#### Jeremias N. Brand

### Contact

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#### Languages

German English

#### **IT Skills**

R, Python, bash, javascript, HTML, PHP, git, vim, snakemake, SQL, MS Office, Illustrator, Photoshop, GIMP, ImageJ

## Wetlab Skills

Microscopy (DIC, SBFSEM, TEM), RNA extraction, PCR, Gel electrophoresis, Chromatography

## Education

PhD in Zoology, University of Basel, CH. Summa cum laude, Supervised by PD Dr. Lukas Schärer

- 11.2017 03.2018. Visiting Scholar at University of Idaho, USA. Supervised by Prof. Luke J. Harmon
- 08.2013 04.2015 Master of Animal Biology, University of Basel, CH. Grade – 5.8/6.0. Specialization in Evolutionary Biology
- **08.2009 06.2013** Bachelor of Organismal Biology, University of Basel, CH. Grade – 5.0/6.0. Specialization in Parasitology, Ecology, Evolutionary Biology and Plant Science

## **Employment history**

Since 01.2021	Postdoc, Department of Tissue Dynamics and Regeneration, Max Planck Institute for Multidisciplinary Sciences, Göttingen, DE.
08. – 12.2020	Postdoc, Schärer group, University of Basel, CH.
11.2015 - 04.2020	PhD candidate in Zoology, University of Basel, CH. Supervised by PD Dr. Lukas Schärer
04. – 11.2015	Civil Service. Research Assistant at Institute for organic farming (FiBL), Frick, CH.
02. – 0.8.2012	Civil Service. Technician and Research Assistant at Institute for Ecopreneurship, University of Applied Sciences and Arts Northwestern Switzerland, Muttenz, CH.
07. – 09.2011	Civil Service. Nature conservation work. Verein mum, Zürich, CH.
Courses	
09.2018	GreifOlution: 1st Greifswald Summer School on Mathematics of Evolution (7 days), Institute of Mathematics and Computer Science, University of Greifswald, DE.
09.2018	Comparative Genomics (3 days), Swiss Institute for Bioinformatics, Lausanne, CH.
05.2017	Computational Molecular Evolution (10 days), European Bioinformatics Institute, Wellcome Genome Campus, Hinxton, Cambridge, UK.
09.2017	Talking Science (1 day), University of Basel, CH.
01.2016	Workshop on Genomics (14 days), Cesky Krumlov, CZ.
06.2014	Summer School in Evolutionary Biology (7 days), Guarda, CH.

## **Publications**

- Wiberg, R. A. W., J. N. Brand, G. Viktorin, J. Mitchell, C. Beisel, and L. Schärer. 2023. Genome assemblies of the simultaneously hermaphroditic flatworms *Macrostomum cliftonense* and *Macrostomum hystrix*. G3 Genes|Genomes|Genetics jkad149.
- Brand, J. N., L. J. Harmon, and L. Schärer. 2022. Mating behavior and reproductive morphology predict macroevolution of sex allocation in hermaphroditic flatworms. BMC Biology 20:35.
- **Brand J. N.**, G. Viktorin, R. A. W. Wiberg, C. Beisel, and L. Schärer. 2022. *Large-scale phylogenomics of the genus Macrostomum (Platyhelminthes) reveals cryptic diversity and novel sexual traits*. Molecular Phylogenetics and Evolution. 166:107296.
- Wiberg, R. A. W., J. N. Brand, and L. Schärer. 2021. Faster Rates of Molecular Sequence Evolution in Reproduction-Related Genes and in Species with Hypodermic Sperm Morphologies. Molecular Biology and Evolution, doi: 10.1093/molbev/msab276.
- **Brand J. N.**, L. J. Harmon, and L. Schärer. 2021. *Frequent origins of traumatic insemination involve convergent shifts in sperm and genital morphology*. Evolution Letters.
- Brand J. N., R. A. W. Wiberg, R. Pjeta, P. Bertemes, C. Beisel, P. Ladurner & L. Schärer. 2020. *RNA-Seq of three free-living flatworm species suggests rapid evolution of reproduction-related genes*. BMC Genomics 21:462.
- Schärer, L., J. N. Brand, P. Singh, K. S. Zadesenets, C.-P. Stelzer, and G. Viktorin. 2020. A phylogenetically informed search for an alternative Macrostomum model species, with notes on taxonomy, mating behavior, karyology, and genome size. Journal of Zoological Systematics and Evolutionary Research 58:41–65. https://doi.org/10.1111/jzs.12344
- Neves R., **Brand J. N.**, Gan Q. and Reichert H. 2016. *First time surveying meiofauna in Singapore*. Raffles Bulletin of Zoology Supplement 34(I): 8-12. http://zoobank.org/urn:lsid:zoobank.org:pub:52431AAA-09BD-4305-B9B7-EA78F989D8D7

## Publications in preparation

- Brand J. N. & L. Schärer. In preparation. Synapomorphies and molecular data suggest a radiation of Macrostomum flatworms in Lake Tanganjika.
- Singh P., J. N. Brand & L. Schärer. In preparation. *Evolution of the suck behaviour, a postcopulatory female resistance trait in a hermaphroditic flatworm genus.*

## Contributions to international conferences

#### **Oral presentations**

- 2023. North American Planaria Meeting, Portland, Oregon, USA.
- 2023. PacBio Roadshow, Hamburg, DE.
- 2022. SMBE Workshop on the Evolution of Reproduction. Instituto Gulbenkian de Ciência, Oeiras, PT.
- 2022. 27th Graduate Meeting in Evolutionary Biology, Bielefeld, DE.
- 2021. Virtual Evolution 2021.
- 2021. Simultaneous and Sequential Hermaphroditic Organisms Workshop, Online Event, Basel, CH.
- 2020. 13th International Macrostomum Meeting, Online Event, Innsbruck, AU.
- 2019. Biology of Spermatozoa 15, Nynäsgård, SE.
- 2019. Simultaneous and Sequential Hermaphroditic Organisms Workshop, Salford, UK.
- 2019. Biology 19, Zürich, CH.

- 2018. 17. Annual Meeting of the Swiss Systematics Society, Bern, CH.
- 2018. International Symposium on Flatworm Biology, Alghero, IT.
- 2017. Simultaneously Hermaphroditic Organisms Workshop, Lund, SE.
- 2016. 10th International Macrostomum Meeting, Basel, CH.
- 2015. 9th International Macrostomum Meeting, Innsbruck, AU.

#### **Poster presentations**

- 2022. Euro Evo Devo, Napoli, IT.
- 2018. 1. Summer school on Biomathematics, Greifswald, DE
- 2017. Biology of Spermatozoa 14, Sheffield, GB
- 2017. Conference of the European Society of Evolutionary Biology, Groningen, NL
- 2015. Conference of the European Society of Evolutionary Biology, Lausanne, CH

### Institutional responsibilities

2022-2023	Biomedical Section Representative for the PostdocNet of the Max Planck Society
01.01.2022-present	External Postdoc representative for the PostdocNet of the Max Planck Institute of Multidisciplinary Sciences
02.2016 - 12.2017	Host and organization "Interaction Seminar", Zoological Institute, Basel, CH.
02.2009 - 12.2009	Member of Student Parliament, Studierendenrat, SKUBA, Two terms, University of Basel, CH.

## Supervision of junior researchers

**Tanja Koch** and **Anaïs Galli** (3<sup>rd</sup> year BSc., 6 week project). 02.-03.2017. Block course "Zoology and Evolution". Project co-supervisor. University of Basel, CH.

- Alessandra Lochmatter and Michaela Zwyer (3<sup>rd</sup> year BSc., 6 week project). 02.-03.2016. Block course "Zoology and Evolution". Project co-supervisor. University of Basel, CH.
- Naomi Reichlin (High school student, High school thesis, 3 month project). 01.-03.2014. Supervisor. University of Basel, CH.

### **Teaching activities**

Morphometrics and Image Analysis	Teaching assistant in 8h practical (3rd year BSc.) 03.2017 & 03.2019, University of Basel, CH.
Marine Biology and Biogeochemistry	Teaching assistant in 10 day field course (MSc. Level). 06.2015 & 06. – 07.2017, University of Basel, Elba, IT.
Flatworm Biology	Teaching assistant in 8h practical (3rd year BSc.) 03.2015, 03.2016, 03.2017, University of Basel, CH.
Wikipedia Writing Week	Teaching assistant in one week of practical (3rd year BSc.) 02.2016, University of Basel, CH

### Scientific reviewing activities

Reviewer for: Ethology, Ecology & Evolution (ISSN: 0394-9370), Evolution (ISSN: 1558-5646), Zoologischer Anzeiger (ISSN: 0044-5231), Zoological Letters (ISSN: 2056-306X), and Zoological Science (ISSN: 0289-0003)

### Active memberships in scientific societies

Deutsche Zoologische Gesellschaft, European Society of Evolutionary Biology, Society for the Study of Evolution, Swiss Systematics Society

# Organization of conferences

11.2016	10th International Macrostomum Meeting Assisted in planning and organizing of the conference, Basel, CH
07.2012	Conference on Managed Aquifer Recharge (MAR), Main organiser, Basel, CH. <i>Meeting for EU-Project partners from India and Germany</i>
03.2011	Theme week "Critical Science", Main organiser, Biozentrum, Basel, CH One week of discussion and lectures with scientists, journalists and educators
08.2009 - 12.2015	Co-founder and organizer of a lecture series every semester for "Freethinkers Basel" <i>An organization for the promotion of critical thinking and interdisciplinary exchange</i>

## **Outreach activities**

2017. Sex and Violence in the Beach. Science Slam 17, Basel, CH

2011. Theme week – "Critical Science". Biozentrum University of Basel, CH Main organiser. *One week of interdisciplinary discussion and lectures with scientists, journalists and educators*.

## Awards and grants

#### Awards

09.2018	Best Poster Award at 1st Summer School for Biomathematics, Greifswald, DE
10.2017	2 <sup>nd</sup> Place Basel Science Slam 17, Basel, CH.

#### Grants

01.02.2022	SNSF Postdoc Mobility Fellowship (90,000 CHF)
09.2019	Travel Grant, University of Basel, (880 CHF)
09.2018	Deutscher Akademischer Austauschdienst (DAAD)- Sponsored participation in Summerschool
09.2018	Deutscher Akademischer Austauschdienst (DAAD) – Travel Grant: 250 EURO
08.2017	Travel Grant, University of Basel (360 CHF)
06.2017	Travel Grant, University of Basel (1750 CHF)
02.2011	Grant for Theme Week "Critical Science", Mercator Foundation Switzerland, 4500 CHF