Wanda Bodnar

Skills & knowledge

- Marine & Estuarine Science
  - The Thames Estuary
- Climate Science
- Geographic Information Systems
  - Esri ArcGIS Products, QGIS
- Data Science
  - RStudio, Python, MATLAB, SQL, Tableau, GitHub
- MS Office Suite
- Adobe Creative Suite
- Front-End Development
  - HTML, CSS, JavaScript
- Teaching, lecturing, coaching
- Communication
  - Academic writing
  - Non-academic writing
  - Presenting and speaking to expert and non-expert audiences
- Project and time management
- Problem-solving
- Networking
- Collaboration
- Team and individual work
- Critical thinking
- Research
  - Field and laboratory work
  - Pelagic and benthic sampling
  - Marine mammal, fish, and invertebrate species identification

Languages

- Hungarian
- English
- Japanese

Education

Research student | 2024 – present | London NERC Doctoral Training Partnership

MSc in Marine and Lacustrine Science and Management | 2011 – 2013 | Vrije Universiteit Brussel (VUB), Universiteit Antwerpen (UA), Universiteit Gent (UGent), Belgium
Major: Conservation Biology and Ecosystem Management
Grade: Distinction

BSc in Biology and Physical Education with teaching qualification | 2002 – 2006 | Eötvös Loránd University (ELTE), Hungary
Recognised by UK ENIC and the General Teaching Council for England.

Research Experience

Project officer and Assistant Manager | Thames Estuary Partnership (TEP) | Jan 2018 – March 2022
I worked on the Greater Thames Estuary Fish Migration Roadmap project which included researching, managing and analysing spatial data and the creation of the interactive GIS platform to help visualise the location of fish migratory barriers and river connectivity within the Thames River Basin. My results were used for the State of the Thames 2021 report published by the Zoological Society of London (ZSL). In addition, I was first author of a publication on the Roadmap project which was published in The London Naturalist (Vol. 100) and also presented the project at a number of conferences.

Research Assistant | Royal Netherlands Institute for Sea Research (NIOZ) | Oct 2013 – March 2015
As a research assistant, I investigated the burrowing behaviour of Baltic Tellin (*Macoma balthica*) in the Dutch Wadden Sea. My work included laboratory processing of benthic macrofauna samples and statistical analysis. Following the finalisation of the research, I co-authored a publication. In addition, I participated in pelagic sampling and migratory shorebird catching and ringing.

MSc Research Project | Universiteit Gent (UGent) | Sept 2012 – June 2013
My MSc research project was titled as *Meiofauna associated with seagrasses at natural CO_2 seeps in the Mediterranean Sea* and was part of The European Union 7th Framework Programme called ECO2 project – Sub-seabed CO2 storage: Impact on Marine Ecosystem (2011-2015).
My research work included laboratory processing and identifying of benthic meiofauna samples, and community ecology analysis to understand the short- and long-term effects of elevated CO_2 concentrations on meiofauna associated with seagrass meadows. With my results I contributed to, and co-authored, a publication.

Teaching Experience

Data & Training Manager | Thames Estuary Partnership (TEP) | Apr 2022 – present
As part of the Blue Connections project, I have developed and currently deliver courses on geographic information systems (using QGIS and ArcGIS Pro), data science (using RStudio) and the Thames Estuary. I also organise and co-lead fish survey demonstrations for University College London (UCL) MSc Aquatic Conservation, Ecology and Restoration students on the Thames. Accreditation for the latter was obtained via the Institute of Fisheries Management (IFM).

Guest Lecturer | Regent's University London | March 2017 – Apr 2017
I was invited to deliver lectures on environmental pollution and marine mammal mitigation methods used during the construction of offshore wind farms as part of the Environmental Sustainability course.

Work Experience

Data & Training Manager | Thames Estuary Partnership (TEP) | Apr 2022 – present
Presently my focus is the Roadmap to Climate Resilience project which is about the development of an interactive GIS platform to enable a more integrated and targeted approach for riverside planning and development that also contributes to climate resilience on the Thames Estuary. I also work on the Estuary Edges project. Estuary Edges are bioengineered intertidal habitats and I plan, organise and co-lead fish surveys using seine and fyke nets, and I am responsible for data capture, management, analysis and reporting.
Furthermore, I represent TEP at the London River Restoration Group, Thames Litter Forum, Greater Thames Seal Working Group, Thames Catchment Forum, Thames Eel Management Plan Implementation Group and UK Eel Forum.

Natural History Lead SUP Coach | Active360 | July 2017 – Present
I deliver stand up paddleboarding lessons and run the Thames Natural History SUP sessions that introduces participants to the natural history and ecology of the estuary.

Marine Environmental Consultant | Freelance | Apr 2015 – Dec 2017
As a consultant, I worked at sea implementing marine mammal monitoring and mitigation plans according to government and industry regulations for the offshore energy and renewables sector.

Volunteering Experience

STEM Ambassador | STEM Ambassador Programme | October 2022 – Present
I promote science and the natural environment to young people with talks about the ecology of the Thames.

Volunteer | Living River Foundation | July 2021 – Present
I take part in aquatic microplastic surveying utilising a manta trawl on the Thames. This work also includes sample sorting, sieving and preserving for further laboratory analysis.

Publications

Bodnar, W. Colclough, S., Pryor, A. (2024) *Fish utilisation of bioengineered intertidal habitats in the Thames Estuary*. The London Naturalist Vol 103. *In press*.

Bodnar, W. (2022) *The Upper Thames Estuary*. Alexander, I., Masters, S., Tichborne, R., Backler, G., Briggs, P., Press, V., Woodard, L., Templer, D., Robson, C., Yates, J., Lindenberg, S. In: West London Wildlife. Aurora Metro Books. p. 117-123. amazon.co.uk/West-London-Wildlife-Ian-Alexander/dp/1913641309

Bodnar, W., Pryor A., Philipsen P. (2021) *An integrated GIS-based approach to improve fish migration within the Greater Thames Estuary*. The London Naturalist Vol 100. p. 141-164. zenodo.org/records/5750302

Guilini, K., Weber, M., de Beer, D., Schneider, M., Molari, M., Lott, C., **Bodnar, W**., Mascart, T., De Troch, M., Vanreusel, A. (2017) *Response of Posidonia oceanica seagrass and its epibiont communities to ocean acidification*. In: PLoS ONE 12(8): e0181531. doi.org/10.1371/journal.pone.0181531

Compton, T.J., **Bodnar, W**., Koolhaas, A., Dekinga, A., Holthuijsen, S., ten Horn, J., McSweeney, N., van Gils, J., Piersma, T. (2016) *Burrowing Behavior of a Deposit Feeding Bivalve Predicts Change in Intertidal Ecosystem State*. In: Frontiers in Ecology and Evolution, Sec. Marine Ecosystem Ecology Volume 4. doi.org/10.3389/fevo.2016.00019

Selected conferences & public talks

Bodnar, W. (2024) *A Short Introduction to the Thames Estuary.* London Natural History Society. Online public talk. bit.ly/lnhs_public_talk

Bodnar, W., Pryor, A. (2023) *Exploring the Resilience and Restoration of the Thames Estuary*. Institution of Environmental Sciences. Online public talk. bit.ly/ies_public_talk

Bodnar, W. (2021) *An integrated GIS-based approach to improve river connectivity within the Greater Thames Estuary*. World Fisheries Congress 2021. Online presentation.

Bodnar, W. (2019) *Greater Thames Estuary Fish Migration Roadmap: a Platform for Identifying Habitat Restoration and Creation Opportunities*. 20th RRC Annual Network Conference 2019. River Restoration Centre Conference. Liverpool, United Kingdom.

Pryor, A., **Bodnar, W**. (2018) *Greater Thames Estuary Fish Migration Roadmap: A pathway to a more integrated approach across freshwater and marine boundaries*. 8th Annual IFM Specialist Conference. Institute of Fisheries Management. Lancaster, United Kingdom.

Accreditation

Chartered Scientist | Science Council | March 2023
Chartered Marine Scientist | Institute of Marine Engineering, Science and Technology (IMarEST) | March 2023