

## Kęstutis Arbačiauskas

### CONTACT INFORMATION

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<https://www.researchgate.net/profile/Kestutis-Arbaciauskas>  
<https://scholar.google.com/citations?hl=en&user=O6tgy5AAAAAJ>

### EDUCATION AND ACADEMIC DEGREE

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1986 – 1989 Research studentship (=PhD studies) at the Zoological Institute of Russian AS (Sankt-Petersburg, Russia), Candidate of Biological Sciences  
Thesis "Population dynamics and functional links of planktonic crustaceans in lake ecosystem" (defended in 1992)  
Degree of Doctor of Natural Sciences nostrified in 1993

1978 – 1983 Department of Natural Sciences of Vilniaus University, honours diploma, awarded qualification of biologist, lecturer of biology and chemistry  
Diploma thesis "European spruce bark beetle *Ips typographus* L. (Coleoptera: Ipsidae) and its attractive substances"

### PROFESSIONAL EXPERIENCE

Year	Position	Workplace
2014 – to date	Chief Researcher	Nature Research Centre
2008 – to date	Head of Hidrobiont Evolutionary Ecology Laboratory	(previously, Institute of Ecology of Vilnius University, Institute of Zoology and Parasitology)
2003-2008	Head of Group on Invasive and Endangered Species	
1995-2014	Senior Researcher	
1992-1995	Researcher	
1989-1992	Junior Researcher	
2015 – to date	Professor (in office)	Institute of Biosciences of Life Sciences Center of Vilnius University
2002-2015	Associate Professor	
2001-2002	Lecturer	
1993-2001	Senior Assistant	(previously, Zoology Department of Faculty of Natural Sciences)
1983-1986	Senior technician	
39 years	Professional (practical work) experience	
29 years	Teaching experience	

### RESEARCH INTERESTS

*Research field:* aquatic invertebrates – crustaceans, insects, mollusks, crustacean life-history and strategy evolution, biological invasions, physiological and molecular aspects of adaptation, stoichiometry and trophic interactions of animals, stable isotope application in biota investigate biotic methods for assessment of aquatic ecosystems.

## PUBLICATIONS

*Scientific articles published in journals, indexed in „Clarivate Analytics Web of Science“ database (with citation index):*

1. Šidagytė-Copilas E., **Arbačiauskas K.**, 2022. A multimetric macroinvertebrate index for the assessment of the ecological. *Limnologica* 97: 126010 (DOI: 10.1016/j.limno.2022.126010).
2. Copilaș-Ciocianu D., Rewicz T., Sands A.F., Palatov D., Marin I., **Arbačiauskas K.**, Hebert P.D.N., Grabowski M., Audzijonyte A., 2022. A DNA barcode reference library for endemic Ponto-Caspian amphipods. *Scientific Reports* 12(1): 11332 (DOI: 10.1038/s41598-022-15442-w).
3. Borza P., **Arbačiauskas K.**, Zettler M.L., 2021. Multidimensional niche differentiation might buffer invasion impacts: the case of oligohaline corophiids (Crustacea: Amphipoda) in the Baltic Sea. *Biological Invasions* 23: 1891-1900 (DOI: 10.1007/s10530-021-02479-7).
4. Butkus R., Baltrūnaitė L., **Arbačiauskas K.**, Audzijonytė A., 2020. Two lineages of the invasive New Zealand mudsnail *Potamopyrgus antipodarum* spreading in the Baltic and Black sea basins: low genetic diversity and different salinity preferences. *Biological Invasions* 22: 3551-3559 (DOI: 10.1007/s10530-020-02340-3).
5. Rybakovas A., **Arbačiauskas K.**, Markovskienė V., Jokšas K., 2020. Contamination and genotoxicity biomarker responses in bivalve mussels from the major Lithuanian rivers. *Environmental and Molecular Mutagenesis* 61(3): 338-354 (DOI: 10.1002/em.22336).
6. González-Moreno P., Lazzaro L., Vilà M., Preda C., Adriaens T., Bacher S., Brundu G., Copp G.H., Essl F., García-Berthou E., Katsanevakis S., Moen T.L., Lucy F.E., Nentwig W., Roy H.E., Srébalienė G., Talgø V., Vanderhoeven S., Andjelković A., **Arbačiauskas K.**, Auger-Rozenberg M.-A., Bae M.-J., Bariche M., Boets P., Boieiro M., Borges P.A., Canning-Clode J., Cardigos F., Chartosia N., Cottier-Cook E.J., Crocetta F., D'hondt B., Foggi B., Follak S., Gallardo B., Gammelmo Ø., Giakoumi S., Giuliani C., Guillaume F., Šerić Jelaska L., Jeschke J.M., Jover M., Juárez-Escario A., Kalogirou S., Kočić A., Kytinou E., Lavery C., Lozano V., Maceda-Veiga A., Marchante E., Marchante H., Martinou A.F., Meyer S., Michin D., Montero-Castaño A., Morais M.C., Morales-Rodriguez C., Muhthassim N., Nagy Z. Á., Ogris N., Onen H., Pergl J., Puntila R., Rabitsch W., Ramburn T.T., Rego C., Reichenbach F., Romeralo C., Saul W.-C., Schrader G., Sheehan R., Simonović P., Skolka M., Soares A.O., Sundheim L., Tarkan A.S., Tomov R., Tricarico E., Tsiamis K., Uludağ A., van Valkenburg J., Verreycken H., Vettraino A.M., Vilar L., Wiig Ø., Witzell J., Zanetta A., Kenis M., 2019. Consistency of impact assessment protocols for non-native species. *NeoBiota* 44: 1-25 (DOI: 10.3897/neobiota.44.31650).
7. Butkus R., Višinskienė G., **Arbačiauskas K.**, 2019. First record of the Acute Bladder Snail *Physella acuta* (Draparnaud 1805) in the wild waters of Lithuania. *BioInvasion Records* 8 (2): 281-286 (DOI: 10.3391/bir.2019.8.2.10).
8. Minchin D., **Arbačiauskas K.**, Daunys D., Ezhova E., Grudule N., Kotta J., Molchanova N., Olenin S., Višinskienė G., Strake S., 2019. Rapid expansion and facilitating factors of the Ponto-Caspian invader *Dikerogammarus villosus* within the eastern Baltic Sea. *Aquatic Invasions* 14 (2): 165-181 (DOI: 10.3391/ai.2019.14.2.02).
9. Copilaș-Ciocianu D., **Arbačiauskas K.**, 2018. First record of *Dikerogammarus bispinosus* Martynov, 1925 in Kazakhstan: invasive or overlooked native in the Caspian Sea basin? *BioInvasions Records* 7 (3): 285-291 (DOI: 10.3391/bir.2018.7.3.09).
10. Audzijonyte A., Baltrūnaitė L., Väinölä R., **Arbačiauskas K.**, 2017. Human-mediated lineage admixture in an expanding Ponto-Caspian crustacean species *Paramysis lacustris* created a novel genetic stock that now occupies European waters. *Biological Invasions* 19 (8): 2443-2457 (DOI: 10.1007/s10530-017-1454-9).
11. Kaupinis A., Aitmanaitė L., Strepėtkaitė D., Valius M., Lazutka J.R., **Arbačiauskas K.**, 2017. Proteomic and gene expression differences between post-diapause and subitaneous offspring

- phenotypes in the cyclic parthenogen *Daphnia pulex*. *Hydrobiologia* 798 (1): 87-103 (DOI: 10.1007/s10750-016-3057-3).
12. Poikane S., Johnson R.K., Sandin L., Schartau A.K., Solimini A.G, Urbanič G., **Arbačiauskas K.**, Aroviita J., Gabriels W., Miler O., Pusch M.Y., Tim H., Böhmer J., 2016. Benthic macroinvertebrates in lake ecological assessment: A review of methods, intercalibration and practical recommendations. *Science of the Total Environment* 543: 123–134 (doi:10.1016/j.scitotenv.2015.11.021).
  13. Audzijonyte A., Baltrūnaitė L., Väinölä R., **Arbačiauskas K.**, 2015. Migration and isolation during the turbulent Ponto-Caspian Pleistocene create high diversity in the crustacean *Paramysis lacustris*. *Molecular Ecology* 24: 4537–4555 (doi: 10.1111/mec.13333).
  14. **Arbačiauskas K.**, Lesutienė J., Gasiūnaitė Z.R., 2013. Feeding strategies and elemental composition in Ponto-Caspian peracaridans from contrasting environments: can stoichiometric plasticity promote invasion success? *Freshwater Biology* 58 (5): 1052-1068 (doi:10.1111/fwb.12108).
  15. Panov V.E., Alexandrov B.G., **Arbačiauskas K.**, Binimelis R., Copp G.H., Grabowski M, Lucy F., Leuven R.S.E.W., Nehring S., Paunović M., Semenchenko V., Son M.O., 2009. Assessing the risks of aquatic species invasions via European inland waterways: from concepts to environmental indicators. *Integrated Environmental Assessment and Management* 5 (1): 110-126 (DOI: 10.1897/IEAM\_2008-034.1).
  16. **Arbačiauskas K.**, Semenchenko V., Grabowski M., Leuven R.S.E.W., Paunović M., Son M.O., Csányi B., Gumuliauskaitė S., Konopacka A., Nehring S., van der Velde G., Vezhnovetz V., Panov V.E., 2008. Assessment of biocontamination of benthic macroinvertebrate communities in European inland waterways. *Aquatic Invasions* 3 (2): 211-230 (DOI: 10.3391/ai.2008.3.2.12).
  17. **Arbačiauskas K.**, Lampert W., 2003. Seasonal adaptation of ex-ephippion and parthenogenetic offspring of *Daphnia magna*: differences in life-history and physiology. *Functional Ecology* 17: 431-437.

**Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (without citation index):**

1. Višinskienė G., **Arbačiauskas K.**, 2018. On the occurrence of rare aquatic beetle *Hydroglyphus hamulatus* (Gyllenhal, 1813) (Coleoptera, Dytiscidae) in Lithuania. *Bulletin of the Lithuanian Entomological Society, Lietuvos entomologų draugija*, Vol. 2 (30): 26–29. ISSN 2538–7723

**Other reviewed scientific publications (books, books' chapters, collections of articles, articles, textbooks and etc.):**

1. **Arbačiauskas K.**, 2019. Seasonal Diphenism in *Daphnia* from Temperate Environments: Organismal Traits and Molecular Regulation. In: *Dormancy in Aquatic Organisms. Theory, Human Use and Modelling* (Eds Alekseev V. R., Pinel-Alloul B.). Springer, *Monographiae Biologicae* 92: 163-174 (DOI: 10.1007/978-3-030-21213-1\_9).
2. von der Ohe P.C., Apitz S.E., **Arbačiauskas K.**, Beketov M.A., Borchardt D., de Zwart D., Goedkoop W., Hein M., Hellsten S., Hering D., Kefford B.J., Panov V.E., Schäfer R.B., Segner H., van Gils J., Vegter J.J., Wetzel M.A., Brack W. 2014. Status and Causal Pathway Assessments Supporting River Basin Management. In: *Risk-Informed Management of European River Basins*. (Eds Brils J., Brack W., Müller-Grabherr D., Négrel P., Vermaat J.E.) The Handbook of Environmental Chemistry Vol. 29 (ISSN 1967-979X), Springer-Verlag Berlin Heidelberg, pp. 53-149 (DOI: 10.1007/978-3-642-38598-8\_3).

3. **Arbačiauskas K.**, Gumuliauskaitė S., 2007. Invasion of the Baltic Sea basin by the Ponto-Caspian amphipod *Pontogammarus robustoides* and its ecological impact. In: *Biological Invaders in Inland Waters: Profiles, Distribution and Threats* (Ed. Gherardi F.), Invading nature - Springer series in invasion ecology, Vol. 2: 463-477 (DOI: 10.1007/978-1-4020-6029-8\_25).

## **PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS**

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- 2019 – 2022 **participant**, project funded by the European Regional Development fund (measure Nr. 01.2.2-LMT-K-718) "Advanced models, citizen science and big data for sustainable food production and ecological services of inland aquatic ecosystems", No 01.2.2-LMT-K-718-02-0006 (<https://sif.lt/>)
- 2015 – 2018 **leader**, National Science Program project "Implication of species and functional diversity for aquatic ecosystem services under increasing eutrophication and chemical pollution", No SIT-10/2015

## **INTERNSHIP AND TRAINING**

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- 2005.11, Experimental physiological and genetic investigations of Daphnia seasonal  
2006.08 and phenotypes. Max Planck Institute of Limnology, Ploen, Germany  
2001.03 –  
2002.03

## **PARTICIPATION IN SCIENTIFIC CONFERENCES**

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### ***International scientific conferences:***

1. **Arbačiauskas K.**, Grey J., Audzijonyte A., 2021. Introduction of Ponto-Caspian crustaceans for fish food enrichment purposes led to local species extinction and reduced trophic efficiency in a central European lake. *BEF conference Ecology across borders 2021*, 12-15 November, Liverpool ACC, UK (<https://www.britishecologicalsociety.org/events/ecology-across-borders-2021/>)
2. Rybakovas A., Jokšas K., Markovskienė V., **Arbačiauskas K.**, 2018. Assessment of contaminant concentrations and genotoxicity biomarker responses in bivalve mussels (Unionidae) from Lithuanian Rivers, *The 3rd Central European Symposium for Aquatic Macroinvertebrate Research*, 8–13 July, Lodz, Poland (<http://cesamir2018.uni.lodz.pl>)
3. Šidagytė E., Lesutienė J., **Arbačiauskas K.**, 2018. Trophic behavior of native and invasive populations of Ponto-Caspian mysids. *The 3rd Central European Symposium for Aquatic Macroinvertebrate Research*, 8–13 July, Lodz, Poland (<http://cesamir2018.uni.lodz.pl>)
4. **Arbačiauskas K.**, 2017 Amphipods in transitional waters of Lithuania: roles and trends, *The 17th International Colloquium on Amphipoda*, 4-7 September, Trapani, Italy

## **PARTICIPATION IN THE STUDY PROCESS**

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Science area: *Natural sciences* (N000). Science branch: *Ecology and Environmental Science* (N012)

**Supervisor of PhD students:**

- Eglė Šidagytė, 2012-2016, thesis “Trophic plasticity, metabolism and community effects of Ponto-Caspian peracaridans in lentic ecosystems of native and invaded ranges“, defended in 2017;
- Rokas Butkus, 2012-2016, thesis ”Life-history traits, functional role and genetic variability of *Potamopyrgus antipodarum* (J. E. Gray, 1853) in Lithuanian mesotrophic lake ecosystems”, defended in 2016;
- Vytautas Rakauskas, 2008-2012, thesis “Trophic position and food web impacts of non-indigenous crustaceans in lakes“, defended in 2014;
- Daiva Stankevičienė (Kalytytė), 2004-2008, thesis “Phytoplankton and zooplankton community structure and change in characteristic mesotrophic lakes of Lithuania“, defended in 2010;
- Simona Gumuliauskaitė, 2003-2007, thesis “Life history of the Ponto-Caspian amphipod *Pontogammarus robustoides*, and its impact on Lithuania’s freshwater communities“, defended in 2007

**Scientific consultant:**

- Giedrė Višinskienė, thesis “Caddisfly (Insecta, Trichoptera) diversity in Lithuania and impacts of environmental factors on their distribution and abundance“, defended externally in 2010

**OTHERS**

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1. Associate Editor of Journals *Aquatic Invasions* ir *BioInvasion Records*.
2. Expert Member of the Commission of the Red Book of Lithuania (since 2018)
3. Expert Member of the Council on Invasive Species Control (since 2003)
4. Chair of Vilnius University and Nature Research Centre joined Committee for PhD studies in Zoology (since 2021)