

# Claire Jacquet

## Curriculum Vitae

Institut des Sciences de l'Évolution de Montpellier  
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## WORK EXPERIENCE

- Since 2022 **CNRS researcher**, *Institute of Evolutionary Science of Montpellier, France*.  
BioDICée research team: Biodiversity: dynamics, interactions and conservation.
- 2020 – 2022 **Postdoctoral researcher**, *INRAE – Centre Clermont-Auvergne-Rhône-Alpes, France*.  
Complex System Lab.
- 2017 – 2020 **Postdoctoral researcher**, *University of Zurich & Eawag, Switzerland*.  
Department of Evolutionary Biology and Environmental Studies, University of Zurich.  
Department of Aquatic Ecology, Swiss Federal Institute of Aquatic Science and Technology.

## EDUCATION

- 2012 – 2016 **PhD in Ecology**, *University of Montpellier & University of Quebec at Rimouski, Canada*.  
With first-class honours. French - Canadian joint degree.
- 2010 – 2012 **Master degree in Ecology**, *University of Montpellier & University of the Aegean, Greece*.  
With honours. French - Greek joint degree.
- 2007 – 2010 **Bachelor degree in Biology**, *Grenoble Alpes University, Grenoble, France*.  
With honours.

## PUBLICATIONS

1. J. Carvajal-Quintero, L. Comte, X. Giam, J.D. Olden, U. Brose, T. Erős, A.F. Filipe, M.J. Fortin, K. Irving, **C. Jacquet**, S. Larsen, A. Ruhi, S. Sharma, F. Villalobos, P.A. Tedesco. Scale of population synchrony confirms macroecological estimates of minimum viable range size. *Ecology Letters*, ele.14152 (2022)
2. I. Overcast, G. Achaz, R. Aguilée, C. Andújar, P. Arribas, T. Creedy, E. Economo, R. Etienne, R. Gillespie, **C. Jacquet**, F. Jay, S. Kennedy, H. Krehenwinkel, A. Lambert, E. Meremveliotakis, V. Noguerales, B. Perez-Lamarque, G. Roderick, H. Rogers, M. Ruffley, I. Sanmartin, A. Vogler, A. Papadopoulou, B.C. Emerson, H. Morlon. Towards a genetic theory of island biogeography: Inferring processes from multidimensional community-scale data. *Global Ecology and Biogeography*, geb.13604 (2022)
3. **C. Jacquet**, F. Munoz, N. Bonada, T. Datry, J. Heino, F. Jabot. Disturbance-driven alteration of patch connectivity determines local biodiversity recovery within metacommunities. *Ecography*, e06199 (2022)
4. **C. Jacquet**, L. Carraro, F. Altermatt. Meta-ecosystem dynamics drive the spatial distribution of functional groups in river networks. *Oikos*, oik.09372 (2022)
5. General statistical scaling laws for stability in ecological systems A.T. Clark, J.F. Arnoldi, Y. Zelnik, D. Hodapp, C. Karakoç, S. König, V. Radchuk, G. Barabas, I. Donohue, A. Huth, C. Jacquet, C. de Mazancourt, A. Mentges, L.G. Shoemaker, F. Taubert, T. Wiegand, S. Wang, J. Chase, M. Loreau, S. Harpole. *Ecology Letters*, ele.13760 (2021) **Recommended by F1000**.
6. S. Larsen, L. Comte, A.F. Filipe, M.J. Fortin, **C. Jacquet**, R. Ryser, P.A. Tedesco, U. Brose, T. Erős, X. Giam, K. Irving, A. Ruhi, S. Sharma, J.D. Olden. The geography of metapopulation synchrony in dendritic river networks. *Ecology Letters* ele.13699 (2021).

7. L. Comte, J. Carvajal-Quintero, P.A. Tedesco, X. Giam, U. Brose, T. Erős, A. Filipe, M.J. Fortin, K. Irving, **C. Jacquet**, S. Larsen, S. Sharma, A. Ruhi, F.G. Becker, L. Casatti, G. Castaldelli, R. Dala-Corte, S. Davenport, N. Franssen, E. García-Berthou, A. Gavioli, K. Gido, L. Jimenez-Segura, R. Leitão, B. McLarney, J. Meador, M. Milardi, D. Moffatt, T. Occhi, P. Pompeu, D. Propst, M. Pyron, G. Salvador, J. Stefferud, T. Sutela, C. Taylor, A. Terui, H. Urabe, T. Vehanen, J.R.S. Vitule, J.O. Zeni, J. Olden. RivFishTIME: A global database of fish time-series to study global change ecology in riverine systems. *Global Ecology and Biogeography* (2021). **Recommended by F1000.**
8. **C. Jacquet**, I. Gounand, F. Altermatt. How pulse disturbances shape size-abundance pyramids. *Ecology Letters*, 23, 1014-1023 (2020).
9. **C. Jacquet**, F. Altermatt. The ghost of disturbance past: long-term effects of pulse disturbances on community biomass and composition. *Proceedings of the Royal Society B*, 287: 20200678 (2020).
10. T. Erős, L. Comte, A. Filipe, A. Ruhi, P. Tedesco, U. Brose, M.J. Fortin, X. Giam, K. Irving, **C. Jacquet**, S. Larsen, S. Sharma, J. Olden. Effects of nonnative species on the stability of riverine fish communities *Ecography*, 43: 1156–1166 (2020).
11. P. Legagneux, N. Casajus, K. Cazelles, C. Chevallier, M. Chevrinai, L. Guéry, **C. Jacquet**, M. Jaffré, M.J. Naud, F. Noisette, P. Ropars, S. Vissault, P. Archambault, J. Bêty, D. Berteaux, D. Gravel. Our house is burning: discrepancy in climate change vs biodiversity coverage in the media. *Frontiers in Ecology and Evolution*, 5, 175 (2018).
12. **C. Jacquet**, D. Mouillot, M. Kulbicki, D. Gravel. Extensions of Island Biogeography Theory predict the scaling of functional trait composition with habitat area and isolation. *Ecology Letters*, 20, 135-146 (2017). **Recommended by F1000.**
13. M. Chevrinai, **C. Jacquet**, R. Cloutier. Early establishment of vertebrate trophic interactions: Food web structure in two Middle-Late Devonian fish assemblages with exceptional fossilization. *Bulletin of Geosciences*, 92, 4, 491-510 (2017).
14. F. Massol, M. Dubart, V. Calcagno, K. Cazelles, **C. Jacquet**, S. Kéfi, D. Gravel. Island biogeography of food webs. In *Networks of Invasion: A Synthesis of Concepts. Advances in Ecological Research*, 56 (2017).
15. **C. Jacquet**, C. Moritz, L. Morissette, P. Legagneux, F. Massol, P. Archambault, D. Gravel. No complexity-stability relationship in empirical ecosystems. *Nature Communications*, 7, 12573 (2016). **Winner of 3 research awards (see next section).**

## COMPETITIVE FELLOWSHIPS AND AWARDS

- 06.2019 **Forschungskredit postdoctoral fellowship**, CHF 44,000.  
University of Zurich, Switzerland. Six-month salary.
- 09.2017 **SFE<sup>2</sup> Young Researcher Award**, 750€.  
From the French Society of Ecology and Evolution, for the paper "No complexity-stability relationship in empirical ecosystems."
- 01.2017 **Étudiante-Chercheuse Étoile, January award-winner**, 1,000\$.  
From the Quebec Research Fund – Nature and Technologies, Canada, for the paper "No complexity-stability relationship in empirical ecosystems."
- 12.2016 **BORÉAS Award "Discovery of the Year"**, 500\$.  
From the University of Quebec at Rimouski, Canada, for the paper "No complexity-stability relationship in empirical ecosystems."
- 04.2016 **17<sup>th</sup> Excellence Award, Quebec Centre for Biodiversity Science**, 1,500\$.  
Travel and accommodation grant for participation at the 101<sup>st</sup> Annual Meeting of the Ecological Society of America.
- 10.2015 **16<sup>th</sup> Excellence Award, Quebec Centre for Biodiversity Science**, 1,500\$.  
Travel and accommodation grant for collaboration at the Institute for the Oceans and Fisheries, University of British Columbia, Vancouver, Canada.

- 07.2012 **Three-year PhD fellowship**, 72,000€. Ministry of Higher Education and Research of France.
- 10.2010 **ExploRA'sup exchange scholarship**, 2,000€. Accomodation grant for an exchange semester at the University of the Aegean, Greece. Funding: Rhône-Alpes region, France.

## COMMUNICATION SKILLS

### Invited Speaker

- 04.2021 **Eco-evo seminars**, *INRAE*, Clermont-Ferrand, France.
- 10.2019 **CEEB seminars**, *Eawag*, Kastanienbaum, Switzerland.
- 09.2019 **Ecological Society of Germany, Austria and Switzerland (GFÖ) – Annual Meeting**, Münster, Germany.
- 07.2019 **Island Biology – 3<sup>rd</sup> International Conference**, La Réunion, France.
- 01.2019 **sDiv seminar series**, *German Centre for Integrative Biodiversity Research*, Leipzig, Germany.
- 01.2018 **French Society of Ecology and Evolution – Awards Presentation**, *National Museum of Natural History*, Paris, France.
- 11.2016 **22<sup>nd</sup> Current Themes in Ecology Meeting**, Lunteren, The Netherlands.

### Conference Presentations and Internal Seminars

- 11.2021 **GDR Theomodive – Annual Meeting**, Aix-en-Provence, France.
- 05.2020 **Ecomeet seminars**, *Eawag*, Dübendorf, Switzerland (by videoconference).
- 12.2019 **Protists diversity and ecology in aquatic and terrestrial ecosystems**, *University of Neuchâtel*, Neuchâtel, Switzerland.
- 12.2018 **British Ecological Society – Annual Meeting**, Birmingham, United Kingdom.
- 10.2018 **French Society of Ecology and Evolution – Annual Meeting**, Rennes, France.
- 09.2018 **Ecomeet seminars**, *Eawag*, Dübendorf, Switzerland.
- 09.2018 **BEEES seminar series**, *University of Zurich*, Zürich, Switzerland.
- 09.2017 **Ecomeet seminars**, *Eawag*, Dübendorf, Switzerland.
- 08.2016 **Ecological Society of America – Annual Meeting**, Fort Lauderdale, USA.
- 10.2015 **Quebec Centre for Biodiversity Science – Annual Meeting**, Montréal, Canada.

## TEACHING

- 05.2022 **Training course**, *Centre for the Synthesis and Analysis of Biodiversity*, Montpellier, France. Co-organizer of the training course “*Theory-driven Analysis of Ecological Data*” (1 week).
- 10.2021 - **Student supervision**, *INRAE – Centre Clermont-Auvergne-Rhône-Alpes*, France.
- 03.2022 Co-supervision of a MSc thesis (6 months). Project: “*Global empirical analysis of the relationship between stream connectivity and species richness in river networks*”.
- 09.2020 **Student supervision**, *Eawag, ETH and University of Zurich*, Switzerland. Limnoecology blockcourse (BIO309). Planning and supervision of a student project (MSc and BSc students), including 14 hrs of laboratory training and 8 hrs of R programming training for data analysis.
- 08.2019 **Student supervision**, *University of Zurich*, Switzerland. Field course in biodiversity assessment and monitoring (UWW 211). Project supervision and support for the statistical analysis of empirical data with R programming at the MSc level (10 hrs).
- 09.2017 **Student supervision**, *Eawag, ETH and University of Zurich*, Switzerland. Limnoecology blockcourse (BIO309). Planning and supervision of a student project (MSc and BSc students), including 6 hrs of theoretical courses, 8 hrs of laboratory training and 8 hrs of R programming training for data analysis.

2012 – 2015 **Teaching Assistant**, *Department of Biology & Ecology, University of Montpellier, France.*

Total of 192 hours over three years.

- *Biostatistics* (GMBE11D). Responsible for MSc level practical courses with programming (63 hrs).
- *Multivariate Statistic Analyses for Environmental Sciences* (GMBE230). Responsible for MSc level practical courses with R programming (39 hrs).
- *Statistics – Description of Variability in Biology, Ecology and Evolution* (GLBE202). Lecturer for BSc students (54 hrs).
- *Genetics – From Genes to Organisms* (GLBE201). Lecturer for BSc students (36 hrs).

## SCIENTIFIC ACTIVITY

### Working groups

- 09.2020 *SEA-UNICORN – Unifying Approaches to Marine Connectivity for improved Resource Management for the Seas*. COST Action, Horizon 2020 Framework Program of the European Union. 1<sup>st</sup> Management Committee Meeting. *Organisers: Audrey Darnaude.*
- 06.2020 *iBioGen – island Biodiversity Genomics*. Working group on ecological-evolutionary synthesis. Institut de Biologie de l'École Normale Supérieure, Paris, France (by videoconference). *Organisers: Isaac Overcast and Hélène Morlon.*
- 09.2019 *FIGS – Filling in gaps in global understanding of ecological stability and coexistence*. Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany. *Organisers: Adam Clark and Yuval Zelnik.*
- 01.2019, 07.2019 *sYNGEO – The geography of synchrony in dendritic networks: understanding the causes, dynamics, and consequences across multiple scales*. German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany. *Organisers: Julian Olden and Lise Comte.*

### Symposium Organization

- 10.2018 *Does Evolution Matter for Ecosystem Ecology?*, co-organised with I. Gounand and E. Fronhofer. French Society of Ecology and Evolution – Annual Meeting, Rennes, France.

### Grant reviewer

- 03.2020 External reviewer for the Centre for Integrative Biodiversity Research, Leipzig, Germany.
- 03.2018 External reviewer for the National Fellowships Committee for Graduate Women in Science, USA.

### Journal Referee

- Since 2017 *Nature Communications* (1), *Nature Ecology & Evolution* (1), *Ecology Letters* (3), *Trends in Ecology & Evolution* (2), *Scientific Reports* (1), *Proceedings of the Royal Society B* (1), *Ecography* (2), *Ecology* (2), *Functional Ecology* (3), *Journal of Biogeography* (3), *Journal of Ecology* (1), *Journal of Animal Ecology* (2), *Oikos* (4), *Methods in Ecology & Evolution* (2), *Ecology & Evolution* (1), *Diversity and Distributions* (1).