

# Aude E. Caizergues

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Post-doctoral Fellow, University of Toronto Mississauga  
Department of Ecology & Evolutionary Biology

✉ [aude.caizergues@utoronto.ca](mailto:aude.caizergues@utoronto.ca)  [AudeCaizergues](https://github.com/AudeCaizergues)  [AudeCaizergues.github.io](https://github.com/AudeCaizergues)

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## Education

- Post-doc**, University of Toronto, ON, Canada 2021-present  
Urban evolutionary biology and genomics  
Advisors: Drs. Marc T.J. Johnson and Rob W. Ness
- Post-doc**, Center for Functional Ecology and Evolution Montpellier, France 2021  
Urban ecology and parasitology  
Advisors: Drs. Anne Charmantier & Sylvain Gandon
- Ph.D**, University of Montpellier, France 2017-2021  
Urban evolutionary biology and genomics  
Advisors: Drs. Arnaud Grégoire & Anne Charmantier
- M.Sc.**, University of Montpellier, France 2017  
Evolutionary biology & ecology
- B.Sc.**, University of Montpellier, France 2015  
Ecology & biology of organisms

## Research & Professional Experience

- Graduate research project**, Institute of Evolutionary Science 2017  
of Montpellier, France  
Advisor: Dr. Benoit Nabholz  
Thesis title: Impacts of Ne reduction on populations genomics of Darwin's finches and flycatchers
- Graduate research project**, Center for Functional Ecology and Evolution, 2016  
Montpellier, France  
Advisor: Dr. Arnaud Grégoire  
Thesis title: Impacts of urbanisation on great tits (*Parus major*) morphological traits
- Undergraduate research project**, Center for Biology management of Populations, 2015  
Montpellier, France  
Summer project in experimental biology on plant-insect interactions and host shifts  
PI: Rejane Streiff
- Undergraduate research staff assistant**, Center for Functional Ecology 2014  
and Evolution, Montpellier, France Fieldwork and lab assistant  
PI: Dr. Claire Doutrelant

## Scholarships and Awards

- School of Cities - Postdoc matching grant 2023 Centre for Urban Environment -  
Workshop/Symposium Grant 2023 Doctorate school Gaïa - merit-based PhD scholarship 2017

## Publications

### BOOK CHAPTERS

1. Perrier C., **Caizergues, A.E.** and Charmantier, A., *Adaptation Genomics in Urban Environments*. In: *Urban Evolutionary Biology*. Edited by Marta Szulkin, Jason Munshi-South and Anne Charmantier: Oxford University Press (2020). © Oxford University Press. DOI: [10.1093/oso/9780198836841.003.0005](https://doi.org/10.1093/oso/9780198836841.003.0005)

### JOURNAL ARTICLES

#### First author publications

4. **Caizergues, A.E.**, A. Grégoire, R. Choquet, S. Perret and A. Charmantier. 2022. Are behaviour and stress-related phenotypes in urban birds adaptive? *Journal of Animal Ecology*. 15(1):149-165. DOI: [10.1111/1365-2656.13740](https://doi.org/10.1111/1365-2656.13740)
3. **Caizergues, A.E.**, J. Le Luyer, A. Grégoire, M. Szulkin, J.-C. Senar, A. Charmantier, and C. Perrier. 2022. Epigenetics and the city: Non-parallel DNA methylation modifications across pairs of urban-forest Great tit populations. *Evolutionary Applications*. 15(1):149-165. DOI: [10.1111/eva.13334](https://doi.org/10.1111/eva.13334)
2. **Caizergues, A.E.**, A. Charmantier, M.M. Lambrechts, S. Perret, V. Demeyrier, A. Lucas and A. Grégoire. 2020. An avian urban morphotype: how the city environment shapes great tit morphology at different life stages. *Urban Ecosystems*. 24(5):929-941. DOI: [10.1007/s11252-020-01077-0](https://doi.org/10.1007/s11252-020-01077-0)
1. **Caizergues, A.E.**, A. Grégoire and A. Charmantier. 2018. Island songbirds as windows into evolution in small populations. *Current Biology*. 31(6):1303:1310. DOI: [10.1098/rspb.2018.0261](https://doi.org/10.1098/rspb.2018.0261)

#### Other publications

2. Leroy, T., M. Rousselle, M.-K. Tilak, **A.E. Caizergues**, C. Scornavacca, M. Recuerda, J. Fuchs, J.C. Illera, D.H. De Swardt, G. Blanco, C. Thébaud, B. Mila and B. Nabholz. 2021. An avian urban morphotype: how the city environment shapes great tit morphology at different life stages. *Urban Ecosystems*. 24(5):929-941.e4. DOI: [10.1016/j.cub.2020.12.040](https://doi.org/10.1016/j.cub.2020.12.040)
1. Lambrechts, M.M., **A.E. Caizergues**, C. Perrier, A. Charmantier and S. Caro. 2020. Surface temperatures of non-incubated eggs in great tits (*Parus major*) are strongly associated with ambient temperature. *International Journal of Biometeorology*. 64:1767:1775. DOI: [10.1007/s00484-020-01958-11](https://doi.org/10.1007/s00484-020-01958-11)

## Presentations

### INTERNATIONAL CONFERENCES

6. **Caizergues, A.E.**, et al. 2023. Does urbanization lead to parallel demographic shifts across the world in a cosmopolitan plant? Presentation. Evolution Congress, Albuquerque, NM, USA. 16/06/2023.
5. **Caizergues, A.E.**, et al. 2022. Effects of urbanization on demographic processes in *Trifolium repens*. Presentation. ESEB Congress, Prague, Czech Republic. 16/08/2022.
4. **Caizergues, A.E.**, A. Grégoire, R. Choquet, S. Perret and A. Charmantier. 2022. Are behavioural and stress related phenotypes adaptive in urban great tits? New insight from selection

analyses. Invited speaker (virtual). European Ornithologists' Union Congress 2022, Giessen, Germany. 14/03/2022.

3. **Caizergues, A.E.**, A. Grégoire and A. Charmantier. 2019. Adaptive potential in urban habitat : a study case in the Great tit (*Parus major*). Presentation. OSU-OREME Seminar, Montpellier, France. 11/10/2019.

2. **Caizergues, A.E.**, A. Grégoire and A. Charmantier. 2018. Adaptive potential in urban habitat, morphology and life history traits. Presentation. National Parid meeting, Strasbourg, France. 08/02/2018.

1. **Caizergues, A.E.**, A. Grégoire and A. Charmantier. 2018. Urban ecotypes are not explained by divergent reproductive selection. Poster Presentation. II Joint Congress on Evolutionary biology, Montpellier, France. 20/08/2018.

#### INVITED SEMINARS

1. **Caizergues, A.E.** et al. 2022. Evolutionary consequences of urbanization on the Great tit (*Parus major*): From phenotypes to (epi)genomes. Invited seminar speaker (virtual). RCN Urban eco-evo Seminar Series. 17/05/2022.

## Teaching & Supervisory Experience

### TEACHING

*University of Montpellier, France*

<b>Teaching Assistant</b> , Ecology and biodiversity	2019-2020
<b>Teaching Assistant</b> , Bases in evolutionary ecology	2019-2020
<b>Teaching Assistant</b> , Integrative biology	2017-2020
<b>Teaching Assistant</b> , Life cycles of organisms	2017-2018

### SUPERVISORY EXPERIENCE

<b>Amanda Alencar</b> , international PhD student.	2023
Mutation load estimation in clover genomes. <b>Isabella Vessio</b> , work study student.	2022
HCN and herbivory assessment in white clover leaves.	
<b>Fiona Cornet</b> , undergrad student.	2019
Impact of urbanization on great tits' black tie size.	
<b>Arnaud Borne</b> , undergrad student.	2018
Estimation of anthropogenic perturbations around nest-boxes.	

## Outreach

<b>Festival of Science</b> , Montpellier, France	Oct-2020
I ran a scientific booth to communicate about biodiversity in urban habitats	
<b>Festival of Nature</b> , Montpellier's zoo, France	May-2020
Communication with families and children to raise public awareness on biodiversity	
« 3 Minute Thesis » <b>competition</b> Montpellier, France	2019
Regional finalist of the French "3 Minute Thesis" competition	

**Make my PhD a comics!** Montpellier, France

June-2019

Workshop, drawing and pitching my PhD thesis in a comics format for a broad audience

**Radio broadcast** Montpellier, France

April-2019

Animation of a radio broadcast about urban biodiversity on a national radio station