

Ryosuke Nakamura

Assistant Professor

Asian and African Area Studies at Graduate School
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EDUCATION

- 2020 **Ph.D.** Forest Sciences, Agriculture, Kyoto University
Advisor: Kaoru Kitajima
Thesis: Diversity of silicon uptake by tropical forest trees and its implication for biogenic silicon flux through leaf-litter
- 2017 **MSc.** Forest Sciences, Agriculture, Kyoto University
Advisor: Kaoru Kitajima
Thesis: How is silicon cycling by vegetation related to elevation and bedrock type on Mount Kinabalu, Malaysia?
- 2015 **BSc.** Agriculture, Okayama University
Advisor: Ken Yoshikawa
Thesis: Evapotranspiration from an *Melia volkensii* plantation in a semi-arid area in Kenya (in Japanese)

RESEARCH INTERESTS

- Tropical forest ecology
- Soil sciences
- Functional ecology of plant-silicon interactions
- Nutrient cycling
- Litter decomposition
- Serpentine ecology

PUBLICATION

1. Kajino, H.*[†], Fukui, M.*, Fujimoto, Y., Fujii, R., Yokobe, T., Tatsumi, C., Sugai, T., Okada, N., **Nakamura, R.*[†]** (2023) Variations in soil nutrient availabilities and foliar nutrient concentrations of trees between temperate monsoon karst and non-karst forest ecosystems on Mount Ibuki in Japan. *Ecological Research* (in press) [*co-authorship, [†]corresponding author]
2. **Nakamura, R.**, Tatsumi, C., Kajino, H., Fujimoto, Y., Fujii, R., Yokobe, T., Mori, T., Okada, N. (2023) Plant material decomposition and bacterial and fungal communities in serpentine and karst soils of Japanese cool-temperate forests. *Soil Science and Plant Nutrition* 69: 163-171
3. **Nakamura, R.**, Watanabe, T., Onoda, Y. (2023) Contrasting silicon dynamics between aboveground vegetation and soil along a secondary successional gradient in a cool-temperate deciduous forest. *Ecosystems* 1-16
4. Mori, T, **Nakamura, R.**, Aoyagi, R. (2022) Risks to misinterpret the Tea Bag Index: a field observation and a random simulation. *Ecological Research* 37: 381-389.

5. Nakamura, M., ..., **Nakamura, R.** (13th author), ..., Tokuchi, N. (2022) Evaluating the soil microbe community-level physiological profile using EcoPlate and soil properties at 33 forest sites across Japan. *Ecological Research* 37: 432-445.
6. **Nakamura, R.**, Amada, G., Kajino, H., Morisato, K., Kanamori, K., Hasegawa, M. (2022) Silicious trichomes as a trait that may slow down leaf decomposition by meso- and macrofauna. *Plant and Soil* 471: 289-299.
7. **Nakamura, R.**, Sakabe, A., Takahashi, K. (2022) Methane emission is independent from silicon availability in warm-temperate *Chamaecyparis obtusa* forest soils. *Geoderma* 406: 115533.
8. **Nakamura, R.**, Imai, N., Aoyagi, R., Kitayama, K., Kitajima, K. (2021) Litterfall silicon flux in relation to vegetation differences in old-growth and logged lowland forests in Borneo. *Ecological Research* 36: 892-900.
9. **Nakamura, R.**, Cornelis, J.T., de Tombeur, F., Yoshinaga, A., Nakagawa, M., Kitajima, K. (2020) Diversity of silicon release rates among tropical tree species during leaf-litter decomposition. *Geoderma* 368: 11428.
10. **Nakamura, R.**, Nakagawa, M., Kitajima, K. (2020) Spatial variations of litterfall silicon flux and plant-available silicon in highly weathered soil in a lowland mixed dipterocarp forest of Lambir Hills National Park in Borneo. *Tropics* 29: 1-8.
11. **Nakamura, R.**, Cornelis, J.T., de Tombeur, F., Nakagawa, M., Kitajima, K. (2020) Comparative analysis of borate fusion versus sodium carbonate extraction for quantification of silicon contents in plants. *Journal of Plant Research* 133: 271-277.
12. **Nakamura, R.**, Ishizawa, H., Wagai, R., Suzuki, S., Kitayama, K., Kitajima, K. (2019) Silicon cycled by tropical trees: effects of species, elevation and parent material on Mount Kinabalu, Malaysia. *Plant and Soil* 443: 155-166.
13. Sato, K.* , **Nakamura, R.*†**, Kajino, H., Kawai, K., Nakai, W., Saito, H., Okada, N. (2019) Leaf decomposition in a cool temperate broad-leaved forest established on serpentine soil on Mount Oe, Japan. *Ecological Research* 34: 678-686. [*co-authorship, †corresponding author]
14. **Nakamura, R.**, Kajino, H., Kawai, K., Nakai, W., Ohnuki, M., Okada, N. (2019) Diverse recalcitrant leaf-litter from trees in a serpentine ecosystem slows down decomposition. *Plant and Soil* 442: 247-255.
15. Kawai, K., Saito, H., Kajino, H., Nakai, W., **Nakamura, R.**, Sato, K., Okada, N. (2019) Leaf water relations and structural traits of four temperate woody species occurring in serpentine and non-serpentine soil. *Ecological Research* 34: 485-496.
16. Mori, T., Ishizuka, S., Konda, R., Genroku, T., **Nakamura, R.**, , Ohta, S. (2018) Potassium and magnesium in leaf and top soil affected by triple-super-phosphate fertilization in an *Acacia mangium* plantation. *Journal of Tropical Forest Science* 30: 1-8.
17. **Nakamura, R.**, Oyabu, T., Ndufa, J.K., Kigwa, B.K., Yoshikawa, K. (2017) Midday transpiration rates and daily pan evaporation from a *Melia volkensii* plantation during the rainy season in a semi-arid area in Kenya. *Tropics* 26: 17-25.

FELLOWSHIPS AND GRANTS

Grant-in-Aid for Research Activity (Wakate) from Japan Society for the Promotion of Science (2024-2027)

The Sasakawa Scientific Research Grant (2023-2024)

Grant-in-Aid for Research Activity (A) from Japan Society for the Promotion of Science (Co-Investigator) (2022-2025)

Research Grant for Young Scholars from Nippon Life Insurance Foundation (2021-2022)

Grant-in-Aid for Research Activity Start-up from Japan Society for the Promotion of Science (2020-2021)

Research Fellowship for Excellent Young Scientists in Doctoral Courses from Japan Society for the Promotion of Science (2017-2020)

Inter-Graduate School Program for Sustainable Development and Survivable Societies (GSS) fellowship (2015-2017)

AWARDS

The 11th Incentive (Suzuki) Award, The Ecological Society of Japan 2023

The 25th Kira Incentive Award, The Japan Society of Tropical Ecology 2021

Best Poster Award at the 65th Annual Meeting of The Ecological Society of Japan 2018

Best Presentation Award at the 27th Annual Meeting of The Japan Society of Tropical Ecology 2017

The 3rd English Presentation Award (Excellent Award) at the 63rd Annual Meeting of The Ecological Society of Japan 2016

Student Poster Award at the 126th Annual Japanese Forest Society Meeting 2015

REVIEWED (*new MS#*)

Ecological Research (1), Ecology and Evolution (1), Frontiers in Environmental Science (1), Functional Ecology (2), Journal of Ecology (1), Journal of Forest Research (1), Journal of Soils and Sediments (1), Plant and Soil (8), Science of the Total Environment (1), Trends in Ecology & Evolution (1), Tropical Ecology (1), Tropics (1)