for detecting snakes at the UC Fort Ord Natural Reserve: preliminary observations. Poster. 5th Annual Summer Research Symposium, California State University, Monterey Bay. Seaside, California, USA.

## FELLOWSHIPS, GRANTS, AND AWARDS

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- 2023** Excellent Presentation Award (200,000 KRW). KNU College of Natural Sciences Undergraduate Research Competition
- 2022** SSAR Roger Conant Grant-in-Herpetology, Undergraduate Research (500 USD). Society for the Study of Reptiles and Amphibians
- 2022** KNU Foundation Scholarship (1,140,500 KRW). Kangwon National University
- 2022** Scholarship for Outstanding Academic Performance (862,000 KRW). Kangwon National University
- 2021** George B. Rabb Undergraduate Poster Award (250 USD). Society for the Study of Amphibians and Reptiles
- 2021** Best Poster Presentation Award. The Korean Society of Climate Change Research
- 2018** Undergraduate Summer Research Equipment Grant (390 USD). Undergraduate Research Opportunities Center, California State University, Monterey Bay
- 2018** KNU Learning Core Program Student Mentor Award (650,000 KRW). Kangwon National University
- 2018** BEST KNU Scholarship - Highest academic honors (2,101,000 KRW). Kangwon National University
- 2017** Scholarship for Outstanding Academic Performance (1,725,000 KRW). Kangwon National University
- 2017** BEST KNU Scholarship - Highest academic honors (2,101,000 KRW). Kangwon National University
- 2016** BEST KNU Scholarship - Highest academic honors (2,101,000 KRW). Kangwon National University
- 2016** Freshmen English Proficiency Award - 1st place (100,000 KRW). Kangwon National University