

# Jeremias Brand

## Curriculum Vitae

Vesalgasse 1, Universität Basel  
Basel, Switzerland  
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### Education

- 2015 - present **PhD candidate in Animal Biology**, *University of Basel*.
- 2013–2015 **Master of Animal Biology**, *University of Basel*, Grade – 5.8/6.0.  
Specialization in Evolutionary Biology
- 2009–2013 **Bachelor of Organismal Biology**, *University of Basel*, Grade – 5.0/6.0.  
Specialized in Parasitology, Ecology, Evolutionary Biology and Plant Science
- 2005–2008 **Highschool Diploma**, *Gymnasium Oberwil*.  
Specialization in Biology and Chemistry; Laudatio for distinguished Thesis

### Masters Thesis

- Title *Flexibility and Phylogenetic Distribution of Sex Allocation in the Genus *Macrostomum**
- Supervisors PD Dr. Lukas Schärer, Co-examinor: Prof. Dr. Walter Salzburger
- Abstract I used the emerging model organism *Macrostomum lignano* to demonstrate that adults individuals flexibly adjust their sex allocation in response to a change in social group size. Using an image database of field caught *Macrostomum* specimen I also described the distribution of sex allocation across a molecular phylogeny containing 47 species. I could show that traumatically mating species have a more female biased sex allocation than copulating species.

### Publications

- 2016 Neves R., **Brand J.**, Gan Q. and H. Reichert, First time surveying meiofauna in Singapore *Raffles Bulletin of Zoology Supplement* 34(1): 8-12.
- in prep **Brand J.** and L. Schärer, Flexible adjustment of sex allocation tracked in individual hermaphroditic flatworms.

### Presentations

- 2016 Talk at the 10th International *Macrostomum* Meeting, Basel:  
*A phylogenomic approach to understand sexual trait evolution in hermaphrodites*
- 2016 Talk at the Basel Evolutionary Genomics meeting:  
*Understanding sexual trait evolution in hermaphrodites using RNAseq*
- 2015 Talk at the 9th International *Macrostomum* Meeting, Innsbruck:  
*Flexible sex allocation in *Macrostomum lignano**

- 2015 Poster at the Conference of the European Society of Evolutionary Biology, Lausanne: *Comparative phylogenetic analysis of sex allocation evolution in the hermaphroditic flatworm genus Macrostomum*
- 2009 & 2012 Presentations on critical thinking for the student organization Freethinkers University Basel.

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## Experience

### Civil Service

- 4.–11.2015 **Research Assistant**, *Research Institute for Organic Farming*, Frick.  
I assisted in field and laboratory trials of compounds used to treat fungal infections in organic farming. I developed a new protocol to assess the UV-stability of these compounds.
- Implementing cultivation measures for apple and grape
  - Application of fungicides in the field and lab
  - Assessment of severity of infection on apple and grape
  - Quantitative-PCR for pathogen detection
  - Statistical analysis of field trials
- 2.–8.2012 **Lab Technician & Research Assistant**, *Institute for Ecopreneurship*, University of Applied Sciences and Arts Northwestern Switzerland, MuttENZ.  
Worked part time in a lab developing alternative water treatments to remove pharmaceuticals from waste water and part time as a literature researcher and coordination assistant for an European Union Project to recharge aquifers in India.
- Kit analysis of phosphate and nitrate levels
  - Matter flow analysis using radioactive isotopes
  - Maintenance of bioreactors
  - Literature research
  - Co-authored deliverable on state of the art of managed aquifer recharge in India
  - Organized an international conference for German and Indian project partners
- 7.–9.2011 **Nature Conservation**, *Verein mum*, Zürich.  
Worked on the maintenance and preservation of marshes and wetlands.
- removal of neophytes
  - cutting of meadows, clearing woodland

### Teaching Experience

- 6.2015 **Teaching Assistant**, *Field Course*, Marine Biology and Biogeochemistry, Elba.  
This course is designed to teach how to work scientifically in a marine environment and obtain integrative biological and biogeochemical insight into the coastal marine ecosystem.

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## Extracurricular Activities

- 2009 – **Co-founder and board member of 'Freethinkers University Basel'**, Basel.  
present This is a student organization dedicated to the promotion of a science-based world view and facilitates interdisciplinary discussions about science, philosophy and society.



## Skills

### Languages

German	Mothertongue
English	Fluent in speech and writing
French	Basic knowledge

### Computer

OS	Windows, Mac, UNIX
Programming	Bash, Python, R, javascript
Software	MS Office, ImageJ, Inkscape