DAIKI TOMOJIRI

Research Institute for Humanity and Nature, Kyoto, Japan
(+81) 75-707-2377, tomojiri.daiki@gmail.com

CURRENT POSITION

Research Institute for Humanity and Nature Kyoto, Japan
Postdoctoral Researcher May 2022 – Present

- Comparative analysis of fish communities and the alpha and beta diversity generated in artificial and natural environments in Lake Biwa using environmental DNA metabarcoding
- Assessing the effects of terrestrial-originated environmental stressors on fish community and taxonomic/functional diversity in coral reefs on Yoron Island using environmental DNA metabarcoding
- A Survey of local residents' attitudes toward stranded beach debris by qualitative research methodology in Miyako Island, Japan
- Development of a psychological scale measuring the attitude of members participating in a transdisciplinary project addressing global environmental issues.

Center for Southeast Asian Area Studies, Kyoto University Kyoto, Japan
Affiliated Researcher November 2019 – Present

- Comparative analysis of fish communities and the alpha and beta diversity generated in artificial and natural environments in Lake Biwa using environmental DNA metabarcoding

RESEARCH EXPERIENCE

Center for the Promotion of Interdisciplinary Education and Research, Kyoto University Kyoto, Japan
Program-Specific Researcher April 2021 – April, 2022

- Development of a smartphone application that automatically detects marine debris on beaches using deep learning to facilitate data collection by citizen science
- Development of an AI model for automatic identification of non-native largemouth bass (*Micropterus salmoides*) in videos by combining deep learning and underwater drones
- Comprehensive assessment of the field of marine debris study by using natural language processing (topic modelling by using latent Dirichlet Allocation)
- Data analysis of seasonal variation in biomass of Japanese sea bass (*Lateolabrax japonicus*) in the Yura River using quantitative PCR of environmental DNA
- Analysis of spatial and temporal beta diversity of fish community in the Yura River by environmental DNA metabarcoding

Institute for Transdisciplinary Graduate Degree Programs, Osaka University Osaka, Japan
Specially Appointed Researcher July 2020 – March, 2021

- Analysis of graduate student performance data using multivariate time series analysis for evaluation of educational programs

Center for African Area Studies, Kyoto University Osaka, Japan
Researcher April 2020 – March, 2021

- Analysis of camera trap data collected in the Cameroon rainforest

Research Institute for Humanity and Nature Kyoto, Japan
Technical Assistant November 2019 – July, 2020

- Laboratory assistance for analysis of phosphate oxygen isotopes in freshwater samples collected in the Lake Biwa basin.

Center for Southeast Asian Area Studies, Kyoto University Kyoto, Japan
Affiliate Researcher, Division of Environmental Coexistence November 2019 – Present

- Fieldwork to study land use change, particularly from Mangrove forests into shrimp farming ponds, and fish species for sale in local markets in the Mekong River Delta, Vietnam

PhD Research, Graduate School of Asian and African Area Studies, Kyoto University Kyoto, Japan

- Analysis of food habits of three non-native cichlid fishes established in the lower Chao Phraya River basin (LCPR) in Thailand by using stomach contents analysis
- Evaluation of the ecological impact of non-native Mayan cichlid (*Mayaheros urophthalmus*) on native fish community in LCPR by using stomach contents analysis, carbon and nitrogen stable isotope analysis, and community analysis
- Investigation of the use of non-native fishes by local people living along the canals for their self-consumption in LCPR by using a semi-structured interview survey
- Assessment of the economic value that non-native and native freshwater fishes provide through a semi-structured interview survey in local markets in LCPR

RELEVANT RESEARCH SKILLS

- Data science skills including statistical modelling, text mining and natural language processing, and the development of a deep-learning model
- Moderate skills in the implementation of data analysis with R and Python
- Advanced Japanese, intermediate Thai, and beginner Vietnamese
- Analysis of feeding habits of fish by using stomach contents analysis
- Analysis of food webs by using carbon and nitrogen stable isotope analysis
- Identification skills of fish species around the Indochina peninsula (particularly in the Mekong and Chao Phraya River Basin)

AWARDED GRANTS AND SCHOLARSHIPS

- Director General's Discretionary Budget, Research Institute for Humanity and Nature (¥1,000,000) June 2024 – May 2025
- Research Grant, Kurita Water and Environment Foundation (¥1,000,000) October 2023 – September 2024
- Director General's Discretionary Budget, Research Institute for Humanity and Nature (¥1,400,000) June 2023 – May 2024
- Research Grant, Kurita Water and Environment Foundation (¥1,200,000) October 2022 – September 2023
- Tobitate Japan Exchange Program, Ministry of Education, Culture, Sports, Science and Technology (MEXT), October 2017 – April 2018
- Overseas Scholarship, Heiwa Nakajima Foundation (HNF), April 2015 – April 2016
- Super Global School Program, JASSO December 2014 – February 2015
- Explorer Program, Japan Student Services Organization (JASSO) August 2014 – October 2014

EDUCATION

Graduate School of Asian and African Area Studies, Kyoto University Kyoto, Japan
PhD, Area Studies April 2014 – March 2020

- Thesis: "Transformation of the ecosystem and fish resource use through the introduction of non-native cichlid fishes in the lowermost Chao Phraya River basin, Thailand"

Faculty of Agriculture, Kindai University Osaka, Japan
BS, Agricultural Science November 2010 – March 2014

- Thesis: "Comparison of the spawning success rate in two subspecies of largemouth bass in Lake Biwa, Japan"

ADDITIONAL RELEVANT EXPERIENCE

Kyoto University Kyoto, Japan
Research Assistant 2015 – 2018

- Supported GPS data processing using GIS software, fish collection and identification, plant identification and every tree measurement in Ashiu forest research station.

Teaching Assistant 2015 – 2017

- Assisted in preparation and execution of a weekly class lecture.

United Nations ESCAP Bangkok, Thailand

Intern December 2017 – February 2018

- Conducted research on ecological cities and urban sustainable development in the Asia Pacific region.
- Drafted regional report on the Sustainable Development Goals (SDGs).

MEMBERSHIP OF PROFESSIONAL SOCIETIES

- British Ecological Society 2024 – Present
- Japan Geoscience Union 2023 – Present
- The Ecological Society of Japan 2022 – Present
- Japanese Society for Science and Technology Studies 2022 – Present
- Association for Tropical Biology and Conservation 2020 – Present
- Association of Wildlife and Human Society, Japan 2018 – Present

REFERENCES

Prof Gen Yamakoshi, Kyoto University, (+81) 75-753-7394, yamakoshi@asafas.kyoto-u.ac.jp

Prof Osamu Kozan, Kyoto University, (+81) 75-753-9652, kozan@cseas.kyoto-u.ac.jp

Assoc Prof Yasuyuki Kosaka, Kyoto University, (+81) 75-753-9649, kosaka.yasuyuki.8c@kyoto-u.ac.jp

PUBLICATIONS

Tomojiri, D., Takaya, K., Otani, Y., & Shibata, A. (2024) Artificial structures that help prevent beach erosion create a sandy beach environment that facilitates burial of debris (under review).

Tomojiri, D., & Takaya, K. (2024) Aspects of public attention on popular nonindigenous species, as determined by a comprehensive assessment of Japanese social media (under review). Preprint: https://doi.org/10.21203/rs.3.rs-3790755/v1

Leong, C., Solomone, M., Shinjo, R., **Tomojiri, D.,** Uchiyama, C., Yasumoto, J., Razafindrabe, B. (2024) Reply to discussion of "An assessment of small island hydrological research activity conducted in the Oceania region". *Hydrological Science Journal*, 69 (11), 1557-1559. https://doi.org/10.1080/02626667.2024.2378106

Takaya, K., & **Tomojiri, D.** (2023) Proxy variables of the closeness between humans and wildlife associated with public interest in bird species in Japan. *European Journal of Wildlife Research*, 69, 120. https://doi.org/10.1007/s10344-023-01749-0

Leong, C., Solomone, M., Shinjo, R., **Tomojiri, D.,** Uchiyama, C., Yasumoto, J., Razafindrabe, B. (2023) An assessment of small island hydrological research activity conducted in the Oceania region. *Hydrological Science Journal*, 68 (14), 2105-2120. https://doi.org/10.1080/02626667.2023.2252406

Tomojiri, D., Takaya, K., and Ise, T. (2022) Temporal trends and spatial distribution of research topics in anthropogenic marine debris study: topic modelling using latent Dirichlet allocation. *Marine Pollution Bulletin*, 182, 113917. https://doi.org/10.1016/j.marpolbul.2022.113917

Daiki Tomojiri, Prachya Musikasinthorn and Akihisa Iwata (2021) Utilization and economic importance of native and non-native freshwater fishes in the lowermost Chao Phraya River Basin, Thailand. *Wildlife and Human Society* 9: 35-56. (written in Japanese) https://doi.org/10.20798/awhswhs.9.0_35

Akira Sai, Takuro Furusawa, Mohd Yusof Othman, **Daiki Tomojiri,** Wan Fatihah Wan Zaini, Charlene Sze Yunn Tan, Nur Izzati Binti Mohamad Norzilan (2020) Sociocultural factors affecting drive for muscularity among male college students in Malaysia. *Heliyon*: e044141. https://doi.org/10.1016/j.heliyon.2020.e04414

Daiki Tomojiri, Prachya Musikasinthorn and Akihisa Iwata (2019) Food habits of three non-native cichlid fishes in the lowermost Chao Phraya River basin, Thailand. *Journal of Freshwater Ecology* 34(1): 419-432. https://doi.org/10.1080/02705060.2019.1585392

Akira Sai, Mohd Yusof Othman, Wan Fatihah Zaimah Wan Zaini, Charlene Sze Yunn Tan, Nur Izatti Mohamad Norzilan, **Daiki Tomojiri**, Takuro Furusawa (2018) Factors affecting body image perceptions of female college students in urban Malaysia. *Obesity Medicine* 11: 13-19. https://doi.org/10.1016/j.obmed.2018.06.004