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## Current appointments

04/2020-05/2022: *Post-doctoral fellow* – St Andrews University, School of Biology (St Andrews, UK) and University of Wisconsin-Milwaukee, Biological sciences (Milwaukee, USA) . The role of social plasticity in reproductive isolation (supervised by Nathan Bailey and Rafael Rodríguez).

## Research indicators

- **20** Original publications in peer reviewed journals (10 as lead author)
- **269** citations (H index: 8)
- **28** communications at conferences and seminars (**12** oral presentations, **4** invited talk and **3** poster presentations at international meetings, **9** invited seminars)
- Cumulated research funding: **1,244,000€** (**1,090,000€** as a PI)
- **32** reviews completed since 2016 in **20** journals. Reviewer for several international funding schemes. Guest Editor for *Freshwater Biology*. Associate editor for *Methods in Ecology and Evolution*.

## Professional experience

01/04/2019-31/03/2020: *Post-doctoral fellow* – Universidad Autónoma de Madrid. Climate change and breeding tolerance in frogs (supervised by Diego Llusia).

15/01/2017-14/01/2019: *Post-doctoral fellow* – University of Wisconsin-Milwaukee, department of biological sciences (Milwaukee, USA). Social ontogeny of insect communication (supervised by Rafael Rodríguez).

01/09/2013-31/08/2016: *Teaching contract* – 64 hours each year (total 192 hours) – Level: Masters degree – Classes taught: statistics, ecology, population genetics and experimental methods for biodiversity inventory.

01/09/2012-31/08/2013: *Internship* – MNHN, Institut Systématique, Evolution et Biodiversité, UMR7205 (Paris, France). Diversity and structure of freshwater acoustic communities in temperate ecosystems (supervised by Jérôme Sueur and Fanny Rybak).

01/09/2010-31/05/2013: *Position as examiner and instructor* at Lycée Saint Louis – 50 hours – preparation school to the competitive examination for the admission to the "Grandes-Ecoles" – Classes: oral examinations in biology, chemistry and physics.

## Education

01/09/2013-21/11/2016: **PhD** – Muséum National d'Histoire Naturelle (MNHN), Paris – Population biology and ecology.  
**Thesis:** Acoustic diversity and ecology of freshwater environments: exploration in temperate environments. Supervision: Jérôme Sueur (MNHN) and Fanny Rybak (Université Paris-Sud).

01/09/2009-31/08/2013: **Diplôme de l'ENS** – Ecole Normale Supérieure de Paris – Sciences, technologies, health.

01/09/2010-31/08/2012: **Master's degree** – Ecole Normale Supérieure de Paris – Ecology, biodiversity and evolution.

**Second year internship:** Effect of plant host quality on cannibalism in aphids. Catherine Collins (Imperial College, Londres, UK) and Simon Leather (Imperial College, Londres, UK). Duration: 5 months.

**First year internship:** Evolution patterns of spiders in the Pacific Islands through molecular phylogeny. Rosemary Gillespie (University of California-Berkeley, USA). Duration: 4 months.

01/09/2009-31/08/2010: **Bachelor's degree** – Ecole Normale Supérieure de Paris – Biology.

**Internship:** Patterns of Coleoptera diversity in the Saratsi mountain range, Espiritu Santo, Vanuatu. Jürgen Schmidl (Friedrich-Alexander Universität Erlangen-Nürnberg, Allemagne). Duration: 2 months.

01/09/2007-31/08/2009: Preparation school to the competitive examination for the admission to the "Grandes-Ecoles" (Lycée Saint-Louis, Paris).

## Qualifications

**Languages:** French (mother tongue), English (fluent), German (intermediate), Spanish (intermediate).

**Coding:** R (confirmed), Matlab (intermediate), Python (intermediate), bash (beginner).

**Experimental techniques:** acoustic monitoring, signal analysis, automatic signal processing, behavioural experiments (acoustic playback, monitoring behavioural sequences), statistical analysis (linear models, multivariate analysis, functional data analysis), freshwater assessment with macro-invertebrates.

## Accepted publications in peer reviewed journals

1. Bailey N. W., & **Desjonquères C.** 2022. The Indirect Genetic Effect Interaction Coefficient  $\Psi$ : Theoretically Essential and Empirically Neglected. *Journal Of Heredity*.
2. Bailey N. W., **Desjonquères C.**, Drago A., Rayner J. G., Sturiale S. L., & Zhang X. 2021. A neglected conceptual problem regarding phenotypic plasticity's role in adaptive evolution: The importance of genetic covariance and social drive. *Evolution Letters*, 5(5), 444-457.
3. **Desjonquères C.\***, Maliszewski J., & Rodríguez R. L. 2021. Juvenile social experience and practice have a switch-like influence on adult mate preferences in an insect. *Evolution*, 75(5), 1106-1116.
4. Abrahams C., **Desjonquères C.**, & Greenhalgh J. 2021. Pond Acoustic Sampling Scheme: A draft protocol for rapid acoustic data collection in small waterbodies. *Ecology and Evolution*.
5. **Desjonquères C.\***, R. Holt, B. Speck, R.L. Rodríguez. (in press). The relationship between a combinatorial processing rule and a continuous mate preference function in an insect. *Proceedings of the Royal Society B*.
6. Speck B., S. Seidita, S. Belo, S. Johnson, C. Conley, **C. Desjonquères** & R.L. Rodríguez. in press. Combinatorial signal processing in an insect. *The American Naturalist*.
7. Van der Lee, G. H., **C. Desjonquères\***, J. Sueur, M. H. S. Kraak & P. F. M. Verdonschot. 2020. Freshwater ecoacoustics: listening to the ecological status of multi-stressed lowland waters. *Ecological Indicators*, 113, 106252.
8. Greenhalgh, J. A., M. J. Genner, G. Jones, & **C. Desjonquères**. 2020. The role of freshwater bioacoustics in ecological research. *WIREs Water*.

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\*First authored paper

9. Linke S., T. Gifford, **C. Desjonquères**. 2020. Six steps towards operationalising freshwater ecoacoustic monitoring. *Freshwater Biology*, 65 (1), 1-6.
10. **Desjonquères, C.\***, T. Gifford & S. Linke. 2020. Passive acoustic monitoring as a potential tool to survey animal and ecosystem processes in freshwater environments. *Freshwater Biology*, 65 (1), 7-19. (cited 10 times).
11. Linke S., E. Decker, T. Gifford & **C. Desjonquères**. 2020. Diurnal variation in freshwater ecoacoustics: implications for site-level sampling design. *Freshwater Biology*, 65 (1), 86-95. (cited 9 times).
12. Karaconstantis, C., **C. Desjonquères\***, T. Gifford, S. Linke. 2020. Spatio-temporal heterogeneity in river sounds – disentangling micro- and macro-variation in a chain of waterholes. *Freshwater Biology*, 65 (1), 96-106. . (cited twice).
13. **Desjonquères, C.\***, F. Rybak, J. S. Ulloa, A. Kempf, A. Bar Hen, & J. Sueur. 2020. Monitoring the acoustic activity of an aquatic insect population in relation to temperature, vegetation and noise. *Freshwater Biology*, 65 (1), 107-116. (cited 13 times).
14. Moreira Sugai, L. S., **C. Desjonquères**, T. Silva, & D. Llusia. 2019. A roadmap for survey designs in terrestrial acoustic monitoring. *Remote Sensing in Ecology and Conservation*. (cited 8 times).
15. **Desjonquères, C.\***, B. Speck & R. L. Rodríguez. 2019. Signalling interactions during ontogeny are a cause of social plasticity in *Enchenopa* treehoppers (Hemiptera: Membracidae). *Behavioural processes*, 166, 103887.
16. **Desjonquères, C.\***, J. Maliszewski, E. N. Lewandowski , B. Speck & R. L. Rodríguez. 2019. Social ontogeny in the communication system of an insect. *Animal Behaviour*, 148, 93-103. (cited once).
17. **Desjonquères, C.\***, F. Rybak, E. Castella, D. Llusia & J. Sueur. 2018. Acoustic communities reflects lateral hydrological connectivity in riverine floodplain similarly to macroinvertebrate communities. *Scientific Report*, 8 (1), 14387. (cited 9 times).
18. Linke, S., T. Gifford, **C. Desjonquères**, D. Tonolla, T. Aubin, L. Barclay, C. Karaconstantis, M. Kennard, F. Rybak & J. Sueur. 2018. Freshwater ecoacoustics as a tool for continuous ecosystem monitoring. *Frontiers in Ecology and the environment*, 16(4), 231-238. (cited 36 times).
19. **Desjonquères, C.\***, Rybak, F., Depraetere, M., Gasc, A., Le Viol, I., Pavoine, S., & Sueur, J. 2015. First description of underwater acoustic diversity in three temperate ponds. *PeerJ*, 3, e1393. (cited 32 times).
20. Cooper, L. C., **Desjonqueres, C.**, & Leather, S. R. 2014. Cannibalism in the pea aphid, *Acyrtosiphon pisum*. *Insect science*, 21(6), 750-758. (cited 7 times).

## Book chapters

1. S. Linke, **C. Desjonquères**, T. Gifford & L. Barclay. Accepted. Freshwater ecoacoustics – a new addition for inland water monitoring. In Encyclopedia of Inland Waters. Elsevier.
2. R. L. Rodriguez & **C. Desjonquères**. 2019. Vibrational signals: sounds transmitted through solids. 2018. In: Choe, J.C. (Ed.), Encyclopedia of Animal Behavior, (2nd ed.). vol. 1, pp. 508–517. Elsevier, Academic Press. (cited twice).

## Other scientific contributions

1. S. Linke, T. Gifford & **C. Desjonquères**. 2020. Passive acoustics: a new addition to the freshwater monitoring toolbox. Special issue in *Freshwater Biology*.

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\*First authored paper

2. **C. Desjonquères**. 2018. Ecoacoustics: The Ecological Role of Sounds edited by Almo Farina and Stuart H. Gage. *The Quarterly Review of Biology*, 93(2), 143-144.
3. J. Sueur, T. Aubin, C. Simonis, L. Lellouch, E. C. Brown, M. Depraetere, **C. Desjonquères**, F. Fabianek, A. Gasc, S. LaZerte, J. Lees, J. Marchal, S. Pavoine, A. Stotz, L. J. Villanueva-Rivera, Z. Ross, C. G. Witthoft & H. Zhivomirov. (2019). Package 'seewave'. (cited 7 times).
4. **C. Desjonquères**. 2016. Acoustic diversity and ecology of freshwater environments: exploration in temperate environments. PhD dissertation. (cited 3 times).

### Communications at conferences and seminars

- 24/11/21:** Atelier INSU-INEE-INSIS du CNRS "Le vivant comme vecteur d'observation". Invited talk.
- 15/09/21:** ESEB satellite meeting on reproductive isolation, online. Oral presentation.
- 14/12/2020:** Festival of Ecology of the British Ecological Society, online. Invited talk.
- 14/11/2020:** American Genetic Association president symposium, online. Invited talk by the president as a "presentation award".
- 05/11/2020:** Tropicon, twitter conference of the conservation ecology group at the British Ecological Society, online. [Twitter presentation](#).
- 14/10/2020:** Laboratoire d'Ecologie Fonctionnelle et Environnement, Toulouse, France. Invited seminar.
- 06/03/2020:** Laboratoire d'écologie Alpine, Grenoble, France. Invited seminar.
- 11/02/2020:** Center for Acoustics Research and Education (CARE) spring seminar series, University of New Hampshire, Durham, USA. Invited web-seminar.
- 20/01/2020 :** Centre d'Ecologie Fonctionnelle & Evolutive, Montpellier, France. Invited seminar.
- 05-06/12/2019:** Winter meeting of the Association for the Study of Animal Behaviour, London, UK. Oral presentation.
- 31/08-05/09/11/2019:** International Bioacoustic Congress, Brighton, UK. Invited talk.
- 31/08-05/09/11/2019:** International Bioacoustic Congress, Brighton, UK. Oral presentation.
- 05-09/11/2018:** 176<sup>th</sup> Meeting of the Acoustical Society of America, Victoria, Canada. Invited talk.
- 04-06/09/2018:** Biotremology, Riva del Garda, Italy. Oral presentation.
- 02-06/08/2018:** Animal Behaviour Society Annual Meeting, Milwaukee, USA. Oral presentation.
- 20-24/05/2018:** Society for Freshwater Sciences Annual Meeting, Detroit, USA. Symposium co-host and oral communication.
- 13/02/2018:** Graduate seminar series. Purdue University, West Lafayette, USA. Invited seminar.
- 08-13/10/2017:** International Bioacoustic Congress, Haridwar, India. Oral presentation.
- 08-13/10/2017:** International Bioacoustic Congress, Haridwar, India. Poster.

**23-27/07/2017:** International Congress for Conservation Biology, Cartagena, Colombie. Symposium co-host and oral communication.

**12/08/2016:** Seminar series of the Australian River Institute, Griffith University, Brisbane, Australie. Invited seminar.

**25/03/2016:** Behavioural and molecular ecology club, University of Wisconsin-Milwaukee, Etats-Unis. Invited seminar.

**09/11/2015:** Seminars of the Atelier de Bioinformatique, Muséum national d'Histoire naturelle, Paris, France. Invited seminar.

**7-11/09/2015:** International Bioacoustic Congress, Murnau, Allemagne. Oral presentation.

**29/11/2014:** Journée thématique Fleuves et rivières, Muséum national d'Histoire naturelle, Paris. Invited seminar.

**16-18/06/2014:** Ecoacoustics, Muséum national d'Histoire naturelle, Paris. Oral presentation.

**12-14/02/2014:** Young Natural History scientists Meeting, Muséum national d'Histoire naturelle, Paris. Oral presentation.

**10/08/2013:** Acoustic Communication Summer school, Aarhus University, Denmark. Poster.

### **Supervising and mentoring activities**

- Supervision of **16** undergraduate students, **3** MS students, **3** PhD students, and **2** post-doctoral researchers
- **8** students co-authors on published articles.

### **Grants**

**02/07/2021:** AQUACOSM transnational access (15,000 €).

**01/03/2021:** Wageningen Environmental Research call for innovative project (25,000 €). Awarded to Gea van der Lee, with Piet Verdonchot and I as collaborators.

**18/05/2019:** National Geographic Grant NGS-56852R-19 (20,000 \$). Awarded to Simon Linke, with Toby

**18/05/2019:** National Geographic Grant NGS-56852R-19 (20,000\$). Awarded to Simon Linke, with Toby Gifford, Brendan Ebnar, Leah Barclay and I as collaborators.

**11/04/2019:** NSF 3 year grant - IOS-1855962 (1,141,169 \$). Awarded to Rafael L. Rodríguez and I as co-PIs. Collaborator: Nathan Bailey.

**15/06/2016:** Post-doctoral fellowship from Fondation Fyssen (50,000 €).

**15/05/2016:** Grant Jean Walter Zellidja, mobility grant of the French Academy (3500 €).

**24/03/2016:** Research Growth Initiative (105,922 \$). Awarded to Rafael L. Rodríguez, with me as collaborator.

**17/04/2013:** Summer school "Acoustic Communication" grant (300 €).

**21/03/2013:** Grant of the Association des Amis du Muséum (1,475 €).

**25/01/2013:** Field work grant from LabEx BCDiv (7,160 €). Awarded to Jérôme Sueur, with Sandrine Pavoine, Romain Garrouste and I as collaborators.

## Commissions of trust

**Scientific reviewer** for *Animal Behaviour*, *Behavioural Ecology*, *Bioacoustics*, *Biodiversity and Conservation*, *Biology Letters*, *Biota Columbiana*, *Deep Sea Research Part I*, *Diversity*, *Ecological indicators*, *Ecological Informatics*, *Ecology*, *Ecology and Evolution*, *Freshwater Biology*, *Herpetological Conservation and Biology*, *Hydrobiologia*, *Journal of the Royal Society Interface*, *Methods in Ecology and Evolution*, *Peer J*, *Plos One* et *Proceedings of the Royal Society B: Biological Sciences* (publon ID: [1294815](#)).

**Reviewer** for an ANR (Agence Nationale de la Recherche) project, an NSERC (Natural Sciences and Engineering Research Council of Canada) project, a PhD proposal at the Universidad de Antioquia (Columbia).

**Guest editor** | for a special issue in *Freshwater Biology* (01/01/2017-31/12/2019).

**Associate editor** for *Methods in Ecology and Evolution* (01/10/2020-présent).

## Outreach programs and art-science collaborations

**08/10/2021:** Interactive seminar to high school students for the "fête de la science" on animal sound producers in freshwater. CEREEP, Saint-Pierre-lès-Nemours (France).

**03/10/2020:** Project for the [nuit blanche](#) in Paris. I am providing underwater recordings to Pierre Lanchantin and Maxime Rossi to present an evolving soundtrack – Paris (France).

**20-21/01/2020:** Interactive seminar to high school students for the "semaine des sciences" on animal sound producers in freshwater. Lycée Feuillade, Montpellier (France).

**08/06-17/08/2019:** Exhibition of a piece called [The Secret Sound of Ponds](#) in collaboration with Benjamin Gottesman and David Rothenberg as part of the [Depth](#) exhibition – Science Gallery, Detroit (USA).

**12/10/2018:** Performance of a piece by Marcelo Bonvicino at an Electroacoustic concert [Arts, écologies, transitions](#) using my underwater recordings – Université Paris 8, Paris (France).

## Organisation of scientific meetings

- 02-05/02/2016: Member of the scientific comity of the 3<sup>rd</sup> Young Natural History scientists Meeting (Paris).
- 04-06/02/2015: Coordinator of the organisation of the 2<sup>nd</sup> Young Natural History scientists Meeting (Paris).

## Membership in scientific societies

**2018-present** : Animal Behaviour Society ([ABS](#))

**2018-present** : Society for Freshwater Sciences ([SFS](#))

**2017-2018** : Society for Conservation Biology ([SCB](#))

**2015-present** : Société Française d'Ecologie ([SFE](#))

**2012-2015** : Société Française d'Acoustique ([SFA](#))

## Administrative and associative responsibilities

- 01/04/2013-31/08/2016: Active member of the Bureau des Doctorants et étudiants du Muséum (student association of the MNHN; 150 members).
- 01/02/2014-31/01/2016: Elected at the lab council of the Institut SYstématique, Évolution, Biodiversité (non-permanent researcher representative; about 200 permanent researchers).

- 01/04/2014-01/04/2015: President of the Bureau des Doctorants et étudiants du Muséum (student association of the MNHN; 150 membres).
- 01/09/2012-31/03/2014: Co-management of an association to maintain sustainable farming, "LegUlm", AMAP de l'ENS (200 members)
- 15/01/2010-30/11/2010: Secretary of the sport association of the ENS (300 members)