

CV—Timothée BONNET

PERSONAL DATA

BIRTH DATE: November 1st 1988
NATIONALITY: French
WORK ADDRESS: Research School of Biology
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Australia
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LANGUAGES: French (mother tongue), English (fluent), Spanish (basic)

ACADEMIC POSITIONS

JULY 2017 - CURRENT	Post-doctorate at the Research School of Biology, ANU In Loeske Kruuk's group.
OCT 2016 - JULY 2017	Post-doctorate at IEU, University of Zürich. In Arpat Ozgul's PopEcol group.

EDUCATION

OCT 2012 - SEP 2016	PhD student in Zürich evolutionary biology PhD program. <i>Individual-level causes and population-level consequences of variation in fitness in an alpine rodent.</i> Under the supervision of Dr Erik Postma. <i>Courses:</i> MAY 27-28th 2013 NGS for Model and Non-Model Species, by K. Shimizu & al. JUN 22-29th 2013 Evolutionary Biology Workshop in Guarda, by D. Ebert & S. Bonhoeffer OCT 10-11th 2013 Workshop on Integral Projection Models, C. Merow & al. OCT 14-18th 2013 Evolutionary Demography, by D. Levitis & al. JAN 13-17th 2014 Bayesian Population Analysis using WinBUGS, by M. Kéry & M. Schaub NOV 6-7th 2014 Advanced Software Carpentry, by M. D. Robinson & al. MAY 18-19th 2015 Advanced NGS, by S. Wider & H. Lischer
SEP 2011 - JUN 2012	M.Sc. in evolutionary biology and ecology. University Montpellier II, France. <i>Research project:</i> <i>Neutral processes and biased mitochondrial introgression at the center for population biology and management (CBGP).</i> Supervised by Drs Raphaël Leblois, Pierre-André Crochet and François Rousset.
SEP 2008 - SEP 2011	B.Sc Biology: National engineering school in biology and agronomy, Montpellier Supagro, France. Specializations in biodiversity conservation, ecology, population genetics, GIS. <i>Research projects:</i> JAN-AUG 2011 <i>Population dynamics of rodents, and agricultural practices.</i> Chizé Centre for Biological Studies (CEBC), France. Supervised by Drs Bertrand Gauffre and Vincent Bretagnolle. SEP-DEC 2010 <i>Genetic identification, speciation, hybridization and role of gonosomes in flycatchers and sparrows.</i> Centre for Ecological and Evolutionary Synthesis in Oslo, Norway. Supervised by Prof. Glenn-Peter Sætre. MAY-AUG 2010 <i>Meadow birds phenology, conservation and agriculture</i> at LPO (Birdlife international), in Grenoble, France.

SEMINARS

Invited seminars

- *Stochasticity, fitness and evolution* Bern, Switzerland, March 9th **2016**.
- *Body mass selection in an alpine rodent: does it fluctuate? does it matter?* Radboud Universiteit Nijmegen, the Netherlands, December 4th **2014**.
- *Variation in fitness: proximal and ultimate causes.* CNRS Brunoy, France. October 28th **2014**.
- *Individual-level causes of variation in fitness in an alpine rodent.* IEU, Zurich, September 29th **2014**.

Contributed seminars

- *How much are wild vertebrates populations evolving right now?* Evolution, Montpellier, France, August 18-22 **2018**.
- *Genetic evolution, climate change, and wild animal evolution: to understand and predict.* Collaboration across boundaries, Canberra, Australia, December 7th **2017**.
- *Demographic consequences of adaptive evolution and the nature of selection* Wild Animal Models Biennial Meeting, Saint-Michel-des-Saints, Qubec, Canada, July 3rd-7th **2017**.
- *What rescues the voles. Demographic consequences of contemporary adaptive evolution in a wild rodent population* Evolution, Portland, Oregon, USA, June 23rd-27th **2017**.
- *Adaptation against selection* Evolution, Austin, Texas, USA, June 17th-21th **2016**.
- *The stasis that wasn't: Adaptive evolution goes against phenotypic selection in a wild rodent population* Biology16, the Swiss conference on organismic biology, Lausanne, Switzerland, February 11th-12th **2016**.
- *The stasis that wasn't: Adaptive evolution goes against phenotypic selection in a wild rodent population* 3rd Young Natural History scientists Meeting, Paris, France, February 2nd-6th **2016**.
- *Rapid adaptive evolution opposite to phenotypic selection. Or why snow voles get smaller despite selection for larger individuals* European Society for Evolutionary Biology (ESEB) 15th, Lausanne, Switzerland. August 10th-14th **2015**.
- *Evolution outreach through dirtiness* Poster at the ESEB Workshop on Teaching Evolution, Lausanne, Switzerland. August 9th **2015**.
- *Successful by chance? The power of mixed models and neutral simulations for the detection of individual fixed heterogeneity in fitness components* GDR Ecological Statistics meeting, Lyon, France, March 12th-13th **2015**.
- *Why voles do not become beavers: indirect relationships between traits and fitness counteract selection for larger individuals in a snow vole population* Poster at Biology15, the Swiss conference on organismic biology, Dübendorf, Switzerland, February 12th-13th **2015**.
- *Fluctuating selection and genetic gradients on snow vole mass* Wild Animal Models Biennial Meeting, University of St Andrews, U.K. July 21st-25th **2014**
- *Lord of the scree by chance or by merit? Dynamic vs. fixed heterogeneity in an alpine rodent population.* Evolutionary Demography Society (EvoDemoS) first meeting, in Odense, University of South Denmark. October 5th-10th **2013**.
- *Climatic variability, viability selection and demography in an alpine rodent.* European Meeting of PhD Students in Evolutionary Biology (EMPSEB) 19th, at university of Exeter, U.K. September 3rd-7th **2013**.
- *Neutral processes and cyto-nuclear discordant introgression.* Colloquium Petit Pois Déridé, Avignon, France. August 29th **2012**.

SKILLS

Scientific

- Biology** | Evolutionary biology, population and quantitative genetics, demography.
- Statistics** | Generalized Linear Mixed Models, Bayesian methods, Mark-Recapture analysis.
- Mathematics** | Linear algebra, analysis, probabilities.

IT

- O.S** | Microsoft Windows, Linux (Ubuntu), MacOS X
- Scripting and programming** | R/S4, C/C++, Bash shell, BUGS/JAGS, Matlab, L^AT_EX
Some projects visible on GitHub:
<https://github.com/timotheenivalis>
- Software** | Arlequin, Genemapper, Mega, Sequencher, CLC Workbench, BioEdit, Genepop, Mark, Ucare, ArcGIS,...

Miscellaneous

- February 2013 | Far from help first aid course (2 days)

TEACHING

- FEB 2018-PRESENT | Fornightly workshops of bio-statistics in R
- AUG 2016 | Two weeks teaching assistant for Keller's and Manser's field course, Białowieża Forest, Poland
- MAR 2016 | Ten afternoons of practicals in Ozgul's population ecology
- MAR 2015 | One hour practical in Postma's intro to quantitative genetics
- FEB 2015 | One day introductory course to L^AT_EX(self-organized)
- JUL 2014 - DEC 2015 | One Master student
- DEC 2013 | 3 weeks supervision of a Bachelor student project

REVIEWING ACTIVITY

Journals

Publons merit: 74 (<https://publons.com/a/822275/>)

Conferences

- 2016 | Jury member for biodiversity and conservation at YNHM 16, Paris

EXTERNAL ACTIVITIES

Popular science

Contributions to:

- Planet-Vie, resources for biology teachers. (1 article, 2018)
<http://planet-vie.ens.fr/article/2536/evolution-action>
- Scientific "speed-dating" with the public at ESEB 15 and Biology 16 conferences

2017 | Oikos
2017 | Perspectives in Ecology and Conservation
2017 | Methods in Ecology and Evolution
2017 | Theoretical Population Biology
2015-2017 | Molecular Ecology
2016-2017 | Heredity
2015-2016 | Evolution
2016 | PLoS Biology
2015 | Proceedings of the Royal Society B: Biological Sciences
2015 | Ecology and Evolution

- Dans les testicules de Darwin. (7 articles, 2013 - 2015)
<http://danslestesticulesdedarwin.blogspot.ch>
- Un pied dans le plat. (1 article, 2012)
www.unpieddansleplat.fr/menu_gauche/alimentation_sante/laitage_et_cancer.php

Ornithology and naturalism

2012 - *current* | Member of the regional rare bird comity Tarn-Aveyron
http://www.faune-tarn-aveyron.org/index.php?m_id=20025


COMPETITIVE FUNDING

2018 | Center for Biodiversity Analysis synthesis grant (15,920AUD)
2016 | One year post-doc from UZH Forschungskredit (108,639CHF)
2016 | Fieldwork grant from the Georges and Antoine Claraz-Donation (770CHF)
2016 | Travel grant to attend the 3rd Young Natural History Scientists Meeting, Paris, France (150CHF)
2012 | PhD fellowship at IEU UZH

PEER-REVIEWED PUBLICATIONS

ISI citations: 68 ; *h*-index: 5

- **Bonnet, T.** & Postma, E. **2018**. Fluctuating selection and its (elusive) evolutionary consequences in a wild population. *Journal of Evolutionary Biology* early view.
- **Bonnet, T.**, Leblois, R., Rousset, F. & Crochet, P.A. **2017**. A reassessment of explanations for discordant introgressions of mitochondrial and nuclear genomes. *Evolution* 71(9): 2140-2158.
- **Bonnet, T.**, Wandeler, P., Camenisch, G. & Postma, E. **2017**. Bigger is fitter? Quantitative genetic decomposition of selection reveals an adaptive evolutionary decline of body mass in a wild rodent population. *PLoS Biology* 15(1): e1002592.

- van Benthem *, K., Bruijning, M. *, **Bonnet, T. ***, Jongejans, E., Postma, E. & Ozgul, A. **2017**. Disentangling evolutionary, plastic and demographic processes underlying trait dynamics: A review of four frameworks. *Methods in Ecology and Evolution* 8:75–85. (* co-first authors)
- **Bonnet, T.** & Postma, E. **2016**. Successful by chance? The power of mixed models and neutral simulations for the detection of individual fixed heterogeneity in fitness components. *The American Naturalist* 187(1). Recommended by Faculty of 1000 
- García-Navas, V., **Bonnet, T.**, Waldvogel, D., Camenisch, G. & Postma, E. **2016**. Consequences of female philopatry for reproductive success and mate choice in an Alpine rodent. *Behavioral Ecology*.
- García-Navas, V., **Bonnet, T.**, Bonal, R. & Postma, E. **2016**. The role of fecundity and sexual selection in the evolution of size and sexual size dimorphism in New World and Old World voles (Rodentia: Arvicolinae). *Oikos* Early view.
- García-Navas, V., **Bonnet, T.**, Waldvogel, D., Wandeler, P., Camenisch, G. & Postma, E. **2015**. Gene flow counteracts the effect of drift in a Swiss population of snow voles fluctuating in size. *Biological Conservation* 191: 168–177.
- **Bonnet, T.**, Crespin, L., Pinot, A., Bruneteau, L., Bretagnolle, V. & Gauffre, B. **2013**. How the common vole copes with modern farming: Insights from a capture-mark-recapture experiment. *Agriculture, Ecosystems & Environment* 177: 21–27.
- Elgvin, T.O., Hermansen, J.S., Fijarczyk, A., **Bonnet, T.**, Borge, T., Sæther, S. a, Voje, K.L. & Sætre, G.P. **2011**. Hybrid speciation in sparrows II: a role for sex chromosomes? *Molecular Ecology* 20: 3823–3837.
- **Bonnet, T.**, Slagsvold, P.K. & Sætre, G.P. **2011**. Genetic species identification of a Collared Pied Flycatcher from Norway. *Journal of Ornithology* 152: 1069–1073.