

CV

Florence (Flo) Débarre

email: florence.debarre@normalesup.org

web: <http://www.normalesup.org/~fdebarre/>

Google Scholar: <http://scholar.google.com/citations?user=WkZgrYsAAAAJ>

ORCID: 0000-0003-2497-833X

Scopus Author ID: 22233654600

Address: Centre Interdisciplinaire de Recherche en Biologie (CIRB)

Collège de France

CNRS UMR 7241– Inserm U1050

11, Place Marcelin Berthelot

75231 Paris Cedex 05, France

Academic appointments

- 2015–... Permanent researcher at the Centre for Interdisciplinary Research in Biology, Paris.
Funding: ANR grant (PI), CNRS.
- 2014–2015 Fellow of the College of Life Sciences, Wissenschaftskolleg zu Berlin (Germany).
- 2013–2015 Lecturer in Evolutionary Theory, University of Exeter, Cornwall campus (UK).
- 2012–2013 Biodiversity Postdoctoral Fellow, University of British Columbia, Vancouver (Canada).
Funding: NSERC-CREATE through UBC Biodiversity Research Centre.
- 2011–2012 Postdoc with M. Doebeli and S. Nuismer, University of British Columbia, Vancouver (Canada) and University of Idaho, Moscow (USA).
Funding: NSF Grant to S. Nuismer.

Education

- 2007–2010 PhD in Theoretical Evolutionary Ecology (Université Montpellier II and Centre for Functional and Evolutionary Ecology (CEFE), France); Advisor: S. Gandon.
- 2005–2007 MSc in Ecology and Evolution (École Normale Supérieure and Université Paris 6).
M2 thesis supervised by S. Gandon and T. Lenormand, Montpellier (FR) [5 months in 2007].
M1 thesis supervised by S. Bonhoeffer and R. Regoes, ETH Zürich (CH) [5 months in 2006];
- 2004–2005 BSc in Biology (École Normale Supérieure, Paris, France).
BSc thesis supervised by C. de Mazancourt, Imperial College (UK) [2 months in 2005].

Teaching and Student supervision

Teaching

- 2015, 2016 Jury member, Master 1 defences, École Normale Supérieure.
- Spring 2014 Trends in Ecology and Evolution, (BIO3131, Exeter). Module leader.
- 04/2013 Two lectures in Quantitative Methods in Ecology and Evolution, (Biology 501, UBC).
- 01/2013 Guest lectures on Game theory, in Evolutionary Ecology (Biology 418, UBC).
- 2011 *Qualification aux fonctions de Maître de Conférences*
(= certification to teach at the level of an Assistant Professor in France)

- 2008–2011 Teaching assistant (*monitorat*) at Université Montpellier 2 (96h per year)
 – Introduction to Organismal Biology, lab instruction (1st year students)
 – Introduction to Ecology, tutorials and lab instruction (2nd and 3rd year students)

Student supervision

- 2016 Supervision of Lena Klay's undergraduate summer project.
 2016–... Co-supervision of François Bienvenu's PhD.
 2014 Co-supervision of Joseph Denton's MSc thesis.
 2013–2014 Supervision of the final projects of three undergraduate students.
 2011 Co-supervision of Fanny Gascuel's MSc thesis.

Publications

Please check my Google Scholar profile, at <http://scholar.google.ca/citations?user=WkZgrYsAAAAJ>, for bibliometrics.

Peer-reviewed articles

- [A16] **Débarre F**, Otto SP, Evolutionary dynamics of a quantitative trait in a finite asexual population. *Theoretical Population Biology* 108 75–88.
- [A15] Massol F, **Débarre F**, Evolution of dispersal in spatially and temporally variable environments: the importance of life cycles, *Evolution* 69: 1925–1937.
- [A14] **Débarre F**, Yeaman S, Guillaume F, Evolution of quantitative traits under a migration-selection balance: when does skew matter?, *The American Naturalist* 186 S37–S47.
- [A13] **Débarre F** Fitness costs in spatially structured environments. *Evolution* 69: 1329–1335.
- [A12] **Débarre F**, Nuismer SL, Doebeli M (2014) Multidimensional (co)evolutionary stability. *The American Naturalist* 184(2): 158–171.
- [A11] **Débarre F**, Hauert C, Doebeli M (2014) Social evolution in structured populations. *Nature Communications* 5: 3409 doi:10.1038/ncomms4409.
- [A10] Vines TH, Albert AYK, Andrew RL, **Débarre F**, Bock DG, Franklin MT, Gilbert KJ, Moore J-S, Renaut S, Rennison DJ (2014) The availability of research data declines rapidly with article age. *Current Biology* 24(1): 94–97.
- [A9] Gascuel F^M, Choisy M, Duplantier J-M, **Débarre F**^{*}, Brouat C^{*} (2013) Host Resistance, Population Structure and the Long-Term Persistence of Bubonic Plague: Contributions of a Modelling Approach in the Malagasy Focus, *PLoS Computational Biology* 9(5): e1003039.
- ^M Master student; ^{*} Equal contribution in supervising the study.
- [A8] **Débarre F**, Ronce O, Gandon S (2013) Quantifying the effects of migration and mutation on adaptation and demography in spatially heterogeneous environments, *Journal of Evolutionary Biology* 26(6): 1185–1202.
- [A7] **Débarre F** (2012) Refining the conditions for sympatric ecological speciation, *Journal of Evolutionary Biology* 25(12): 2651–2660.
- [A6] **Débarre F**, Lion S, van Baalen M, Gandon S (2012) Evolution of host life-history traits in a spatially structured host-parasite system, *The American Naturalist* 179(1): 52–63.

- [A5] **Débarre F**, Lenormand T (2011) Distance-limited dispersal promotes coexistence at habitat boundaries: reconsidering the competitive exclusion principle. *Ecology Letters* 14(3): 260-266.
- [A4] **Débarre F**, Gandon S (2011) Evolution in heterogeneous environments: between soft and hard selection. *The American Naturalist* 177(3): E84-E97.
- [A3] **Débarre F**, Gandon S (2010) Evolution of specialization in a spatially continuous environment. *Journal of Evolutionary Biology* 23:1090-1099.
- [A2] **Débarre F**, Lenormand T, Gandon S (2009) Evolutionary Epidemiology of Drug-Resistance in Space *PLoS Computational Biology* 5(4): e1000337.
- [A1] **Débarre F**, Bonhoeffer S, Regoes RR (2007) The effect of population structure on the emergence of drug resistance during influenza pandemics *J R Soc Interface* 4(16): 893-906

Chapters in collective volumes

- [B1] **Débarre F** and Gandon S (2008) Épidémiologie évolutive des maladies infectieuses. *In* Introduction à l'Épidémiologie Intégrative des Maladies Infectieuses et Parasitaires (eds. Guégan J-F & Choisy M), pp. 347-374. De Boeck Université, Collection Masters, Louvain-la-Neuve, Belgique.

Conferences and seminars

Conferences

- July 2016 Talk, Joint ECMTB-SMB Meeting, Nottingham (UK).
- June 2016 Talk, Fitness Workshop, Paris (FR).
- June 2016 Poster, 4th Toulouse Economics and Biology Workshop, Toulouse (FR).
- August 2015 Talk, European Society for Evolutionary Biology meeting, Lausanne (CH).
- July 2015 Talk, Society for Molecular Biology and Evolution meeting, Vienna (AT).
- July 2015 Invited talk, Mathematical Models in Ecology and Evolution, Paris (FR).
- June 2015 Invited talk, Models in Ecology and Evolution, Montpellier (FR).
- April 2015 Invited talk, Modelling Biological Evolution 2015, Leicester (UK).
- Dec 2014 Talk, British Ecological Society-Société Française d'Écologie, Lille (FR).
- June 2014 Invited talk, Evolution, Raleigh, NC (USA)
- June 2014 Invited talk, ECMTB meeting, Gothenburg (Sweden)
- Jan 2014 Poster, PopGroup meeting, Bath (UK)
- Sept 2013 Talk, Workshop "Mathematics for an Evolving Biodiversity", Montréal, QC (Canada)
- June 2013 Talk, Evolution, Snowbird, UT (USA)
- May 2013 Talk, CSEE, Kelowna, BC (Canada)
- March 2013 Invited Talk, Workshop "Biological invasions and evolutionary biology", Lyon (FR)
- Jan 2013 Poster, Workshop "Disease Dynamics 2013", UBC, Vancouver (Canada)
- July 2012 Talk, Evolution-ESEB joint meeting, Ottawa (Canada)
- May 2012 Talk, Evo-WIBO, Port Townsend, WA (USA)
- Nov 2011 Talk, SFU-UBC-UVic Ecology and Evolution Retreat, Brackendale (Canada)

Aug 2011	Talk, ESEB XIII Congress, Tübingen (Germany)
May 2011	Talk, Workshop on Quantitative Genetics, La Colle s/ Loup (France)
June 2010	Talk, Models in Evolutionary Ecology Workshop, Montpellier (France)
Aug 2009	Talk, ESEB XII Congress, Torino (Italy)
Oct 2008	Talk, “ R_0 and related concepts” meeting, Paris (France)
Aug 2008	Talk, “Petit Pois Dérivé” French Population Genetics Meeting, Rennes (France)
Sep 2007	Poster, Jacques Monod Conference, Roscoff (France)
Aug 2007	Talk, ESEB XI Congress, Uppsala (Sweden)

Seminars

The department or lab is indicated between [].

March 2016	Université Paris 6 [Laboratoire Jacques-Louis Lions] Paris (FR)
June 2015	Max Planck Institute for Evolutionary Biology, Plön (DE)
Nov 2014	Wissenschaftskolleg zu Berlin (DE)
July 2014	Université de Lille [Ecology-Evolution] (France)
May 2014	University of Basel [Ecology-Evolution] (Switzerland)
May 2014	University of Lausanne [Ecology-Evolution] (Switzerland)
March 2014	University of Zurich [Ecology-Evolution] (Switzerland)
March 2013	University of Helsinki [Mathematical Biology] (Finland)
Feb 2013	University of Idaho [Biology] (USA)
Nov 2012	Simon Fraser University [Biophysics] (Canada)
Oct 2012	Yale University [Jetz lab] (USA)
Sep 2012	University of British Columbia [Ecology-Evolution, External seminar] (Canada)
March 2012	University of Texas, Austin [Kirkpatrick lab] (USA)
Jan 2012	University of Toronto [Ecology-Evolution] (Canada)
Oct 2011	University of British Columbia [Ecology-Evolution, Internal seminar] (Canada)
Sep 2011	University of British Columbia [Mathematics] (Canada)
Apr 2011	INSA Lyon [Computer Science & Biology] (France)
Jan 2011	Institut des Sciences de l'Évolution [Ecology-Evolution], Montpellier (France)

Grants and awards

Grants, fellowships, scholarships

2014	Agence Nationale de la recherche, ANR-14-ACHN-0003 “MOLA” (4+1 years).
2014	College of the Life Sciences Fellowship, Wissenschaftskolleg zu Berlin. £20 315.
2014	Travel award for International Cooperation, Université de Lille, with François Massol. 3000 €.
2012	2-year Biodiversity Postdoctoral Fellowship, Biodiversity Research Centre, UBC, CA\$100 000.
2007	3-year PhD Fellowship (<i>Allocation moniteur normalien</i>).
2004	4-year Scholarship, École Normale Supérieure. (Provides recipients with a status of Civil Servant, a full salary and is awarded to the top 20 Biology/Geology students in France.)

Prizes and Awards

- June 2014 Springer Best talk prize, 9th European Conference for Mathematical and Theoretical Biology (ECMTB 2014, Gothenburg, Sweden).
- Jan 2013 Best poster prize, Workshop “Disease Dynamics 2013: Immunization, a true multi-scale problem” (UBC, Canada).
- 2012 Société Française d’Écologie’s (SFÉ) Young investigator Award.

Professional service

Reviewing

- 2007–... Referee for *Science**, *Nature*, *Proceedings of the Royal Society B****, *PNAS*, *Ecology Letters**, *Nature Communications**, *Evolution***, *The American Naturalist****, *PLOS Biology*, *PLOS Computational Biology**, *PLOS One**, *Journal of Theoretical Biology****, *Evolutionary Applications*, *Philosophical Transactions of the Royal Society*, *Theoretical Population Biology**, *BMC Evolutionary Biology*, *Scientific Reports*, *Oikos**, *Biology Letters*, *Axios Reviews*.

*: more than once, **: more than 5 times, ***: more than 10 times; for a total of 85 reviews on 2016-07-07

Reviewer of 12 chapters of “The Analysis of Biological Data” (2nd ed.) by Whitlock & Schluter (Roberts and Company Publishers).

Reviewer of “The Theory of Coevolution” by Nuismer (Roberts and Company Publishers).

- 2010 Top referee for *Proceedings B*.

Organization of meetings, workshops and symposia

- July 2016 Co-organizer (with L. Hindersin) of a symposium “Networks in Ecology and Evolution” at the joint ECMTB-SMB meeting in Nottingham (UK).
- August 2015 Co-organizer (with N. Rode et F. Blanquart) of a symposium “Adaptation in heterogeneous environments: insights from host-parasite systems” at the ESEB 2015 meeting in Lausanne (CH).
- Dec 2014 Co-organizer (with F. Massol, CNRS & Univ. Lille, FR) of a symposium on “Eco-evolutionary feedbacks: theoretical and empirical perspectives” at the joint meeting of the British Ecological Society (BES) and the Société Française d’Écologie (SFÉ) in Lille (FR).
- Oct 2013 Co-organizer of the 2013 UBC/SFU/UVic Ecology and Evolution Retreat (Canada).
- Oct 2012 Co-organizer of the 2012 UBC/SFU/UVic Ecology and Evolution Retreat (Canada).
- June 2010 Founding member and co-organizer of the student workshop “Models in Evolutionary Ecology” in Montpellier (FR) (the fifth edition took place in June 2014).

Organized seminars and journal clubs

- 2012–2013 Organizer of the Biodiversity Lunchtime Internal Seminar Series (BLISS) at UBC, Vancouver (Canada).

- 2011–2013 Running the “Let’s Assume” theory Journal Club at UBC (Canada).
2008–2009 Founding member and organizer of the department’s bimonthly student seminar.
March 2009 Organizer of the department’s fourth yearly “PhD students meeting”, CEFE, Montpellier (FR).

Others

- Languages French: mother tongue
 English: fluent
 German: good working knowledge
Computing Working with R, Mathematica, C and Matlab
Citizenship French