

Bo Eun Nam

Postdoctoral Researcher, Seoul National University

Curriculum Vitae

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Contact Information

School of Biological Sciences, Seoul National University
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Education

2013.09. - 2021.02. Ph.D. in Biological Science, Seoul National University
Department of Science Education, Seoul National University
2009.03. - 2013.08. B.S. in Biology Education (minor in Computer Science Engineering)
College of Education, Seoul National University

Professional Experience

2023.03. - ongoing Postdoctoral Researcher, Seoul National University
Advisor: Prof. Youngsung Joo (Plant-insect interactions and ecology laboratory)
2021.09. - 2023.02. Postdoctoral Researcher, Chungbuk National University
Advisor: Prof. Youngsung Joo
2019.09. - 2021.08. Assistant, Dept. of Biology Education, Seoul National University
Roles: managing students, scholarship, infrastructure, and laboratory of the department
2013.09. - 2021.02. Graduate Student, combined course of master-doctoral degree
Dissertation: “Ecological and molecular biological responses of *Aristolochia contorta* to herbivory stress”
Dissertation advisor: Prof. Jae Geun Kim (Plant and wetland ecology laboratory)

Research Interests

- *Plant-herbivore Interaction and Evolutionary ecology*: Assessment of co-evolutionary arms-race between plant and herbivore under changing environment and tissue-specific defense
- *Molecular ecology*: Transcriptomic change of non-model species under the biotic and abiotic factors
- *Climate change ecology*: Assessment of plant growth and other physiological response under the simulated climate change experiment
- *Wetland ecology*: Effect of the environmental factor on the species diversity and genetic diversity of wetland plant species
- *Population genetics*: Relationship between the genetic diversity and the fitness of plant species in the field

Publications

- [under review] Seo D, Cho H, Kim M, **Nam BE**, Ahn S, Kang M, Kwon C-T, Joo Y, Oh E. (under review in *Plant Communications*) SERKs serve as co-receptors for SYR1 to trigger systemin-mediated defense responses.
- [under review] Park SH, **Nam BE**, Kim JG. (under review in *Science of the Total Environment*) Compensatory growth under leaf damage of herbal vine *Aristolochia contorta* depends on the light availability.
- [29] **Nam BE**, Kim JM, Lee S, Son YK, Lee BH, Joo Y. 2024. Estimation on individual-level carbon sequestration capacity of understory perennial herbs. *Journal of Plant Biology* (in press)
- [28] Park Y-J, **Nam BE**, Park C-M. 2023. Environmentally adaptive reshaping of plant photomorphogenesis by Karrikin and strigolactone signaling. *Journal of Integrative Plant Biology* (early view: <https://doi.org/10.1111/jipb.13602>)
- [27] Jeong SJ, **Nam BE**, Jeong HJ, Jang JY, Joo Y, Kim JG. 2023. Age-dependent resistance of a perennial herb, *Aristolochia contorta* against specialist and generalist leaf-chewing herbivores. *Frontiers in Plant Science* 14:1145363.
- [26] Park HJ, **Nam BE**, Lee G, Kim S-G, Joo Y, Kim JG. 2022. Ontogeny-dependent effects of elevated CO₂ and watering frequency on interaction between *Aristolochia contorta* and its herbivores. *Science of the Total Environment* 838: 156065.
- [25] Choi H, Kim H-T, **Nam BE**, Bae YJ, Kim JG. 2022. Effect of initial planting on vegetation establishment in different depth zones of constructed farm ponds. *Restoration Ecology* 30:1.
- [24] Hong MG, **Nam BE**, Kim JG. 2021. Effects of different day length and wind conditions to the seedling growth performance of *Phragmites australis*. *Journal of Ecology and*

Environment 45:9.

- [23] Hong MG, **Nam BE**, Kim JG. 2021. *Phragmites australis* makes valuable floating mat biotopes under oligotrophic conditions. *Landscape and Ecological Engineering* 17: 109-118.
- [22] Park HJ, **Nam BE**, Moon SY, Kim S-G, Joo Y, Kim JG. 2021. Reduced plant growth and increased tyrosine-derived secondary metabolites under climate change and negative consequences on its specialist herbivore. *Science of Total Environment* 759(10): 143507.
- [21] Hong MG, **Nam BE**, Kim JG. 2021. Effects of microtopography and nutrients on biomass production and plant species diversity in experimental wetland communities. *Ecological Engineering* 159(15): 106125.
- [20] **Nam BE**, Kim JG. 2020. Flowering season of vernal herbs is shortened at elevated temperatures with reduced precipitation in early spring. *Scientific Reports* 10: 17494.
- [19] **Nam BE**, Park, Y-J, Gil G-E, Kim J-H, Kim JG, Park C-M. 2020. Auxin mediates the touch-induced mechanical stimulation of adventitious root formation under windy conditions in *Brachypodium distachyon*. *BMC Plant Biology* 20: 335.
- [18] Park HJ, Park H, Son GY, **Nam BE**, Kim JG. 2020. Biotic and abiotic effects on the growth and reproduction of *Aristolochia contorta*. *Journal of Wetlands Research* 22(2): 113-120 (in Korean with English Abstract)
- [17] **Nam BE**, Park HJ, Son GY, Kim JG. 2020. An analysis of the genetic diversity of a riparian marginal species, *Aristolochia contorta*. *Journal of Wetlands Research* 22(2): 100-105 (in Korean with English Abstract)
- [16] Byeon C-W, **Nam BE**. 2020. An assessment of the ecological functions of a sustainable structured wetland biotope (SSB). *Ecological Engineering* 145: 105723.
- [15] Hong MG, Park H, **Nam BE**, Kim JG. 2019. Vegetational characteristics of abandoned paddy terraces in comparison with natural and constructed wetlands. *Journal of Wetlands Research* 21(3): 199-206.
- [14] Park SH, **Nam BE**, Kim JG. 2019. Shade and physical support are necessary for conserving the *Aristolochia contorta* population. *Ecological Engineering* 135: 108-115.
- [13] Hong MG, **Nam BE**, Kim JG. 2019. Changes in vegetation and flora of abandoned paddy terraces in responses to drawdown. *Journal of Ecology and Environment* 43: 22.
- [12] Hong MG, **Nam BE**, Kim JG. 2019. Differences in functional traits of leaf blade and culm of common reed in four habitat types. *Journal of Ecology and Environment* 43: 12.
- [11] Hong MG, **Nam BE**, Kim JG. 2018. Vegetation and water characteristics of floating mat in a coastal lagoon as the habitat for endangered plant species. *Journal of Ecology and Environment* 42: 28.
- [10] **Nam BE**, Kim JG, Hong MG. 2018. Vegetation and water characteristics of an eco-

technological water purifying biotope in Yongin. *Journal of Wetlands Research* 20(4): 432-445.

- [9] **Nam BE**, Hong MG, Park HJ, Kim JG. 2018. Soil factors determining the distribution of *Phragmites australis* and *Phacelurus latifolius* in upper tidal zone. *Journal of Ecology and Environment* 42: 25.
- [8] Park HJ, **Nam BE**, Hong MG, Kim JG. 2018. Slope and soil nutrients can explain the distribution of *Phragmites australis* and *Phragmites japonica* in riparian wetlands. *River Research and Applications* 34(9): 1229-1233.
- [7] Hong MG, Park HJ, **Nam BE**, Kim JG. 2018. Control of runner reed (*Phragmites japonicus*) in lentic wetlands. *Journal of Ecology and Environment* 42: 18.
- [6] Hong MG, **Nam BE**, Kim JG. 2017. Effects of soil fertility on early development of wetland vegetation from soil seed bank: focusing on biomass production and plant species diversity. *Journal of Plant Biology* 60(3): 241-248.
- [5] **Nam BE**, Nam JM, Kim JG. 2016. Effects of habitat differences on the genetic diversity of *Persicaria thunbergii*. *Journal of Ecology and Environment* 40:11.
- [4] **Nam BE**, Park HJ, Kim JG. 2016. Problems and improvement of the inquiry 'population growth curve' in high school textbooks of life science I and life science experiment. *School Science Journal* 10(3):259-267 (in Korean with English abstract)
- [3] Kim G-W, **Nam B-E**, Jeon Y-J. 2016. A study on the concept of complexity: based on a review of the ecology science literature. *Journal of Korean Society for the Study of Environmental Philosophy* 21: 5-34. (in Korean with English abstract)
- [2] **Nam BE**, Kim JG, Shin CJ, 2013. Assessment of genetic diversity and distance of three *Cicuta virosa* populations in South Korea. *Journal of Ecology and Environment* 36(3): 205-210.
- [1] Lee J-H, Park J-H, Yoo J-Y, Han S-H, **Nam B-E**, Kim JG. 2010. Effect of earthworms on Collembola abundance in temperate forest soil ecosystem. *Journal of Korean Environmental Restoration Technology* 13(6): 97-106 (in Korean with English abstract)

Funding

- **2021.09. - 2024.08.** Basic Science Research Program (Post-Doctoral Domestic and Overseas Training), from National Research Foundation of Korea (NRF) funded by the Ministry of Education
 - Research Subject: "Exploration on the plant tissue-specific defense strategy against insect seed predators in Brassicaceae"
 - 60,000,000 KRW (approx. 50,000 USD) / year

Research Experience

- **Undergraduate Researcher**, Plant and Wetland Ecology Laboratory, Seoul National University, 2011 – 2013 (adviser: Jae Geun Kim)
- **Graduate Student (combined course of master and doctoral degree)**, Plant and Wetland Ecology Laboratory, Seoul National University, 2013 – 2021 (adviser: Jae Geun Kim)
- **Researcher**, Molecular Signaling Laboratory, Seoul National University, 2017 - 2018 (adviser: Prof. Chung-Mo Park)
- **Postdoctoral Researcher**, Plant-Insect Interactions and Ecology Laboratory, Chungbuk National University, 2021 - 2023 (adviser: Prof. Youngsung Joo)
- **Postdoctoral Researcher**, Plant-Insect Interactions and Ecology Laboratory, Research Institute for Basic Sciences, Seoul National University, 2023 - ongoing (adviser: Prof. Youngsung Joo)