

CURRICULUM VITAE

Philipp Emanuel Hirsch

born 11th of May 1979
in Karlsruhe, Germany

Lorettostr. 33
D- 79100 Freiburg im Breisgau
Germany

married with two children (*2010 and 2012)



EMPLOYMENT AND EDUCATION

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|-----------------|---|
| Since 04/2012 | Post-doc (80%) with teaching duties at the Research Centre for Sustainable Energy and Water-Supply (Forschungsstelle Nachhaltige Energie und Wasserversorgung FoNEW) at the Program Man-Society-Environment – Mensch-Gesellschaft-Umwelt, University of Basel, Switzerland. |
| 04/2015-05/2015 | Project work at the Umeå University's Department of Environmental Sciences, Funded by SNF Travel Grant IZK0Z3_160690 for International Short Visits. |
| 11/2011 | Dissertation in limnology, entitled 'Phenotypic processes triggered by biological invasions'. |
| 05/2007-11/2011 | PhD Student at the Department of Ecology and Evolution, Uppsala University, Sweden. |
| 07/2006-04/2007 | Independent project work on the ecology and behavior of crayfish in Lake Constance, University of Konstanz, Germany |
| 05/2006 | Master's degree (Diplom) in Biology, main subject: limnology University of Freiburg. |
| 07/2005-05/2006 | External master's project conducted at the Limnological Institute of the University of Konstanz. |
| 04/2003-06/2005 | Studies of biology with main subject limnology at the University of Freiburg. |
| 10/1999-03/2003 | Studies of Biology at the Karlsruhe Institute of Technology, 'Vordiplom' |
| 09/2000-07/2001 | Pausing of studies for obligatory community service at the German Found for Environment and Nature Conservation (BUND). |

AWARDS

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| 09/2013 | Young Scientists Award of the German Limnological Society (DGL Schwoerbel-Benndorf Nachwuchs-Preis. |
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GRANTS

Research council funds

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| 04/2015 | ca. 9000 USD (8680 CHF) Swiss National Science Foundation Travel Grant for International Short Visit, Collaborative project with University of Umeå, Sweden. Responsible applicant: PE Hirsch; project responsibility: PE Hirsch |
| 09/2014 | ca. 278 000 USD (266 000 CHF) Swiss National Science Foundation - NFP71 'Towards societal consensus - Influencing the perception and evaluation of energy policy measures by means of self-reflection and |

information'. Co-aquisition, responsible applicant: Patricia Burkhardt-Holm, project responsibility: A Di Giulio, R Defila, C Ruesch, PE Hirsch

EU-founds and other founds

- 11/2017 ca. 50 000 USD (46 600 CHF) International College Lake Constance (Internationale Bodensee Hochschule - IBH). Novel assessment tools for fish behavior and personality to improve aquaculture and stocking measures. Co-aquisition, responsible applicant: Constanze Pietsch
- 09/2013 ca. 526 000 USD (489 068 CHF) Swiss Federal Environmental Agency 'non-native goby species in Switzerland – control and mitigation measures'. Co-aquisition, responsible applicant: Patricia Burkhardt-Holm, project responsibility: P Burkhardt-Holm, PE Hirsch, I Adrian-Kalchhauser
- 09/2012 ca. 21 500 USD (20 000 CHF) Pre-project about non-native goby species in Switzerland. Canton of Aargau; Swiss Federal Environmental Agency. Co-aquisition, responsible applicant: P Burkhardt-Holm, project responsibility: P Burkhardt-Holm, PE Hirsch, I Adrian-Kalchhauser
- 01/2010 ca. 4700 USD (5 000 CHF) Johanssons Foundation for Marine Research. Responsible applicant: PE Hirsch, project responsibility: PE Hirsch
- 05/2009-05/2010 ca. 5300 USD (4 900 CHF) Uppsala graduate school on genomes and phenotypes - travel grants. Responsible applicant: PE Hirsch, project responsibility: PE Hirsch
- 05/2008-05/2009 ca. 34 000 USD (31 700 CHF) Malménska studiestiftelsen, Research funding for project costs and field assistants Responsible applicant: PE Hirsch, project responsibility: PE Hirsch
- 03/2008 ca. 5000 USD (4 700 CHF) Tullebergs Travel Stipend Responsible applicant: PE Hirsch, project responsibility: PE Hirsch,

ACADEMIC MERITS

Board and committee assignments

- 10/2016 Expert member of appointment committee for a professorship on
-12/217 geocology at the Department of Environmental Sciences, University of Basel, filled with Prof. Oliver Heiri
- 12/2016 PhD-thesis grading committee member, Candidate Dr. Anouk N'Guyen,
12/14/2016
- 01/2015 Member of the committee of experts and students contracted to re-
-03/2016 design the master's program Master of Sustainable Development. Contribution in two workshops on profiling for the program.
- 09/2009 Elected faculty board PhD representative at Uppsala University
-11/2011

International collaboration that resulted in publications

- 07/2016 Multi-national collaboration on the stakeholder-informed spatial
-ongoing modelling of invasive round goby population expansion in the Baltic Seas. Main collaboration partners from Denmark, Jane Behrens, DTU Aqua and from Scotland, Justin Travis, University of Aberdeen. Publication: Samson E, Hirsch PE, Palmer S, Behrens J, Travis J. Using individual-based models to prioritize research for improving invasive species management (2017) *Frontiers in Ecology and Evolution*: 5, 49

- 01/2016
-ongoing Collaboration with the Limnological Institute, University of Konstanz, on the ecology and evolution of phenotypic plasticity in fish shoals. Project collaborator: Jasminca Berhmann-Godel, Publication: Hirsch PE*, Stoll S, Burkhardt-Holm P, Yohannes E, Behrmann-Godel J*. *(shared first authorship). Keeping up with the Joneses – Phenotypic plasticity mediates group phenotypic composition in fish shoals. In review at Ecology Letters, Manuscript ID: ELE-00796-2017
- 04/2015-05/2015 Project work at Umeå University's Department of Environmental Sciences, Funded by SNF Travel Grant IZK0Z3_160690 for International Short Visits, Project collaborator: Tomas Brodin
Publication: Hirsch PE, Thorlacius M, Brodin T, Burkhardt-Holm P (2017). An approach to incorporating individual personality in modelling fish dispersal across in-stream barriers. Ecology and Evolution 7:720-732.
- 05/2014-07/2015 Collaboration with the Limnological Institute, University of Konstanz, on the individual identification of experimental fish. Project collaborator: Reiner Eckmann (Prof. emeritus),
Publication: Hirsch PE, Eckmann R (2015). Individual identification of Eurasian perch *Perca fluviatilis* by means of their stripe patterns. Limnologica 54: 1-4.

Referee for international journals

Molecular Ecology (1/year), Water (1/year), Journal of Animal Ecology (1/year), PLoS ONE (3/year), Oikos (1/year), Oecologia (2/year), Freshwater Biology (2/year), Behavioural Processes (1/year), Biological Invasions (1/year), Aquatic Ecology (2/year), Aquatic Sciences (1/year), Journal of Fish Biology (2/year), Sustainability (1/year), Aquaculture (<1/year), Knowledge and Management of Freshwater Ecosystems (<1/year)

Administrative assignments

- 03/2016
-ongoing The Sustainable Consumption Research and Action Initiative (SCORAI) European network Member
- 10/2013
-ongoing Founding member of the Young Leaders Club for Sustainability (Forum Sasso San Gottardo) a Swiss think-tank for the energy transition and policy-science interactions

Popular scientific engagement (selection)

- 10/2017 Public presentation: 'Invasive Grundeln – Gefahr für die Fischerei?', Oral presentation at the 'Fischereisymposium Friedrichshafen' a symposium on recreational and professional inland fisheries, Friedrichshafen, Germany
- 04/2017 Public presentation: 'Invasive Arten im Rhein – was können wir tun?', Oral presentation at exhibition 'Fisch+Wild', Offenburg, Germany
- 01/2017 Contribution to online newspaper article, In: 'Alpenfischer', link: <https://www.alpenfischer.com/wissenschaftsapero-schwarzmeergrundeln-der-schweiz/>
- 09/2016 Contribution to flyer, public campaign of the Swiss Federal Office for the Environment to stop invasive gobies from spreading. Flyer title: Stop!! Schwarzmeergrundeln gefährden die heimische Fischwelt; link: http://www.fischereiberatung.ch/news/aktuelles_ab_mai_16/merkblatt_invasive_neobiota_fischer.pdf
- 08/2016 Contribution to flyer, public campaign of the Swiss Federal Office for the Environment to stop aquatic invasive species from spreading: Stop!! Gebietsfremde Invasoren gefährden die heimische Artenvielfalt.; link:

- https://www.so.ch/fileadmin/internet/vwd/vwd-awjf-jagd/pdf/merkblatt_invasive_neobiota_bootsbesitzer.pdf
- 08/2015 Contribution to newspaper article: Grundeln verderben Basler Anglern den Spass, In: Basellandschaftliche Zeitung, BZ, in print only
- 07/2015 Contribution to newspaper article: Neozoen in Gewässern und ihr Management, In: Fauna Focus, in print only
- 04/2014 Public presentation: Schwarmmeergrundeln auf dem Weg in die Schweiz - was tun?, yearly summit of the Cantonal Fisheries Associations of Basel, Basel, Switzerland
- 10/2013 Contribution to brochure: 'Invasive gobies', published by the Bavarian Fisheries Society, link http://www.fischfauna-online.de/cms2.0/images/stories/05_Atlanten/Gobiidae/LFVBayern_2013_Grundeln.pdf
- 07/2013 Contribution to newspaper article: Der unsichtbare Verdrängungskampf, In: Basellandschaftliche Zeitung, BZ, link: <http://bazonline.ch/basel/land/Der-unsichtbare-Verdraengungskampf/story/20774505>
- 05/2013 Contribution to newspaper article: Schuppige Einwanderer gefährden die Rhein-Fauna, In: Basellandschaftliche Zeitung, BZ, link: <http://www.bzbasel.ch/basel/basel-stadt/schuppige-einwanderer-gefaehrden-die-rhein-fauna-126574536>
- 04/2013 Public presentation: Invasive Grundeln: Herkunft, Probleme und Massnahmen? Yearly summit of the Cantonal Fisheries Associations of Basel, Basel, Switzerland
- 04/2012 TV- interview on invasive gobies in Switzerland, link: <http://la1.rsi.ch/home/networks/la1/telegiornale?po=c8bcb616-f798-44d1-92d5-bda3d16aa046&date=12.10.2012#tabEdition>
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- 02/2009 Radio interview on Swedish crayfish at Radio P4 Upplands Radio, link: <http://sverigesradio.se/sida/artikel.aspx?programid=114&artikel=4627972>
- 2003-2007 Several non-research related newspaper articles in the Journal: Kritische Masse