Dr. Katja Räsänen

Eawag, Dept. of Aquatic Ecology / ETH-Zurich Institute of Integrative Biology

Postal address: Überlandstrasse 133, CH-8600 Dübendorf, Switzerland

Tel: +41 - 58 765 5186

Fax: +41 – 58 765 5315

e-mail: katja.rasanen@eawag.ch

Homepage: www.eawag.ch/~rasaka

Twitter: @katjajrasanen

Nationality: Finnish

Languages: Finnish (native), English (fluent), German (fluent), Swedish (fluent), Norwegian (good), Swiss german (good understanding)

Research interests: adaptation, behaviour, eco-evolutionary interactions, environmental stress, evolutionary physiology, glycomics, maternal effects, phenotypic plasticity, natural selection, selection-gene flow balance, spatio-temporal dynamics. Study systems: amphibians, fish, aquatic invertebrates

Bibliometrics (27.9.2019): 57 peer-reviewed publications**; h-index:** 27, **h-10**: 45, **total citations**: 2820; Google scholar: https://scholar.google.com/citations?user=3GbuXOwAAAAJ&hl=en **Publication list:** p. 12.

***Achievements since tenure*

Academic positions and education

**2012 Sep – 2014 Aug	Deputy head of department (HoD), Dept. of Aquatic Ecology (Jan-Jun 2014 acting HoD during Spaak P sabbatical leave).
**2008 May – present	Senior scientist (tenured in 2012), Dept. of Aquatic Ecology, Eawag, Switzerland.
2006 Jan – 2008 Apr	Senior scientist (Oberassistent, non-tenurable) with Prof. Jukka Jokela. ETH-Zürich, Institute of Integrative Biology (IBZ)/Eawag, Dept. of Aquatic Ecology, Switzerland.
2005 Jul – Dec	Postdoctoral fellow Dept. of Biology, McGill University, Canada. Project: '*Ecological speciation: mechanisms of reproductive isolation in fishes*' with Prof. Andrew Hendry and Prof. Lauren Chapman.
2003 Jul – 2005 Jun	Postdoctoral fellow Redpath Museum and Dept. of Biology, McGill University, Canada. Project: '*Ecological speciation: adaptive divergence and the evolution of reproductive isolation in stickleback*' with Prof. Andrew Hendry
2003 Jan – Jun	Postdoctoral fellow Dept. of Population Biology, Uppsala University, Sweden. Project: '*The effects of human-induced environmental change on a long-lived vertebrate: the quantitative genetic basis of larval life-history and acid stress tolerance in the moor frog*' with Doc. Anssi Laurila.
2002 Nov	PhD degree. Thesis: '*Evolutionary implications of acidification: a frog's eye view*' Dept. of Population Biology, Uppsala University, Sweden. Supervisors: Doc. Anssi Laurila and Prof. Juha Merilä.
1997 Dec	MSc degree. Specialized in Animal Ecology, University of Oulu, Finland. Thesis: '*Extra-pair paternity and parental care in male collared flycatcher, Ficedula albicollis'* Supervisor: Prof. Ben Sheldon.

Research assistant:

1998, April-July. Laboratory experiments (frogs) for Prof. Juha Merilä, Uppsala University, Sweden.

1997, May-June. Field experiments (birds) for Prof. Ben Sheldon, Uppsala University, Sweden.

1996, May-June. Field experiments (birds) for Prof. Lars Gustafsson and Dr. Med. Dag Nordling, Uppsala University, Sweden.

1994, May-June. Field experiments (birds) for PhD Klas Allander and PhD Reija Dufva, Uppsala University, Sweden.

Experience gained: general handling and standard monitoring of breeding activities of birds (great tits, collared and pied flycatchers), immunoassays (skin), blood sampling (adults and chicks), banding and mist-netting, behavioral observations.

Funding:

Ongoing:

2019-2021. Icelandic Research Council (RANNIS). Grant of excellence: *ECO-EVO-DEVO dynamics of biodiversity: Mývatn threespine stickleback as a model*. **Lead-PI with Kristjansson BK. Co-PIs: Ives AR, Matthews B, Jonson ZO, Einarsson A, Skulason S 150 000 000 ISK

2017-2019. Swiss National Science foundation (SNF). *'Evolutionary physiology and genetics of adaptation along a multifarious stress gradient: insight from Rana arvalis*'. **Sole PI. 305 000 CHF

2019-2021. Eawag discretionary funds. *The Asellus triangle: the host, the microbiome and environmental stress.* **Sole PI. 300 000 CHF

Completed:

2016-2018. RANNIS. *Microevolutionary processes in small animal populations: cave dwelling Arctic charr in Iceland*. **Co-PI with Leblanc C (PI) and 6 co-PIs. 44 954 000 ISK

2014 – 2017. RANNIS. *The importance of egg size for phenotypic variation and divergence in wild populations*. **Co-PI with Leblanc C (PI) and 4 Co-PIs. 50 000 000 ISK

2016. Eawag discretionary (DF) funds. *GLYCOSEED: Bringing glycomics to aquatic ecology and evolution.* ***Lead PI* with Suter M. *110 000 CHF*

2015-2016. Eawag DF. *Interacting effects of environmental stressors under climate change: insights from a freshwater snail*. **Co-PI with Seppälä O (PI), Stamm C. 239 000 CHF

2011-2016. SNF. *Towards understanding the determinants of stream macroinvertebrate responses to environmental change mediated by glacial recession.* **Initiator, Co-PI with Robinson C, Keller I. 400 000 CHF

2013-2014. Energy research fund of Landsvirkjun, Iceland. *Which environmental factors shape biological diversity of Icelandic freshwater fish?* **Co-PI with Kristjánsson BK (PI) and 2 Co-PIs. 8 000 000 ISK

2012-2014. *RANNIS*. *The importance of ecology, phenotype and genetic structure for biological diversity in Icelandic cave charr*. **Co-PI with Skulasson S (PI) and 6 Co-PIs. 19 819 000 ISK

2011-2014. SNF. *Towards a mechanistic basis of adaptive maternal effects: geographic variation in embryonic acid stress tolerance and egg envelope composition of amphibians*. **Sole PI. 288 000 CHF

2009-2012*. RANNIS*. *The importance of ecological factors for the evolution of biological diversity: insights from temporal and spatial variation in selection on threespine stickleback in Mývatn*. **Initiator. Co-PI** with Skulasson S (PI) and 3 Co-PIs. 19 180 000 ISK

2008. Eawag DF: *Aquatic Biodiversity in Rapidly Changing Alpine Landscapes (GLACO*). **Co-PI** with Robinson C (PI) and 2 Co-PIs. 100 000 CHF

2007-2010. SNF. *Shedding light on biological diversity: facilitators and constraints of adaptation to anthropogenic environmental change.* ***Sole*** **PI.** 227 000 CHF

2007-2010 The Swedish Research Council FORMAS. *Neutral and adaptive genetic variation in natural populations: the roles of landscape structure and adaptive potential in response to environmental stress.* **Co-PI** with Laurila A. 2 503 000 SEK

2005. FORMAS. *Shedding light on biological diversity: facilitators and constraints of adaptation to anthropogenic environmental changes*. **Sole PI.** for a 4 year assistant professor position. (I declined this funding as I accepted position at ETH/Eawag). 3 140 000 SEK

2003-2004. The Swedish Research Council VR. 2 year post-doctoral fellowship. *Ecological speciation: adaptive divergence and the evolution of reproductive isolation in stickleback.* Redpath museum and Dept. of Biology, McGill University, Canada. **Sole PI**. 490 000 SEK

2002-2004. FORMAS. *Effects of human-induced environmental change on a long-lived vertebrate: mechanisms of local adaptation and acid stress tolerance in the moor frog*. **Co-PI** with Laurila A (PI). 557 000 SEK

Other grants

- **SNF. *Evolutionary ecology in management of aquatic ecosystems* - symposia. 22 & 23 Nov 2012. **PI.** (Co-PIs Prof. Jukka Jokela and Prof. Christoph Vorburger). 5 000 CHF
- Liljewalch's travel scholarship. 2002. 6 000 SEK
- Foundation for Zoological Research, Uppsala University. *1998-2001*. 8 000-18 000 SEK/year
- The Royal Swedish Academy of Science. 1999-2001**.** 7 000 SEK/year
- Konkordia-foundation, Finland. 1999. 15 000 FIM
- NorFA-mobility scholarship. 1998-1999**.** 89 000 NOK
- Wilgot Stenholms foundation travel scholarship, Sweden. 1998. 17 200 SEK
- Dept. of Zoology, University of Oulu, 1995. 2 000 FIM

Teaching activities (see separate document for details)

2018 Controversies in Ecology – Autumn graduate school. Univ. of Zurich, Switzerland. Oct 21-25. **Lecturer and **mentor.**

2011 onwards Limnoecology 701-1437-00 G (co-mentoring of practicals, 4 day field course and 6-8 hrs lectures/year). MSc and BSc level for Environmental Science and Biology students, ETH-Zurich and Univ. of Zurich. **Lecturer.

2009 – 2011 Aquatic communities 701-0446-00 V (8 hrs lectures/year). BSc level for Environmental Science students ETH-Zurich. **Lecturer.**

2007- 2009 PhD skills seminars 701-0017-00L (6-8 hrs lectures/year). **Course coordinator** and **lecturer**. PhD students, across discplines. Eawag and ETH-Zurich.

2007- 2008 Integrative practicum in aquatic ecology 701-0034-15 P. Practicals. **Course coordinator and lecturer**. Block course with 4 modules (1 /senior mentor = each 1 full day). BSc level for Environmental Science students, ETH-Zurich.

2007- 2008 Introduction to Population and Evolutionary Biology 701-0245-00 V (12 hrs lectures/year). BSc for Environmental science and Biology students. **Lecturer**.

2006- 2007 Adaptation in aquatic organisms 701-0262-00 G (lectures and practicals). **Course coordinator and lecturer.** BSc and MSc level, ETH-Zurich.

2006- 2007 Freshwater biodiversity 701-0442-00 V (8 hrs lectures/year). BSc and MSc level, ETH-Zurich. **Lecturer.**

2006- 2008 Evolutionary biology: field course 701-1414-00 P (4 days/year co-mentoring of practicals). MSc students in Biology, ETH-Zurich. **Lecturer** and **mentor.**

Guest lectures:

**2018 *Adaptation to human induced environmental stress – a frog's eye view*. Lecture series in Evolutionary Ecology and Behavioural Ecology, Institute of Ecology and Evolution, Univ. of Bern, Nov 22, 2018.

**2015	*Phenomics of maternal effect mediated adaptive divergence*. Munich graduate school for Evolution, Ecology and systematics. Ludwig Maximillians University (LMU), Munich, Germany. May 9, 2015.
**2015	*Adaptive maternal effects*. Evolutionary and Ecology Genetics BIO3083. Dept. of Biol., NTNU, Norway. Mar 16, 2015
2004	*Effects of acidification on amphibians*. BIOL 327 Herpetology, Undergraduate lectures, McGill University, Canada

Post doctoral mentor:

**2019-2020	Dr. Elvira Lafuente. Asellus-microbiome stress interactions. Dept. of Aquatic Ecology, Eawag (Asellus triangle Discretionary Funds post doc)
**2019-2021	Dr. Joe Philips. Mathematical modelling of spatio-temporal dynamics of threespine stickleback population of lake Myvatn, Iceland . (Holar Univ., Iceland, RANNIS Grant of Excellence)
**2019-2021	Dr. Kasha Strickland. Eco-Evo-Devo of spatio-temporal dynamics in threespine stickleback of lake Myvatn, Iceland. (Holar Univ., Iceland, RANNIS Grant of Excellence)
**2013-2016	Dr. Francis Burdon. *Impacts of micropollutants on aquatic ecosystems*. Dept. of Aquatic Ecology, Eawag (EcoImpact post doc)
2009	Dr. Debra Finn. *Glacial stream invertebrate responses to climate change*. Dept. of Aquatic Ecology, Eawag (co-mentor) (GLACO post doc).

Ph.D. theses (total 6):

**2019 -2021	Alessandra Schnider. Eco-evo feedbacks in lake Myvatn three-spine stickleback. **Co-supervisor** with Prof. Zophonias Johnson and Prof. Bjarni K Kristjansson. RANNIS Grant of Excellence funded.
**2019 - 2021	Ådne Nafstad. *The role of energy budgets in eco-evolutionary dynamics of natural bird populations*. Dept. of Biology, NTNU, Norway. **Co-supervisor** with Prof. Jensen Henrik NTNU, Dr. Stawski Clair, NTNU, Dr. Muff Stephanie, Dept. of Mathematical Sciences, NTNU, Norway, Rønning Bernt, Dept. of Teacher Education, NTNU, Norway. NTNU funded.
**2017 –2020	Jelena Mausbach. *Eco-evolutionary physiology: corticosterone pathway and multistress adaptation in Rana arvalis*. **Main supervisor** with Prof. Jukka Jokela, ETH-Zurich. SNF funded.
**2011-2016	Marie Leys. *Eco-evolutionary responses of an alpine stream insect (Baetis alpinus) to environmental change*. Eawag and Dept. of Environmental sciences, ETH-Zurich, Switzerland. **Co-supervisor** with PD Dr Chris Robinson, Eawag. SNF funded.
**2011-2014	Longfei Shu. *Molecular variation of egg capsules and its relationship to maternally mediated responses to environmental stress in amphibians*". Eawag and Dept. of Environmental sciences, ETH-Zurich, Switzerland. **Main supervisor** with Prof. Jukka Jokela ETH-Zurich. SNF funded. PhD thesis nominated for ETH silver metal.
**2009-2013	Antoine Millet. *Spatio-temporal environmental and morphological variation in a dynamic natural system, Lake Myvatn threespine stickleback*. Univ. of Iceland, Iceland. **Co-supervisor** with Prof. Bjarni K Kristjansson, Holar Univ. College. RANNIS funded.
2007-2010	Sandra Hangartner. *Adaptive divergence of the moor frog (Rana arvalis) along an acidification gradient*. Dept. of Aquatic Ecology, Eawag/Institute of integrative biology, ETH Zurich, Switzerland. **Main supervisor** with Prof. Jukka Jokela ETH-Zurich**.** SNF funded.

Committee member:

PhD: **Completed:** **Moritz Lürig, Eawag/ETH-Zurich, Switzerland. **Samantha Beck, University of Iceland, Iceland (2015-2019), **Marta Giardano, Univ. of Zurich, Switzerland (2012-2015), **Laura Langelohe, Dept.

of Aquatic Ecology, ETH-Z/Eawag, Switzerland (2012-2016); **Katja Leicht, Dept. of Aquatic Ecology, Eawag/Univ. of Jyväskylä, Finland (2012-2015); Anja Westram, Dept. of Aquatic Ecology, ETH-Z/Eawag, Switzerland (2009-2011).

MSc: **Ramon Lang, ETH-BIOL (2019), **Isabelle Ambord, ETH-BIOL (2017), **Daniela Hilfiker, Univ. Zurich, Switzerland (2015).

M.Sc. theses (total 21):

2019 Zimmermann Mariella. Univ of Zurich. **Main supervisor with Prof. Arpat Ozgul, Univ. Zurich. 12 Months.

2019 Scaramella Nicholas. Uppsala Univ. **Co-supervisor with Prof. Anssi Laurila, Uppsala Univ. 8 months.

2018 Corbel Quentin. Uppsala University. **Main supervisor with Prof. Anssi Laurila, Uppsala Univ. 8 months

2016 Delrue Coralie. Holar Univ. College, Iceland. **Co-supervisor with Bjarni K Kristjansson, Holar Univ. College. 2 years

2016 Tsinganis Markos. D-BIOL, ETH-Z, Switzerland. **Main supervisor with Prof. Jukka Jokela, ETH Zurich, Dr. Camille Leblanc, Holar Univ, College. 6 months

2015 Taddei Anja. D-BIOL, ETH-Z, Switzerland. **Main supervisor with Dr. Francis Burdon, Eawag. 6 months

2015 Ramsauer Philipp. D-BIOL, ETH-Z, Switzerland. **Main supervisor with PD Dr. Chris Robinson, Eawag. 6 months

2014 Neff Felix. D-DSYS, ETH-Z, Switzerland. **Main supervisor with Dr. Francis Burdon. 6 months.

2013 Schenkel Corinne. Univ. of Zurich, Switzerland. **Main supervisor with Prof. Owen Petchey, Univ. Zurich. 12 months

2012 Sgier Linn. **Main supervisor with PD Dr. Chris Robinson, Eawag. 12 months

2011 Diethelm Tamara. Dept. of Biology, ETH-Zurich. **Main supervisor** with Dr. Bjarni K Kristjansson, Holar Univ. College. 6 months

Krähenbühl Kim. Dept. of Biology, ETH-Zurich, Switzerland. **Main supervisor**. 6 months.

Seymour Matthew. Holar Univ. College, Iceland. **Co-supervisor** with Dr. Bjarni K Kristjansson, Holar Univ. College. 2 years

2010 Riedener Eliane. Dept. Env. Sciences, ETH Zurich, Switzerland. **Main supervisor**. 6 months.

Senn Mike. Univ. of Zurich, Switzerland. **Main supervisor** with Prof. Heinz Ulrich Reyer, Univ. Zurich. 12 months

Koopmans Andrea. **Main supervisor** with Dr. Bjarni K Kristjansson, Holar Univ. College. 6 months

Merk Magdalena. Dept. of Env. Sciences, ETH-Zurich, Switzerland. **Co-supervisor** with Dr. Benedikt Schmidt, Univ. of Zurich. 6 months

2009 Brunold Claudio. Dept. of Biology, ETH-Zurich, Switzerland. **Main supervisor**. 6 months.

Gräzer Vera. Dept. of Biology, ETH-Zurich, Switzerland. **Main supervisor.** 6 months

2006 Delcourt Matthieu. **Co-supervisor** with Prof. Andrew Hendry, McGill Univ, Canada

2003 Persson Mikael. **Co-supervisor** with Prof. Anssi Laurila, Uppsala Univ., Sweden

Technical personnel:

**2016 onwards Marco Thali (molecular genetics, 12 months/year, Eawag)
**2019 Robert Hardeman (civil servant, 6 months, Eawag)
**2019 Aijuan Liao (MSc Berufspraxis, 5 months, Eawag)
**2019 Andrin Krähenbühl (10% position, 8 months, Eawag)
**2019 Simon Wullschleger (10% position, 12 months, Eawag)
**2019 Oliver Kastenhofer (Scientific assistant, 3 months, Eawag)
**2018 Frida Sjösten (3 months, amphibian work, Uppsala Univ. Sweden)
**2018 Mylene Jury (4 months, internship, amphibian work, Eawag)
**2018 Mehdi Khadraoui (4 months Zivi, assistant, Eawag)
**2017 Catia Chaves (3 months, amphibian work, Uppsala Univ. Sweden)
**2016-17 Tanja Trüb (glycomics; 12 months, Eawag)
**2016 Jenny Spaak (molecular genetics, 6 months, Eawag)
**2013-15 Marta Reyes (Ecoimpact technician; 2.5 years, Eawag)
**2011-14 Beatrice Lindgren (3 months/year, amphibian work, Uppsala Univ. Sweden)
2010 Tamara Diethelm (3 months, Eawag)
2011 Laurence Henuset (4 months in training. M.Sc. level, University of Namur, Belgium)

Undergraduate projects (total 15 in 2007-2019):

Dept. of Environmental sciences, ETH-Zurich, Switzerland (5): 2019: **Livia Brunner; 2016: **Deborah Stoffel, 2010: Matthias Egger; 2008: Daniel Angst, Tim Kempter

Dept. of Biology, ETH-Zurich, Switzerland (10): 2017: **Isabelle Ambord, 2014: **Livia Moser, **Anja Taddei; 2013: **Philipp Ramsauer, 2011: Nicole Ponta, 2010: Tamara Diethelm, Kim Krähenbuhl, 2009: Christoph Bachofen, Claudio Brunold, 2008: Vera Gräzer

External: ****Mylene Jury, MSc study internships (6 months in 2019, 4 months in 2018), Univ. de Pau, France.Nicholas Scaramella, MSc study internship (2.5 months in 2019), Uppsala Univ., Sweden.

Referee:

Journals: *Aquatic Biology, Aquatic Conservation, Aquatic Ecology, American Naturalist, Amphibia-Reptilia, Annales Zoologi Fennici, Applied Herpetology, Aquatic Toxicology, Behavioral Ecology, Biological Bulletin, Biological Invasions, Biological Journal of Linnean Society, Canadian Journal of Zoology, Chemosphere, Canadian Journal of Zoology, Comparative Biology and Physiology, Current Zoology, Ecography, Ecosphere, Ecology, Ecology Letters, Environmental Science & Technology, Ethology, Evolution, Evolutionary Ecology, Functional Ecology, Frontiers in Ecology & Evolution, Global Ecology & Biogeography, Heredity, Herpetologica, Hydrobiologia, International Journal of Molecular Sciences, Journal of Animal Ecology, Journal of Evolutionary Biology, Journal of Herpetology, Molecular Ecology, Naturwissenschaften, Oikos, Oecologia, PCI Ecology (bioRxiv), Proceedings of Royal Society London B, Scientific reports, Science of Total Environment.*

Book chapters: '*The effects of other's genes: maternal and other indirect effects*' in: Quantitative genetics in the wild. (editors Charmantier A, Garant D, Kruuk LEB). Oxford Univ. Press 2014.

Funding agencies: Belgian Science Policy Office (BELSPO), Estonian Research Council (ETIS), *The Netherlands Organization for Scientific Reserch (NWO), Swiss National Sience Foundation (SNF), The Swedish Research Council Formas (FORMAS), Deutsche Forschungsgemeinschaft (DFG)*

Academic faculty: Alfred Wegner Institute, Germany; Dept. of Biology, NTNU, Norway

Ph.D. theses: 2019: **Piotr Rowinski, Univ. of Stockholm, Sweden, **Lisandrina Mari, *INRA, France.* **2014:** **Zoe Gauthey, INRA, France (PhD defense external examiner), **2012:** Jasmin Winkler, Univ. of Zurich, Switzerland, **2011**: Päivi Leinonen, Univ. of Oulu, Finland; **2010**: Oscar Ramos, Univ. of Zurich, Switzerland, **2008**: Theresa Knopp, Univ. of Helsinki, Finland

Member of societies

European Society for Evolutionary Biology, *Swiss ProNatura*, *Norwegian Ornithological Society (NOF)*

Public outreach

Active on **twitter** (science and nature). 415 followers (27.9.2019).

****Räsänen K**. Was macht eine Finnische Biologin in der Schweiz ? Aquatische Lebensgemeinschaften im Wandel. Invited talk to NatuRus (Nature society of Russikon community, Switzerland). February 2019.

Stamm C, Burdon F, Fischer S, Kienle C, Munz N, Tlili A, Altermatt F, Behra R, Bürgmann H, Joss A, **Räsänen K, Eggen R. 2018. *Einfluss von Mikroverunreinigungen: Lebensgemeinschaften in Fliessgewässern* – Ergebnisse aus dem Projekt. EcoImpact. Aqua & Gas 6, 90-95

****Räsänen K,** Jokela J, Vorburger C. ‚Evolutionary ecology and management of aquatic ecosystems' symposia. Scientist-stakeholder interaction symposium. Nov 22 & 23, 2012. **Initiator and lead coordinator.**

Kopp K. 2012. *Anpassungsfähige Frösche* in Umweltsperspektiven (Swiss journal of environmental management).

Duda R*. 2010. Und sie leben doch.* (on the role adaptive maternal effects for amphibian adaptation to acidification) in *Horizonte* (Swiss National Science foundation)

Schmidt B, **Räsänen K**. *Evolution von lokaler Anpassung bei Braunfröschen: Zum 150. Geburtstag von DARWINS »On the origin of species".* 2009. Zeitschrift für Feldherpetologie 16: 153–162.

Räsänen K, Spaak P, Seehausen O. Coordination of Praxis oriented (PEAK) courses on 'Evolutionary ecology in freshwater conservation', Eawag, Switzerland, 2009, 2011.

Institutional and departmental activities

Service for Eawag:

- ****Search committee** for *Environmental Microbiology* tenure track, Eawag. 2019.
- ****Core member** of research team '*EcoImpact – effects of micropollutants and waste water ozonation on ecosystems*'. Interdisciplinary research involving *12 Eawag departments*. *2013-2016.*
- ****Interview committee** member for Fish behavioural biologist, Eawag, 2018.
- ****Advisory board member** *at Eawag for 'BAFU – monitoring strategies of river rehabilitation'. 2017.*
- ****Member* of research concept committee** on '*Agricultural impacts on aquatic ecosystems*' involving Eawag, the Swiss Federal office for Agriculture (BLW) and Agroscope. 2012-2015.
- Eawag **symposia *coordinator*** (with Fenner K and Lienert J). 2009-2013.
- Eawag **seminar committee member**. 2009-2013.
- **Coordinator** of praxis oriented (PEAK) courses on 'Evolutionary ecology in freshwater conservation' (jointly with Dr. Piet Spaak and Prof. Ole Seehausen). 2009, 2011.
- Dept. of Environmental toxicology-Dept. of Aquatic Ecology - **workshop coordinator** (jointly with Dr. Behra R, UTOX). 2009
- Eawag PhD skills **course coordinator and initiator** (jointly with Prof. Jukka Jokela). 2007, 2008.

Service for Dept. of Aquatic Ecology:

- ****Technician coach** at Dept. of Aquatic Ecology, Eawag (elected by technicians). 2014 onward (cont.)
- ****Deputy head of the department,** Dept. of Aquatic ecology, Eawag (acting head during 6 months – sabbatical leave of P Spaak). 2013-2014.
- ****Member* of the *Executive Committee*** at Dept. of Aquatic Ecology, Eawag. 2013- 2014.
- ***Member* of construction commission** for "Aquatikum" - new experimental facilities at Eawag. 2012.
- Departmental **retreat coordinator.** 2009, 2012.
- **PhD student **symposia coordinator.** 2006, 2011, 2012, 2019.

- Departmental **seminar series coordinator**. Dept. of Aquatic Ecology. 2007, 2008, 2016.

Invited talks

**2019 Stockholm Univ., Sweden (Dec 2019)

**2019 Institute of Freshwater Research, Swedish Agricultural Univ, Sweden (Dec 2019)

2019 OIKOS - Eco-Evolutionary dynamics session, Uppsala, Sweden. Feb 4-7, 2019. (*Plenary***)

**2018 Lecture series in Evolutionary Ecology and Behavioural Ecology, Institute of Ecology and Evolution, Univ. of Bern, Nov 22, 2018.

**2017 Evolutionary Biology Center, Uppsala University, Sweden. Mar 20, 2017.

**2015 Munich graduate school for Evolution, Ecology and systematics. Ludwig Maximillians University (LMU), Munich, Germany. May 9, 2015

**2015* Responses to Environmental change colloquim, Ernst Moritz Arndt University of Greifswald, Germany. Dec 3, 2015

**2015 Center for Biodiversity Dynamics (CBD), NTNU, Norway. Apr 14, 2015.

**2014 Pole d'Hydrobiologie – INRA, France. Dec 10, 2015.

2011 Dept. of Ecotoxicology, Eawag, Switzerland. Jul 15, 2011

2011 Swedish Agricultural University, Uppsala, Sweden. March 22, 2011

2009 Dept. of Fish ecology and evolution, Eawag, Kastanienbaum, Switzerland. Mar.

2008 Eawag Duebendorf, Switzerland. Feb. (**job interview talk**)

2007 Dept. of Zoology, Univ. of Bern, Switzerland. Nov.

2007 ETH Latsis Price – nomination talk. ETH Board, Zurich, Switzerland. Jun.

2006 Institute of Zoology, Univ. of Zurich, Switzerland. Oct, 2006

2006 Dept. of Fish Ecology and Evolution, Eawag, Switzerland. May, 2006.

2006 Dept. of Evolutionary Biology, Univ. of Basel Switzerland. Jan, 2006.

2005 Dept. of Aquatic Ecology, Eawag, Switzerland. Jul, 2005 (**job interview talk**).

2004 Dept. of Biology, McGill University, Canada. Feb 2004.

2003 Redpath museum, McGill University, Canada. Feb 2003.

2003 Donana Biological Station, Seville, Spain. Mar 2003.

Conference contributions

2019 Swedish OIKOS, Uppsala, Sweden (Plenary **talk)

2018 1st *Asellus* symposium, coordinator** jointly with Blake Matthews, Eawag. Dec 20, 2018 (**Talk**)

2018 Joint meeting of European Society for Evolutionary Biology (ESEB) and Evolution, Montpellier, France. **(Talk)

2017 *Rapid evolution revisited* (symposium coordinator**). European Society for Evolutionary Biology (ESEB), 2017, Groningen, Netherlands

2016 Genomics of Eco-Evo dynamics – ACE workshop, Monte Verita, Switzerland. (Poster**).

2015 8th International charr symposium, Tromsø, Norway. (Talk**)

2013 Iceland Biology meeting, Reykjavik, Iceland. November. (Talk**)

2013 Understanding the nature and evolution of biological diversity: lessons from northern freshwater fishes – workshop, School of Biology, University of St. Andrews, UK (Talk**)

2012 Evolution meeting, Ottawa, Canada (**Talk**)

2011 *European Society for evolutionary biology (ESEB)- conference*, Tübingen, Germany. (**Poster**)

2009 Evolutionary Ecology *of* Fishes*: Diversification, Adaptation and Speciation* (**Poster**)

2009 *European Society for Evolutionary Biology – (ESEB) conference* Turin, Italy (**Poster**)

2008 *Managing adaptive genetic variation in conservation biology* - workshop La Foyly, Switzerland (**Talk**)

2007 *Behav. Ecol. Soc. (BES) - Speciation symposia*, Sheffield, U.K. (**Poster**)

2007 *Evolution in human altered environments, UCLA summit*, Los Angeles, USA. (**Poster**)

2006 Evolution meeting (SSE), Stony Brook, New York, USA (**Talk**)

2005 NorFA Environmental Stress workshop, Holar, Iceland (**Talk**)

2004 Evolution meeting (SSE), Fort Collins, Colorado, USA (**Talk**)

2001 Evolution meeting, ESEB, Aarhus, Denmark (**Poster**)

2001 Oikos meeting, 'Ecology & Evolution – from Genes to Ecosystems. Uppsala Univ., Sweden (**Talk**)

2000 NorFa – workshop 'Environmental stress and genetic adaptation', Erken limnological station, Sweden (**Talk**)

1999 Environmental stress and adaptation - meeting, Rønjberg, Denmark. (**Talk**).

1999 LUOVA - workshop 'Genetic methods - theory and practical application'. Univ. Helsinki, Finland (**Talk**)

1998 European Science Foundation (ESF) - workshop on 'Environmental stress, genetic adaptation and evolution'. CNRS, Gif-sur-Yvette, France. (**Talk**)

1998 SAG meeting on 'Genetics and Conservation'. Uppsala Univ. and Swedish Agricultural University, Uppsala. (**Poster**).

Current* and past key collaborators

Amphibian adaptive divergence

*Laurila Anssi, Uppsala University, SWE – amphibian evolutionary ecology

Gomez-Mestre Ivan, University of Sevilla, SPA – amphibian evolutionary physiology

Laugen AT, Univ. of Agder, NO – amphibian evolutionary ecology

Merilä Juha, University of Helsinki, FIN-– evolutionary biology

Teplitsky Celine, CRNS Montpellier, FRA – amphibian evolutionary ecology

Shu Longfei, Sun Yat-Sen Univ., China – glycomics of egg coats

Freshwater fish diversification

* Kristjansson Bjarni K, Holar University College, Holar, IS – freshwater fish evolutionary ecology

* Einarsson Arni, University of Iceland, Myvatn Research station, IS – ecology of Lake Myvatn

* Ferguson Moira, University of Guelph, CAN – population genomics of arctic charr

Hendry Andrew P, McGill University, CAN – ecological speciation of threespine stickleback

*Ives Anthony R, University of Wisconsin Maddison, USA - Lake Myvatn midge ecology

*Jonsson Zophonias O, University of Iceland, IS – developmental genomics
*Leblanc Camille, Holar University College, IS – Icelandic arctic charr and maternal effects
*Matthews Blake, Eawag, CH - eco-evolutionary dynamics
*Morrissey Michael, University of St. Andrews, UK – animal models on wild populations
*Skulasson Skuli, Univ. of Iceland/Holar University College, IS – Eco-Evo-Devo concepts
Chapman Lauren, McGill University, CAN – freshwater fish evolutionary ecology
Raeymaekers Joost, Nord University, NO – evolutionary ecology of threespine stickleback

*Micropollutant impacts on aquatic ecosystems (EcoImpact)
Burdon Francis, Swedish Agricultural University (SLU), SWE – stream ecology
Eggen Rik, UTOX, Eawag Directorate, Eawag, CH – micropollutant impacts on aquatic ecosystems
Salo Tiina, Stockholm Univ., SWE - pollutant induced natural selection and organismal fitness of snails
Seppälä Otto, ETH-Zurich, CH – pollutant induced natural selection and organismal fitness
Stamm Christian, UCHEM, Eawag, CH– environmental chemistry
Tamminen Manu, Univ. of Turku, FIN - next generation sequencing of periphyton communities

*House sparrow eco-evolutionary dynamics
Jensen Henrik, NTNU, NO – evolutionary biology of birds
Muff Stephanie, Univ. of Zurich, CH– quantitative genetics and biostatistics
Rønning Bernt, NTNU, NO – ecophysiology of the house sparrow
Stawski Claire, NTNU, NO - ecophysiology of vertebrates

Alpine invertebrates, global change and stream ecology
*Robinson Christopher, ECO, Eawag, CH – Alpine stream ecology
Finn Debra S, Missoury State Univ., USA – Alpine stream ecology
*Leys Marie, Univ. of Oslo, NO – Cryptic biological diversity

*Asellus consortium
Lafuente Elvira, ECO Eawag, CH – microbiome and environmental stress adaptation
Matthews Blake, FISHEC, Eawag, CH – developmental plasticity and eco-evo feedbacks
Jokela Jukka, ECO Eawag/ETH-Zurich, CH – host-parasite interactions
Vorburger Christoph, ECO Eawag/ETH-Zurich, CH – host-endosymbiont interactions
Johnson David, UMIK, Eawag, CH – microbial evolution and ecology
Feulner Philine, FISHEC, Eawag, CH - genomics
Buser Claudia, ECO Eawag, ETH-Zurich, CH – Asellus microbiome
Hartikainen Hanna, ECO Eawag, ETH-Zurich, CH – Next generation sequencing of the microbiome
Vom Berg Colette, UTOX, Eawag, CH – behaviour and neurophysiology
Hammes Frederik, UMIK, Eawag, CH – drinking water isopods

Molecular biology tools
Hartikainen Hanna, Dept. of Aquatic Ecology, ETH-Z, CH – next generation sequencing

*Faulner Philine, Dept. of Fish Ecology and Evolution, Eawag - genomics

*Keller Irene, Dept. of Biomedical research, Univ. Bern, CH – next generation sequencing

Suter Marc, Dept. of Environmental toxicology, Eawag, CH – glycoproteomics (mass spectrometry)

*Walser Jean-Claude - Genetic diversity center (GDC), ETH-Zurich, CH – next generation sequencing

*Zemp Niklaus - GDC, ETH-Zurich, CH – next generation sequencing (RNAseq, SNP genotyping, genomics)

Teaching and student co-supervision

*Altermatt Florian, ECO Eawag, Univ. Zurich, CH – lecturing

Childs Dylan, Univ. of Sheffield, UK – Controversies in Ecology

DeLong John, Univ. of Nebraska-Lincoln, USA - Controversies in Ecology

Grahams Catherine, Swiss Federal Research Institute WSL, CH - Controversies in Ecology

Hendry Andrew P, McGil Univ., CAN – MSc student supervision

Jensen Henrik, NTNU, Norway – PhD student supervision

*Jokela Jukka, ECO Eawag/ETH-Zurich, CH – lecturing, MSc & PhD student supervision

*Laurila Anssi, Uppsala Univ., SWE – MSc student supervision

Ozgul Arpat, Univ. of Zurich, CH – MSc student supervision

Matthews Blake, FISHEC, Eawag - Controversies in Ecology, student supervision

Munch Stephen, NOAA, Univ. of California, USA - Controversies in Ecology mentoring

Petchey Owen, Univ. of Zurich, CH – Controversies in Ecology, MSc student supervision

Robinson Christopher, Eawag, CH – lecturing, MSc & PhD student supervision

Schmidt-Hempel Paul, ETH-Zurich, CH – lecturing

Schmidt Benedikt, Univ. of Zurich, CH – BSc & MSc student supervision

Spaak P, ECO Eawag, CH - lecturing

Kristjansson Bjarni K, Holar Univ. College, IS – MSc & PhD student supervision

Tockner Klement, Austrian Science fund, AU – lecturing

Reyer Heinz-Ulrich, Univ. Zurich, CH – MSc student supervision

ALL PUBLICATIONS (*corresponding or senior author; °own student or post doc)

Peer reviewed publications

57. **Skulason S, Parsons K, Svanbäck R, **Räsänen K**, Ferguson M et al. 2019. A way forward for eco-evo-devo: an extended theory of resource polymorphism with postglacial fishes as model systems. *Biol. Rev*., **https://doi.org/10.1111/brv.12534**

56. **Seymour M°, **Räsänen K**, Kristjansson BK. 2019. Drift *versus* selection as drivers of phenotypic divergence at small spatial scales: The case of Belgjarskógur stickleback. *Ecol. Evol*. **https://doi.org/10.1002/ece3.5381**

55. **Burdon F°, Munz N, Reyes M, Focks A, Joss A, **Räsänen K**, Altermatt F, Eggen R, Stamm C. 2018. Agriculture *versus* wastewater pollution as drivers of macroinvertebrate community structure in streams. *Sci. Tot. Env.* doi.org/10.1016/j.scitotenv.2018.12.372

54. **Beck SV, **Räsänen K**, Ahi EP, Kristjánsson BK, Skúli Skúlason S, Jónsson ZO, Leblanc CA. 2018. Gene expression in the phenotypically plastic Arctic charr (*Salvelinus alpinus*): A focus on growth and ossification at early stages of development. *Evo Devo*. DOI: 10.1111/ede.12275

53. **Shu L°, Qiu J, **Räsänen K***. 2018. *De novo* oviduct transcriptome of the moor frog *Rana arvalis*: a quest for maternal effect candidate genes. *PeerJ 6: e5452*

52. **Salo T, **Räsänen K**, Stamm C, Burdon FJ, Seppälä O. 2018. Simultaneous exposure to a pulsed and a prolonged anthropogenic stressor can alter consumer multifunctionality. OIKOS doi.org/10.1111/oik.05310

51. **Rudman S, Barbour MA, Csillery K, Gienapp P, Guillaume F, Hairston Jr. NG, Hendry AP, Lasky JR, Rafajlović M, **Räsänen K**, Schmidt SS, Seehausen O, Therkildsen NO, Turcotte MM, Levine JM. 2018. What genomic data can reveal about eco-evolutionary dynamics. *Nat. Ecol. Evol*. 2, 9-15

50. **Salo T, Stamm C, Burdon F°, **Räsänen K**, Seppälä O. 2017. Resilience to heat waves in the aquatic snail *Lymnaea stagnalis*: Additive and interactive effects with micropollutants. *Freshw. Biol.* 62, 1831-1846

49. **Leys M°, Keller I, Robinson CT, **Räsänen K***. 2017. Spatio-temporal life history dynamics of cryptic lineages of the alpine mayfly *Baetis alpinus* (Ephemeroptera: Baetidae). *Mol. Ecol.* doi: 10.1111/mec.14026

48. **Shu L°, Laurila A, Suter M, **Räsänen K***. 2016. Molecular phenotyping of maternally mediated parallel adaptive divergence within *Rana arvalis* and *Rana temporaria. Mol. Ecol.,* 25, 4564-4579

47. **Stamm C, **Räsänen K,** Burdon F°, Altermatt F, Jokela J, Joss A, Ackermann A, Eggen RIL. 2016. Unravelling the impacts of micropollutants in aquatic ecosystems: interdisciplinary studies at the interface of large-scale ecology. *Adv. Ecol. Res*. doi.org/10.1016/bs.aecr.2016.07.002 (invited review)

46. **Burdon FJ°, Reyes M, Alder AC, Joss A, Ort C, **Räsänen K**, Jokela J, Eggen RIL, Stamm C. 2016. Environmental context and magnitude of disturbance influence trait-mediated community responses to wastewater in streams. *Ecol. Evol.* doi: 10.1002/ece3.2165

45. **Leys M°, Keller I, **Räsänen K,** Robinson C**.** 2016. Distribution and population genetic variation of cryptic species of the Alpine mayfly *Baetis alpinus* (Ephemeroptera: Baetidae) in the Central Alps. BMC Evol Biol, DOI 10.1186/s12862-016-0643-y

44. **Oke KB, Bukhari M, Kaeuffer R, Rolshausen G, **Räsänen K**, Bolnick DI, Peichel CL, Hendry AP. 2016. Does plasticity enhance or dampen phenotypic parallelism? A test with three lake stream stickleback pairs. *J. Evol. Biol*. doi: 10.1111/jeb.12767

43. **Tarka M, Bolstad GH, Wacker S, **Räsänen K**, Hansen TF, Pélabon C. 2015. Did natural selection make the Dutch taller? A cautionary note on the importance of quantification in understanding evolution. *Evolution* 12, 3204-3206

42. **Shu L°, Suter M-F, Laurila A, **Räsänen K***. 2015. Environmental stress mediated adaptive divergence in ion channel function during embryogenesis in *Rana arvalis, Sci. Rep. Sci. Rep.* doi: 10.1038/srep14201

41. **Shu L°, Suter M-F, **Räsänen K***. 2015. Evolution of egg coats: linking molecular biology and ecology. *Mol. Ecol*., 24, 4052-73 (**Invited** reviews and syntheses)

40. **Shu L°, Suter M-F. Laurila A, **Räsänen K***. 2015. Mechanistic basis of adaptive maternal effects: egg jelly water balance mediates embryonic adaptation to acidity in *Rana arvalis*. *Oecologia* 179, 617-28

39. **Egea-Serrano A, Hangartner S°, Laurila A, **Räsänen K***. 2014. Multifarious selection through environmental stress: pH and predation driven adaptive divergence of the moor frog (*Rana a rvalis*).*Proc. R. Soc. B*. 281, 20133266

38. ****Räsänen K***, Hendry AP. 2014. Asymmetric reproductive barriers and mosaic reproductive isolation: insights from Misty lake-stream stickleback. *Ecol. Evol*. 4, 1166-1175

37. **Millet A°, Kristjánsson BK, **Räsänen K*.** 2013. Spatial phenotypic and genetic structure of threespine stickleback (*Gasterosteus aculeatus*) in a heterogeneous natural system, Lake Mývatn, Iceland. *Evol. Ecol*. 3, 3219–3232

36. **Baker JA, **Räsänen K**, Moore J-S, Hendry AP. 2013. Genetic and plastic contributions to trait divergence between parapatric habitatis: female life- history traits in threespine stickleback from the Misty Lake system. *Evol. Ecol. Res*. 15, 473-487 (Special issue)

35. **Seymour M°, M., **Räsänen K**, Holderegger R, Kristjansson BK. 2013. Connectivity in a pond system influences migration and genetic structure in threespine stickleback. *Ecol. Evol.* 3, 492–502 –

34. **Hangartner S°, Laurila A, **Räsänen K*.** 2012. The quantitative genetic basis of adaptive divergence in the moor frog (*Rana arvalis*) and its implications for gene flow. *J. Evol. Biol.* 66, 867- 881

33. **Hangartner S°, Laurila A, **Räsänen K***. 2012. Adaptive divergence in moor frog (*Rana arvalis*) populations along an acidification gradient: Inferences from Q_{ST} - F_{ST} correlations. *Evolution* 66, 867-881

32. ****Räsänen K***, Delcourt M°, Chapman L, Hendry AP. 2012. Divergent selection and then what not: the conundrum of reproductive isolation in Misty lake and stream stickleback. *Int. J. Ecol.* doi:10.1155/2012/902438 (special issue on Ecological speciation)

31. **Kotrschal A, **Räsänen K**, Kristjánsson B, Senn M°, Kolm N. 2012. Cognitive challenges of sex and parenting? - Extreme sexual brain size dimorphism in sticklebacks. *PlosONE* 7, e30055

30. Hangartner S°, Laurila A, **Räsänen K***. 2011. Adaptive divergence of the moor frog (*Rana arvalis*) along an acidification gradient. *BMC Evol. Biol.* doi:10.1186/1471-2148-11-366

29. Berner D, Kaeuffer R, Grandchamp A-C, Raeymaekers J, **Räsänen K**, Hendry AP. 2011. Quantitative genetic inheritance of morphological differences between lake and stream stickleback: implications for reproductive isolation. *J. Evol. Biol.* 24, 1975–1983

28. Hendry AP, Hudson K, Walker JA, **Räsänen K,** Chapman L. 2011. Genetic divergence in morphology-performance mapping between Misty Lake and Inlet stickleback. *J. Evol. Biol.* 24, 23-35

27. Raeymaekers JAM, Boisjoly M, Delaire L, Berner D, **Räsänen K**, Hendry AP. 2010. Testing for mating isolation in the Misty system: laboratory experiments with lake, stream and hybrid stickleback. *J. Evol. Biol. 23,* 2694-2708

26. Alho, JS, Herczeg G, Laugen A, **Räsänen K,** Laurila A, Merilä J. 2010. Allen's rule revisited: quantitative genetics of extremity length in the common frog along a latitudinal gradient. *J. Evol. Biol*. 24, 59-70

25. Finn D°, **Räsänen K**, Robinson C. 2010. Physical and biological changes along a lengthening stream

gradient following a decade of rapid glacial recession. *Global Change Biol*. 16, 3314-3326

24. Schmidt B, **Räsänen K.** Evolution von lokaler Anpassung bei Braunfröschen: zum 150. 2009. Geburtstag von DARWINS “On the origin of species”. *Zeitschr. Feldherpetol*. 16, 1-10 (invited review)

23. Gordon SP, Reznick DN, Kinnison MT, Bryant MJ, Weese DJ, **Räsänen K,** Millar NP, Hendry AP. 2009. Adaptive Changes in Life History and Survival following a New Guppy Introduction. *Am. Nat.* 174, 34-45

22. **Räsänen K*,** Hendry AP. 2008. Disentangling interactions between adaptive divergence and gene flow when ecology drives diversification. *Ecol. Lett.* 11, 624-636

21. **Räsänen K***, Söderman F, Laurila A, Merilä J. 2008. Geographic variation in maternal investment: acidification affects egg size and fecundity in *Rana arvalis*. *Ecology* 89, 2553-2562

20. Sharpe D, **Räsänen K,** Berner D, Hendry AP. 2008. Genetic and environmental contributions to the morphology of lake and stream stickleback: implications for gene flow and reproductive isolation. *Evol. Ecol. Res.* 10, 849-866

19. Delcourt M°, **Räsänen K*,** Hendry AP. 2008. Genetic and plastic components of divergent male mating behaviour in Misty lake/stream stickleback. *Behav. Ecol*., 19,1217-1224

18. Persson M°, **Räsänen K*,** Laurila A, Merilä J. 2007. Maternally determined adaptation to acidity in *Rana arvalis*: are laboratory and field estimates of stress tolerance congruent?. *Can. J. Zool.,* 85, 832-838

17. Teplitsky C, **Räsänen K**, Laurila A. 2007. Adaptive plasticity in stressful environments: acidity constrains inducible defences in *Rana arvalis. Evol. Ecol. Res. 9, 447-458*

16. **Räsänen K*,** Kruuk LEB. 2007. Maternal effects and evolution at ecological time scales. *Func. Ecol. 21, 408-421.* (invited review, special issue on Contemporary Evolution)

15. Laugen AT, Kruuk LEB, Laurila A, **Räsänen K**, Stone J, Merilä J. 2005. Quantitative genetics of larval life-history traits in *Rana temporaria* in different environmental conditions. *Genet. Res.* 86, 161-170

14. **Räsänen K*,** Laurila A, Merilä J. 2005. Maternal investment in egg size: environment and population specific effects on offspring performance. *Oecologia* 142, 546-553

13. Wu KCP, **Räsänen K**, Hudson TJ. 2005. Fishing for allergens: bloodworm-induced asthma. *Allergy,Asthma, and Clinical Immunol.*, 58-59

12. Merilä J, Laurila A, Laugen AT, **Räsänen K.** 2004. Heads or tails? Variation in tadpole body proportions in response to temperature and food stress. *Evol. Ecol. Res.* 6, 727-738

11. Merilä J, Söderman F, Laurila A, **Räsänen K.** 2004. Local adaptation and genetics of acid-stress tolerance in the moor frog, *Rana arvalis*. *Cons. Genet.* 5, 513-527

10. Laugen AT, Laurila A, **Räsänen K**, Merilä J. 2003. Latitudinal countergradient variation in the common frog (*Rana temporaria*) development rates – evidence for local adaptation. *J. Evol. Biol.*,16, 996-1005

9. **Räsänen K*,** Laurila, A, Merilä J. 2003. Geographic variation in acid stress tolerance of the moor frog, *Rana arvalis*. I. Local adaptation. *Evolution* 57, 352-362

8. **Räsänen K*,** Laurila A, Merilä J. 2003. Geographic variation in acid stress tolerance of the moor frog, *Rana arvalis*. II. Adaptive maternal effects. *Evolution* 57, 363-371

7. **Räsänen K***, Pahkala M, Laurila A, Merilä J. 2003. Does jelly envelope protect embryos of the common frog *Rana temporaria* from UV-B radiation? *Herpetologica* 59, 293-300

6. **Räsänen K*,** Laurila A, Merilä J. 2002. Carry-over effects of embryonic pH on development and growth of *Rana temporaria* tadpoles. *Freshw. Biol.* 47, 19-30

5. Pahkala M, **Räsänen K,** Laurila A, Johansson U, Björn LO, Merilä J. 2002. Lethal and sub-lethal effects of UV-B/pH synergism on common frog embryos. *Cons. Biol.* 16, 1063-1073

4. Johansson M, **Räsänen K**, Merilä J. 2001. Comparison of nitrate tolerance between different populations of the common frog, *Rana temporaria*. *Aquat. Toxicol.* 54, 1-14

3. Merilä J, Laurila A, Timenes Laugen A, **Räsänen K**, Pahkala M. 2000. Plasticity in age and size at metamorphosis in *Rana temporaria* – comparison of high and low latitude populations. *Ecography* 23**,** 457-465

2. Merilä J, Laurila A, Pahkala M, **Räsänen K**, Laugen AT. 2000. Adaptive phenotypic plasticity in timing of metamorphosis of the common frog (*Rana temporaria*). *EcoScience* 7, 18-24

1. Sheldon BC, **Räsänen K**, Dias P. 1997. Certainty of paternity and paternal effort in the collared flycatcher. *Behav. Ecol.* 8, 421-428

Manuscripts submitted

Burdon FJ, Bai Y, Reyes M, Tamminen M, Staudacher P, Mangold S, Singer H, **Räsänen K,** Joss A, Tiegs SD, Jokela J, Eggen RIL, Stamm C. Stream microbial communities and ecosystem functioning show complex responses to multiple stressors in wastewater. Global Change Biol. (in review)

Beck S, **Räsänen K**, Leblanc C, Skulason S, Zophonias J, Kristjansson BK, Family effects on craniofacial shape during early development of Arctic charr (Salvelinus alpinus). Evo. Devo. (in review)

Leys M, Keller I, **Räsänen K,** Robinson C. Oviposition patterns and fecundity of cryptic lineages of the alpine mayfly *Baetis alpinus* (Ephemeroptera: Baetidae). Freshw. Biol. (in revision)

Tamminen M, Spaak J, Burdon F, Tlili A, Stamm C, **Räsänen K**. Periphyton communities in urban streams: insight from next generation sequencing. (In revision).

Book chapters

Räsänen K*, Green DM. 2009. Acidification and its effects on amphibian populations. *In* Amphibian Biology, Volume 8. Decline: Diseases, Parasites, Maladies and Pollution. H. Heatwole (ed.), Surrey Beatty and Sons, Chipping Norton, Australia. pp. 3244-3267.

27 September 2019