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RESEARCH & EDUCATION

2020-2024

PhD – Evolutionary Ecology

University of New South Wales, Sydney, Australia

Supervisors: Shinichi Nakagawa & Szymon M. Drobniak

Thesis: *Plasticity and resilience of ectotherms to changing temperatures*

2019

Research assistant (3 months)

University of Alabama, USA

Supervisor: Ryan L. Earley

*Embryonic exposure to endocrine disrupting compounds: carry-over effects in adult mangrove rivulus fish, *Kryptolebias marmoratus**

2017-2019

MSc – Behavioural and Evolutionary Ecology

University of Tours, France (1.5 years); University of Alabama, USA (6 months)

Supervisor: Ryan L. Earley

Thesis: *Embryonic exposure to endocrine disrupting compounds: early-life consequences in mangrove rivulus fish, *Kryptolebias marmoratus**

2014-2017

BSc – Integrative and Evolutionary Biology

University of Tours, France

Supervisors: Marlène Goubault & Anthony Mathiron

Thesis: *Relative importance of two resource value components on aggressiveness and contest outcome in a parasitoid wasp, *Eupelmus vuilleti**



PUBLICATIONS & PREPRINTS

26. Pottier, P., Kearney, M.R., Wu, N.C., Gunderson, A.R., Rej, J.E., Rivera-Villanueva, A.N., Pollo, P., Burke, S., Drobniak, S.M., & Nakagawa, S. (2023). Vulnerability of amphibians to global warming. *EcoEvoRxiv*. <https://doi.org/10.32942/X2T02T>. Submitted to *Nature*.
25. Pottier, P., Noble, D.W., Seebacher, F., Wu, N.C., Lagisz, M., Schwanz, L., Drobniak, S.M., & Nakagawa, S. (2023). New horizons for comparative studies and meta-analyses. *Trends in Ecology & Evolution*. <https://doi.org/10.1016/j.tree.2023.12.004>
24. Pottier, P., Lagisz, M., Burke, S., Drobniak, S.M., Downing, P.A., Macartney, E.L., Martining, A.R., Mizuno, A., Morrison, K., Pollo, P., Ricolfi, L., Tam, J., Williams, C., Yang, Y., & Nakagawa, S. (2023). Keywords to success: a practical guide to maximise the visibility and impact of academic papers. *bioRxiv*. <https://doi.org/10.1101/2023.10.02.559861>. Under review in *Proceedings of the Royal Society B: Biological Sciences*.
23. Macartney, E.L., Burke, S., Pottier, P., Hamoudi, Z., Hart, C., Ahmed, R., Lin, Y.Q., Neely, G., Drobniak, S. & Nakagawa, S., (2023). Sex-specific effects of social environment on behaviour and their correlations in *Drosophila melanogaster*. *EcoEvoRxiv*. <https://doi.org/10.32942/X2TS4H>. Under review in *Animal Behaviour*.
22. Gould, E., Fraser, H.S., Parker, T.H., Nakagawa, S., Griffith, S.C., Vesk, P.A., ... Pottier, P., et al. (2023). Same data, different analysts: variation in effect sizes due to analytical decisions in ecology and evolutionary biology. *EcoEvoRxiv*. <https://doi.org/10.32942/X2GG62>. Under review in *BMC Biology*.
21. Popovic, G., Mason, T., Marques, T., Potts, J., Drobniak, S. M., Joo, R., Altwegg, R., Burns, C.C.I., McCarthy, M.A., Johnston, A., Nakagawa, S., McMillan, L., Devarajan, K., Taggart, P.I., Wunderlich, A.C., Mair, M.M., Martínez-Lanfranco, J.A., Lagisz, M., & Pottier, P. (2023). Four principles for improved statistical ecology. *arXiv*. <https://doi.org/10.48550/arXiv.2302.01528>. Under revision in *Methods in Ecology and Evolution*.

20. Arenas-Castro, H., Berdejo-Espinola, V., Chowdhury, S., Rodríguez-Contreras, A., James, A., Raja, N.B., Dunne, E.M., Bertolino, S., Emidio, N.B., M. Derez, C.M., Drobniak, S.M., Fulton, G.R., Henao-Diaz, L.F., Kaur, A., Kim, C.J.S., Lagisz, M., Medina, I., Mikula, P., Narayan, V.P., O'Bryan, C.J., Oh, R.R.Y., Ovsyanikova, E., Pérez-Hämmerle, K.V., **Pottier, P.**, Powers, J.S., Rodriguez-Acevedo, A.J., Rozak, A.H., Sena, P.H.A., Sockhill, N.J., Tedesco, A.M., Tiapa-Blanco, F., Tsai, J.-S., Villarreal-Rosas, J., Wadgyamar, S.M., Yamamichi, M., & Amano, T. (2023). Academic publishing requires linguistically inclusive policies. *EcoEvoRxiv*. <https://doi.org/10.32942/X2NS3K>. Under revision in *Proceedings of the Royal Society B: Biological Sciences*.
19. Burke, S., **Pottier, P.**, Macartney, E.L., Drobniak, S.M., Lagisz, M., Ainsworth, T., & Nakagawa, S. (2023). Mapping literature reviews on coral health: A review map, critical appraisal and bibliometric analysis. *Ecological Solutions and Evidence* 4(4), e12287. <https://doi.org/10.1002/2688-8319.12287>.
18. Dadzie, F., Munoz-Rojas, M., Slavich, E., Pottier, P., Zeng, K., & Moles, A. (2023). Native and commercial microbial inoculants show equal effects on plant growth in dryland ecosystems. *Authorea*. <http://doi.org/10.22541/au.167785097.78920686/v1>
17. Burke, S., **Pottier, P.**, Lagisz, M., Macartney, E.L., Ainsworth, T., Drobniak, S.M., Nakagawa, S. (2023). The impact of rising temperatures on the prevalence of coral diseases and its predictability: a global meta-analysis. *Ecology Letters*, 26(8): 1466-1481. <https://doi.org/10.1111/ele.14266>
16. Zhang, R., Wild, K., **Pottier, P.**, Carrasco, M.I., Nakagawa, S., & Noble, D.W. (2023). Developmental environments do not affect thermal physiology in reptiles: An experimental test and meta-analysis. *Biology Letters* 19(5), 20230019. <https://doi.org/10.1098/rsbl.2023.0019>.
15. Nakagawa, S., Grainger, M.J., **Pottier, P.**, Martinig, A.R., Macartney, E.L., Yang, Y., Morrison, K., Wilson, L.A.B., Williams, C., Ricolfi, L., Burke, S., O'Dea, R.E., Ivimey-Cook, E.R., Lagisz, M. (2023). Method Reporting with Initials for Transparency (MeRIT) promotes more granularity and accountability for author contributions. *Nature Communications*, 14(1): 1788. <https://doi.org/10.1038/s41467-023-37039-1>
14. Nakagawa, S., Lagisz, M., O'Dea, R.E., **Pottier, P.**, Rutkowska, J., Senior, A.M., Yang, Y., Noble, D.W.A. (2023). orchaRd 2.0: an R package for visualizing meta-analyses with orchard plots. *Methods in Ecology and Evolution*, 14(8): 2003-2010. <https://doi.org/10.1111/2041-210X.14152>
13. Amano, T., Berdejo-Espinola, V., Akasaka, M., de Andrade Junior, M.A., Blaise, N., Checco, J., Çilingir, F.G., Citegetse, G., Corella Tor, M., Drobniak, S.M., Giakoumi, S., Golivets, M., Ion, M.C., Jara-Díaz, J.P., Katayose, R., Lasmana F.P.S., Lin, H.-Y., Lopez, E., Mikula, P., Morales-Barquero, L., Mupepele, A.-C., Narváez-Gómez, J.P., Natykanets, V.V., Nguyen, T.H., Lisboa, S.N., Nuñez, M.A., Pavón-Jordán, D., **Pottier, P.**, Prescott, G.W., Samad, F., Šćiban, M., Seo, H.-M., Shinoda, Y., Vajna, F., Vozykova, S., Walsh, J.C., Wee, A.K.S., Xiao, H., Zamora-Gutierrez, V. (2023). The role of non-English-language science in informing national biodiversity assessments. *Nature Sustainability*, 6: 845-854. <https://doi.org/10.32942/osf.io/jk429>.
12. Macartney, E.L., **Pottier, P.**, Burke, S., Drobniak, S.M., & Nakagawa, S. (2022). Quantifying between-individual variation using high-throughput phenotyping of behavioural traits in the fruit fly (*Drosophila melanogaster*). *EcoEvoRxiv*. <https://doi.org/10.32942/X22S39>.
11. Burke, S., **Pottier, P.**, Macartney, E.L., Drobniak, S.M., Lagisz, M., Ainsworth, T., & Nakagawa, S. (2022). Mapping literature reviews on coral health: Protocol for a review map, critical appraisal, and bibliometric analysis. *Ecological Solutions and Evidence*, 3(4): e12190. <https://doi.org/10.1002/2688-8319.12190>
10. Gomes, D.G.E., **Pottier, P.**, Crystal-Ornelas, R., Hudgins, E.J., Foroughirad, V., Sánchez-Reyes, L.L., Turba, R., Andrea Martinez, P., Moreau, D., Bertram, M.G., Smout, C.A., & Gaynor, K. M. (2022). Why don't we share data and code? Perceived barriers and benefits to public archiving practices. *Proceedings of the Royal Society B: Biological Sciences*, 289(1987): 20221113. <https://doi.org/10.1098/rspb.2022.1113>
9. Weaving, H., Terblanche, J. S., **Pottier, P.**, & English, S. (2022). Meta-analysis reveals weak but pervasive plasticity in insect thermal limits. *Nature Communications*, 13, 1–11. <https://doi.org/10.1038/s41467-022-32953-2>
8. **Pottier, P.**, Lin, H.-Y., Oh, R.R.Y., Pollo, P., Rivera-Villanueva, A.N., Valdebenito, J.O., Yang, Y., Amano, T., Burke, S., Drobniak, S.M., & Nakagawa, S. (2022). A comprehensive database of amphibian heat tolerance. *Scientific Data*, 9, 1–15. <https://doi.org/10.1038/s41597-022-01704-9>

7. **Pottier, P.**, Burke, S., Zhang, R. Y., Noble, D. W. A., Schwanz, L. E., Drobnik, S. M., & Nakagawa, S. (2022). Developmental plasticity in thermal tolerance: Ontogenetic variation, persistence, and future directions. *Ecology Letters*, 25, 2245–2268. <https://doi.org/10.1111/ele.14083>
6. **Pottier, P.**, Burke, S., Drobnik, S.M., & Nakagawa, S. (2022). Methodological inconsistencies define thermal bottlenecks in fish life cycle: a comment on Dahlke et al. 2020. *Evolutionary Ecology* 36: 287-292. <https://doi.org/10.1007/s10682-022-10157-w>
5. Noble, D.W.A., **Pottier, P.**, Lagisz, M., Burke, S., Drobnik, S.M., O’Dea, R.E., & Nakagawa, S. (2022). Meta-analytic approaches and effect sizes to account for ‘nuisance heterogeneity’ in comparative physiology. *Journal of Experimental Biology* 225(Suppl_1): jeb243225. <https://doi.org/10.1242/jeb.243225>
4. Vendl, C., **Pottier, P.**, Taylor, M.D., Braunig, J., Gibson, M.J., Hesselson, D., Neely, G.D., Lagisz, M. & Nakagawa, S. (2022). Thermal processing reduces PFAS concentrations in blue food – A systematic review and meta-analysis. *Environmental Pollution* 304: 119081. <https://doi.org/10.1016/j.envpol.2022.119081>
3. **Pottier, P.**, Burke, S., Drobnik, S.M., Lagisz, M., & Nakagawa, S. (2021). Sexual (in)equality? A meta-analysis of sex differences in thermal acclimation capacity across ectotherms. *Functional Ecology* 35(12): 2663-2678. <https://doi.org/10.1111/1365-2435.13899>
2. Mathiron, A.G.E., **Pottier, P.**, & Goubault, M. (2019) Keep calm, we know each other: kin recognition affects aggressiveness and conflict resolution in a solitary parasitoid. *Animal Behaviour* 151: 103-11. <http://doi.org/10.1016/j.anbehav.2019.03.012>
1. Mathiron, A.G.E., **Pottier, P.**, & Goubault, M. (2018) Let the most motivated win: resource value components affect contest outcome in a parasitoid wasp. *Behavioral Ecology* 29: 1088-1095. <http://doi.org/10.1093/beheco/ary084>



PRE-REGISTRATIONS & REGISTERED REPORTS

- **Pottier, P.**, Dougherty, L.R., Vasudeva, R., Berger, D., Domenech, B.C., Cole, B., Drobnik, S., Graziano, M., Lupold, S., Meena, A. & Nakagawa, S. (2023). Evolution of reproductive success in response to changing temperatures: a meta-analysis. *Open Science Framework Registries*. <https://doi.org/10.17605/OSF.IO/4B38S>
- Burke, S., **Pottier, P.**, Macartney, E.L., Drobnik, S.M., Lagisz, M., Ainsworth, T., & Nakagawa, S. (2022). Mapping literature reviews on coral health: Protocol for a review map, critical appraisal, and bibliometric analysis. *Ecological Solutions and Evidence*, Stage-1 registered report. <https://doi.org/10.1002/2688-8319.12190>
- **Pottier, P.**, Burke, S., Zhang, R.Y., Noble, D.W.A., Schwanz, L.E., Drobnik, S.M., & Nakagawa, S. (2021). Developmental plasticity of heat tolerance in ectotherms: a systematic review and meta-analysis. *Open Science Framework Registries*. <https://doi.org/10.17605/osf.io/zkx6u>
- **Pottier, P.**, Burke, S., Drobnik, S. M., Lagisz, M., Nakagawa, S. (2020). Sex differences in thermal acclimation capacity across ectotherms: A systematic review and meta-analysis. *Open Science Framework Registries*. <https://doi.org/10.17605/osf.io/x9y6h>



AWARDS & GRANTS

- Australasian Evolution Society (AES): **Best student presentation award** (2023; \$1000)
- Australasian Evolution Society (AES): **Travel grant** (2023; \$200)
- The Company of Biologists: **Scientific Meeting Grant** (2023; 1722 GBP)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Outstanding Postgraduate Researcher award** (2023; \$500 AUD)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Skills Transfer workshop grant** (2023; \$600 AUD)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Workshop funding** (2023; \$1900 AUD)

- Australasian Evolution Society (AES): **Early Career Researcher Research Excellence award** (2022; \$380 AUD + plenary conference talk)
- The Australian and New Zealand Society for Comparative Physiology and Biochemistry (ANZSCP): **Travel grant** (2022; \$420 AUD)
- Society for Experimental Biology (SEB): **Irene Manton Best Poster award** (2022, 100 GBP)
- European Society for Evolutionary Biology (ESEB): **Travel grant** (2022; €350)
- The company of Biologists: **Travel grant** (2022, €578)
- Society for Experimental Biology (SEB): **Travel grant** (2022, 300 GBP)
- Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology (SORTEE): **Open Science in Practice award** (2022, invited presentation + PeerJ APC waiver, worth \$1,195 USD)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Outstanding Postgraduate Researcher award**, runner-up (2022)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Best student paper award**, runner-up (2022)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Outstanding Presentation in Evolution and Ecology award** (2021, \$150 AUD)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Twitter conference award** (2021, \$100 AUD)
- UNSW Scientia PhD Scholarship (~\$347,344 AUD)



PRESENTATIONS

- *How vulnerable are amphibians to global warming?* **Talk** at the Australasian Evolution Society (AES) conference (2023, 12 min)
- *Plasticity and resilience of ectotherms to global warming.* **Plenary talk** at the Genetics, Ecology, Microbiology, Medicine, Zoology (GEMMZ) conference (2023, 60 min)
- *Vulnerability of amphibians to global warming.* **Talk** at the Society for Experimental Biology (SEB) conference (2023, 15 min)
- *Developmental plasticity in thermal tolerance.* **Plenary talk** at the Australasian Evolution Society (AES) conference (2022, 30 min).
- *Thermal tolerance of the world's amphibians.* **Talk** at the Australian and New Zealand Society for Comparative Physiology and Biochemistry (ANZSCP) conference (2022, 20 min)
- *Developmental plasticity in thermal tolerance: Ontogenetic variation, persistence, and future directions.* **Invited talk** at the Society for Experimental Biology (SEB) conference (2022, 30 min)
- *Climate vulnerability of the world's amphibians.* **Poster** at the Society for Experimental Biology (SEB) conference (2022).
- *Developmental plasticity in thermal tolerance: Ontogenetic variation, persistence, and future directions.* **Poster** at the European Society for Evolutionary Biology (ESEB) conference (2022)
- *Pre-registration: Why it is for you too!* **Invited talk** at the Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology (SORTEE) conference (2022, 15 min)
- *Is their future already written? Developmental plasticity and the fate of animals in a changing world.* **Seminar** for the European Thermal Fertility Network (2022)
- *Is their future already written? Developmental plasticity and the fate of animals in a changing world.* **Talk** at the Society for Integrative and Comparative Biology conference (2022, 12 min).
- *Registered Reports Now! Hackathon* at the Society for Open, Reliable, and Transparent Ecology and Evolutionary biology conference (2021, 1.5 hour)
- *Is their future already written? Developmental plasticity and the fate of animals in a changing world.* **Talk** at the UNSW Postgraduate Forum (2021, 12 min).

- *Is their future already written? Ectotherms in a changing world.* **Talk** at the Australasian Evolutionary Society conference (2021, 3 min)
- *Can developmental plasticity rescue ectotherms from rising temperatures?* **Poster** at the Society for Experimental Biology conference (2021)
- *Cold blood in a changing world. Importance of thermal plasticity for tackling climate change.* **Talk** at the UNSW Postgraduate Forum (2020, 7 min)
- *Gender inequalities? A meta-analysis of sex differences in thermal plasticity.* **Talk** at the Ecological Society of Australia conference (2020, 10 min)



WORKSHOPS AND PROFESSIONAL COURSES

- Society for Experimental Biology (SEB) conference:
- UNSW Skill Transfer workshop: *How to make your science more open?* **Workshop main organiser** (2023)
- Society for Experimental Biology (SEB) conference: *Introduction to Meta-analysis in Comparative Physiology.* **Workshop co-organiser** (2022)
- University of Sydney Centre for Continuing Education: *Web development course.* **Professional course** (2021; \$357)
- University of Sydney Centre for Continuing Education: *Adobe Illustrator course: Level 2.* **Professional course** (2021; \$320)
- University of Sydney Centre for Continuing Education: *Adobe Illustrator course: Level 1.* **Professional course** (2021; 598)
- University of Sydney Centre for Continuing Education: *People Management: Essentials.* **Professional course** (2021; \$1060)
- University of Sydney Centre for Continuing Education: *Grant Writing: Writing a Winning Grant Application.* **Professional course** (2021; \$385)
- University of Sydney Centre for Continuing Education: *Time management: Essentials.* **Professional course** (2021; \$660)
- University of Sydney Centre for Continuing Education: *Interpersonal Skills and Effective Communication.* **Professional course** (2021; \$496)
- University of Sydney Centre for Continuing Education: *Assertive Communication and Conversation Skills: Practical training.* **Professional course** (2021; \$496)
- Australian Graduate School of Management: *Leading an Organisation Through Dynamic Environments.* **Professional course** (2021; \$1694)
- Australian Graduate School of Management: *Leading for High Performance.* **Professional course** (2021; \$3850)
- Australian Graduate School of Management: *Developing Effective Negotiation and Influencing Skills.* **Professional course** (2020; \$1925)
- Australian Graduate School of Management: *Leading through Influence.* **Professional course** (2020; \$1925)
- Australian Graduate School of Management: *The Authentic Communicator: Activating Presence.* **Professional course** (2020; \$3850)
- Australian Graduate School of Management: *Activating virtual presence.* **Professional course** (2020; \$792)
- Australian Graduate School of Management: *Supporting students on the autism spectrum.* **Professional course** (2020; \$700)



OUTREACH & ACTS OF SERVICE

- Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology (SORTEE): **Board of directors, student seat** (2023 - 2026)
- Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology (SORTEE): **Equity, Diversity, and Inclusion Committee** (2022)
- Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology (SORTEE): **Awards Committee** (2022)
- UNSW Science: **Equity, Diversity, and Inclusion Committee** (2022)
- UNSW Evolution & Ecology Research Centre (E&ERC): **Postgraduate Committee** (2022-2023)
- Society for Experimental Biology (SEB): **Workshop co-organiser**, Introduction to Meta-Analysis in Comparative Physiology
- **The Conversation**: *Young cold-blooded animals are suffering the most as Earth heats up, research finds* (2022)
- **Pint of Science**: *Can animals cope with climate change?* Botany View Hotel, Newtown, NSW (2022)
- **Skype a Scientist**: LadyGrove Park primary school, Didcot, UK (2022)
- **Skype a Scientist**: ISS International School, Singapore (2022)
- **#BatteryLow**: Learning more about scientists through video games (2020).



TEACHING

- SCIF1131, Introductory Skills for Science (UNSW, 2023): **tutor**
- SCIF1111, Perspectives in Medical Science (UNSW, 2023): **tutor**
- MFAC1501, Introduction to Microbiology (UNSW, 2023): **demonstrator**
- BABS1201, Molecules, Cells and Genes (UNSW, 2023): **demonstrator**
- MSCIO501, The Marine Environment (UNSW, 2023): **demonstrator, invigilator**
- MFAC1527, Society & Health (UNSW, 2022): **demonstrator**
- MFAC1522, Beginnings, Growth and Development B (UNSW, 2022): **demonstrator**
- MFAC1521, Beginnings, Growth and Development B (UNSW, 2022): **demonstrator**
- SCIF1111, Perspectives in Medical Science, Scientific Literacy (UNSW, 2022): **tutor**



PEER-REVIEW

- Ecology Letters
- Biological Reviews
- Journal of Evolutionary Biology
- PeerJ
- Journal of Animal Ecology
- Biological Conservation
- Journal of Thermal Biology
- Journal of Experimental Zoology Part A – Ecological and Integrative Zoology



REFERENCES

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