

Current Position

Apr 2026-Present **JSPS Overseas Research Fellow**, *University of Alberta*, Edmonton, Canada
Faculty of Science, Department of Biological Sciences
Collaboration for Open Science and Synthesis in Ecology and Evolution
PI: Prof. Shinichi Nakagawa

Past Positions

Jun 2024-Mar 2026 **Postdoctoral Research Fellow**, *University of Alberta*, Edmonton, Canada
Faculty of Science, Department of Biological Sciences
PI: Prof. Shinichi Nakagawa

Apr 2023-Mar 2025 **Visiting Fellow**, *University of New South Wales*, Sydney, Australia
Faculty of Science, Biological, Earth & Environmental Sciences

Apr 2023-Mar 2024 **JSPS Postdoctoral Fellow**, *Hokkaido University*, Sapporo, Japan
Faculty of Science, Department of Biology

Education

2020-2023 **PhD in Life Science**, *Hokkaido University*, Japan
Thesis: Testing the roles of visual preference in the evolution of white dot plumage patterns in Estrildid finches (Family Estrildidae).
Advisor: Prof. Masayo Soma

2018-2020 **MSc in Life Science**, *Hokkaido University*, Japan
Thesis: The evolution and function of white dot plumage patterns in Estrildid finches.
Advisor: Prof. Masayo Soma

2014-2018 **BSc in Bioresource Science**, *Nihon University*, Japan
Advisor: Prof. Yutaka Maruyama

Grants & Fellowships

2026-2028 **JSPS Overseas Research Fellowships**, Japan Society for the Promotion of Science
JPY 13,600,000

2022-2024 **JSPS Research Fellowship for Young Scientists**, Japan Society for the Promotion of Science
JPY 6,500,000

Apr-Aug 2023 **Overseas Challenge Program for Young Researchers**, Japan Society for the Promotion of Science
JPY 1,400,000

2021-2022 **JST SPRING (JPMJSP2119)**, Hokkaido University
JPY 1,340,000

2020-2021 **The Sasakawa Scientific Research Grant**, The Japan Science Society
JPY 750,000

Publications

Under Review (Available as Preprints; 15)

- 2026 **Mizuno A**, Lundgren E, Drobniak SM, Callaghan C, Santos ESA, Lagisz M, Ortega S, Lin X, Nakagawa S. Interspecific Bergmann's rule pattern in birds persists despite seasonal migration. [DOI]
- 2026 Nakagawa S, **Mizuno A**, Dinnage R, Purgar M, Sosiak C, Poo Hernandez S, Gross I, Lundgren E, Lagisz M, Santos ESA, et al. Choosing the response matrix: generalised linear latent variable models for multivariate ecology and evolution. [DOI]
- 2026 Nakagawa S, Ortega S, **Mizuno A**, Santos ESA, Lagisz M, Jain B, Celeste J Jr, Poo Hernandez S. prepR4pcm: An R package for preparing data and trees for phylogenetic comparative methods. [DOI]

- 2026 Poo Hernandez S, Santos ESA, Ortega S, **Mizuno A**, Young S, Lagisz M, Nakagawa S. The first systematic map of evidence syntheses on the use of artificial intelligence in ecology. [DOI]
- 2026 Vidic R, ..., **Mizuno A** (7th author), ..., Nakagawa S. Synthesis of anthropogenic impacts on birds: systematic map and bibliometric analysis of meta-analyses. [DOI]
- 2026 **Mizuno A**, Williams C, Lagisz M, Senior AM, Nakagawa S. A unified framework for phylogenetic and spatial meta-analysis: concepts, implementation, and practical guidance. [DOI]
- 2026 Williams C, McGillicuddy M, Brooks M, Bolker BM, **Mizuno A**, Yang Y, Viechtbauer W, Warton DI, Nakagawa S. Meta-analysis with the glmmTMB R package. [DOI]
- 2026 Ortega S, Rodriguez C, **Mizuno A**, Arroyo L, Drummond H, Nakagawa S. The collapse of environmental predictability erodes reproductive success in a tropical seabird. [DOI]
- 2026 Nakagawa S, **Mizuno A**, Williams C, Lagisz M, O'Dea RE, Noble DWA, Senior AM, Lundgren E, Ortega S. A new effect size for meta-analysis of magnitude: lnM. [DOI]
- 2026 Ortega S, Lenz A, Lundgren EJ, **Mizuno A**, Poo Hernandez S, Nakagawa S, Lagisz M. Music exposure reduces anxiety- and depression-like behaviour in rodents: a systematic review and multilevel meta-analysis. [DOI]
- 2026 Lagisz M et al. Who leads diversity efforts in science? Evidence of minority tax in DEI committees of international learned societies in ecology and evolutionary biology. [DOI]
- 2026 Lacza H, **Mizuno A**, Williams C, Lagisz M, Nakagawa S. One dataset, four meta-analyses: synthesising mean effects, within-population variability, and between-population heterogeneity in ecology. [DOI]
- 2025 **Mizuno A**, Pollo P, Lagisz M, Guillelte L, Soma M, Nakagawa S. The statistical fragility of animal cognition findings: a meta-meta-analytic reappraisal. [DOI]
- 2025 Nakagawa S, **Mizuno A**, Williams C, Ortega S, Drobniak SM, Lagisz M, Yang Y, Senior AM, Noble DWA, Lundgren E. Mastering an accurate and generalisable simulation-based method to obtain bias-corrected point estimates and sampling variance for any effect sizes. [DOI]
- 2025 Lenz A, **Mizuno A**, Lundgren E, Morrison K, Ortega S, Lagisz M, Nakagawa S. A systematic map of systematic reviews on anthropogenic noise impacts on wildlife: evidence gaps, policy attention, and quality appraisal. [DOI]

In Press

None at present.

Published Articles (24)

- 2026 Lagisz M, **Mizuno A**, Morrison K, Pollo P, Ricolfi L, Yang Y, Nakagawa S. Using Elicit AI research assistant for data extraction in systematic reviews: a feasibility study across environmental and life sciences. *Research Synthesis Methods*. [DOI]
- 2026 **Mizuno A**, Pollo P, Lagisz M, Soma M, Nakagawa S. Biological and methodological pitfalls of meta-analyses in ecology and evolution: lessons from eyespot function studies. *Animal Behaviour*. 236:123448. [DOI]
- 2026 Morrison K, Ricolfi L, Yang Y, **Mizuno A**, Pollo P, Lagisz M, Nakagawa S. The impacts of organochlorine pesticides on adverse human health outcomes: a second-order synthesis of mean effects and heterogeneity. *Journal of Hazardous Materials*. 509:141794. [DOI]
- 2026 Pollo P, Drobniak SM, Haselimashhadi H, Lagisz M, **Mizuno A**, Wilson LAB, Noble DWA, Nakagawa S. New approaches to meta-analyze differences in skewness, kurtosis, and correlation. *PLOS Biology*. 24:e3003653. [DOI]
- 2026 Nakagawa S, Westneat DF, **Mizuno A** (3rd of 14 authors), Schielzeth H. Understanding different types of repeatability and intra-class correlation for an analysis of biological variation. *Journal of the Royal Society Interface*. 23:20250545. [DOI]
- 2026 Martinig AR, ..., **Mizuno A** (13th of 19 authors), ..., Lagisz M. Dragon Kill Points: applying a transparent working template to relieve authorship stress. *BMC Biology*. 24:48. [DOI]
- 2026 Nakagawa S, Ortega S, Gazzea E, Lagisz M, Lenz A, Lundgren E, **Mizuno A**. Location-scale models in ecology and evolution: heteroscedasticity in continuous, count and proportion data. *Methods in Ecology and Evolution*. 17:554-566. [DOI]
- 2025 Morrison K, ..., **Mizuno A** (21st of 39 authors), ..., Nakagawa S. MATES: A tool for appraising the completeness with which a meta-analysis has been reported. *Environment International*. 207:109935. [DOI]
- 2025 **Mizuno A**, Drobniak SM, Williams C, Lagisz M, Nakagawa S. Promoting the use of phylogenetic multinomial generalised mixed-effects model to understand the evolution of discrete traits. *Journal of Evolutionary Biology*. 38:1699-1715. [DOI]
- 2025 Nakagawa S, **Mizuno A**, Williams C, Lagisz M, Yang Y, Drobniak SM. Quantifying macro-evolutionary patterns of trait mean and variance with phylogenetic location-scale models. *Methods in Ecology and Evolution*. 16:2585-2602. [DOI]

- 2025 Pollo P, Martinig AR, **Mizuno A**, Morrison K, Pottier P, Ricolfi L, Tam J, Williams C, Yang Y, Drobnia SM, Lagisz M, Nakagawa S. Harnessing meta-analyses' insights in ecology and evolution research. *Royal Society Open Science*. 12:250759. [DOI]
- 2025 **Mizuno A**, Lagisz M, Pollo P, Guille L, Soma M, Nakagawa S. Systematic mapping and bibliometric analysis of meta-analyses on animal cognition. *Neuroscience & Biobehavioral Reviews*. 177:106342. [DOI]
- 2025 Pollo P, Lagisz M, Macedo-Rego RC, **Mizuno A**, Yang Y, Nakagawa S. Synthesis of nature's extravaganza: an augmented meta-meta-analysis on (putative) sexual signals. *Ecology Letters*. 28:e70215. [DOI]
- 2025 Goto H, Soma M, **Mizuno A**, Brumm H. Vocal constraints on song amplitude in star finches *Bathilda ruficauda*. *PeerJ*. 13:e19705. [DOI]
- 2025 Pollo P, Lagisz M, Macedo-Rego RC, **Mizuno A**, Yang Y, Nakagawa S. Reliability of meta-analyses in ecology and evolution: (mostly) good news from a case study on sexual signals. *Proceedings of the Royal Society B: Biological Sciences*. 292:20242782. [DOI]
- 2025 Nakagawa S, **Mizuno A**, Morrison K, Ricolfi L, Williams C, Drobnia SM, Lagisz M, Yang Y. Location-scale meta-analysis and meta-regression as a tool to capture large-scale changes in biological and methodological heterogeneity: a spotlight on heteroscedasticity. *Global Change Biology*. 31:e70204. [DOI]
- 2025 Lagisz M, ..., **Mizuno A** (5th of 21 authors), ..., Nakagawa S. Priced out of belonging? Insufficient concessions on membership fees across international societies in ecology and evolution. *Proceedings of the Royal Society B: Biological Sciences*. 292:20241430. [DOI]
- 2025 Noble DWA, ..., **Mizuno A** (36th of 66 authors), ..., Lagisz M. The promise of community-driven preprints in ecology and evolution. *Proceedings of the Royal Society B: Biological Sciences*. 292:20241487. [DOI]
- 2024 **Mizuno A**, Lagisz M, Pollo P, Yang Y, Soma M, Nakagawa S. A systematic review and meta-analysis of eyespot anti-predator mechanisms. *eLife*. 13:RP96338. [DOI]
- 2024 Pottier P, ..., **Mizuno A** (8th of 15 authors), ..., Nakagawa S. Title, abstract and keywords: a practical guide to maximize the visibility and impact of academic papers. *Proceedings of the Royal Society B: Biological Sciences*. 291:20241222. [DOI]
- 2023 **Mizuno A**, Soma M. Pre-existing visual preference for white dot patterns in estrildid finches: a comparative study of a multi-species experiment. *Royal Society Open Science*. 10:231057. [DOI]
- 2022 **Mizuno A**, Soma M. Star finches *Neochmia ruficauda* have a visual preference for white dot patterns: a possible case of tryptophilia. *Animal Cognition*. 25:1271-1279. [DOI]
- 2021 **Mizuno A**, Soma M. Potential role of sensory bias in plumage pattern evolution: termite-eating and polka-dots in estrildid finches. *Ethology Ecology & Evolution*. 33:49-61. [DOI]
- 2019 **Mizuno A**, Maruyama Y, Soma M. Selection of food cache location by a pair of Large-billed Crow in Japan. *Japanese Journal of Ornithology*. 68:67-71. [DOI]

Awards & Miscellaneous

- Jan 2025 **PDFA Travel Award**, University of Alberta, Canada
- Nov 2024 **Participant**, OIST Evolutionary Analysis of Morphology workshop
- Mar 2024 **Participant**, SQULD statistical workshop
- Mar 2023 **Representative**, Doctoral Degree Graduation Ceremony, Hokkaido University
- Apr 2014 **Academic Excellence Award**, College of Bioresource Sciences, Nihon University

Teaching Experience

- Oct 2019-Nov 2022 **Graduate Teaching Assistant**, Hokkaido University, Japan
Assisted in teaching behavioural ecology, computational skills, statistics and R programming.

Mentoring & Supervision

- Masters 3 students (Hokkaido University, 2020-2023)
- Undergrad 1 student (University of Alberta, 2025)

Presentations (Selected & International only)

- 2024 **Oral Presentation**, The 19th International Society for Behavioral Ecology Congress, Melbourne, Australia
Eyespot conspicuousness, rather than eye similarity, drives avian prey avoidance: a meta-analysis.

- 2024 **Invited Oral Presentation**, *3rd Joint Congress on Evolutionary Biology*, Montreal, Canada
Foraging-related visual preference as a potential driver of plumage pattern evolution in estrildid finches.
- 2022 **Poster**, *The 18th International Society for Behavioral Ecology Congress*, Stockholm, Sweden
Food-mimicking ornamental traits in Estrildid finches.
- 2020 **Oral Presentation**, *The 57th Annual Conference of the Animal Behavior Society*, Online
Testing the sensory bias hypothesis in birds: relationship between diet seed size and plumage dots.
- 2019 **Poster**, *The 56th Annual Conference of the Animal Behavior Society*, Chicago, USA
Sensory exploitation may promote the evolution of plumage patterns in Estrildidae.

Peer Review & Service

- Peer review Biological Reviews, Ecology and Evolution, Evolution, Journal of Avian Biology, Journal of Evolutionary Biology, Nature, Nature Communications, Nature Ecology and Evolution, Science Advances, Vision: The Journal of the Vision Society of Japan
- Organising Co-organised SQuID statistical workshop 2024 with Prof. Shinichi Nakagawa
- Translation Translations of CRediT (Japanese)

Research Interests

Behavioural ecology, evolutionary biology, meta-analysis, phylogenetic comparative methods, research synthesis, ornithology, sensory ecology, open science

Skills

- R & Stats brms, MCMCglmm, metafor, glmmTMB, Bayesian hierarchical modelling, phylogenetic comparative methods, evidence synthesis
- Visualisation Data visualisation and scientific illustration (R and Adobe Illustrator)
- Languages Japanese, English