CV – Sebastian Pohl

PERSONAL DETAILS

Name: Dr Sebastian Pohl
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PROFESSIONAL EXPERIENCE

Lecturer, Yale-NUS College, Singapore **07/2020 – present**

- Teaching of the Common Curriculum courses *Scientific Inquiry 1* and *Scientific Inquiry 2*
- Teaching of the third-year elective course *Animal Behaviour*
- Research on phasmids and stalk-eyed flies of Southeast Asia

Postdoctoral Fellow, Yale-NUS College, Singapore **07/2017 – 06/2020**

- Taught the Common Curriculum courses *Scientific Inquiry 1* and *Scientific Inquiry 2*
- Co-taught the third-year course *Animal Behaviour*
- Supervised Research Students in the field and in the laboratory
- Field collections and behavioural experiments on stalk-eyed flies in Brunei and Thailand
- Field collections and behavioural experiments on stick insects in Singapore, Brunei and Malaysia
- Prepared RNA libraries of stalk-eyed flies for next-generation sequencing
- Bioinformatics analyses of transcriptome data of stalk-eyed flies
- Attended a Summer School on next-generation sequencing data analysis
- Acted as reviewer for *Animal Behaviour*

Research Officer, National Environment Agency, Singapore **03/2017 – 07/2017**

- Worked on a project to study the population genetics of the yellow fever mosquito *Aedes aegypti* in Singapore
- Conceptualized the sampling scheme for mosquito specimens from across Singapore
- Prepared genetic libraries of yellow fever mosquitoes for next-generation sequencing
- Engaged in public outreach programs to inform medical professionals about mosquito research and containment strategies

Research Fellow, University of Melbourne & Harvard University **12/2013 – 03/2017**

- Coordinated and conducted a research project on phylogeographic relationships in a mutualistic symbiosis between butterflies and ants
- Organised and led various field trips in Australia to collect ant and caterpillar specimens
- Prepared genetic libraries of ants and butterflies for next-generation sequencing (NGS)
- Analysed ddRADseq NGS data using current bioinformatics pipelines
- Wrote research publications for publication in peer-reviewed scientific journals
- Acted as reviewer for several scientific journals (e.g. *Proceedings B*, *Animal Behaviour*)
- Presented my work at international conferences
- Co-supervised Ph.D. student Dany Zemeitat, working on chemical ecology of ants and butterflies
- Assisted in organising a graduate seminar in Ecology & Evolution

Casual work as Research Assistant, University of Munich, Germany 05/2012 – 11/2013

- Managed animal husbandry for several research projects
- Wrote research publications for publication in peer-reviewed scientific journals

UNIVERSITY EDUCATION

Ph.D. in Behavioural Ecology, University of Munich, Germany 08/2006 – 04/2012

- Conducted a research project on interactions between socially parasitic ants and their hosts
- Organised and led three field trips in the USA (13 weeks total) to collect ant colonies
- Designed, performed and analysed behavioural experiments in a controlled laboratory setting
- Performed and interpreted chemical analyses using gas chromatography and mass spectrometry
- Wrote research publications for publication in peer-reviewed scientific journals
- Acted as reviewer for several scientific journals (*Insectes Sociaux*, *Psyche*)
- Presented my work at international conferences
- Acquired third-party funding for research and travel expenses
- Assisted in supervising several graduate students working on ant ecology and evolution
- Organised and directed field trips in Germany, France, and Czech Republic for various projects
- Completed degree with grade 1.0 (magna cum laude)

Diplom (University Science degree) in Zoology, University of Freiburg, Germany 2001 – 2006

- Conducted a research project on the reproductive behaviour of burying beetles
- Designed, performed and analysed behavioural experiments in a controlled laboratory setting
- Presented my work at an international conference
- Recommended for membership in the German National Academic Foundation (2003)
- Completed degree with grade 1.1 (SG equivalent: A+)

VOLUNTARY WORK

Field Research Assistant, Penguin Study Group, Phillip Island Nature Park, Australia (2016)
- Assisted in population monitoring of Little Blue Penguins (capture and weighing)

Field Research Assistant, La Selva Biological Station, Costa Rica (2013)
- Performed field studies on the biodiversity of invertebrate guests in army ant colonies

Field Research Assistant, Field Studies Centre, Ulu Gombak, Malaysia (2011)
- Performed field studies on ant ecology and behaviour

SKILLS

IT skills

- Bioinformatics pipelines for analyses of next-generation sequencing data (e.g., Trinity, DESeq2, Stacks, BAPS, Structure, FigTree, RAxML)
- Various statistical programs (R, PAST, SPSS, PRIMER, Statistica)
- Behaviour tracking software (BORIS, Noldus Observer)

Languages

- German (native language)
- English, French (fluent)
- Italian, Spanish (basic)

Full driving licence

PUBLICATIONS

Pohl S, Grace JL, Reinhardt JA, Kannangath A*, Lee WSI*, Tan QH*, Yu Z*, Wahab RA, Johns PM. Differential gene expression in fighting *Teleopsis pallifacies* stalk-eyed flies. *In preparation*

Pohl S, Bungum H*, Lee KEM, Poh YH, Wahab RA, Norma-Rashid Y, Tan EJ. Behavioural crypsis strategy varies depending on life history traits. *In preparation*

Pohl S, Bunnag N*, Wahab RA, Baker RH, Johns PM. Tissue-specific expression of highly duplicated nuclear import genes in stalk-eyed flies (Diopsidae). *In preparation*

von Beeren C, Blüthgen N, Brückner A, Hoenle P, Tishechkin AK, Maruyama M, Brown B, Hash J, Hall WE, **Pohl S**, Ospina-Jara B, Kronauer DJC. Myrmecophile network analysis and integration in a neotropical army ant community. *In preparation*

Pohl S, Elgar MA, Pierce NE. Population structure in the ant-associated lycaenid butterfly *Jalmenus evagoras*. *In preparation*

Pohl S, Frederickson ME, Elgar MA, Pierce NE, 2016. Colony diet influences ant worker foraging and attendance of myrmecophilous lycaenid caterpillars. *Frontiers in Ecology and Evolution*, 4:114. doi:10.3389/fevo.2016.00114

Pohl S ✉, Foitzik S, 2013. Parasite scouting and host defence behaviours are influenced by colony size in the slave-making ant *Protomognathus americanus*. *Insectes Sociaux,* 60:293-301. doi:10.1007/s00040-013-0293-7

von Beeren C, **Pohl S**, Witte V, 2012. On the use of adaptive resemblance terms in chemical ecology. *Psyche* vol. 2012, Article ID 635761, 7 pages. doi:10.1155/2012/635761

Pohl S ✉, Witte V, Foitzik S, 2011. Division of labor and slave raid initiation in slave-making ants. *Behavioral Ecology and Sociobiology*, 65:2029-2036. doi:10.1007/s00265-011-1212-4

Pohl S ✉, Foitzik S, 2011. Slave-making ants prefer larger, better defended host colonies. *Animal Behaviour*, 81:61-68. doi:10.1016/j.anbehav.2010.09.006

PRESENTATIONS

Pohl S, Grace JL, Reinhardt JA, Kannangath A*, Lee WSI*, Tan QH*, Yu Z*, Wahab RA, Johns PM, 2020. Aggression and differential gene expression in a Bornean stalk-eyed fly, *Teleopsis pallifacies*. Biodiversity Genomics 2020, Wellcome Sanger Institute, online

Pohl S, Pierce NE, Elgar MA, 2016. Population structure in the ant-associated lycaenid butterfly *Jalmenus evagoras*. XXV International Congress of Entomology, Orlando (*invited talk*)

Pohl S, Frederickson ME, Pierce NE, 2015. Compensatory foraging in a caterpillar-tending ant. Social Insects in the North-East Regions (SINNERS) 5, Boston

Pohl S, von Beeren C, Witte V, 2014. On the use of adaptive resemblance terms in chemical ecology. XVII Congress of the International Union for the Study of Social Insects, Cairns

Pohl S, Foitzik S, 2011. Scouting behaviour and host worker response in slave-making ants. 7th Ecology & Behaviour Meeting, Rennes

Pohl S, Foitzik S, 2010. Raid organisation and division of labour in slave-making ants. 13th International Behavioral Ecology Congress of the International Society for Behavioral Ecology (ISBE), Perth

Pohl S, Foitzik S, 2010. Raid organisation and task allocation in slave-making ants. 15th Graduate Meeting of the Section Evolutionary Biology of the German Zoological Society, Freiburg

Pohl S, Foitzik S, 2010. Raid organisation and division of labour in slave-making ants. 6th Ecology & Behaviour Meeting, Tours

Pohl S, Foitzik S, 2009. Decision making and host nest choice in the slavemaking ant *Protomognathus americanus*. 1st Central European Meeting of the International Union for the Study of Social Insects, Frauenchiemsee

Pohl S, Foitzik S, 2009. Risk evaluation and decision making in slavemaking ants. 5th Ecology & Behaviour Meeting, Lyon

Pohl S, Foitzik S, 2009. Risk evaluation and decision making in slavemaking ants. 14th Graduate Meeting of the Section Evolutionary Biology of the German Zoological Society, Munich

Pohl S, Konrad M*, Foitzik S, 2008. Behavioural and chemical changes in orphaned *Temnothorax* ant workers. 13th Graduate Meeting of the Section Evolutionary Biology of the German Zoological Society, Hamburg

POSTER CONTRIBUTIONS

Pohl S, Bunnag N*, Wahab RA, Baker RH, Johns PM, 2018. Tissue-specific expression of highly duplicated nuclear import genes in stalk-eyed flies (Diopsidae). II Joint Congress on Evolutionary Biology, Montpellier

Pohl S, Foitzik S, 2010. Raid organisation and division of labour in slave-making ants. XVI Congress of the International Union for the Study of Social Insects, Copenhagen

Pohl S, Foitzik S, 2009. Cost-benefit evaluation and host nest choice in the slavemaking ant *Protomognathus americanus*. 102nd Conference of the German Zoological Society, Regensburg

Pohl S, Steiger S, Müller JK, 2007. On the benefit of filial infanticide in burying beetles. 12th Graduate Meeting of the Section Evolutionary Biology of the German Zoological Society, Bayreuth

Pohl S, Müller JK, 2006. The effect of potential risk and potential benefit on the behaviour of widowed burying beetles. 11th International Behavioral Ecology Congress of the International Society for Behavioral Ecology (ISBE), Tours

✉ Corresponding author
* Undergraduate student contributor

GRANTS

2018 Co-investigator on an Exploration Grant of the National Geographic Society
(PI: Eunice J. Tan) – US$ 29,989.00
Title: "Behavioural and morphological defences of phasmids"

2010 Research and travel grant IRT 3 trial of the Munich Graduate Program for Evolution, Ecology and Systematics – € 350.00

2009 Research Grant of the E. N. Huyck Preserve and Biological Research Station, Rensselaerville, NY, USA – US$ 2,490.00
Title: "Host-parasite interactions in slavemaking ants and their slaves"

Research and travel grant IRT 3 trial of the Munich Graduate Program for Evolution, Ecology and Systematics – € 181.30

2008 Research Grant of the E. N. Huyck Preserve and Biological Research Station, Rensselaerville, NY, USA – US$ 2,490.00
Title: "Different fronts in the coevolutionary arms race of slavemaking ants and their hosts"

Research and travel grant IRT 3 trial of the Munich Graduate Program for Evolution, Ecology and Systematics – € 150.75

2007 Research Grant of the E. N. Huyck Preserve and Biological Research Station, Rensselaerville, NY, USA – US$ 2,454.00
Title: "Risk evaluation and decision making in slavemaking ants"

EDITORIAL EXPERIENCE

- Reviewer, Animal Behaviour (2015, 2019)
- Reviewer, Journal of Insect Behavior (2015)
- Reviewer, Proceedings of the Royal Society B (2014)
- Reviewer, Psyche (2011)
- Reviewer, Insectes Sociaux (2009)

ORGANISATION EXPERIENCE

Member of the Organisation Board

1st Central European Meeting of the International Union for the Study of Social Insects
3rd Central European Workshop in Myrmecology
Frauenchiemsee, Germany, October 8th - October 12th, 2009

PUBLIC OUTREACH & MEDIA COVERAGE

Pohl S, 2014. Decision making during the scouting behaviour of the slave-making ant *Protomognathus americanus*. Cambridge Entomological Club, Cambridge, MA, USA *(invited public talk)*

Zeit für Tiere, Bayerischer Rundfunk, TV episode from 12 February 2011

Adelaide Breakfast Radio, 891 ABC Adelaide, 12 November 2010

Süddeutsche Zeitung, 10 November 2010; also online:
http://www.sueddeutsche.de/wissen/verhaltensbiologie-immer-auf-die-starken-1.1021766

BBC online, 8 November 2010:
http://news.bbc.co.uk/earth/hi/earth_news/newsid_9160000/9160744.stm

Lang P, Briand M, Elgar M, Sometimes A (panellists), 2020. Could an insect, human and android communicate through dance? *Ars Electronica 2020 – In Kepler's Garden (Melbourne)*. Some of my phasmid photographs were featured during the panel discussion: https://www.youtube.com/watch?v=gM8pFgQTPR4