

Barbara Class, PhD

Personal information

- Contact: barbara.a.class@gmail.com
- Website: barbaraclass.com
- Social media: ResearchGate, Twitter (@BA_Class)
- Date and place of birth: 30/10/1990, Strasbourg, France
- Languages: French (mother tongue), English (fluent)

Education

- 01/12/2013-09/11/2017 **PhD**, doctoral program in Biology, Geography and Geology, University of Turku, Finland
- 01/09/2011-25/06/2013 **MSc** in Ecophysiology and Ethology, University of Strasbourg, France
- 01/09/2008-09/06/2011 **BSc** in Cell Biology and Physiology, University of Strasbourg, France

Research experience

- 01/01/2023- **Post-doctoral project:** "Social competition within- and among-species: drivers of pace-of-life in wild passerine birds?", Supervised by Niels Dingemans, Ludwig-Maximilians Universität, Munich, Germany
- 01/02/2022-31/12/2022 **Post-doctoral project:** "Quantitative genetic variation of size along an urban gradient", Supervised by Dr. Anne Charmantier, Centre d'Ecologie Fonctionnelle et Evolutive (CNRS UMR 5175), Montpellier, France
- 09/03/2020-05/11/2021 **Post-doctoral project:** "Individual differences, social behaviour, and disease ecology in Eastern water dragons", Supervised by Dr. Celine Frere, University of the Sunshine Coast, Australia
- 01/11/2017-31/08/2019 **Post-doctoral project:** "Evolutionary quantitative genetics in wild birds", Supervised by Dr. Jon Brommer, University of Turku, Finland
- 01/12/2013-31/10/2017 **PhD project:** "Evolutionary quantitative genetics of animal personality in the wild", Supervised by Dr. Jon Brommer, University of Turku, Finland
- 01/01/2013-30/06/2013 **MSc project:** "Animal personality in the blue tits: ecological relevance and the importance of parental interactions". Supervised by Dr. Jon Brommer, University of Turku, Finland
- 15/05/2012-30/06/2012 **Scientific internship:** "Effect of glucocorticoids and environmental conditions on chick growth and output in Adélie penguins". Supervised by Dr. Thierry Raclot, University of Strasbourg, France
- 1/10/2011-30/11/2011 **Scientific internship:** "Individual decision-making in road crossing pedestrians". Supervised by Dr. Cédric Sueur, University of Strasbourg, France

Teaching

- 22/10-2023-02/11/2023 **Teacher** (4* 3h sessions on mixed models and data simulations) at SQuID's main and satellite workshops (Caraça and Campinas, Brazil)
- 10/10-2022-14/10/2022 **Teacher** (2* 3h sessions on mixed models and data simulations) at a SQuID workshop (Montpellier, France)

- 04/04-2022-07/04/2022 **Teacher** (2* 3h sessions on mixed models and data simulations) at a SQuID workshop (Trondheim, Norway)
- 2017-2019 **Co-organizer of a course** "Introduction to programming in R and its application in studying ecology and evolution", University of Turku, Finland
- 01/11/2017-15/12/2017 **Lecturer** for the course "Advanced evolutionary Biology 2", University of Turku, Finland

Supervision and mentoring

- 02/2023- **Co-supervision of PhD student** Merit Finia Pokriefke, Ludwig Maximilians Universität, Munich. Supervision of 2 BSc students (LMU) and MSc student Camille Tardy (University of Lyon).
- 03/2020-11/2021 **Co-supervision of PhD student** Coralie Delmé, University of the Sunshine Coast. "Affiliative behaviour in a wild population of Eastern water dragons (*Intellagama lesueurii*): Effect of individual attributes and fitness benefits" (PhD completed in 2022).
- 03/2020 **Mentoring of PhD students** Sarah Ball (PhD completed in 2020), and Nicola Jackson (PhD completed in 2022) at the University of the Sunshine Coast and Cameron Baker (PhD ongoing) at the University of Queensland.
- 07/2020-08/2021 **Co-supervision of Honours student** Jessica Tacey, University of the Sunshine Coast. "Do Eastern water dragons (*Intellagama lesueurii*) modify their social behaviour to avoid fungal infection?"
- 01/2018-06/2018 **Co-supervision of MSc student** Marc Gilles, University of Strasbourg. "Blue tits (*Cyanistes caeruleus*) and caterpillars in a boreal forest: focus on the impacts of early food conditions on nestling development, survival and personality".
- 04/2015-10/2015 **Co-supervision of MSc student** Kees Schreven, University of Groningen. "The relation of personality with early life body mass in the Blue Tit *Cyanistes caeruleus*".

Awards and funding

- 2020
- o 30 000€ Finnish cultural foundation, 1-year post-doctoral research grant (00200217), "Ecological and evolutionary mechanisms of assortative mating in wild animals"
 - o 35 000\$ (CAD) Merit scholarship program for foreign students (PBEEE), 1-year post-doctoral research grant (291406): "Mechanisms and consequences of assortative mating: a comparative approach"
 - o ECR Scholarship to attend the ICQG6 conference, 3-13 November 2020, Brisbane, Australia
- 2019
- o 500€ Oikos Finland prize for the best PhD thesis in Ecology and Evolution 2017
- 2016
- o 570€ travel grant from the doctoral program in Biology, Geography, and Geology to attend the ISBE conference in Exeter.
- 2015
- o 3 years funded doctoral position (~75000€, University of Turku Graduate School)
 - o 2500€ for organizing AURA symposium 2016 (Foundation of the University of Turku)
- 2014
- o 9894€ young researcher grant (Foundation of the University of Turku)
 - o 3000€ for fieldwork expenses (Societas Pro fauna et Flora Fennica)
 - o 4000€ for fieldwork expenses (Oskar Öflunds Stiftelse)

Scientific publications

I have authored 22 published articles including 13 as a first author (three co-first authorships, indicated by *), and co-authored one book chapter (h-index=12, 413 citations, 26/02/2024, Google Scholar). Among the peer-reviewed journal articles, 11 (in green) were with my PhD supervisor and four (in orange) were produced by students I mentored or co-supervised.

Peer-reviewed journal articles

22. [Baker, C.J.](#), **Class, B.**, Dwyer, R.G., Frankin, C.E., Campbell, H.A., Irwin, T.R., Frère, C.H. (2024) Active crocodiles are less sociable. *Accepted in Philosophical Transactions of the Royal Society B*
21. Frere, C.H., **Class, B.***, Potvin, D.A., Ilany, A. (2024) Social inheritance of avoidances shapes the structure of animal social networks. *Behavioral Ecology*, 35, arad088.
20. [Delmé, C.](#), Jackson, N., **Class, B.**, Strickland, K., Potvin, D.A., Frère, C.H. (2023) Adaptive significance of affiliative behaviour differs between sexes in a wild reptile population. *Proceedings of the Royal Society B*, 290: 20230805
19. [Ball, S.](#), Potvin, D.A., **Class, B.**, Frere, C.H. (2023) Agonism does not covary with territoriality in a gregarious reptile. *Behavioral Ecology and Sociobiology*, 77, 73.
18. [Tacey, J.](#), **Class, B.**, Delmé, C., Powell, D., Frère, C.H. (2023) Impacts of fungal infection on dyadic social interactions in a wild agamid lizard. *Animal Behaviour*, 200, 125-136.
17. [Jackson, N.](#), Littleford-Colquhoun, B., Strickland, K., **Class, B.**, Frere, C.H. (2022) Selection in the city: Rapid and fine scale evolution of urban eastern water dragons. *Evolution*, 76, 2302-2314.
16. **Class, B.***, Dingemanse, N.J. (2022) A variance partitioning perspective of assortative mating: Proximate mechanisms and evolutionary implications. *Journal of Evolutionary Biology*, 35, 483-490.
15. **Class, B.**, Masoero, G., Terraube, J., Korpimäki, E. (2021) Estimating the long-term repeatability of food-hoarding behaviours in an avian predator. *Biology Letters*, 17, 20210286.
14. Dingemanse, N.J., **Class, B.**, Holtmann, B. (2021) Nonrandom mating for behavior in the wild? *Trends in Ecology & Evolution* 36, 177-179.
13. Westneat, D.F., Araya-Ajoy, Y.G., Allegue, H., **Class, B.**, Dingemanse, N., Dochtermann, N.A., Garamszegi, L.Z., *et al.* (2020) Collision between biological process and statistical analysis revealed by mean centring. *Journal of Animal Ecology*, 89, 2813-2824.
12. **Class, B.**, Brommer, J.E. (2020) Contrasting multilevel relationships between behavior and body mass in blue tit nestlings. *Behavioral Ecology*, 31, 702-710.
11. **Class, B.**, Brommer, J.E. (2020) Can dominance genetic variance be ignored in evolutionary quantitative genetic analyses of wild populations? *Evolution*, 74, 1540-1550.
10. **Class, B.**, Brommer, J.E., van Oers, K. (2019) Exploratory behavior undergoes genotype–age interactions in a wild bird. *Ecology and Evolution*, 9, 8987-8994.
9. **Class, B.**, Klueen, E., Brommer, J.E. (2019) Tail color signals performance in blue tit nestlings. *Journal of Evolutionary Biology*, 32, 913-920.
8. **Class, B.**, Brommer, J.E. (2018) Shared environmental effects bias phenotypic estimates of assortative mating in a wild bird. *Biology Letters*, 14, 20180106.
7. **Class, B.**, Dingemanse, N.J., Araya-Ajoy, Y.G., Brommer, J.E. (2017) A statistical methodology for estimating assortative mating for phenotypic traits that are labile or measured with error. *Methods in Ecology and Evolution*, 38, 42–49.

6. Brommer, J.E., **Class, B.** (2017) Phenotypic correlations capture between-individual correlations underlying behavioral syndromes. *Behavioral Ecology and Sociobiology*, 71, 50.
5. **Class, B.**, Brommer, J.E. (2016) Senescence of personality in a wild bird. *Behavioral Ecology and Sociobiology*, 70, 733-744.
4. Brommer, J.E., **Class, B.*** (2015) The importance of genotype-by-age interactions for the development of repeatable behavior and correlated behaviors over lifetime. *Frontiers in Zoology*, 12, S2.
3. **Class, B.**, Brommer, J.E. (2015) A strong genetic correlation underlying a behavioural syndrome disappears during development because of genotype-age interactions. *Proceedings of the Royal Society B*, 282, 20142777.
2. **Class, B.**, Brommer, J.E., Kluever E. (2014) Evolutionary quantitative genetics of behavioral responses to handling in a wild passerine. *Ecology and Evolution*, 4, 427-440.
1. Sueur C., **Class B.**, Hamm C., Meyer X., Pelé M. (2013) Different risk thresholds in pedestrian road crossing behaviour: a comparison of French and Japanese approaches. *Accident Analysis & Prevention*, 58, 59-63.

Book chapter

Brommer, J.E., **Class, B.** (2017) Personality from the perspective of behavioral ecology. In: Vonk J., Weiss A., Kuczaj S. (eds) Personality in Nonhuman Animals. Springer, Cham

Preprints

Brommer, J., **Class, B.**, & Covarrubias-Pazaran, G. (2019). Multivariate Mixed Models in Ecology and Evolutionary biology: Inferences and implementation in R. *EcoEvoRxiv*

Class, B., Powell, D., Terraube, J., Albery, G., Delmé, C., Bansal, S., Frère, C. (2021) "The epidemiology and genomics of a virulent emerging fungal pathogen in an Australian reptile". *BioRxiv*

Class, B., Strickland, K.S., Potvin, D.A., Jackson, N., Nakagawa, S. (2023) Sex-specific associations between social behaviour, its predictability and fitness in a wild lizard. *EcoEvoRxiv*

Conference contributions

Conference talks

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| 07/09/2023 | "Social competition within and among species: drivers of pace of life in wild passerine birds?", Wild Animal Model Bi-Annual Meeting (Okehampton, UK) |
| 15/08/2023 | "Social competition within and among species: drivers of pace of life in wild passerine birds?", Behaviour conference (Bielefeld, Germany) |
| 06/09/2022 | "Can urbanization impact the evolution of size in a wild bird?", Hole-Nesting bird conference (Oxford, UK) |
| Accepted | "Contrasting multilevel relationships between behavior and body mass in blue tit nestlings", ISBE 2020 conference (Melbourne, Australia). Conference postponed/cancelled. |
| 06/11/2020 | "Can dominance genetic variance be ignored in evolutionary quantitative genetic analyses of wild populations?", ICQG6 online conference (Brisbane, Australia) |
| 28/08/2019 | "Tail colour signals performance in blue tit nestlings", EOU conference (Cluj-Napoca, Romania) |

- 20/08/2017 “How to estimate assortative mating for labile traits in the wild? “, EOU conference (Turku, Finland)
- 01/08/2016 “Senescence of personality in a wild bird”, ISBE Conference (Exeter, UK)
- 03/02/2016 “Senescence of personality in a wild bird”, Nordic Oikos Conference (Turku, Finland)
- 03/04/2014 “Evolutionary quantitative genetics of behavioral responses to handling in a wild passerine”, AURA symposium (Turku, Finland)

Invited talks

- 30/10/2023 “An evolutionary quantitative genetics perspective of animal personality in wild birds” SQuID workshop (Campinas, Brazil)
- 07/04/2022 “A variance partitioning perspective of assortative mating”, SQuID workshop (Trondheim, Norway)
- 05/02/2019 “Evolutionary quantitative genetics of animal personality in the wild”, Oikos Finland Conference (Oulu, Finland)
- 03/07/2016 “How to estimate assortative mating for repeatable traits in the wild? “, Post-conference symposium “Statistical quantification of individual differences: educational and statistical approaches informing study design, analysis and inferences of multi-level behavioural data” (Exeter, UK)

Collective activities and services to the community

Organization of scientific events

- 19/08/2019-
24/08/2019 **Symposium organizer:** “Assortative mating for quantitative traits: mechanisms, estimation, and evolutionary consequences”, co-organized with prof. Niels Dingemanse, ESEB conference (Turku, Finland)
- 18/08/2017-
22/08/2017 **Member of the organizing team**, EOU Conference (Turku, Finland)
- 06/04/2016-
07/04/2016 **Chair of the organizing committee**, AURA symposium (Turku, Finland)

Referee activity

I reviewed **>40 manuscripts** for mostly top-ranked journals in the fields of ecology and evolution such as Ecology Letters, Evolution, Journal of Animal Ecology, Journal of Evolutionary Biology ([Publons profile](#)).

Editorial activity

I have co-edited, with Prof. Niels Dingemanse, a **special issue of Journal of Evolutionary Biology** on the theme “Assortative mating for quantitative traits: mechanisms, estimation, and evolutionary consequences”, which has resulted in 7 publications.

Memberships

- Since 2020, I am a member of [SQuID \(Statistical Quantification of Individual Differences\)](#), an international collaborative research network which aims to promote the teaching and use of mixed models in the fields

of ecology and evolutionary biology, through research, workshops, and the development of educational tools.

- In January 2024, I have joined the fundraising committee of the **Society for Open Reliable and Transparent research in Ecology and Evolution (SORTEE)**. SORTEE was founded in 2020 with the aim of bringing together researchers working to improve reliability and transparency through cultural and institutional changes in ecology, evolutionary biology, and related disciplines

Special skills

Statistics and programming

R (good level in coding, mixed models, simulations), **R markdown** (see my website barbaraclass.com created using R markdown), **ASReml** standalone and **ASReml-R** (extensively used since 2014), **MARK**, **Microsoft Access**

Fieldwork experience

- 2023: Monitoring a population of wild blue and great tits during the breeding season (April-July), Forstenrieder Park, Munich, Germany.
- 2020-2021: Population monitoring and design and collection of focal behavioural data in Eastern water dragons in Brisbane, Australia.
- 2014-2019: Monitoring a population of wild blue tits during the breeding season (May-June), Tammisaari, Finland.