

## Barbara Class, PhD

### Personal information

- Contact: barbara.a.class@gmail.com, bclass@usc.edu.au
- Date and place of birth: 30/10/1990, Strasbourg, France
- Languages: French (mother tongue), English (fluent)

### Education

01/12/2013- 31/10/2017	<b>PhD</b> , doctoral program in Biology, Geography and Geology, University of Turku, Finland
01/09/2011- 30/06/2013	<b>MSc</b> in Ecophysiology and Ethology, University of Strasbourg, France
01/09/2008- 31/05/2011	<b>BSc</b> in Cell Biology and Physiology, University of Strasbourg, France

### Research experience

09/03/2020-	<b>Post-doctoral project:</b> "Relationships between animal personality, social networks and disease transmission in an urban lizard" (Dr. Celine Frere's lab, University of the Sunshine Coast, Australia)
01/11/2017- 31/08/2019	<b>Post-doctoral project:</b> "Evolutionary quantitative genetics of animal personality and sexual selection in wild populations of blue tits and great tits" (Dr. Jon Brommer's lab, University of Turku, Finland)
01/12/2013- 31/10/2017	<b>PhD project:</b> "Evolutionary quantitative genetics of animal personality in the wild" (Supervised by Dr. Jon Brommer, University of Turku, Finland)
01/01/2013- 30/06/2013	<b>MSc project:</b> "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	<b>Scientific internship:</b> "Effect of glucocorticoids and environmental conditions on chick growth in Adélie penguins" (Supervised by Dr. Thierry Raclot, University of Strasbourg, France)
1/10/2011- 30/11/2011	<b>Scientific internship:</b> "Individual decision-making in road crossing pedestrians" (Supervised by Dr. Cédric Sueur, University of Strasbourg, France)

### Teaching

23/10/2020- 18/11/2020	<b>Evaluator</b> for Honours Thesis "Anthropogenic noise effects on anuran mating behaviour" by Charmaine Schou, University of the Sunshine Coast, Australia
2017-2019	<b>Co-organizer</b> of the course "Introduction to programming in R and its application in studying ecology and evolution", University of Turku, Finland
01/11/2017- 15/12/2017	<b>Lecturer</b> for the course "Advanced evolutionary Biology 2" (2 lessons), University of Turku, Finland
01/09/2016- 30/09/2016	<b>Evaluator</b> for MSc Thesis "Early weaning impacts personality and occurrence of stereotypic behavior in the domestic cat ( <i>Felis catus</i> )" by Milla Ahola, University of Turku, Finland

### Supervision/ Mentoring

09/03/2020-	<b>Mentoring</b> in Celine Frere's lab (University of the Sunshine Coast, Australia): <ul style="list-style-type: none"><li>- Honours' student Jessica Tacey, "Do Eastern Water Dragons (<i>Intellagama lesueurii</i>) Modify Their Social Behaviour to Avoid Fungal Infection?" (07/2020-)</li></ul>
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- Ph.D student Coralie Delme, “Social tolerance in a gregarious lizard: consistency, lifetime changes and population-level consequences” (03/2020-)
- Ph.D student Nicola Kent, “Adaptive responses to urban environments and disease emergence in Eastern water dragons” (03/2020-)
- Ph.D student Sarah Ball, “Consistency and plasticity in agonistic behaviour in Eastern water dragons” (03/2020-06/2020)

01/01/2018-30/06/2018     **Co-supervision** in Jon Brommer’s lab: 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”.

08/04/2015-10/10/2015     **Co-supervision** in Jon Brommer’s lab: MSc student Kees Schreven, University of Groningen. ”Relationship between personality and early life body mass in the Blue Tit *Cyanistes caeruleus*”.

## Awards and funding

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

## Scientific publications

I have (co) authored 14 journal articles including 9 as a first author, and co-authored of 1 book chapter (h-index=8, 201 citations, 06/01/2021, Google Scholar).

### Peer-reviewed journal articles

1. Dingemanse, N. J., **Class, B.**, & Holtmann, B. (2020). Nonrandom Mating for Behavior in the Wild?. Trends in Ecology & Evolution. *Accepted*
2. Westneat, D. F., Araya-Ajoy, Y. G., Allegate, H., **Class, B.**, Dingemanse, N., Dochtermann, N. A., Garamszegi, L. Z., Martin, J. G. A., Nakagawa, S., Réale, D., & Schielzeth, H. (2020). Collision between biological process and statistical analysis revealed by mean centring. Journal of Animal Ecology, August, 1–12.
3. **Class, B.**, & Brommer, J. (2020). Contrasting multilevel relationships between behavior and body mass in blue tit nestlings. Behavioral Ecology, 31(3), 702–710.
4. **Class, B.**, & Brommer, J. E. (2020). Can dominance genetic variance be ignored in evolutionary quantitative genetic analyses of wild populations? Evolution, 74(7), 1540–1550.
5. **Class, B.**, Brommer, J. E., & Oers, K. (2019). Exploratory behavior undergoes genotype–age interactions in a wild bird. Ecology and Evolution, 9(16), 8987–8994.

6. **Class, B.**, Klueen, E., & Brommer, J. E. (2019). Tail colour signals performance in blue tit nestlings. *Journal of Evolutionary Biology*, 32(9), 913–920.
7. **Class, B.**, Brommer, J.E. (2018) Shared environmental effects bias phenotypic estimates of assortative mating in a wild bird. *Biology Letters*, 14, 20180106.
8. Brommer, J.E., **Class, B.** (2017) Phenotypic correlations capture between-individual correlations underlying behavioral syndromes. *Behavioral Ecology and Sociobiology*, 71, 50.
9. **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.
10. **Class, B.**, Brommer, J.E. (2016) Senescence of personality in a wild bird. *Behavioral Ecology and Sociobiology*, 70, 733-744.
11. 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.
12. **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.
13. **Class, B.**, Brommer, J.E., Klueen E. (2014) Evolutionary quantitative genetics of behavioral responses to handling in a wild passerine. *Ecology and Evolution*, 4, 427-440.
14. 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

#### *Preprint*

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

#### **Conference contributions**

##### *Accepted conference talks*

Postponed to 2022	“Contrasting multilevel relationships between behavior and body mass in blue tit nestlings” (accepted in 2020), ISBE conference (Brisbane, Australia)
06/11/2020	“Can dominance genetic variance be ignored in evolutionary quantitative genetic analyses of wild populations?”, ICQG6 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*

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)

#### *Seminar talks*

18/11/2020 Evolutionary quantitative genetics of behaviour in wild birds (invited by Niels Dingemanse, LMU, Germany)

02/07/2020 Evolutionary quantitative genetics of behaviour in wild birds (invited by Denis Réale, UQAM, Canada)

23/03/2018 Quantitative genetics of personality traits in blue tits and great tits (invited by Kees van Oers, NIOO, Netherlands)

#### **Outreach activities**

23/07/2018 **Invited talk:** “Animal personality in wild birds” at the crossover event “Our Festival/ Meidän festivaali” (Järvenpää, Finland)

19/10/2017 **Press release of PhD Thesis:**”Persoonallisuudella on väliä myös sinitiaiselle” on the Web page of the University of Turku:  
<https://www.utu.fi/fi/Ajankohtaista/mediatiedotteet/vaitostiedotteet/Sivut/Persoonallisuudella-on-valia-my%C3%B6s-sinitiaiselle.aspx>

#### **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)

#### **Skills and other academic activities**

##### *Statistics and programming*

- **R:** Simulations and power analyses, univariate and multivariate mixed models in asreml and other packages (contributing to the wiki: <https://github.com/JonBrommer/Multivariate-Mixed-Models-in-R/wiki>), pedigree reconstruction using microsatellite data with MasterBayes, R markdown, GitHub
- **ASReml:** univariate and multivariate animal models, random regressions
- **MARK:** capture-recapture models

### *Referee activity*

**I reviewed 27 manuscripts** for various journals, among which Animal Behavior, Behavioral Ecology, Evolution, Journal of Animal Ecology, Journal of Evolutionary Biology, Oikos, Behavioral Ecology and Sociobiology, Ecology Letters, Evolution, Oxford Bibliographies (<https://publons.com/researcher/1458196/barbara-class/> )

### *Fieldwork*

2020-: **Weekly behavioural surveys** (data collection), design and collection of **focal behavioural data**, and **catching and processing**, in an urban population of Eastern water dragons in Brisbane, Australia.

2014-2019: **Monitoring a population of wild blue tits** during the breeding season (01/05-21/06), Coordination and data collection (observation, catching and processing), Tammisaari, Finland

### **Other activities**

- Photography
- Music (Flute)
- Pottery
- Hiking