

# Marko Bračić

E: mbracic192@gmail.com

ORCID: <https://orcid.org/0000-0001-6528-3572>

Twitter: <https://twitter.com/markobracic>

## Education

### Ph.D. in Biology

2018–2024

### University of Münster, Germany

Dissertation: "Individual differences in optimism: exploring consistency, causes, ecological consequences and cognitive mechanisms of judgement bias in animals" (2023)

Supervisor: Prof. S. Helene Richter

### MSc Experimental Biology

2013–2016

### University of Zagreb, Croatia

Dissertation: "Social defences of ant colonies against bacterial infection"

Supervisors: Prof. Sylvia Cremer and Dr. Barbara Milutinović, Institute of Science and Technology Austria

### Erasmus Student Exchange

2015

### University of Vienna, Department of Cognitive Biology, Austria

Research project "Food-motivated problem-solving in birds" with Prof. Thomas Bugnyar

### BSc Biology

2009–2013

### University of Zagreb, Croatia

## Publications

- ✓ **Bračić, M.**, Bohn, L., Siewert, V., von Kortzfleisch, V. T., Schielzeth, H., Kaiser, S., Sachser, N. & Richter, S.H. (2022). Once an optimist, always an optimist? Studying cognitive judgment bias in mice. *Behavioral Ecology*, Volume 33, Issue 4, July/August 2022, Pages 775–788. [10.1093/beheco/amac040](https://doi.org/10.1093/beheco/amac040)
- ✓ Nematipour, B., **Bračić, M.** & Krohs, U. (2022). Cognitive bias in animal behavior science: a philosophical perspective. *Animal Cognition* (2022). [10.1007/s10071-022-01647-z](https://doi.org/10.1007/s10071-022-01647-z)
- ✓ Melotti, L., Siestrup, S., Peng, M., Vitali, V., Dowling, D., von Kortzfleisch, V. T., **Bračić, M.**, Sachser, N., Kaiser, S., & Richter, S. H. (2021). Individuality, as well as genetic background, affects syntactical features of courtship songs in male mice. *Animal Behaviour*, 180, 179–196. [10.1016/j.anbehav.2021.08.003](https://doi.org/10.1016/j.anbehav.2021.08.003)
- ✓ Lauš, B., Zadavec, M., Horvatić, B., **Bračić, M.**, & Koren, T. (2020). *Capnodis porosa* (Klug, 1829) (Coleoptera: Buprestidae) – new species for the beetle fauna of Croatia. *Natura Sloveniae*, 22(2), 79–81. [10.14720/ns.22.2.79-81](https://doi.org/10.14720/ns.22.2.79-81)

### Preprints

- ✓ **Bračić, M.**, Bierbaum L., Peng M., Nimalavachchlan L., Siewert, V., Kaiser, S., Sachser, N. & Richter, S. H. The behavioural ecology of optimism: exploring potential consequences of judgement bias in mice : [10.21203/rs.3.rs-3071773/v1](https://doi.org/10.21203/rs.3.rs-3071773/v1) (**under review** in *Animal Behaviour*)

## Work Experience

**Research Associate**  
2022

**University of Jena, Institute of Ecology and Evolution, Germany**

PI: Prof. Holger Schielzeth

- ✓ meta-analysis of repeatability of animal behaviour

**Research Associate (PhD)**  
2018–2022

**University of Münster, Institute for Neuro- and Behavioural Biology**

PIs: Prof. S. Helene Richter and Prof. Norbert Sachser

- ✓ multi-level data analysis and visualisation (R), planning and executing behavioural experiments, tech support
- ✓ found consistent individual differences in “optimism” in lab mice that could not be explained by genetic background or environmental influences and were not connected with individual’s foraging choices
- ✓ 3 peer-reviewed publications + 1 in revision, 5 conference presentations, supervised 6 students, teaching for 3 courses

**Expert associate trainee in nature conservation**  
2017–2018

**Association Hyla, Zagreb, Croatia: NGO in nature conservation**

- ✓ ecological monitoring fieldwork, insect determination, literature review, outreach, and social media management
- ✓ 1 peer-reviewed publication and 1 project report, increased media visibility and public engagement

**Substitute biology teacher**  
2016–2017

**Gymnasium and School of Economics Benedikt Kotruljević, Zagreb, Croatia**

- ✓ lecturing, grading, and examination and assignment design

**Research internship (MSc)**  
2015–2016

**Institute of Science and Technology Austria, Klosterneuburg**

PI: Prof. Sylvia Cremer; direct supervisor: Barbara Milutinovic

- ✓ behavioural analysis, data analysis, ant marking and handling, microbiological and immunological methods
- ✓ 1 conference presentation

## Skills

### Research skills

- ✓ design and conduct of behavioural tests (small mammals, birds, insects)
- ✓ proficient behavioural analysis (Boris, Any-maze, Solomon coder, InterAct)
- ✓ proficient data analysis (R, SPSS)
- ✓ conservation monitoring methods for insects and birds
- ✓ open science tools (preprints publication and data and code sharing servers)
- ✓ basic wet lab techniques (microbiological techniques and inhibition assays)

### Organisational skills

- ✓ successful project organisation and management
- ✓ effective association management, including cooperation with volunteers

### Digital skills:

- ✓ basic programming (R, Python)
- ✓ proficient user of office suite (e.g. MS Word, Excel, PowerPoint)
- ✓ independent user of photo and video editing software

### Other skills

- ✓ language: Croatian (native), English (proficient), German (independent)
- ✓ driving licence B
- ✓ Advanced Scuba Diver certificate (NAUI)
- ✓ first aid and firefighter certificate

## Additional information

### Conferences presentations:

- ✓ **Bračić, M.**, Kaiser, S., Sachser, N. & Richter, S.H. The ecology of "optimism": exploring potential consequences of judgement bias in mice. Behaviour 2023, Bielefeld (talk)
- ✓ **Bračić, M.**, Nimalavachchlan L., Kaiser, S., Sachser, N. & Richter. Do optimists choose different environments than pessimists? Studying the ecological relevance of judgement bias in laboratory mice. European Conference on Behavioural Biology, ECBB 2022, Groningen (talk)
- ✓ **Bračić, M.**, Bohn L., Kaiser, S., Sachser, N. & Richter, S.H. Optimist or pessimist? Individual differences in decision-making under ambiguity, International Conference on Comparative Cognition, CO3 2021 (talk virtual)
- ✓ **Bračić, M.**, Bohn L., Kaiser, S., Sachser, N. & Richter, S.H. Optimist or pessimist? Individual differences in decision-making under ambiguity, Meeting of Animal Behavior Society, ABS 2020 (talk virtual)
- ✓ **Bračić, M.**, Kästner N., Kaiser, S., Sachser, N. & Richter, S.H. The effect of different enrichment regimes on welfare-related measures in mice. Meeting of the Ethological Society, EthoGes 2019, Tübingen (poster)
- ✓ **Bračić, M.**, Milutinović B., Cremer S. Social defences of ant colonies against bacterial infection, European Conference of Behavioural Biology, ECBB 2016, Vienna (poster)

### Project report

- ✓ Burić I., Koren T., Borovečki-Voska Lj., Zdravec M., Štih A., Lauš B., **Bračić M.**, Talaja M. (2017): Biodiversity "BioOdra 2017." Asociation Hyla, Zagreb

### Outreach articles:

- ✓ Articles in student journals "The Eyebrow" and "Primat"

### Projects

Organiser:

- ✓ international field research and educational project "Grabovača 2014"
- ✓ "Antfarm" (setting up an ant farm in the Zagreb ZOO) (2013–2014)
- ✓ International Conference on Evolution and Behaviour ICEB 2014 (coordinator)

Participant:

- ✓ numerous ecological monitoring projects (small mammals, birds, herpetofauna, insects)
- ✓ "Behavioural and cognitive characteristics of the Balkan Snow Vole (*Dinaromys bogdanovi*)"
- ✓ experiment conduct, vocalization analysis, and camera trapping
- ✓ educational project "Night of Biology" 2010–2014
- ✓ organization work, workshop preparation, and presentation

## Honours and awards

- ✓ Special Chancellor's Award for the research and educational project "Grabovača 2014" (2014/15)
- ✓ Special Chancellor's Award for the education project "Night of biology" (2011/12)

## Memberships

- ✓ Croatian Myrmecological Society (2010–present)
  - Secretary (2017–present)
- ✓ Ethological Society (2019–present)
- ✓ Society for Open Reliable Transparent Ecology and Evolutionary biology (2020–present)