

Krzysztof Podwysocki

CONTACT INFORMATION

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 Google Scholar <https://scholar.google.com/citations?user=mU7eaTkAAAAJ&hl=pl&oi=ao>

EDUCATION

2020–2024 **PhD in Biology** (defended at 11/03/2025, granted at 24/04/2025) at the Faculty of Biology and Environmental Protection of the University of Lodz in Lodz (Poland). Title of the doctoral dissertation: Assessment of the invasion potential of two genetically distinct populations of the Ponto-Caspian amphipod – *Dikerogammarus villosus* (supervisor – Prof. Dr. Hab. Karolina Bącela-Spychalska; assistant supervisor – Dr. Tomasz Rewicz).
 2017–2020 **BSc in Geography**. Faculty of Geography and Regional Studies, University of Warsaw. Title of the bachelor thesis: Urban sprawl phenomenon on the example of Warsaw (Supervisor: Dr. Sylwia Dudek-Mańkowska).
 2017–2019 **MSc in Biology**. Faculty of Biology and Environmental Protection at the University of Lodz. Title of the master thesis: Biodiversity of decapod crustaceans (Decapoda) of Ghana coast (West Africa). (Supervisor: Prof. Magdalena Błażewicz).
 2014–2017 **BSc in Biology**. Faculty of Biology and Environmental Protection at the University of Lodz. Title of the bachelor thesis: Biodiversity of polymetallic nodule fields. (Supervisor: Prof. Magdalena Błażewicz).

PROFESSIONAL EXPERIENCE

Since 10/2024 **Biologist**. Laboratory of Evolutionary Ecology of Hydrobionts, Nature Research Centre, Vilnius, Lithuania
 03/2023–12/2023 **Intern**. Laboratory of Evolutionary Ecology of Hydrobionts, Nature Research Centre, Vilnius, Lithuania
 10/2020–09/2024 **PhD Student**. Department of Invertebrate Zoology and Hydrobiology of the University of Lodz, Lodz, Poland
 06/2020–09/2020 **Intern**. Department of Invertebrate Zoology and Hydrobiology of the University of Lodz, Lodz, Poland
 01/2020–05/2020 **Volunteer**. Department of Invertebrate Zoology and Hydrobiology of the University of Lodz, Lodz, Poland
 07/2016 **Intern**. Institute of Horticulture in Skierniewice, Poland

RESEARCH INTERESTS

1. Biology and ecology of invasive species, particularly in aspects of:
 - invasive potential at population level
 - invasive impact
 - diet of crustaceans
2. Patterns of macroinvertebrate community structure
3. Geospatial analyses
4. Hydrobiology and hydrology, in particular brackish environments

PUBLICATIONS

Scientific articles published in journals indexed in Clarivate Analytics Web of Science database (with citation index)

1. Jermacz Ł, **Podwysocki K**, Desiderato A, Bącela-Spychalska K, Rewicz T, Szczerkowska-Majchrzak E, Augustyniak M, Gjoni V, Kobak J (in press). The same species, not the same invader: Metabolic responses of genetically distinct invasive populations of *Dikerogammarus villosus* (Sowinsky, 1894) and their intraspecific hybrid to environmental stresses. *Journal of Animal Ecology*. <https://doi.org/10.1111/1365-2656.70072>
2. **Podwysocki K**, Szczerkowska-Majchrzak E, Desiderato A, Jermacz Ł, Kobak J, Bącela-Spychalska K, Rewicz T (in press). The dispersal potential of freshwater invasive amphipod species is population-dependent: A case study of *Dikerogammarus villosus* (Sowinsky, 1894). *Animal Behaviour*.
3. **Podwysocki K**, Szczerkowska-Majchrzak E, Jermacz Ł, Kobak J, Bącela-Spychalska K, Rewicz T, Desiderato A (2025) Predation or omnivory—Two different feeding patterns displayed by two intraspecific groups of the invasive Ponto–Caspian amphipod *Dikerogammarus villosus*. *Freshwater Biology*, 70(3): e70021. <https://doi.org/10.1111/fw.70021>
4. **Podwysocki K**, Bącela-Spychalska K, Desiderato A, Rewicz T, Copilaş-Ciocianu D (2024) Environment, intraspecific lineages and geographic range jointly shape the high morphological variability of *Dikerogammarus villosus* (Sowinsky, 1894) (Crustacea, Amphipoda): a successful aquatic invader across Europe. *Hydrobiologia*, 1–19. <https://doi.org/10.1007/s10750-024-05565-8>
5. **Podwysocki K**, Pabis K, Palero F, Błażewicz M, Serigstad B (2024) Low abundance and high patchiness of decapod fauna sampled with van Veen grab on the West African continental margin (Gulf of Guinea, Ghana). *Oceanologia*, 66(2): 220–238. <https://doi.org/10.1016/j.oceano.2023.11.003>
6. **Podwysocki K**, Desiderato A, Mamos T, Rewicz T, Grabowski M, Konopacka A, Bącela-Spychalska K (2024) Recent invasion of Ponto-Caspian amphipods in the Masurian Lakeland associated with human leisure activities. *NeoBiota*, 90: 161–192. <https://doi.org/10.3897/neobiota.90.109221>

Other publications

1. Mucciolo S, **Podwysocki K**, Desiderato A (2023) Cold, but not for long enough: first insights into the tolerance to subzero temperatures of the invasive amphipod *Dikerogammarus villosus*. *bioRxiv*, 2023-10. <https://doi.org/10.1101/2023.10.30.562454>
2. **Podwysocki K** (2022) Konsekwencje urbanizacji dla środowiska. *Kosmos*, 71(1): 13–20 (in Polish).
3. **Podwysocki K** (2020) Wpływ eksploatacji konkrecji polimetalicznych na różnorodność biologiczną. *Kosmos*, 69(2): 361–371 (in Polish).

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROJECTS

Since 07/2024	Volunteer. <i>BioMeTP: Biodiversity, biogeography and metatranscriptomics of endangered temporary ponds in the Mediterranean region.</i> Funded by the National Science Centre in Poland (2023/51/D/NZ8/00386) , Project PI: Dr. Andrea Desiderato.
Since 03/2023	Volunteer. <i>Comparative and integrative approach to assess the osmoregulation of two Ponto-Caspian invasive species focusing on two transmembrane proteins.</i> Funded by the University of Lodz (IDUB UŁ - internal project) , Project PI: Dr. Serena Mucciolo.
Since 10/2017	Volunteer (earlier Master Student). <i>Environmental monitoring Ghana 2012. Chemical and biological analysis.</i> Funded by the NORAD – FAO PROJECT GCP/INT/003/NOR , Project PI (Polish side): Prof. Krzysztof Pabis.
02/2023–01/2024	Principal Investigator. <i>Variation in morphology and chemical composition of mouthparts of the alien crustacean <i>Dikerogammarus villosus</i> (Sovinsky 1894) in the context of diet and invasion history.</i> Funded by the University of Lodz (IDUB UŁ - internal project) .
10/2020–07/2023	PhD Student. <i>Can bad become worse? Experimental evaluation of success of two genetically distinct fronts of invasion of the crustacean <i>Dikerogammarus villosus</i> and higher invasive potential of putative superhybrids.</i> Funded by the National Science Centre in Poland (2018/31/D/NZ8/03061) . Project PI: Dr. Tomasz Rewicz.

INTERNSHIPS AND TRAINING

10/2024–07/2025	Erasmus + graduate traineeships. Nature Research Centre (Vilnius, Lithuania)
09/2024	Theoretical training for persons involved in experimental animal procedures (1 week). PolLASA (Poland, online)
07/2024	Course <i>Agent-based Modelling using NetLogo</i> (1 week). Physalia courses (University in Lodz, Poland, in person)
04/2024	Course <i>Geometric Morphometrics</i> (1 week). Physalia courses (online)
02/2023–12/2023	A six-month internship as part of the project: <i>Variation in morphology and chemical composition of mouthparts of the alien crustacean <i>Dikerogammarus villosus</i> (Sovinsky 1894) in the context of diet and invasion history.</i> Nature Research Centre (Vilnius, Lithuania)
11/2022	Course <i>Interactive Maps in R</i> (1 week). Physalia courses (online)
11/2022	Course <i>Spatial analyses in QGIS</i> (1 week). GIS Support (online, in Polish)
10/2021	Course <i>Introduction to statistics in R for biologists and ecologists</i> (1 week). Physalia courses (online)

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences

1. **Podwysocki K.**, Desiderato A., Szczerkowska-Majchrzak E., Bącela-Spychalska K., Kobak J., Jermacz Ł., Rewicz T. What if they meet? The mating success of the two genetically differentiated populations of an invasive amphipod *Dikerogammarus villosus* and their hybrids; ICAIS2022; poster; 18-22/04/2022.
2. **Podwysocki K.**, Mamos T., Rewicz T., Grabowski M., Bącela-Spychalska K. Has human leisure activity an impact on the distribution of native and invasive Amphipoda (Crustacea) in Mazurian Lakeland (Poland)?; NeoBiota; oral presentation; 13-16/09/2022.
3. **Podwysocki K.**, Desiderato A., Szczerkowska-Majchrzak E., Jermacz Ł., Kobak J., Rewicz T., Bącela-Spychalska K. Experimentally testing the different invasive potential of distinct lineages of *Dikerogammarus villosus*; NeoBiota; poster; 13-16/09/2022.

4. Desiderato A., Jermacz Ł., **Podwysocki K.**, Kobak J., Bącela-Spychalska K., Rewicz T. Breath in, breath out: different physiological responses to oxygen and temperature variation of two genetically distinct lineages of *Dikerogammarus villosus*; NeoBiota; oral presentation; 13-16/09/2022.
5. **Podwysocki K.**, Bącela-Spychalska K., Desiderato A., Rewicz T., Copilas-Ciocianu D. Environment, phylogeographic lineages or ranges – what drives the high morphological variation of the successful invader, *Dikerogammarus villosus* (Sovinsky, 1894) in European aquatic ecosystems?; Cesamir; oral presentation; 07-12/07/2024.
6. **Podwysocki K.**, Szczerkowska-Majchrzak E., Jermacz Ł., Kobak J., Bącela-Spychalska K., Rewicz T., Desiderato A. The same species, different habits? Food consumption and preference by distinct phylogenetic lineages of a Ponto-Caspian invader *Dikerogammarus villosus*. Cesamir; poster; 07-12/07/2024.
7. **Podwysocki K.**, Desiderato A., Mamos T., Rewicz T., Grabowski M., Konopacka A., Bącela-Spychalska K. Recent invasions of Ponto-Caspian amphipods in the Masurian Lakeland associated with human leisure activities.; International Young Researchers Conference on Invasive Species (IYRCIS); online; oral presentation; 15-16/07/2024.
8. **Podwysocki K.**, Desiderato A., Szczerkowska-Majchrzak E., Copilas-Ciocianu D., Jermacz Ł., Kobak J., Bącela-Spychalska K., Rewicz T. Experimental assessment of the invasive potential of the two intraspecific lineages of the Ponto-Caspian amphipod - *Dikerogammarus villosus* (Crustacea: Amphipoda): does hybridization increase invasive potential?; NeoBiota; oral presentation; 03-06/09/2024.

OTHERS

Languages

Polish	Native speaker
Russian	Advanced (C1)
English	Upper-intermediate/advanced (B2+)
French	Intermediate (B1)
Latin	Elementary (A2)
Lithuanian	Beginner (A1)