

# ALEXANDER BRANDT

## PERSONAL DETAILS

NAME	Alexander Brandt
BIRTH	December, 23rd 1988 in Hannover
NATIONALITY	German
ORCID	<b>0000-0003-3742-7692</b>
EMAIL	alexander.brandt@unil.ch
WEBSITE	<b>a-brandt.com</b>
LANGUAGES	German (native), English (fluent), French (beginner)
CURRENT AFFILIATION	University of Lausanne, Department of Ecology and Evolution, UNIL Sorge, Le Biophore, CH-1015, Lausanne, Switzerland

## SHORT PROFILE

PROFESSION	Evolutionary Biologist
RESEARCH INTERESTS	Molecular innovations, eg. genomic/cytonuclear incompatibilities, that underlie the origin of novel (complex) traits and how novel traits <i>in turn</i> impact the evolution of the genome
CURRENT RESEARCH	Origin and genomic consequences of alternative reproductive strategies in non-model organisms (stick insects, oribatid mites)
EXPERIENCES	Fieldwork (organization, team leading), molecular lab work, genomics and transcriptomics <i>in silico</i> (bash programming), group management

## RESEARCH EXPERIENCE

01/12/2021 - <i>present</i>	Marie Skłodowska-Curie International Fellow <i>University of Lausanne, Switzerland; Dept. Ecology &amp; Evolution (Prof. Tanja Schwander)</i>
01/12/2020 - 30/11/2021	Postdoctoral Research Fellow <i>University of Lausanne; Dept. Ecology &amp; Evolution (Prof. Tanja Schwander)</i>

- 01/04/2020 - 30/11/2020 Postdoctoral Research Fellow  
*University of Göttingen, Germany; Dept. Animal Ecology (Prof. Stefan Scheu)*
- 01/03/2015 - 31/03/2020 Doctoral Researcher  
*University of Göttingen; Dept. Animal Ecology (Prof. Stefan Scheu)*
- 01/04/2014 - 28/02/2015 Research Assistant  
*University of Göttingen; Dept. Animal Ecology (Prof. Stefan Scheu)*

## EDUCATION

- 05/06/2020 Doctor of Natural Sciences; graduated *summa cum laude*
- 01/03/2015 - 31/03/2020 PhD studies (Biology)  
*University of Göttingen; Dept. Animal Ecology (Scheu)*  
Title “No sex, No problem? Mutation accumulation in asexual animals”
- 01/10/2011 - 31/03/2014 M.Sc. studies (Biodiversity, Ecology & Evolution);  
graduated *with distinction* (grade 1,1)  
*University of Göttingen*
- 01/10/2007 - 30/09/2011 B.Sc. studies (Biology)  
graduated *very good* (grade 1,2)  
*University of Göttingen*

## PUBLICATIONS

- 2023**  
under review at  
*Science*  
*Oztoprak, H., Gao, Shan., Guiglielmoni, N., Brandt, A., Zheng, Y., Becker, C., Becker, K., Bednarski, V., Borgschulte, L., Atsuko Burak, K., Dion Côté, A-M., Leonov, V., Opherden, L., Shimano, S. & Bast, J.*  
Haplotype independence contributes to evolvability in the long-term absence of sex in a mite  
bioRxiv: <https://doi.org/10.1101/2023.09.07.556471>
- 2023**  
under review at  
*Evolution*  
*Brandt, A., Lavanchy, G., Bastardot, M., Dumas, Z., Labedan, M., Massy, M., Toubiana, W., Tran Van, P., Luchetti, A., Scali, V., Mantovani, B. & Schwander, T.*  
Evolution of alternative reproductive systems in *Bacillus* stick insects  
bioRxiv: <https://doi.org/10.1101/2023.07.31.550487>
- 2022**  
*Ecography*  
2022:e05944  
*Heimbürger, B., Schardt, L., Brandt, A., Scheu, S. & Hartke, T.*  
Rapid diversification of the Australian *Amitermes* group during late Cenozoic climate change
- 2021**  
*Front. Young Minds*  
9:611659  
*Öztoprak, H., Brandt, A., Solbach, M., Bast, J. & Schaefer, I.*  
Having babies in soil: is sex really necessary?

- 2021** *PNAS* 118:38 **Brandt, A., Tran-Van, P., Bluhm, C., Anselmetti, Y., Dumas, Z., Figuet, E., François, C. M., Galtier, N., Heimbürger, B., Jaron K. S., Labédan, M., Maraun, M., Parker, D. J., Robinson-Rechavi, M., Schaefer, I., Simion, P., Scheu, S., Schwander, T. & Bast, J.**  
Haplotype divergence supports ancient asexuality in the oribatid mite *Oppiella nova*
- 2020** Book chapter **Hörandl, E., Bast, J., Brandt, A., Scheu, S., Bleidorn, C., Cordellier, M., Nowrousian, M., Begerow, D., Sturm, A., Verhoeven, K., Boenigk, J., Friedl, T., & Dunthorn, M.**  
Genome Evolution of Asexual Organisms and the Paradox of Sex in Eukaryotes In Pontarotti, P. (ed.), *Evolutionary Biology: a transdisciplinary approach*. Springer. doi:10.1007/978-3-030-57246-4.
- 2019** *Sci Rep* 9:5338 **Brandt, A., Bast, J., Scheu, S., Meusemann, K., Donath, A., Schuette, K., Machida, R. & Kraaijeveld, K.**  
No signal of deleterious mutation accumulation in conserved gene sequences of extant asexual hexapods
- 2018** *Mol Biol Evol* 35:1668-1677 **Bast, J., Parker, D. J., Dumas, Z., Jalvingh, K. M., Tran Van, P., Jaron, K. S., Figuet, E., Brandt, A., Galtier, N. & Schwander, T.**  
Consequences of asexuality in natural populations: insights from stick insects
- 2017** *Nat Comm* 8:873 **Brandt, A., Schaefer, I., Glanz, J., Schwander, T., Maraun, M., Scheu, S. & Bast, J.**  
Effective purifying selection in ancient asexual oribatid mites

## FUNDING

- 01/12/2021 - 30/11/2023 Horizon 2020; Marie Skłodowska-Curie Actions International Fellowship Project “*Selfish Genome Exclusion under Hybridogenesis*” for details, see: <https://cordis.europa.eu/project/id/101024860>  
2 years, 200,000€
- 23/04/2018 - 27/04/2018 Unibund Göttingen travel funding  
*CNRS Jacques Monod conference* (Roscoff)

## PRICES & AWARDS

- 2013 Scholarship of the Federal Republic of Germany (Deutschlandstipendium)  
Funded by: *Heinz Sielmann Stiftung* + *Federal Republic of Germany*

## PRESENTATIONS

2014 - *present* More than 15 oral and poster presentations at international conferences

## INVITATIONS

- 23/03/2022 *University of Cologne, Germany; Institute for Zoology, group Bast*  
Talk: "Evolution of alternative reproductive systems in *Bacillus* stick insects"
- 20/01/2021 *Max Planck Institute for Multidisciplinary Sciences, Germany; Dept. Tissue Dynamics and Regeneration (Rink)*  
Talk: "No sex, no problem? Mutation accumulation in asexual animals"
- 28/11/2018 *University of Göttingen; Dept. Animal Evolution and Biodiversity (Bleidorn)*  
Talk: "Genomic consequences of asexuality in oribatid mites"
- 27/03/2018 *SINERGIA project colloquium, Leysin, Switzerland*  
Talk: "Haplotype divergence supports ancient asexuality in oribatid mites?"
- 16/06/2015 *University of Lausanne; Dept. Ecology and Evolution (group Schwander)*  
Talk: "No deleterious mutation accumulation in asexual oribatid mites"

INTERNSHIPS &  
WORKSHOPS

- 06/2023 *Academic Careers: Demands, Expectations and Preparation*  
*University of Lausanne Graduate Campus*  
*weekly lessons*
- 05/06/2022 - *Workshop on Population and Speciation Genomics*  
17/06/2022 *Cesky Krumlov*
- 09/11/2021 - *Leadership in Academia and Beyond*  
10/11/2021 *University of Lausanne Graduate Campus*
- 16/09/2019 - *Summer School and Symposium "Molecular Genetics in Zoology"*  
20/09/2019 *University of Göttingen; Johann-Friedrich-Blumenbach Institute*

## INTERNATIONAL CONFERENCE ORGANISATION

- 04/09/2023 - 08/09/2023      115th annual meeting of the German Zoological Society  
*University of Kassel, Germany*  
Organisation of the Interdisciplinary Symposium “Big Data - Big Questions”
- 27/09/2018 - 28/09/2018      GOEvol VI - #Sensation @GOEEvolution  
GOEvol Network & Symposium on Evolutionary Biology  
*University of Göttingen*  
Organisation, hosting, chairing
- 12/10/2016 - 13/10/2016      GOEvol V - Networks in Biology  
GOEvol Network & Symposium on Evolutionary Biology  
*University of Göttingen*  
Organisation, hosting, chairing
- 30/10/2013      GOEvol III - Open access publishing & Bioethics  
GOEvol Network & Symposium on Evolutionary Biology  
*University of Göttingen*  
Organisation, hosting, chairing

## SUPERVISION

- 2021      Supervision of a Master Thesis (Eleftheria Giagnisi)  
*University of Lausanne*
- 2022      Supervision of a First-Step Project (Bachelor Thesis equivalent; Morgane Massy)  
*University of Lausanne*
- 2015      Supervision of a Bachelor Thesis (Julien Glanz)  
*University of Göttingen*

## TEACHING

- 2021  
*summer term*      Teaching Assistant academic exercises “Population Genetics” for Bachelor students  
*University of Lausanne*
- 2014 - 2020  
*winter terms*      Conception and lecturing of yearly seminar “Animal Ecology and Evolution” for Bachelor students  
*University of Göttingen*

2014 <i>summer term</i>	Teaching Assistant practical course “Molecular Plant Biology” <i>University of Göttingen</i>
2012 <i>summer term</i>	Teaching Assistant two practical courses “Animal Anatomy” for Bachelor students <i>University of Göttingen</i>
2011 <i>summer term</i>	Teaching Assistant three practical courses “Animal Anatomy” for Bachelor students <i>University of Göttingen</i>

## OUTREACH & MEDIA

2021	Press release on <i>Brandt et al. 2021</i> featured by BBC, LeMonde, Die Welt, ZDF, etc.
2019 - 2021	Founding and administration of the homepage of the molecular lab of the Animal Ecology Department of the University of Göttingen <a href="http://www.mollilab.uni-goettingen.de">www.mollilab.uni-goettingen.de</a>
2017	Press release on <i>Brandt et al. 2017</i> featured by Göttinger Tageblatt
08/2014	Conception of exhibitions at “Museum of Natural History (Ottoneum) Kassel”
2011	Conception and Lecturing of guided tours and seminars on Paleontology and Evolution at “Outdoor Museum and Geotope Münchehagen”

## ADDITIONAL INFOS

REVIEWING FOR	<i>Evolution</i> , Oxford Academics <i>Evolutionary Ecology</i> , Springer
MEMBER OF	European Society for Evolutionary Biology (eseb)
COLLABORATORS (PAST & PRESENT)	Ken Kraaijeveld (University of Appl. Sciences Leiden), Karen Meusemann (University of Freiburg), Jens Bast (University of Cologne), Mario Mörl (University of Leipzig), Isa Schön (University of Brussels), Ina Schaefer (Institute Senckenberg, Frankfurt), Bastian Heimburger, Christoph Bleidorn, Mark Maraun, Stefan Scheu (all University of Göttingen)