

CURRICULUM VITAE

PATRICK SCHULTHEISS, PHD

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EDUCATION

- 2008 – 2012 **PhD in Brain, Behaviour and Evolution, Macquarie University, Sydney, Australia**
Thesis: “*Foraging ecology of the Australian desert ant Melophorus bagoti*”
Advisor: Prof. K. Cheng
- 1998 – 2006 **Diploma in Biology, Goethe-University, Frankfurt a. M., Germany**
Thesis: “*Comparison of the diversity of game-meadows and extensively used hay meadows in the Taunus*” Advisor: Prof. Dr. R. Wittig
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PROFESSIONAL EXPERIENCE

- since 2022 **Temporary Principal Investigator in Insect Neuroethology**
University of Würzburg, Germany
- 2019 – 2021 **Postdoctoral Researcher in Insect Behaviour and Biogeography**
University of Hong Kong, Hong Kong
- 2016 – 2018 **Postdoctoral Researcher in Insect Neuroethology**
French National Centre for Scientific Research (CNRS), Toulouse, France
- 2014 – 2015 **Research Assistant in Insect Ecology**
Western Sydney University, Sydney, Australia
- 2014 – 2014 **Postdoctoral Researcher in Insect Navigation**
Australian National University, Canberra, Australia
- 2012 – 2014 **Postdoctoral Researcher in Insect Navigation**
Macquarie University, Sydney, Australia
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GRANTS AND AWARDS

- 2022 Research Grant (Eigene Stelle), German Research Council (DFG)
- 2020 Postdoctoral Fellow Research Award, University of Hong Kong
- 2017 Workshop Attendance Fund, The Company of Biologists
- 2016 Returning Scientist Fellowship, DAAD; unclaimed
- 2010 Postgraduate Research Fund, Macquarie University
- 2008 Research Excellence Scholarship, Macquarie University
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TEACHING EXPERIENCE

- 2022 **Masterclass** Experimental Sociobiology, University of Würzburg, Germany
- 2022 **Instructor** Behavioural Physiology, University of Würzburg, Germany
- 2019 **Tutor** at experiential field course Ecology & Evolution, University of Hong Kong
- 2016 **Masterclass** Neuroethology, Paul Sabatier University, Toulouse, France
- 2015 **Lectures and practical** Navigation and Foraging, Macquarie University, Sydney, Australia
- 2012 **Tutor** Brain, Behaviour and Evolution, Macquarie University, Sydney, Australia
- 2011 **Tutor** Australasian Vertebrates, Macquarie University, Sydney, Australia
- 2003 – 2005 **Tutor** Animal and Plant Morphology, Goethe-University, Frankfurt a. M., Germany
- 2003 – 2004 **Tutor** Systematics of Plants and Animals, Goethe-University, Frankfurt a. M., Germany
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LIST OF PUBLICATIONS (SELECTION)

Total publications: 28. Scopus citations: 608, *h*-index 15; Google Scholar citations: 751, *h*-index 18
* first authorship shared

1. **Schultheiss P***, Nooten SS*, Wang R, Wong MKL, Brassard F, Guénard B. 2022. The abundance, biomass, and distribution of ants on Earth. *Proceedings of the National Academy of the USA* 119:e2201550119 ([link](#))
2. **Schultheiss P**, Guénard B. 2021. Kinematic study of six mangrove ants species (Hymenoptera: Formicidae) reveals different swimming styles and abilities. *Myrmecological News* 31:217-224 ([link](#))
3. Buatois A, Flumian C, **Schultheiss P**, Avarguès-Weber, A, Giurfa, M. 2018. Transfer of visual learning between a virtual and a real environment in honey bees: the role of active vision. *Frontiers in Behavioral Neuroscience* 12:139 ([link](#))
4. Freas CA, **Schultheiss P**. 2018. How to navigate in different environments and situations: lessons from ants. *Frontiers in Psychology* 9:841 ([link](#))
5. **Schultheiss P***, Buatois A*, Avarguès-Weber A, Giurfa M. 2017. Using virtual reality to study visual performances of honeybees. *Current Opinion in Insect Science* 24:43-50 ([link](#))
6. **Schultheiss P**, Stannard T, Pereira S, Reynolds, AM, Wehner R, Cheng K. 2016. Similarities and differences in path integration and search in two species of desert ants inhabiting a visually rich and a visually barren habitat. *Behavioral Ecology and Sociobiology* 70:1319-1329 ([link](#))
7. **Schultheiss P**, Wystrach A, Schwarz S, Tack A, Delor J, Nooten SS, Bibost, A-L Freas CA, Cheng K. 2016. Crucial role of ultraviolet light for desert ants in determining direction from the terrestrial panorama. *Animal Behaviour* 115:19-28 ([link](#))
8. **Schultheiss P**, Raderschall CA, Narendra A. 2015. Follower ants in a tandem pair are not always naïve. *Scientific Reports* 5:10747 ([link](#))
9. **Schultheiss P**, Wystrach A, Legge ELG, Cheng K. 2014. Information content of visual scenes influences systematic search of desert ants. *Journal of Experimental Biology* 216:742-749 ([link](#))
10. **Schultheiss P**, Cheng K. 2011. Finding the nest: inbound searching behaviour in the Australian desert ant, *Melophorus bagoti*. *Animal Behaviour* 81:1031-1038 ([link](#))