Curriculum Vitae

Biologist, Dr. rer. nat.

Kathrin Theissinger

Researcher and Lecturer

Functional Environmental Genomics
TBG, Senckenberg Research Institute

Research interests & methods

Biodiversity genomics
Freshwater crayfish transcriptomics
Metabarcoding of cryptic communities
Conservation genetics

Academic History

Since 09/20	**Postdoctoral researcher** at LOEWE Centre for Translational Biodiversity Genomics, Senckenberg Biodiversity and Climate Research Centre, Frankfurt, Germany
06/12 - present	**Team Leader** "Conservation Genetics", Institute of Environmental Science, University of Koblenz-Landau
12/13 – 11/14	**maternal leave**
26/08/11	**PhD defense** (Dr. rer. nat.) at the Institute of Molecular Ecology at the Johannes Gutenberg-University of Mainz, Germany. Thesis title: Comparative phylogeography of cold adapted freshwater insects in Europe
04/11 – present	**Researcher and lecturer** at the Institute of Environmental Science, University of Koblenz-Landau
04/10 – 03/11	**maternal leave**
07/07 – 03/10	**PhD studies** at the Institute of Molecular Ecology at the Johannes Gutenberg-University of Mainz, Germany, in cooperation with the Senckenberg Research Institute, Department of Limnology and Conservation, Germany.

CV - Kathrin Theissinger

09/06 - 06/07	**Researcher** at the Senckenberg Research Institute, Department of Limnology and Conservation, Germany
08/06	**Diploma degree** in biology, Institute of Molecular Ecology, Johannes Gutenberg-University Mainz, Germany
11/04 – 10/05	**Diploma Thesis** at the Institute for Applied Ecology, University of Canberra, Australia. Thesis title: Mating system in Flatback turtles (*Natator depressus*)
10/00 – 10/04	**Biological studies**, Johannes Gutenberg-University Mainz, Germany

Peer review publications

- C Leeb, SL Kolbenschlag, A Laubscher, E Adams, C Brühl, **K Theissinger** (*in press*): Avoidance behavior of juvenile common toads (*Bufo bufo*) to surface contamination by different pesticides*, PlosONE*
- LM Kusanke, J Panteleit, E Sünger, S Stoll, R Schulz, **K Theissinger** (*in press*): Aquatic and Sedimentary Environmental DNA: Comparing Sampling and Laboratory Methods for the Detection of an Endangered, Cryptic Fish Species *(Misgurnus fossilis). Ecology and Evolution*
- C Leeb, C Brühl, **K Theissinger** (2020): Potential pesticide exposure during the post-breeding migration of the common toad (*Bufo bufo*) in a vineyard dominated landscape. *Science of the Total Environment, doi.org/10.1016/j.scitotenv.2019.134430*
- O Pacioglu, **K Theissinger**, A Alexa, C Samoila, R Schulz, A Schrimpf, JP Zubrod, O SÎrbu, M PÎrvu, S Lele, JI Jones and L Parvulescu (2020): Multifaceted implications behind the competition of native and invasive crayfish: a glimmer of hope for the native's long-term survival? *Biological Invasions,* https://doi.org/10.1007/s10530-019-02136-0 NN
- FitzSimmons, SD Pittard, N McIntyre, MP Jensen, M Guinea, M Hamann, R Kennett, B Leis, CJ Limpus, DJ Limpus, MJ McCann, A McDonald, G McFarlane, CJ Parmenter, K Pendoley, B Prince, L Slater, **K Theissinger**, AD. Tucker, D Waayers, A Whiting, S Whiting (2020): Phylogeography, genetic stocks, and conservation implications for an Australian endemic marine turtle. *Aquatic Conservation: Marine and Freshwater Ecosystems,* 30, 440-460. DOI: 10.1002/aqc.3270
- **K Theissinger**, N Röder, S Allgeier, AJ Beermann, CA Brühl, A Friedrich, S Michiels and K Schwenk (2019): Mosquito control actions affect chironomid diversity in temporary wetlands of the Upper Rhine Valley. *Molecular Ecology, 2019, 1-17.* https://doi.org/10.1111/mec.15214
- J Panteleit, T Horvath, J Jussila, J Makkonen, W Perry, R Schulz, **K Theissinger**, A Schrimpf (2019): Invasive rusty crayfish (*Faxonius rusticus*) populations in North America infected with the crayfish plague disease agent (*Aphanomyces astaci*). *Freshwater Science,* DOI: 10.1086/703417
- R Andriantsoa, S Tönges, J Panteleit, **K Theissinger**, VC Carneiro, J Rasamy, and F Lyko (2019): Ecological plasticity and commercial impact of invasive marbled crayfish populations on Madagascar. *BMC Ecology*, 19, 8-17. DOI: 0.1186/s12898-019-0224-1
- **K Theissinger**, A Kästel, V Elbrecht, J Makkonen, S Michiels, S Schmidt, S Allgeier, F Leese, CA Brühl (2018): Using DNA metabarcoding for assessing chironomid diversity and community change regarding mosquito control

actions in temporary wetlands. *Metabarcoding and Metagenomics,* 1: e21060 DOI 10.3897/mbmg.1.21060

- J Makkonen, J Jussila, J Panteleit, NS Keller, A Schrimpf. **K Theissinger**, R Kortet, L Martín-Torrijos, JV Sandoval-Sierra, J Diéguez-Uribeondo, and H Kokko (2018): MtDNA allows the sensitive detection and haplotyping of the crayfish plague disease agent Aphanomyces astaci showing clues about its origin and migration. *Parasitology,* doi: *10.1017/S0031182018000227*

- A Schrimpf , M Piscione, R Cammaerts, D Herman, M Collas, A Jung, F Ottburg, I Roessink, X Rollin, R Schulz, **K Theissinger** (2017): Genetic characterization of Western European noble crayfish populations (*Astacus astacus*) for advanced conservation management strategies. *Conservation Genetics*. DOI 10.1007/s10592-017-0981-3

- PP Lenhardt, CA Brühl, C Leeb, **K Theissinger** (2017): Amphibian population genetics in agricultural landscapes: Do non-visible barriers in viniculture drive the population structuring of the European common frog (Rana temporaria)? *PeerJ,* DOI 10.7717/peerj.3520

- J Panteleit, NS Keller, H Kokko, J Jussila, J Makkonen, **K Theissinger**, A Schrimpf (2017): Investigation of ornamental crayfish reveals new carrier species of the crayfish plague pathogen (*Aphanomyces astaci*). *Aquatic Invasions*, 12, (1:) 77–83.

- PP Lenhardt, **K Theissinger** (2017): Repeated randomized selection of genotypes for reliable population differentiation in data containing siblings.

- **K Theissinger**, C Falckenhayn, D Blande, A Toljamo, J Gutekunst, J Makkonen, J Jussila, F Lyko, A Schrimpf, R Schulz, H Kokko (*2016*): *De Novo* assembly and annotation of the freshwater crayfish *Astacus astacus* transcriptome. *Marine Genomics.* doi:10.1016/j.margen.2016.02.006

- A Schrimpf, **K Theissinger,** J Dahlem, I Maguire, L Parvulescu, HK Schulz, R Schulz (2014): Phylogeography of noble crayfish (*Astacus astacus*) reveals multiple refugia. *Freshwater Biology*. 59, 761–776. doi:10.1111/fwb.12302

- A Müller, P Lenhardt, **K Theissinger** (2013): Pros and Cons of external swabbing in amphibians. *European Journal of Wildlife Research*. DOI 10.1007/s10344-013-0747-2

- P Lenhardt, RB Schäfer, **K Theissinger**, C Brühl (2013): An expert-based landscape permeability model for assessing the impact of agricultural management on amphibian migration. *Basic and Applied Ecology*, 14, 442–451.

- **K Theissinger**, M Bálint, K Feldheim, P Haase, J Johannesen, I Laube, SU Pauls (2013): Glacial survival and postglacial recolonization of an arctic-alpine freshwater insect (*Arcynopteryx dichroa*, Plecoptera, Perlodidae) in Europe. *Journal of Biogeography,* 40, 236–248 doi:10.1111/j.1365-2699.2012.02793.x

- K Kolodziej, I Nikolov, HK Schulz, **K Theissinger**, R Schulz (2013):Evaluation of Fecal Storage and DNA Extraction Methods in Wild Boar (*Sus scrofa*). Biochemical Genetics. DOI 10.1007/s10528-013-9573-1

- K Kolodziej, HK Schulz, **K Theissinger**, C Ebert, U Hohmann, R Schulz (2012): Comparison of established methods for quantifying genotyping error rates in wildlife forensics. *Conservation Genetic Resources,* DOI 10.1007/s12686-012-9729- z

- K Kolodziej, **K Theissinger**, J Brün, HK Schulz, R Schulz (2011): Determination of the minimum number of microsatellite markers for individual genotyping in wild boar (*Sus scrofa*) using a test with close relatives. *European Journal of Wildlife Research*, DOI 10.1007/s10344-011-0588-9

- A Schrimpf, HK Schulz, **K Theissinger**, L Parvulescu, R Schulz (2011): The first large-scale genetic analysis of the vulnerable noble crayfish *Astacus astacus* reveals low haplotype diversity in central European populations. *Knowledge and Management of Aquatic Ecosystems,* 401, 35.
- **K Theissinger**, M Bálint, P Haase, J Johannesen, I Laube, SU Pauls (2011): Molecular data and species distribution models reveal the Pleistocene history of the mayfly *Ameletus inopinatus* (Ephemeroptera: Siphlonuridae). *Freshwater Biology*, 56 (12), 2554–2566.
- J Taubmann, **K Theissinger**, KA Feldheim, I Laube, W Graf, P Haase, J Johannesen, S Pauls (2011): Modelling range shifts and assessing genetic diversity distribution of the montane aquatic mayfly *Ameletus inopinatus* in Europe under climate change scenarios. *Conservation Genetics*, 12, 503 – 516.
- M Bálint, S Domisch, CHM Engelhardt, P Haase, S Lehrian, J Sauer, **K Theissinger**, SU Pauls, C Nowack (2011) Cryptic biodiversity loss linked to global climate change. *Nature Climate Change*, 1, 313-318.
- M Bálint, L Ujvárosi, **K Theissinger**, S Lehrian, N Mészáros, SU Pauls (2011): A neglected diversity hotspot: genetic variation in the Carpathians. In: Proceedings of Biodiversity Hotspots. Springer, Heidelberg.
- SU Pauls, **K Theissinger**, L Ujvarosi, M Bálint, P Haase (2009): Patterns of population structure in two closely related, partially sympatric caddisflies in Eastern Europe: historic introgression, limited dispersal and cryptic diversity. *Journal of the North American Benthological Society*, 28 (3): 517-536.
- **K Theissinger**, K Feldheim, A Seitz, SU Pauls (2009): Isolation and characterization of 11 polymorphic trinucleotide microsatellite markers in the stonefly *Arcynopteryx compacta* (Plecoptera: Perlodidae). *Molecular Ecology Resources*, 9, 357-359.
- **K Theissinger**, NN FitzSimmons, CJ Limpus, CJ Parmenter, AD Phillott (2009): Mating system, multiple paternity and effective population size in the endemic flatback turtle (*Na*
- *tator depressus*) in Australia. *Conservation Genetics*, 10, 329-346. **K Theissinger**, K Feldheim, J Taubmann, A Seitz, SU Pauls (2008): Isolation and characterization of 10 highly polymorphic di- and trinucleotide microsatellite markers in the mayfly *Ameletus inopinatus* (Ephemeroptera: Siphlonuridae). *Molecular Ecology Resources*, 8, 1285-1287.