

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 (*Sympodus 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- Intern at the FIBR Guppy Project of UNIVERSITY OF CALIFORNIA,
OCT 2017 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- Master thesis at the EBERHARD KARLS UNIVERSITY TÜBINGEN
JUN 2017 - 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 (*Syphodus 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- Intern at UNIVERSIDADE ESTADUAL DE SANTA CRUZ, Brazil
MAR 2016 **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- Student Assistant Jobs at UNIVERSITY OF TÜBINGEN
2015

- 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 Bachelor's Thesis at UNIVERSITY OF TÜBINGEN, Germany
DEC 2014 - 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, PRINCIPLES 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^AT_EX

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.**, Wieglob, 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 Sliedrecht, 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 Universiy 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 (*Sympodus 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