

CURRICULUM VITAE

Prof. Adam Petrusek, Ph.D.

ORCID: 0000-0001-5150-4370

ResearcherID: A-3510-2008

Date and place of birth: May 3, 1976; Prague

Nationality: Czech

Married, two daughters

Current position: Vice-Dean for Research, Faculty of Science, Charles University

Education and academic achievements:

Charles University in Prague, Faculty of Science

full professor in Ecology 2015

habilitation (*doc. = Associate Professor*, Ecology) 2009

- Habilitation thesis: Invasive crayfish in Central Europe: distribution and impact through pathogen transmission

PhD. (Hydrobiology) 2007

- *PhD.* thesis: Diversity of European *Daphnia* on different scales: from cryptic species to within-lake differentiation

RNDr. (Rerum Naturalium Doctor) 2003

MSc. (Biology, specialisation Hydrobiology; with honours) 2000

- *MSc.* thesis: Genetic structure and taxonomy of Central European populations of *Moina* (Crustacea: Anomopoda)

University of Economics, Prague

Faculty of Finance and Accounting

BSc. (Finance)

2000

Appointments:

Vice-Dean for Research, Faculty of Science, Charles University

since 2016

Department of Ecology (formerly Hydrobiology), Charles University in Prague

since 2000

Department Head (2010-2016); *Full Professor* (since 2015);

Associate Professor (since 2009), *Assistant Professor* (2008–9);

Assistant (research and teaching; 2000–7)

Research Institute of Fish Culture and Hydrobiology in Vodňany, University of South Bohemia (20% working capacity)

2006–2008

Assistant Professor (2008); *Researcher* (2006–7)

National Poison Information Centre, General teaching hospital, Prague

1994–2003

Programmer and database developer, network administrator

Main research fields:

1. diversity and evolutionary ecology of crustaceans (cladocerans, crayfish and amphipods)
2. distribution and ecology of non-indigenous aquatic invertebrates in Central Europe
3. diversity and impacts of invasive crayfish and crayfish plague
4. systematics of Old World *Daphnia*
5. evolution of invertebrate species complexes (crustaceans, land snails)

International experience (stays for at least 2 weeks, fieldwork excluded):

WasserCluster Lunz, Austria

2018

2 weeks; contribution to a mesocosm project on Lunzer See

Institute of Ecosystem Study, Verbania – Pallanza, Italy

2016

2 weeks; initiation of a project on long-term changes in *Daphnia* populations in Lago Maggiore

A.N. Severtsov Institute of Ecology and Evolution RAS, Moscow, Russia

2010

2 weeks; training in analyses of *Daphnia* morphology and publication-quality drawings

Laboratory of Aquatic Ecology, Katholieke Universiteit, Leuven, Belgium

2004–6

repeatedly (2x 1 week, 1 month, 3 months); analyses of cladoceran cryptic species, supported by the Czech-Flemish bilateral cooperation in research and development

Goethe Universität, Frankfurt am Main, Germany

2003–4

9 months; morphometric and genetic study of *Daphnia* diversity, supported by DAAD

Hungarian Natural History Museum, Budapest

2001

2 weeks; study of *Moina* taxonomy and biodiversity of ephemeral pools

Laboratory of Aquatic Ecology, Katholieke Universiteit, Leuven, Belgium 2½ months; analyses of genetic structure of selected cladoceran species	2000
Department of Natural History, Museum & Art Gallery, Birmingham, Great Britain 1 month; voluntary work in the Natural History department	1992

Language skills: English (*Cambridge CPE certificate*), French, Russian, Slovak

Teaching: co-teaching of 6 subjects and 4 practical courses/field excursions (e.g., *Aquatic Ecosystems, Biological Invasions, Mediterranean Marine Fauna, Crustacean Biology*) at present, supervising 3 MSc. students (20 MSc. and 17 BSc. theses defended)
9 defended PhD theses (*four awarded for best dissertations of the year in biological sciences by the Dean of the Faculty of Science*)
popular lectures on marine and freshwater biology for the public

Awards and recognitions:

“Giant Salamander Award” for best teachers, Faculty of Science, Charles University	2016
“Outstanding L&O Reviewer”	2012
Award of the Dean of Faculty of Science for the young investigator under 35 years	2009
Best article of 2005 by author aged 25-30 yrs in the Czech natural science journal <i>Živa</i>	2006
7 th International Symposium on Cladocera, Herzberg, Switzerland	2005
“The best student presentation, 3 rd place”	
2 nd Symposium for European Freshwater Sciences, Toulouse, France	2001
“The best lecture by a young scientist”	
ASLO Aquatic Sciences Meeting, Albuquerque, USA	2001
“Outstanding Student Poster Award”	
“Student Travel Award” (financial support for the visit of the conference)	
12 th Conference of Czech and Slovak Limnological Societies, Kouty nad Desnou, CZ	2000
“The best junior oral presentation”	
ASLO Aquatic Sciences Meeting, Copenhagen, Denmark	2000
“Outstanding Student Poster Award”	
6 th International Olympiad in Biology, Varna, Bulgaria	1994
Gold medal	

Membership in scientific societies:

American Society of Limnology and Oceanography (ASLO), International Association of Theoretical and Applied Limnology (SIL), International Association of Astacology, Czech Limnological Society, Czech and Slovak Ethological Society, Czech Society for Ecology

Committee and professional body memberships:

management committee member of the EU COST Action 15219, <i>DNAqua-NET</i>	since 2016
Board of the Biology Centre of the Czech Academy of Sciences	since 2012
Scientific Board of the Faculty of Science, Charles University, Prague	since 2017
Scientific Board of the Faculty of Fisheries & Protection of Waters, South Bohemian University in České Budějovice	2011–2014
Natural Sciences panel of the Grant Agency of the Charles University	2011–2016
Czech National Committee for cooperation with Intergovernmental Oceanographic Commission of UNESCO (IOC); vice-chairman since 2010	since 2006

Peer-reviews:

ca 90 manuscripts in **scientific journals including:** *Ecology, Evolution, Molecular Ecology, Philosophical Transactions of the Royal Society B, Proceedings of the Royal Society B, Limnology & Oceanography, Oecologia, Freshwater Biology, Zoological Journal of the Linnean Society, Zoologica Scripta, BMC Evolutionary Biology, Molecular Phylogenetics and Evolution, Ecology & Evolution, Molecular Ecology Resources, Limnology & Oceanography Methods, Chemistry & Ecology, Hydrobiologia, Archiv für Hydrobiologie, Journal of Plankton Research, Fundamental and Applied Limnology, Limnologica, Journal of Limnology, Aquatic Ecology, Fisheries Research, Arthropod Structure and Development* etc.

Theses reviews for various Czech **universities** and reviews of over 25 project proposals for **funding agencies**, including all major Czech ones focusing on biological research, and VEGA (Slovakia), FWO (Belgium), ICTS-RBD (Estación Biológica de Doñana, Spain), ESF (European Science Foundation), National Geographic Society (USA); institutional evaluation for Portuguese Foundation for Science and Technology.

Editorial work:

Associate Editor of *NeoBiota* (since 2014)

Guest Editor of vol. 798 of *Hydrobiologia* (10th Symposium on Cladocera proceedings; 2017)

Co-editor of the proceedings of the special session *Cladocera as model organisms in limnology and aquatic biology* of the International Conference on Invertebrate Reproduction and Development (Prague, 2010), published as a Special Insert of the *Journal of Limnology* (vol. 70, issue 2, 2011).

Event organisation (international workshops and conferences):

ESEB congress Prague, Czechia; member of the scientific and organising committee	Aug. 2021
PhD meeting in animal evolutionary biology (Berlin – Dresden – Prague – Bayreuth) Svatý Jan pod Skalou, Czechia; main organizer	Mar. 2018
European crayfish conference: Research and management Landau, Germany; member of the scientific committee	Apr. 2015
10 th Symposium on Cladocera Lednice, Czechia; main organizer	Sept. 2014
EMBO Conference on the Mighty <i>Daphnia</i> : Past, Present and Future Birmingham, UK; member of the scientific committee	Jan. 2014
Conference European Crayfish: Food, Flagships and Ecosystem Services Poitiers, France; member of the scientific committee	Oct. 2010
International Conference on Invertebrate Reproduction and Development in the Age of Genetic Modifications Prague, Czechia; special session co-organizer	Aug. 2010
Regional European Crayfish Workshop: Future of native crayfish in Europe Písek, Czechia; member of the scientific committee	Sept. 2009
International conference NEOBIOTA: Towards a Synthesis Prague, Czechia; member of the organising committee	Sept. 2008
Workshop Genetic tools in taxonomy, phylogeography and ecology of cladocerans Leuven, Belgium; main organizer	Nov. 2005

Funding acquired from major national funding agencies:

Czech Science Foundation

Diversity of native and invasive crayfish in Central Europe: from population genetic structure and reproductive modes to conservation and systematics (2012–2015, *principal investigator*)

Diversity of Old World *Daphnia*: analysis of cryptic species complexes (2010–12, *principal inv.*)

Local genetic differentiation of *Daphnia* in deep canyon-shaped dam reservoirs (2004–6, *co-investigator*)

Czech Science Foundation / EUROCORES EuroEEFG

How to live in a mosaic of stressors - an ecological genomics approach on the water flea *Daphnia*: STRESSFLEA (2010–13, *principal investigator at national level*)

Grant Agency of the Academy of Sciences of the Czech Republic

Hybrid zones in pelagic environments: which factors are critical for local dominance of *Daphnia* hybrids within reservoirs? (2009–12, *co-investigator*)

Factors influencing negative impact of invasive crayfish in the Czechia: migratory capability, reproduction, and pathogen transmission (2007–9, *co-investigator*)

Other skills, activities, and interests:

- scuba diving: diver qualification CMAS P***
- driver's licence; international motor boat licence ("pleasure craft operator")
- marine biology: lectures for general public; translation of books
- seminars: ca 20 invited presentations of my research at various institutions abroad
- popularization: over 40 articles on natural history or science in Czech periodicals
- collaboration with Czech media (TV stations, radios): commentaries on topical issues on freshwater and marine biology and biological invasions; popularisation of biological research

Overview of publication activity (May 2019):


- 138 papers in ISI-covered journals (56 since 2015)

- 11 other English-language papers in peer-reviewed journals, 15 monograph chapters (mostly in Czech), co-author of a monograph "*Biology and culture of crayfish*" (in Czech and English)
- up-to-date list available at http://www.researchgate.net/profile/Adam_Petrusek

Citation metrics (May 2018):

- Web of Science Core Collection: >1870 citations without self-cites, H-index: 27
- Google Scholar: >3740 citations, H-index: 34

Prague, June 3, 2019



Adam Petrusek

20 selected publications in past 5 years (since 2015)

- Diblíková L., Pipek P., **Petrusek A.**, Svoboda J., Bílková J., Vermouzek Z., Procházka P., Petrusková T. (2019): Detailed large-scale mapping of geographic variation of Yellowhammer *Emberiza citrinella* song dialects in a citizen science project. *Ibis*, 161: 401-414.
- Pipek P., Petrusková T., **Petrusek A.**, Diblíková L., Eaton M., Pyšek P. (2018): Dialects of an invasive songbird are preserved in its invaded but not native source range. *Ecography*, 41: 245–254.
- Putra M.D., Bláha M., Wardiatno Y., Krisanti M., Yonvitner, Jerikho R., Kamal M.M., Mojžišová M., Bystřický P.K., Kouba A., Kalous L., **Petrusek A.**, Patoka J. (2018): *Procambarus clarkii* (Girard, 1852) and crayfish plague as new threats for biodiversity in Indonesia. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 28: 1434-1440.
- Korábek O., **Petrusek A.**, Juříčková L. (2018): Glacial refugia and postglacial spread of an iconic large European land snail *Helix pomatia*. *Biological Journal of the Linnean Society*, 123: 218–234.
- Copilaş-Ciocianu D., Fişer C., Borza P., **Petrusek A.** (2018): Is subterranean lifestyle reversible? Independent and recent large-scale dispersal into surface waters by two species of the groundwater amphipod genus *Niphargus*. *Molecular Phylogenetics and Evolution*, 119: 37–49.
- Caprioli R., Mrugała A., Di Domenico M., Curini V., Giansante C., Cammà A., **Petrusek A.** (2018): *Aphanomyces astaci* genotypes involved in recent crayfish plague outbreaks in central Italy. *Diseases of Aquatic Organisms*, 130: 209-219.
- Petrusek A.**, Filipová L., Kozubíková-Balcarová E., Grandjean F. (2017): High genetic variation of invasive signal crayfish in Europe reflects multiple introductions and secondary translocations. *Freshwater Science*, doi: 10.1086/694866
- Copilaş-Ciocianu D., Rutová T., Pařil P., **Petrusek A.** (2017): Epigeal gammarids survived millions of years of severe climatic fluctuations in high latitude refugia throughout the Western Carpathians. *Molecular Phylogenetics and Evolution*, 112: 218–229.
- Petrusek A.**, Pešek P., Leština D., Martin P., Fischer D., Kozák P., Vlach P. (2017): Mitochondrial DNA provides evidence of a double origin for the stone crayfish *Austropotamobius torrentium* in the Elbe basin. *Limnologica*, 62: 77–83.
- Copilaş-Ciocianu D., **Petrusek A.** (2017): Phylogeography of a freshwater crustacean species complex reflects a long-gone archipelago. *Journal of Biogeography*, 44: 421-432.
- Mrugała A., Kawai T., Kozubíková-Balcarová E., **Petrusek A.** (2017): *Aphanomyces astaci* presence in Japan: a threat to the endemic and endangered crayfish species *Cambaroides japonicus*? *Aquatic Conservation: Marine and Freshwater Ecosystems*, 27: 103–114.
- Thielsch A., Knell A., Mohammadyari A., **Petrusek A.**, Schwenk K. (2017): Divergent clades or cryptic species? Mito-nuclear discordance in a *Daphnia* species complex. *BMC Evolutionary Biology*, 17: art. no. 227.
- Svoboda J., Mrugała A., Kozubíková-Balcarová E., **Petrusek A.** (2017): Hosts and transmission of the crayfish plague pathogen *Aphanomyces astaci*: a review. *Journal of Fish Diseases*, 40: 127-140.
- Horká I., De Grave S., Fransen C.H.J.M., **Petrusek A.**, Ďuriš Z. (2016): Multiple host switching events shape the evolution of symbiotic palaemonid shrimps (Crustacea: Decapoda). *Scientific Reports*, 6: art. no. 26486.
- Juračka P., Declerck S.A.J., Vondrák D., Beran L., Černý M., **Petrusek A.** (2016): A naturally heterogeneous landscape can effectively slow down the dispersal of aquatic microcrustaceans. *Oecologia*, 180(3): 785–796.
- Petrusková T., Pišvejcová I., Kinštová A., Brinke T., **Petrusek A.** (2016): Repertoire-based individual acoustic monitoring of a migratory passerine bird with complex song as an efficient tool for tracking territorial dynamics and annual return rates. *Methods in Ecology and Evolution*, 7(3): 274–284.
- Copilaş-Ciocianu D., **Petrusek A.** (2015): The southwestern Carpathians as an ancient centre of diversity of freshwater gammarid amphipods: insights from the *Gammarus fossarum* species complex. *Molecular Ecology*, 24: 3980–3992.
- Reif J., Jiran M., Reifová R., Vokurková J., Dolata P.T., **Petrusek A.**, Petrusková T. (2015): Interspecific territoriality in two songbird species: potential role of song convergence in male aggressive interactions. *Animal Behaviour*, 104: 131-136.
- Mrugała A., Kozubíková-Balcarová E., Chucholl C., Cabanillas Resino S., Viljamaa-Dirks S., Vukić J., **Petrusek A.** (2015): Trade of ornamental crayfish in Europe as a possible introduction pathway for important crustacean diseases: crayfish plague and white spot syndrome. *Biological Invasions*, 17: 1313-1326.
- Korábek O., **Petrusek A.**, Neubert, E., Juříčková, L. (2015): Molecular phylogeny of the genus *Helix* (Pulmonata: Helicidae). *Zoologica Scripta*, 44(3): 263-280.

10 selected publications (whole career)

- Copilaş-Ciocianu D., Rutová T., Pařil P., **Petrusek A.** (2017): Epigeal gammarids survived millions of years of severe climatic fluctuations in high latitude refugia throughout the Western Carpathians. *Molecular Phylogenetics and Evolution*, 112: 218–229.
- Svoboda J., Mrugała A., Kozubíková-Balcarová E., **Petrusek A.** (2017): Hosts and transmission of the crayfish plague pathogen *Aphanomyces astaci*: a review. *Journal of Fish Diseases*, 40: 127–140.
- Copilaş-Ciocianu D., **Petrusek A.** (2015): The southwestern Carpathians as an ancient centre of diversity of freshwater gammarid amphipods: insights from the *Gammarus fossarum* species complex. *Molecular Ecology*, 24: 3980–3992.
- Svoboda J., Strand D.A., Vrålstad T., Grandjean F., Edsman L., Kozák P., Kouba A., Fristad R.F., Bahadır Koca S., **Petrusek A.** (2014): The crayfish plague pathogen can infect freshwater-inhabiting crabs. *Freshwater Biology*, 59: 918–929.
- Ventura M., **Petrusek A.**, Miró A., Hamrová E., Buňay D., De Meester L., Mergeay J. (2014): Local and regional founder effects in lake zooplankton persist after thousands of years despite high dispersal potential. *Molecular Ecology*, 23(5): 1014–1027.
- Petrusek A.**, Thielsch A., Schwenk K. (2012): Mitochondrial sequence variation suggests extensive cryptic diversity within the Western Palearctic *Daphnia longispina* complex. *Limnology and Oceanography*, 57(6): 1838–1845.
- Wolinska J., Sed'a J., Koerner H., Šmilauer P., **Petrusek A.** (2011): Spatial variation of *Daphnia* parasite load within individual waterbodies. *Journal of Plankton Research*, 33(8): 1284–1294.
- Kozubíková E., Filipová L., Kozák P., Ďuriš Z., Martín M.P., Diéguez-Urbeondo J., Oidtmann B., **Petrusek A.** (2009): Prevalence of the crayfish plague pathogen *Aphanomyces astaci* in invasive American crayfishes in the Czechia. *Conservation Biology*, 23(5): 1204–1213.
- Petrusek A.**, Tollrian R., Schwenk K., Haas A., Laforsch C. (2009): A “crown of thorns” is an inducible defense that protects *Daphnia* against an ancient predator. *Proceedings of the National Academy of Sciences of the United States of America*, 106: 2248–2252.
- Petrusek A.**, Sed'a J., Macháček J., Ruthová Š., Šmilauer P. (2008): *Daphnia* hybridization along ecological gradients in pelagic environments: the potential for the presence of hybrid zones in plankton. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 363: 2931–2941.