

Emanuel Heitlinger

Juniorprofessor
Humboldt University (HU)
Department for Molecular Parasitology and
Leibniz Institut for Zoo and
Wildlife Research (IZW)
Berlin

Phone (HU): (+49) (0)30 2093 6450
Phone (IZW): (+49) (0)30 5168 253
Mobile: (+49) (0)178 2545475
Email: emanuelheitlinger@gmail.com

Education

Jun 2008 - Feb 2012 Doctoral studies, Karlsruhe Institute of Technology.

Dissertation: Divergence of an introduced population of the swimbladder-nematode *Anguillicola crassus* - a transcriptomic perspective.

Supervisors: Prof. Dr. Horst Taraschewski and Prof. Mark Blaxter.

Jun 2007 - Feb 2008 Work on diploma thesis, University of Karlsruhe, Zoological Institute, Department for Parasitology and Ecology.

Thesis title: Vergleichende licht- und elektronenmikroskopische Untersuchungen am Intestinaltrakt des invasiven Schwimmblassen-Nematoden *Anguillicola crassus* aus verschiedenen Aalarten.

2001 - 2007 Undergraduate studies in Biology, University of Karlsruhe.

Main subject: Zoology

Subsidiary subjects: Genetics, Botany

1991 - 2000 Secondary school, Gymnasium St.Paulusheim Bruchsal.

1987 - 1991 Primary school, Kraichtal Oberöwisheim.

Employment

May 2014 - now Juniorprofessor, Humboldt University of Berlin, Institute for Biology, Department for Molecular Parasitology and Leibniz Institute for Zoo and Wildlife research.

March 2012 - May 2014 Postdoctoral researcher, Humboldt University of Berlin, Institute for Biology, Department for Molecular Parasitology.

Jun 2008- Jul 2011 Research assistant, Karlsruhe Institute of Technology, Zoological Institute, Department for Parasitology and Ecology.

Fields of Research Interest

Ecology and evolution of host-parasite interactions, transcriptomics and genomics, molecular evolution

Research

Peer Reviewed Publications

Emanuel Heitlinger, Horst Taraschewski, Urszula Weclawski, Karim Gharbi and Mark Blaxter. (2014) Transcriptome analyses of *Anguillicola crassus* from native and novel hosts. PeerJ; in press.

Emanuel Heitlinger, Simone Spork, Richard Lucius, and Christoph Dieterich. (2014) The Genome of *Eimeria Falciformis* - Reduction and Specialization in a Single Host Apicomplexan Parasite. BMC Genomics 15 (1): 696.

Urszula Weclawski, **Emanuel Heitlinger**, Tobias Baust, Bernhard Klar, Trevor Petney, Yu-San Han, and Horst Taraschewski (2014) Rapid Evolution of *Anguillicola Crassus* in Europe: Species Diagnostic Traits Are Plastic and Evolutionarily Labile. *Frontiers in Zoology* 11 (1): 74.

Manuela Schmid, **Emanuel Heitlinger**, Simone Spork, Hans-Joachim Mollenkopf, Richard Lucius, and Nishith Gupta (2013) *Eimeria falciformis* infection of the mouse caecum identifies opposing roles of IFN γ -regulated host pathways for the parasite development. *Mucosal immunology*, 25 December.

Urszula Weclawski, **Emanuel Heitlinger**, Tobias Baust, Bernhard Klar, Trevor Petney, Yu San Han and Horst Taraschewski (2013) Evolutionary divergence of the swim bladder nematode *Anguillicola crassus* after colonization of a novel host, *Anguilla anguilla*. *BMC Evolutionary Biology*, 13:78.

Emanuel Heitlinger, Stephen Bridgett, Anna Montazam, Horst Taraschewski and Mark L Blaxter (2013) The transcriptome of the invasive eel swimbladder nematode parasite *Anguillicola crassus*. *BMC Genomics*, 14:87.

Dominik R Laetsch, **Emanuel Heitlinger**, Horst Taraschewski, Steven A Nadler and Mark L Blaxter (2012) The phylogenetics of Anguillicolidae (Nematoda: Anguillicolidea), swimbladder parasites of eels. *BMC Evolutionary Biology*, 12:60.

Emanuel Heitlinger, Dominik R Laetsch, Urszula Weclawski, Yu-San Han and Horst Taraschewski (2009) Massive encapsulation of larval *Anguillicoloides crassus* in the intestinal wall of Japanese eels. *Parasites & Vectors*, 2:48.

Invited presentations

NGS workshop and conference MouseGene 2014. November 2014, Nove Hradý, Czech Republic. Lecture: "Bioinformatic design of DNA capture baits for population geomics". Practical training course: "Bait design - extracting and screening regions from BLAST searches."

Conference Presentations

2nd ApiCOWplexa- International Meeting on Apicomplexan Parasites in Farm Animals, November 2013, Kusadasi, Turkey. Oral Presentation: "The genome of *Eimeria falciformis* allows identification of conserved invasion strategies but diverged host interaction in the Coccidia (Apicomplexa)".

1st ApiCOWplexa- International Meeting on Apicomplexan Parasites in Farm Animals, November 2012, Lisbon, Portugal. Poster presentation: "Genome sequencing of the mouse parasite *Eimeria falciformis*".

25th Biannual conference of the German society of parasitology (DGP), March 14-17 2012, Heidelberg, Germany. Oral presentation: "Divergence of an introduced population of *Anguillicola crassus* a transcriptomic perspective".

3rd Status Symposium, Volkswagen Foundation Funding Initiative Evolutionary Biology, November 7-11 2011, Sylt, Germany. Oral presentation: "Divergence of an introduced parasite: a transcriptomic perspective on *Anguillicola crassus*".

2nd Status Symposium, Volkswagen Foundation Funding Initiative Evolutionary Biology, May 9-12 2010, Frauenchiemsee, Germany. Oral presentation: "The transcriptome of *Anguillicoloides crassus* sampled by pyrosequencing".

24th Biannual conference of the German society of parasitology (DGP), March 16-19 2010, Münster, Germany. Two oral presentations: "The transcriptome of *Anguillicoloides crassus* sampled by pyrosequencing" and "Massive encapsulation of larval *Anguillicoloides crassus* in the intestinal wall of the Japanese eel".

Mind the gap: joining empirical and theoretical population genetics, October 2-3 2009, Freiburg, Germany. Oral presentation: "Divergence between European and Asian populations of the swimbladder nematode *Anguillicoloides crassus*".

1st Status Symposium, Volkswagen Foundation Funding Initiative Evolutionary Biology, February 25-

27 2009, Münster, Germany. Poster: “Divergence between East Asian and European populations of the swimbladder-nematode *Anguillicola crassus*”.

Xth European Multicolloquium of Parasitology - EMOP 10, August 24-28, 2008, Paris, France. Oral Presentation: “Divergence between East Asian and European populations of the swimbladder-nematode *Anguillicola crassus*”.

Honors, Awards, & Fellowships

2008 Volkswagen Stiftung PhD Fellowship, Funding Initiative Evolutionary Biology, full funding of research position and research material (€131k)