

Curriculum Vitae

Aleš Buček, Ph.D.

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Education and research experience

since 2023 **Project leader** (Insect Symbiosis lab)
Institute of Entomology, Biology Centre, České Budějovice, Czech Republic

2017-2023 **Postdoctoral researcher** on evolutionary genomics (PI: Thomas Bourguignon)
Okinawa Institute of Science and Technology, Japan

2016 – 2017 **Postdoctoral researcher** on evolution of termite defense (PI: Jan Šobotník)
Czech University of Life Sciences in Prague, Czech Republic

2009 – 2016 **Ph.D. in Biochemistry**: "Study of evolution of insect pheromone biosynthetic fatty acyl desaturases" (PI: Iva Pichová)
Charles University in Prague, Institute of Organic Chemistry and Biochemistry of the CAS, Czech Republic

2013 **Visiting researcher** (2 months) on functional characterization of pheromone-producing enzymes (PI: Aleš Svatoš)
Max Planck Institute for Chemical Ecology, Germany

2004 – 2009 **M.Sc. in Biochemistry**
Charles University in Prague, Institute of Organic Chemistry and Biochemistry of the CAS, Czech Republic

Research interests and selected publications

1. Evolution of pheromone biosynthesis in insect
 - [eLife 2019](#); [PNAS 2015](#)
2. Molecular phylogenetics of termites
 - [Mol. Biol. Evol. 2022](#); [Curr. Biol. 2019](#)
3. Molecular mechanisms of termite defense
 - [Mol. Biol. Evol. 2016](#)
4. Evolution of microbial communities (in termite guts, in environment)
 - [Microbiome 2022](#); [Sci. Adv. 2020](#)

Grants and awards

2023-2025 Early career research grant from the Japanese Society for the promotion of science (KAKENHI) ~ 30,000 EUR

2023-2027 JUNIOR STAR GAČR ~ 1,000,000 EUR

2018-2020 Grant-in-Aid for Early-Career Scientists from the Japanese Society for the promotion of science (KAKENHI) ~ 35,000 EUR

2015 TOP3 most significant biochemistry and molecular biology paper in 2015 published at Institute of Organic Chemistry and Biochemistry ~ 8,000 EUR

Teaching and outreach

2022 International termite research course (Florida), invited lecturer, 4x lecture

2021-present Citizen science database curator (<https://www.inaturalist.org/people/alesbucek>)

2019-present 2x supervision of semestral PhD research projects

2017-present 3x school lectures and presentations, Okinawa, Japan
2018-present Lecturer of PhD program courses (microtomography, phylogenetic methods)
Okinawa Institute of Science and Technology, Japan
2019 Invited presentation at Insect Experience Day, Tokyo, Japan

Field expeditions (2-5 weeks)

Cameroon (2016, 2020, 2023); Ecuador (2017); French Guiana (2013, 2023); Madagascar (2019); Malaysia (2018, 2019)

Selected oral presentations

2022 Evolution of symbiosis, colony organization and defense in termites. *International congress of entomology*
2022 Convergent evolution of defensive adaptations in termites. *Annual Meeting of the Ecological Society of Japan*
2019 Evolution of digestive symbiotic systems in termites in the light of termite transcriptome phylogeny. *Association for Tropical Biology and Conservation annual meeting*

Journal Peer Review

BMC Genomics, European Journal of Entomology, Journal of Tropical Ecology, Scientific Reports

Publication activity

- h-index 12, citations 503 ([Google Scholar](#))
- h-index 11, citations 333 ([Web of Science](#))
- 23 publications: 10 as first, co-first, or last author in eLife, PNAS (2x), Current Biology, Molecular Biology and Evolution