

KAREN BUSSMANN

Curriculum vitae

PERSONAL DATA

DATE AND PLACE OF BIRTH: 06 January 1992 | Troisdorf, Germany
INSTITUTIONAL ADDRESS: Vesalgasse 1, 4051 Basel, Switzerland
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CURRENT POSITION

SINCE PHD STUDENT
Nov 2017 **University of Basel**
Department Environmental Sciences
Program Man - Society - Environment

Topic: "The Translocation of Invasive Ponto-Caspian Gobies by Recreational Boats"
Supervisor: Prof. Patricia Holm

EDUCATION

JUL 2017 MASTER OF SCIENCE in Biology | Final grade 1.1 (among best 10 %)
Eberhard Karls University of Tuebingen
Major: Evolution and Ecology

Master thesis: "The Effects of Anthropogenic Noise on Reproductive Behaviour and Communication of the Corkwing Wrasse (*Symphodus melops*)"
Supervisors: Dr. Karen de Jong, Prof. Katharina Foerster
Grade 1.0
Scholarship: PROMOS DAAD (German Academic Exchange Service)

DEC 2014 BACHELOR OF SCIENCE in Biology | Final grade 1.2 (among best 10 %)
Eberhard Karls University of Tuebingen

Bachelor thesis: "The Gonadal Investment of *Pomatoschistus microps* in a Population in the German Baltic Sea"
Supervisor: Dr. Katja Heubel
Grade 1.0

APR 2011 High School Graduation | Final grade 1.5 (among best 10 %)
Gymnasium Wertingen, Germany

WORK EXPERIENCE

- JUL 2017-
OCT 2017 Intern at the FIBR Guppy Project of UNIVERSITY OF CALIFORNIA,
Riverside in Trinidad und Tobago
- Catching (butterfly nets, hand nets), transport and handling of experimental animals (Trinidadian guppies, *Poecilia reticulata*)
 - Preparing medicated water for transporting and keeping experimental animals
 - Anaesthetizing fish with MS222
 - Marking of fish with Visible Implant Elastomer Tags
 - Work with spreadsheet data and data maintenance of long term study data
- MAY 2016-
JUN 2017 Master thesis at the EBERHARD KARLS UNIVERSITY TÜBINGEN
- Field work at the Intitute of Marine Research field station on Austevoll,
Norway:
- Recording video (GoPro)- and audio data of free swimming fish in the field (Hydrophon, SongMeter: Wildlife Acoustics)
 - Catching (fyke nets, pots) and handling of experimental animals (corkwing wrasse (*Symphodus melops*))
 - Monitoring of experimental animals over the course of a breeding season
 - Video cutting and editing (Blender)
 - Behavioural video analysis using ethograms(JWatcher)
 - Analysis of sound files (Praat)
 - Statistical analysis of biological data (R)
- NOV 2015-
MAR 2016 Intern at UNIVERSIDADE ESTADUAL DE SANTA CRUZ, Brazil
Scholarship: Reinhold-und-Maria-Teufel-Stiftung
- Field Assistant: work with Golden-headed lion tamarins (*Leontopithecus chrysomelas*)
 - Monitoring of groups of Golden-headed lion tamarins with radio collars
 - Working with field equipment (Radiotelemetry, GPS, playback devices, live traps)
 - Identification of vegetation and forest characteristics of the Atlantic rainforest
- 2014-
2015 Student Assistant Jobs at UNIVERSITY OF TÜBINGEN
- Analysis of images and videos mit ImageJ und JWatcher (field of interest: parental care, filial cannibalism and courtship behaviour of the common goby *Pomatoschistus microps*)
 - Field Assistant at Tvärminne Zoological Station (Finland): catching of fish (beach seining), aquarium maintenance, behavioural observations in an experimental context
 - Preparing histological sections for ecotoxicological purposes
- MAY 2014
DEC 2014 Bachelor's Thesis at UNIVERSITY OF TÜBINGEN, Germany
- Field work on the island Poel (Baltic sea, Germany):
- Catching (beach seine, hand nets) and handling of experimental animals (common gobies, *Pomatoschistus microps*)
 - Euthanizing fish
 - Dissection of experimental animals
 - Establishing protocol for measuring and calculating the GSI (Gonadosomatic Index) of the experimental animals
 - Comparing statistical methods for the analysis of GSI

TEACHING

SS 2019	Teaching assistant for the field trip MARINE BIOLOGICAL CONSIDERATIONS AT THE STRAIT OF GIBRALTAR (lead: Prof. Patricia Holm) Master's program "Master of Sustainable Development" University of Basel
FS 2018	Lead of the colloquium CRITICAL READING part of the module ECOSYSTEM - CONCEPTS, PRICIPLES AND PROCESSES (lead: Dr. Irene Adrian Kalchhauser) Master's program "Master of Sustainable Development" University of Basel

LANGUAGES

GERMAN:	Mothertongue
ENGLISH:	Fluent
PORTUGUESE:	Fluent
FRENCH:	Intermediate Knowledge
SPANISH:	Intermediate Knowledge

COMPUTER SKILLS

STATISTICS:	MS Excel, R, SPSS, JMP
TEXT PROCESSING:	MS Word, Powerpoint, L ^A T _E X
PRESENTATIONS:	MS Powerpoint
VIDEO ANALYSIS:	Adobe Premiere Pro CC, Blender, JWatcher
IMAGE ANALYSIS:	ImageJ, Inkscape
AUDIO ANALYSIS:	Praat

ADDITIONAL QUALIFICATIONS

JAN 2019	LTK Module 1 Introductory course in laboratory animal science - Theory Practical part ongoing according to Swiss Law on Animal Welfare
AUG 2018:	Open Water Diver certification (PADI)
JUL 2016:	International certificate for Operators of Pleasure Craft (Inland Waters and Sea-going Ships) Allowed to operate motorized/sailing + pleasure craft/sailboard vehicles with a length of less than 15 metres
JUN 2014	Course on animal experimentation with fish according to Directive 2010/63/EU
SEP 2011- FEB 2012	Scientific Working with Computers Course (4CP) Eberhard Karls University of Tübingen

SCIENTIFIC CONTRIBUTIONS

- 2019 Under Review in *Aquatic Conservation*: Lutz, E., Hirsch, P.E., **Bussmann, K.**, Wiegler, J., Jermann, H.-P., Burkhardt-Holm, P., Adrian-Kalchhauser, I. "Molecular proof for round goby egg predation on the endangered common nase at its natural spawning sites."
- Somerville, V., Schwaiger, M., Hirsch, P.E., Walser, J.-C., **Bussmann, K.**, Weyrich, A., Burkhardt-Holm, P., Adrian-Kalchhauser, I. 2019. "DNA methylation patterns in the round goby hypothalamus support an on-the-spot decision scenario for territorial behaviour." *Genes* **2019**, *10*, 219.
- 2018 Not a male monologue: vocal communication of the corkwing wrasse.
Talk (BIOACOUSTICS DAY in Slidrecht, The Netherlands, 29.10.2018)
- Invasive Grundeln und Freizeitboote.
Elevator Pitch + Poster (SERIOR Veranstaltung zum Wissens- und Technologietransfer "Rheingold oder *Source de risque?* Der Rhein aus gesellschaftlicher, ökonomischer und ökologischer Perspektive" at the University Koblenz-Landau, 22.03.2018)
- Round goby eggs and recreational boats - the search for the missing link.
Poster (GOBY MEETING in Chioggia, Italy, 07.-09.03.2018)
- 2017 The Effects of Anthropogenic Noise on Reproductive Behaviour and Communication of the Corkwing Wrasse (*Symphodus melops*).
Master thesis, Eberhard Karls University Tübingen
- Identity matters: the effects of noise on the corkwing wrasse.
Poster (OCEANOISE2017 in Vilanova i la Geltrú, Spain, 08.-12.05.2017)
- 2016 Effects of Noise on Reproductive Behaviour in the Corkwing Wrasse.
Blog entry in the official blog of *Methods in Ecology and Evolution*:
<https://methodsblog.wordpress.com/2016/11/03/underwater-noise/>
last accessed 06.03.2019
- Effects of Noise on Reproductive Behaviour in the Corkwing Wrasse: a Field Study.
Talk (BIOACOUSTICS DAY in Grietherbusch, Germany, 16.10.2016)
- 2014 The gonadal investment of *Pomatoschistus microps* in a population in the German Baltic Sea.
Bachelor thesis, Eberhard Karls University Tübingen