CV – Sebastian Pohl

20.04.2022

PERSONAL DETAILS

Name:	Dr Sebastian Pohl
Address:	28 College Avenue West, #01-501, Singapore 138533, Singapore
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PROFESSIONAL EXPERIENCE

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

- Coordination and implementation of insect biodiversity research in Singapore
- Research on the ecology and evolution of Southeast Asian stick insects and stalk-eyed flies
- Barcoding and phylogenetic analysis of nudibranch specimens
- Teaching of the Life Sciences elective course “Animal Behaviour”
- Teaching of the Common Curriculum courses “Scientific Inquiry 1” and “Scientific Inquiry 2”

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

- 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
- Performed bioinformatics analyses of transcriptome data of stalk-eyed flies
- Taught the Common Curriculum courses “Scientific Inquiry 1” and “Scientific Inquiry 2”
- Co-taught the Life Sciences elective course “Animal Behaviour”
- Supervised research students in the field and in the laboratory
- Attended a Summer School on next-generation sequencing data analysis

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 (AUS) & Harvard University (USA) **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 various 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 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; AUS equivalent: HD)

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 (AUS equivalent: HD)

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

IT SKILLS

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

LANGUAGES

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

Full driving licence

PUBLICATIONS

Pohl S, Bungum HZ*, Lee KEM, Sani MAB, Poh YH, Wahab RA, Norma-Rashid Y, Tan EJ (2022). Age and appearance shape behavioural responses of phasmids in a dynamic environment. *Frontiers in Ecology and Evolution*, 9:767940. doi:10.3389/fevo.2021.767940

von Beeren C, Blüthgen N, Hoenle PO, **Pohl S**, Brückner A, Tishechkin AK, Maruyama M, Brown BV, Hash JM, Hall WE, Kronauer DJC (2021). A remarkable legion of guests: diversity and host specificity of army ant symbionts. *Molecular Ecology*, 30:5229-5246. doi:10.1111/mec.16101

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

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

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, Phan NN*, Choo BJY*, Lee KEM, Tan EJ. Chemical cues inform food plant choice in the stick insect *Lonchodes brevipes*. *In preparation*

PRESENTATIONS

Pohl S, Phan NN*, Choo BJY*, Lee KEM, Tan EJ (2021). It's an acquired taste: Food plant preferences in the stick insect *Lonchodes brevipes*. 58th Annual Conference of the Animal Behavior Society, Virtual Meeting

Tan E, **Pohl S**, Bungum H*, Lee K, Sani A, Poh YH, Wahab RA, Norma-Rashid Y (2021). Beyond looking like a stick: phasmid behaviours interact with morphological adaptations. 58th Annual Conference of the Animal Behavior Society, Virtual Meeting

Heper A*, **Pohl S**, Grace J, Johns P (2021). The long and the short of it: contest behaviours in two Thai stalk-eyed flies. 58th Annual Conference of the Animal Behavior Society, Virtual Meeting

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
Presenting author

GRANTS

2022	Co-applicant, Project Seed Grant (PI: Eunice Tan), Yale-NUS College Title: "Ecological significance of intraspecific variation in stick insects"	SGD	179,881.00
2021	Co-applicant, Project Seed Grant (PI: Eunice Tan), Yale-NUS College Title: "Multimodal approach to understanding tropical insect biodiversity and ecology"	SGD	179,975.00
	Special Pocket Research Grant, Yale-NUS College Title: "Sampling insect biodiversity in Singapore"	SGD	1,500.00
2020	Special Pocket Research Grant, Yale-NUS College Title: "Chemical basis of feeding preferences in stick insects"	SGD	1,500.00
2018	Co-investigator on an Exploration Grant (PI: Eunice Tan), National Geographic Society Title: "Behavioural and morphological defences of phasmids"	USD	29,989.00
2013	Postdoctoral fellowship (2 years, declined), Fondation Fyssen Host lab: Dr. Elise Nowbahari, University of Paris-XIII Title: "Eclosion assistance of callow workers in *Cataglyphis cursor* ants"	EUR	50,000.00
2010	Research and travel grant IRT 3 trial, EES Graduate Program LMU Munich	EUR	350.00
2009	Research Grant, E. N. Huyck Preserve, Rensselaerville, NY, USA Title: "Host-parasite interactions in slavemaking ants and their slaves"	USD	2,490.00
	Research and travel grant IRT 3 trial, EES Graduate Program LMU Munich	EUR	181.30
2008	Research Grant, E. N. Huyck Preserve, Rensselaerville, NY, USA Title: "Different fronts in the coevolutionary arms race of slavemaking ants and their hosts"	USD	2,490.00
	Research and travel grant IRT 3 trial, EES Graduate Program LMU Munich	EUR	150.75
2007	Research Grant, E. N. Huyck Preserve, Rensselaerville, NY, USA Title: "Risk evaluation and decision making in slavemaking ants"	USD	2,454.00

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

INVITED SEMINARS

11/2019 Technical University of Darmstadt, Ecological Networks Lab
Title: "Ecology and evolution of Southeast Asian stick insects: lessons from the field"

08/2014 The Rockefeller University, New York City, Laboratory of Social Evolution and Behavior
Title: "Decision making during the scouting behaviour of the slave-making ant *Protomognathus americanus*"

11/2013 Harvard University, Department of Organismic and Evolutionary Biology
Title: "Decision making during the scouting behaviour of the slave-making ant *Protomognathus americanus*"

EDITORIAL EXPERIENCE

Reviewer for: *Animal Behaviour*, *Insectes Sociaux*, *Journal of Insect Behavior*, *Proceedings of the Royal Society B*, *Psyche*

WORKSHOPS ATTENDED

iNaturalist workshop, Yale-NUS College, Singapore, 18-19 January 2020

- Introduction to the methods for citizen scientists to contribute nature observations
- Demonstration of possibilities for researchers to integrate citizen science data in their research

2nd Summer School: NGS Data Analysis, Berlin, Germany, 25-29 June 2018

- Hands-on workshop on the analysis of next-generation sequencing data
- Organized by ecSeq Bioinformatics GmbH, Leipzig, Germany

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)*

National Geographic Asia [@NatGeoAsia]. (2022, March 3). [Photographs of phasmids by Sebastian Pohl]. *Instagram*. Retrieved from https://www.instagram.com/p/Can8iXML4N0/

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 photographs of phasmids were featured during the panel discussion: https://www.youtube.com/watch?v=gM8pFgQTPR4

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

Adelaide Breakfast Radio, 891 ABC Adelaide, 12 November 2010

Herrmann S (2010, November 10). Immer auf die Starken. *Süddeutsche Zeitung* (also in print). http://www.sueddeutsche.de/wissen/verhaltensbiologie-immer-auf-die-starken-1.1021766

Davies E (2010, November 8). Slave-making ants target the strong not the weak. *BBC News*. http://news.bbc.co.uk/earth/hi/earth_news/newsid_9160000/9160744.stm