

## CURRICULUM VITAE – DR. RALPH SIMON

### AFFILIATION I

Behavioral Ecology and  
Conservation Lab  
Nuremberg Zoo  
Am Tiergarten 30  
90480 Nürnberg  
Germany

### AFFILIATION II

CoSys-Lab  
Faculteit Toegepaste  
Ingenieurswetenschappen  
Universiteit Antwerpen  
Groenenborgerlaan 171  
2020 Antwerpen  
Belgium

### CONTACT

Telefon: + 20 59 87052  
Email:  
ralph.simon@stadt.nuernberg.de  
ralph.simon@uantwerpen.be  
URL: [www.rsimon.de](http://www.rsimon.de)  
ORCID: <https://orcid.org/0000-0002-6083-0394>  
Twitter: @RalSimon

### EDUCATION

- 2010 PhD (Dr. rer.nat.) University of Ulm, Institute of Experimental Ecology, Ulm University; Thesis: Echo-acoustic properties of bat pollinated flowers and their recognition by glossophagine bats (Supervisors: Otto von Helversen, Elisabeth Kalko, Marco Tschapka)
- 2004 MSc Biology (Diploma), Institute of Zoology II, Friedrich-Alexander-University Erlangen-Nuremberg, Germany; Thesis: Objekterkennung durch Echoortung bei Blumenfledermäusen (Object recognition via echolocation by nectar-feeding bats; Supervisors: Otto von Helversen, Georg Seitz)

### ACADEMIC EMPLOYMENT

- 2022 – present Research Group Leader, Behavioral Ecology and Conservation Lab, Nuremberg Zoo, Nuremberg
- 2020 – present Permanent Staff Scientist, Nuremberg Zoo, Nuremberg
- 2020 – present Associate Researcher, CoSys-Lab, Faculteit Toegepaste Ingenieurswetenschappen, Universiteit Antwerpen
- 2020 – 2020 Postdoc, CoSys-Lab, Faculteit Toegepaste Ingenieurswetenschappen, Universiteit Antwerpen
- 2017 – 2020 Postdoc, Seeing Voices Project, Animal Ecology, Ecological Sciences Vrije Universiteit Amsterdam
- 2014 – 2017 PI, Bio-inspired Reflector Project, Department of Sensor Technology, Friedrich-Alexander-University Erlangen-Nuremberg
- 2014 – 2017 Research Assistant (part time), Bats and Windpower Project, Department of Sensor Technology, Friedrich-Alexander-University Erlangen-Nuremberg
- 2011 – 2014 Research Assistant, Bats and Windpower Project, Department of Sensor Technology, Friedrich-Alexander-University Erlangen-Nuremberg
- 2010 – 2011 Postdoc, ChiRoPing Project, Institute of Experimental Ecology, Ulm University
- 2005 – 2009 PhD Student and Research Assistant, DFG Project „Bats and Flowers“, Institute of Zoology II, Friedrich-Alexander-University Erlangen-Nuremberg
- 2004 – 2005 Research Assistant, Institute of Zoology II, Friedrich-Alexander-University Erlangen-Nuremberg

### EMPLOYMENTS OUTSIDE ACADEMIA

- 2011 – 2013 Photographic assistant and consultant for the „Bat Echo“ Project, National Geographic Magazine, Washington D.C.
- 1998 – 2005 Operative staff, Lufthansa AG, Airport Nuremberg

**COMPANY**

2016 – present Founding partner and shareholder of bat bioacoustic technology GmbH, Hohe Str. 2, 90610 Winkelhaid, Germany

**GRANTS**

- 2019 Dobberke Foundation, Starting grant (main applicant, € 2.400; money granted but project couldn't be realized because of the COVID-19 Pandemic)
- 2016 Extension Experiment! Grant, Volkswagen Foundation, Project Title: Driverless vehicle guidance by using bio-inspired sonar reflectors (main applicant, € 16.892)
- 2016 BAYLAT, start-up financing for a collaboration with the Ecological Synthesis Lab of the Federal University of Minas Gerais, Belo Horizonte, Brazil (main applicant, € 5.600)
- 2014 Experiment! Grant, Volkswagen Foundation, Project Title: Driverless vehicle guidance by using bio-inspired sonar reflectors (main applicant, € 99.800)
- 2013 Funding for the Project „Bestimmung des Kollisionsrisikos von Fledermäusen an Onshore-Windenergieanlagen in der Planungspraxis“ (Estimating the risk of collision of bats with onshore wind turbines in the planning practice), by the Federal Ministry for Economic Affairs and Energy (co-applicant, € 1.342.595)

**SYMPOSIUM ORGANIZATION**

- Dec 2022 Human dimension in small cetacean conservation, Workshop, Heilsbronn, Germany
- Aug 2016 Biosonar-based perception of complex objects and complex auditory scenes, Symposium at the 17th International Bat Research Conference, Durban, South Africa

**INVITED TALKS**

- Jun 2022 Naturalis Biodiversity Centre, AI and Biodiversity Group, Leiden, The Netherlands  
Title: The sound of flowers – Acoustic traits of bat-pollinated flowers and their recognition by glossophagine bats
- Feb 2019 UMIT University for Health Sciences, Medical Informatics and Technology, Austria.  
Title: Mobile Roboter: Navigation mit Sonar Reflektoren
- May 2018 Tupper Talk Smithsonian Tropical Research Institute, Panama City, Panama  
Title: Biosonar-based perception of bat dependent plants
- Feb 2018 Spotlight Lecture, Biology Seminars Leiden - Leiden University, Leiden The Netherlands  
Title: Floral acoustics - how plants lure pollinating bats with acoustic signals
- Nov 2016 The Sensory Ecology of Pollinators, University of São Paulo, São Paulo, Brazil  
Title: Echo-acoustic adaptations of bat-dependent plants
- Sept 2016 7th Brazilian-German Frontiers of Science and Technology Symposium (Organizers: CAPES & Alexander von Humboldt Foundation), Campinas, Brazil  
Title: Driverless Vehicle Guidance by Using Bio-inspired Sonar Reflectors
- Feb 2016 Diskussionssitzung des Fachausschusses „4.1 Elektroakustik“ der TG/VDE, Erlangen, Germany  
Title: Navigation mithilfe von bioinspirierten Sonar-Reflektoren
- Nov 2015 Forum Experiment! Volkswagen Foundation, Herrenhausen Palace, Hannover, Germany  
Title: Driverless vehicle guidance by using bio-inspired sonar reflectors
- May 2015 Bayern Innovativ, 12. Kooperationsforum, Fahrerassistenzsysteme Aschaffenburg, Germany  
Title: Technische Sonarsysteme – Navigation mit Ultraschall – Lernen von den Fledermäusen
- Jul 2012 Institute of Zoology, University of Greifswald, Greifswald, Germany

- Apr 2012 Title: Echo-acoustic properties of bat pollinated flowers and their recognition by glossophagine bats  
Bioeco, Centro Oriental de Ecosistemas y Biodiversidad, Santiago de Cuba, Cuba
- Mar 2004 Title: Murcielagos nectarivourus y su flores – Adaptaciones  
Animal Physiology, University of Tübingen, Tübingen, Germany  
Title: Objekterkennung durch Echoortung bei Blumenfledermäusen

### SELECTED CONFERENCE AND DEPARTMENT TALKS

Sep 2019, XXVII International Bioacoustics Congress, University of Sussex, Brighton, England, Aug 2019, Workshop on Vocal Interactivity in-and-between Humans, Animals and Robots, London, England; May 2019 Life Congress, The Netherlands Organisation for Scientific Research (NWO), Bunnik, The Netherlands; Nov 2018, Meeting of the Netherlands Society for Behavioural Biology, Egmond aan Zee, The Netherlands; Oct 2018 Institute of Biology, Freiburg University, Aug 2016 Germany; 17th International Bat Research Conference, Durban, South Africa; Jan 2015 German Bat Research Conference, Olpe, Germany; Aug 2013 16th International Bat Research Conference, San Jose, Costa Rica.

### WORKSHOP AND FIELD COURSE ORGANIZATION

- Nov 2016 Student field course: Bioacoustics Applied to Bat Research, Ecological Sythesis Lab of the Federal University of Minas Gerais, Belo Horizonte, Brazil
- May 2016 ProBAT Workshop (Software for calculating bat friendly operational algorithm for wind turbines), Institute of Sensor Technology, University of Erlangen, Germany
- Nov 2014 Student field course: Bioacoustics Applied to Bat Research, Ecological Sythesis Lab of the Federal University of Minas Gerais, Belo Horizonte, Brazil
- Nov 2013 Bat Monitoring Workshop, University of Azuay, Cuenca Ecuador

### TEACHING EXPERIENCE

- 2021 – present Statistics and Behavioral Biology, Chair of Mathematical Stochastics, University of Erlangen, Germany
- 2018 – 2020 Lecturer, Behavioral Biology, 3<sup>rd</sup> year Bachelor course, Ecological Sciences, Vrije Universiteit Amsterdam, Amsterdam Netherlands.
- 2018 Guest lecturer, Cognition, Language and Communication Lecture , Animal communication Lecture, Institute for Logic, Language and Computation, Universiteit van Amsterdam, Amsterdam, The Netherlands.
- 2017 – present Lecturer, Evolutionaire ecologie en gedrag Lecture, 2<sup>nd</sup> year Bachelor course, Animal communication Lecture, Ecological Sciences, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands.
- 2017 - present Guest lecturer, Animal Behavior, 1<sup>st</sup> year Masters, Institute of Biology Leiden (IBL), Leiden University, The Netherlands.
- 2011 Assistant for the Experimental Biology course 2<sup>nd</sup> year Bachelor course, Department of Experimental Biology, University of Ulm, Germany.
- 2006 and 2007 Assistant for the Physiology II course, 2<sup>nd</sup> year Master course at the University of Erlangen, Germany.
- 2004-2008 Assistant for the Physiology I course, 1st year Master course at the University of Erlangen, Germany.
- 2003 Assistant for the Anatomy course, 2<sup>nd</sup> year Bachelor course at the University of Erlangen, Germany

**STUDENT SUPERVISION**

- 2022 – present Frederike Liermann, Veterinary Medicine, Freie Universität Berlin, Germany
- 2021 – 2022 Jonas Ruben Pribil, Master Thesis, Marine Science Center, Rostock University, Germany
- 2019 – 2020 Alrike Dreissen, Master Thesis, Ecological Sciences, Vrije Universiteit Amsterdam, Amsterdam Netherlands.
- 2018 -2019 Hélène Leroy, Master Thesis, Ecological Sciences, Vrije Universiteit Amsterdam, Amsterdam Netherlands.
- 2017 – present Judith Varkevisser, PhD\*, Institute of Biology Leiden (IBL), Leiden University, The Netherlands.
- 2017 - 2020 Estefania Velilla Perdomo, PhD\*, Ecological Sciences, Vrije Universiteit Amsterdam, Amsterdam Netherlands.
- 2015 Huan Wu, Master Thesis, Dep. of Sensor Techn., University of Erlangen
- 2014 Markus Baumann, Master Thesis, Dep. of Sensor Techn., University of Erlangen
- 2010 – 2011 Inga Geipel, PhD\*, Experimental Ecology, Ulm University
- 2010 – 2011 Kirstin Übernickel, PhD\*, Experimental Ecology, Ulm University
- 2008- 2009 Nadine Passauer, Diploma Thesis, Zoology, University of Erlangen
- 2007- 2008 Annkathrin Schneider, Diploma Thesis, Zoology, University of Erlangen

\*co supervision

**QUALIFICATIONS**

- Oct 2019 University Teaching Qualification, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands
- Dec 2017 Laboratory Animal Science Qualification, Utrecht University, Utrecht, The Netherlands
- Apr 2016 Media expertise - ready for television and radio, Practical-Seminar from the National Institute for Science Communication GmbH, VolkswagenStiftung, Hannover, Germany

**JOURNAL EDITOR and REVIEWER**

Guest Editor: PLOS Computational Biology; Reviewer: Acta Ethologica, Animal Behaviour, BMC Evolutionary Biology, Ecology and Evolution, Ecology Letters, Frontiers in Physiology, Functional Ecology, Genes, IEEE Sensors Journal, Integrative and Comparative Biology, Journal of the Acoustical Society of America, Journal of Experimental Biology, Royal Society Open Science

**RELEVANT SKILLS**

LabVIEW, MATLAB, R, Bash, Arduino, SASlab, RECORDER, Audacity, Praat, OS X, Windows OS, Ubuntu, Photoshop, Illustrator, Vegas Pro, Final Cut

Languages German: native; English: fluent; Spanish: intermediate; Dutch: beginner

Diving: Padi Open Water

**SELECTED MEDIA APPEARANCE**Textbooks

Stevens, Martin. Sensory ecology, behaviour, and evolution. Oxford University Press, 2013.

News features in scientific journals

Current Biology, Dispatch, 19.08.2019: Evolution: How Bat Biosonar Bests Prey Camouflage

Nature, Research Highlights, 04.08.2011: A leaf that's loud and proud

Television

1. Pro7, Galileo, Episode 171, 30.06.2022 • 19:05, Tierisch bekifft – so werden Tiere high
2. ARD, wissen vor acht – Natur, 02.01.2018: Florale Akustik

3. BR Fernsehen, Capriccio (10.03.2016), Field Recordings - Der Klang der Welt
4. 3sat, nano spezial „Geheimnisvolle Welt“, 01.11.2011: Pflanzen locken Bestäuber mit Ultraschall
5. ZDF, Nürnberger Schnauzen, 27.02.2009: Blumenfledermäuse für den Tiergarten Nürnberg

#### Radio

1. 2SER Real Radio 107.3 FM, Siobhan Dennison, 26.08.2015: Science 202: Going Batty
2. radioeins rbb, Die Profis, 06.08.2011: Pflanze lockt Fledermäuse mit Ultraschall
3. CBC Radio, As It Happens, 05.08.2011
4. iTunes Podcast, Wanhoffs wunderbare Welt der Wissenschaften, 01.08.2011: Raffinierte Liane
5. WDR 5, Leonardo, 29.07.2011: Geschäft auf Gegenseitigkeit, Eine kubanische Lianenblüte und die Blumenfledermaus helfen einander
6. Deutschlandradio, Forschung Aktuell, 29.07.2011: Echo klingt nach Nektar, Kubanische Pflanze lockt Fledermäuse zur Bestäubung an

#### Print

1. Nürnberger Nachrichten, 14.03.2022: Forscher päppelte Fledermaus auf
2. Süddeutsche Zeitung, 01.08.2019: Der Spiegeltrick
3. New York Times, 15.09.2015: Plants that are predators
4. National Geographic Magazine, March 2014: Call of the Bloom
5. Wetterauer Zeitung, 28.11. 2013: Im Fledermausschutzmodus
6. Newton, November 2011: コウモリを 超く葉
7. Science & Vie, Oktober 2011: Une plante fait écho á la chauve-souris pour l'attirer
8. The Week, 19.08.2011: How plants seduce bats
9. BBC Wildlife Magazine, Autumn 2011: Sound of sugar
10. Physics Today, 05.08.2011: A sound strategy for pollination
11. New Scientist, 03.08.2011: Cuban flowers rely on bat signal for survival
12. New York Times, 02.08.2011: A Vine's Acoustics Send a Bat Signal.
13. Los Angeles Times, 02.08.2011: Plants draw bats by harnessing sound
14. Süddeutsche Zeitung, 01.08.2011: Pflanzen locken Fledermäuse mit Echosignalen an

#### Online

1. Science alert, 02.08.2019: Bats Are More Badass Than We Knew, Using Leaves as 'Mirrors' to Find Camouflaged Prey
2. Science, ScienceShot, 09.07.2015: Carnivorous plant's sound echoes draw bats in
3. Nürnberger Zeitung, 30.10.2013 : So überleben Fledermäuse den Ausflug in den Windpark
4. Facebook, I fucking love science, 15.06.2013: Post on floral acoustics
5. Folha, 08.08.2011: Planta envia sinais sonoros para morcegos, mostra estudo
6. The Huffington Post, 02.08.2011: Marcgravia Evenia, Cuban Rainforest Vine 'Talks Back' To Bats.
7. Zeit, 29.07.2011: Fledermäuse hören, wo der Nektar fließt.
8. Spiegel, 29.07.2011: Pflanzen locken Fledermäuse mit Akustik-Trick.
9. National Geographic, 28.07.2011: Bats Drawn to Plant via "Echo Beacon".
10. Discovery News, 28.07.2011: Hear my nectar! Dish-shaped leaves attract bats.
11. Science Now, 28.07.2011: How to Invite Bats for Dinner
12. Geo Russia, 28.07.2011: Живая антенна заманивает летучих мышей

## SCIENTIFIC PUBLICATION

### PEER-REVIEWED JOURNAL ARTICLES

1. **Simon, R.**, Varkevisser, J., Mendoza, E., Hochradel, K., Elsinga, R., Wiersma, P G., Middelburg, E., Zoeter, E., Scharff, C., Riebel, K., & Halfwerk, W. (2023). RoboFinch: A versatile audio-visual synchronised robotic bird model for laboratory and field research on songbirds. **Methods in Ecology and Evolution**, 00, 1–12. | <https://doi.org/10.1111/2041-210X.14063>

2. Varkevisser, J. M., E. Mendoza, M., **Simon, R.**, Manet, M., Halfwerk, W. H., Scharff, C. and Riebel, K. (2022). *Multimodality during live tutoring is relevant for vocal learning in zebra finches*. **Animal Behavior**, 187, 263-280 | <https://doi.org/10.1016/j.anbehav.2022.03.013>
3. Rickert, D., **Simon, R.**, von Fersen, L., Baumgartner, K., Bertsch, T., Kirschbaum, C., & Erhard, M. (2022). *Saliva and Blood Cortisol Measurement in Bottlenose Dolphins (*Tursiops truncatus*): Methodology, Application, and Limitations*. **Animals**, 12(1), 22. | <https://www.mdpi.com/2076-2615/12/1/22>
4. **Simon, R.\***, Bakunowski, K.\* , Reyes-Vasques, A. E., Tschapka, M., Knörnschild, M., Steckel, J., & Stowell, D. (2021). *Acoustic traits of bat-pollinated flowers compared to flowers of other pollination syndromes and their echo-based classification using convolutional neural networks*. **PLoS Computational Biology**, 17(12), e1009706. | <https://doi.org/10.1371/journal.pcbi.1009706>
5. Verreycken, E., **Simon, R.**, Quirk-Royal, B., Daems, W., Barber, J., & Steckel, J. (2021). *Bio-acoustic tracking and localization using heterogeneous, scalable microphone arrays*. **Communications Biology**, 4(1), 1-11. | <https://www.nature.com/articles/s42003-021-02746-2>
6. Varkevisser, J. M.\* , **R. Simon\***, E. Mendoza, M. How, I. van Hijlkema, R. Jin, Q. Liang, C. Scharff, W. H. Halfwerk, and K. Riebel. 2021. *Adding colour-realistic video images to audio playbacks increases stimulus engagement but does not enhance vocal learning in zebra finches*. **Animal Cognition**:1-26. | <https://doi.org/10.1007/s10071-021-01547-8>
7. Hüttner, T.; Dollhaeupl, S.; **Simon, R.**; Baumgartner, K.; von Fersen, L. (2021). *Activity Budget Comparisons Using Long-Term Observations of a Group of Bottlenose Dolphins (*Tursiops truncatus*) under Human Care: Implications for Animal Welfare*. **Animals**, 11, 2107. | <https://doi.org/10.3390/ani11072107>
8. Velilla, E., Polajnar, J., Virant-Doberlet, M., Commandeur, D., **Simon, R.**, Cornelissen, J.H.C., Ellers, J. and Halfwerk, W. (2020) *Variation in plant leaf traits affects transmission and detectability of herbivore vibrational cues*. **Ecology and Evolution**, 10(21), 12277-12289. | <https://doi.org/10.1002/ece3.6857>
9. Velilla, E., Muñoz, M., Quiroga, N., Symes, L., ter Hofstede, H.M., Page, R.A., **Simon, R.**, Ellers, J. and Halfwerk, W., (2020) *Gone with the wind: Is signal timing in a neotropical katydid an adaptive response to variation in wind-induced vibratory noise?* **Behavioral Ecology and Sociobiology**, 74, pp.1-11. | <https://doi.org/10.1007/s00265-020-02842-z>
10. Hernández-Montero, J.R., Reusch, C., **Simon, R.**, Schöner, C.R. and Kerth, G., (2020) *Free-ranging bats combine three different cognitive processes for roost localization*. **Oecologia**, pp.1-10 | <https://doi.org/10.1007/s00442-020-04634-8>
11. **Simon, R.**, Rupitsch, S., Baumann, M., Wu, H., Peremans, H. and Steckel, J., (2020) *Bioinspired sonar reflectors as guiding beacons for autonomous navigation*. **Proceedings of the National Academy of Sciences**. | DOI: 10.1073/pnas.1909890117
12. Geipel, I., Steckel, J., Tschapka, M., Vandererelst, D., Schnitzler, H. U., Kalko, E.K.V., Peremans, H., & **Simon, R.**, (2019) *Bats Actively Use Leaves as Specular Reflectors to Detect*

- Acoustically Camouflaged Prey*, **Current Biology**, 29(16), 2731-2736. | <https://doi.org/10.1016/j.cub.2019.06.076>
13. Halfwerk, W., Varkevisser, J., **Simon, R.**, Mendoza, E., Scharff, C., & Riebel, K. (2019) *Toward Testing for Multimodal Perception of Mating Signals*. **Front. Ecol. Evol.**, 17 April 2019 | <https://doi.org/10.3389/fevo.2019.00124>
  14. Kroh, P., **Simon, R.**, Rupitsch, S. J., (2019) *Classification of Sonar Targets in Air: A Neural Network Approach*. **Sensors**, 19. Jg., Nr. 5, S. 1176. | <https://doi.org/10.3390/s19051176>
  15. Schöner, M. G., **Simon, R.**, & Schöner, C. R. (2016). *Acoustic communication in plant–animal interactions*. **Current opinion in plant biology**, 32, 88-95. | <https://doi.org/10.1016/j.pbi.2016.06.011>
  16. Übernickel, K., **Simon, R.**, Kalko, E. K., & Tschapka, M. (2016). *Sensory challenges for trawling bats: Finding transient prey on water surfaces*. **The Journal of the Acoustical Society of America**, 139(4), 1914-1922. | <https://doi.org/10.1121/1.4944756>
  17. Schöner\*, M. G., Schöner\*, C. R., **Simon\*, R.**, Grafe, T. U., Puechmaille, S. J., Ji, L. L., Kerth, G. (2015). *Bats Are Acoustically Attracted to Mutualistic Carnivorous Plants*. **Current Biology** 25 (14), p. 1911–1916. \*Co-first author | <https://doi.org/10.1016/j.cub.2015.05.054>
  18. **Simon, R.**, Knörnschild, M., Tschapka, M., Schneider, A., Passauer, N., Kalko, E. K. and von Helversen, O. (2014). *Biosonar resolving power: Echo-acoustic perception of surface structures in the submillimeter range*. **Frontiers in Physiology** 5. <https://doi.org/10.3389/fphys.2014.00064>
  19. **Simon, R.**, Holderied, M. W., Koch, C. U. and von Helversen, O. (2011) *Floral acoustics: conspicuous echoes of a dish-shaped leaf attract bat pollinators*. **Science** 333 (6042), p.631 – 633 | DOI: 10.1126/science.1204210
  20. Kelm, D.H.; **Simon, R.**, Kuhlow, R., Voigt, CC., Ristow, M., (2011) *High activity enables life on a high sugar diet in nectar-feeding bats*, **Proceedings of the Royal Society B: Biological Sciences**, 278(1724):3490-3496.
  21. **Simon, R.**, Holderied, M. W. and von Helversen, O. (2006). *Size discrimination of hollow hemispheres by echolocation in a nectar feeding bat*. **Journal of Experimental Biology** 209:3599-3609.

## PREPRINTS

**Simon, R.**, Dreissen, A., Leroy, H., Berg, M., & Halfwerk, W. (2022). *Stealth coating enables for larger body size in a predator-prey arms race*. **Authorea Preprints**. | [doi.org/10.22541/au.166151721.10645561/v1](https://doi.org/10.22541/au.166151721.10645561/v1)

**Simon, R.**, Matt, F., Santillan, V., Tschapka, M., Tuttle, M. and Halfwerk, W., (2019). *An ultrasound absorbing inflorescence zone enhances echo-acoustic contrast of bat-pollinated cactus flowers*. **bioRxiv** | [doi.org/10.1101/2019.12.28.890046](https://doi.org/10.1101/2019.12.28.890046)

**Simon, R.**, Varkevisser, J., Mendoza, E., Hochradel, K., Scharff, C., Riebel, K., & Halfwerk, W. (2019). Development and application of a robotic zebra finch (RoboFinch) to study multimodal cues in vocal communication (No. e28004v1). *PeerJ Preprints* | doi.org/10.7287/peerj.preprints.28004v3

## BOOK CHAPTERS AND SCIENTIFIC REPORTS

1. Behr, O., Brinkmann, R., Hochradel, K., Mages, J., Korner-Nievergelt, F., Reinhard, H., **Simon, R.**, Stiller, F., Weber, N., Nagy, M., (2018). Bestimmung des Kollisionsrisikos von Fledermäusen an Onshore-Windenergieanlagen in der Planungspraxis - Endbericht des Forschungsvorhabens gefördert durch das Bundesministerium für Wirtschaft und Energie (Förderkennzeichen 0327638E). O. Behr et al. Erlangen / Freiburg / Ettiswil.

<http://www.windbat.techfak.fau.de/Abschlussbericht/renebat-iii.pdf>

Weber, N., Nagy, M., Hochradel, K., Mages, J., Naucke, A., Schneider, A., Stiller, F., Behr, O., **Simon, R.** (2018). Akustische Erfassung der Fledermausaktivität an Windenergieanlagen. Seiten 31-58

Hochradel, K., Nagy, M., **Simon, R.** (2018). Laborversuch zum Vergleich akustischer Fledermausdetektoren. Seiten 59-79

Behr, O., Hochradel, K., Mages, J., Nauke, A., Nagy, M., **Simon, R.**, Weber, N., Korner-Nievergelt, F. (2018) Zeitliche und räumliche Variabilität der akustischen Fledermausaktivität an Windenergieanlagen. Seiten 81-106

Korner-Nievergelt, F., Almasi, B., Hochradel, K., Mages, J., Naucke, A., Nagy, M., **Simon, R.**, Weber, N., Behr, O., (2018) Weiterentwicklung der statistischen Modelle zur Vorhersage des Kollisionsrisikos von Fledermäusen an WEA aus akustischen Aktivitätsdaten. Seiten. 111-144

Korner-Nievergelt, P., **Simon, R.**, Behr, O., Korner-Nievergelt, F., (2018) Populationsbiologische Modellierung von Fledermauspopulationen. Seiten 313-341

Baumbauer, L., Nagy, M., **Simon, R.**, Behr, O., (2018) Voraussetzungen für die Verwendung von ProBat. Seiten 343-371

2. Behr, O., Brinkmann, R., Hochradel, K., Mages, J., Korner-Nievergelt, F., Niermann, I., Reich, M., **Simon, R.**, Weber N, Nagy M (2017) Mitigating Bat Mortality with Turbine-Specific Curtailment Algorithms: A Model Based Approach. In: Köppel J. (eds) Wind Energy and Wildlife Interactions. Springer, Cham (pp. 130 - 160) | [https://link.springer.com/chapter/10.1007/978-3-319-51272-3\\_8](https://link.springer.com/chapter/10.1007/978-3-319-51272-3_8)

3. Behr, O., Brinkmann, R., Korner-Nievergelt, F., Nagy, M., Niermann, I., Reich, M., & **Simon, R.**, (Hrsg.) (2015). Reduktion des Kollisionsrisikos von Fledermäusen an Onshore Windenergieanlagen (RENEBAT II) - Endbericht des Forschungsvorhabens gefördert durch das Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (Förderkennzeichen 0327638C+D) – Hannover : Repositorium der Leibniz Universität Hannover, 2016 (Umwelt und Raum Bd. 7), 368 S. DOI: <https://doi.org/10.15488/263>

**Simon, R.**, Mages, J., Nagy, M., Hochradel, K., Weber, N., Niermann, I., und Behr, O., (2015): Methoden der akustischen Erfassung der Fledermausaktivität an Windenergieanlagen. Seiten 39-80

Niermann, I., Behr, O., Brinkmann, R., Korner-Nievergelt, F., **Simon, R.**, und Reich, M., (2015): Kollisionsopfersuchen als Grundlage zur Überprüfung der Wirksamkeit von Abschaltalgorithmen. Seiten 165-204



Behr, O., Brinkmann, R., Hochradel, K., Hurst, J., Mages, J., Naucke, A., Nagy, M., Niermann, I., Reers, H., **Simon, R.**, Weber, N., und Korner-Nievergelt, F., (2015): Experimenteller Test der ledermausfreundlichen Betriebsalgorithmen. Seiten 205-269

Behr, O., **Simon, R.**, und Nagy, M., (2015): Leitfaden zur Durchführung einer akustischen Aktivitätserfassung an Windenergieanlagen und zur Berechnung fledermausfreundlicher Betriebsalgorithmen. Seiten 317-368