



CURRICULUM VITAE

JOHN BROPHY

B.A. (Hons), M.Sc., CEcol, MCIEEM

EDUCATION

2002-2003 National University of Ireland, Cork
M.Sc. in Fisheries Management, Development and Conservation
Department of Zoology, Ecology and Plant Science. First Class Honours
Thesis: The diet of the common dolphin *Delphinus delphis* in Irish waters

1996-2000 Trinity College Dublin
B.A. (Honours) in Natural Sciences (Zoology). 2.1

CAREER HISTORY

Director of Ecology	2022 - present
Principal Ecologist	2018 - 2022
Senior Ecologist	2014 - 2018
Consultant Ecologist	2012 - 2014

BEC Consultants Ltd, Dublin, Ireland

Since 2012, I have worked with BEC Consultants working in freshwater, marine and terrestrial environments. This has included carrying out Annex II *Vertigo* spp. surveys, marine and freshwater macroinvertebrate sampling and identification, SSRS and Q-value determination, white-clawed crayfish surveys, freshwater pearl mussel surveys, otter surveys, kingfisher surveys, toxin in biota sampling (*Gammarus duebeni*), Ecological Impact Assessments (EclA) and Appropriate Assessment (AA) and preparing Natura Impact Statements (NIS). A selection of projects I have worked on with BEC Consultants is presented here:

- *National Fen Survey 2021-2025*

Following on from the Pilot Fen Survey 2019, the National Fen Survey aimed to establish an extensive baseline of fen habitat in Ireland with a focus on the Annex I fen habitats: 7210 *Cladium* fen, 7230 Alkaline fen and 7140 Transition mire. The data collected established the range and extent of the target habitats, as well as identifying threats and pressures for these habitats. Using the gathered data, the National Conservation Assessment of the three target habitats were prepared for submission to the European Commission under Article 17 of the Habitats Directive. I was project manager for this project and was responsible for the day-to-day running of the project team and final reporting.

- *Vertigo National Monitoring Project 2021-2024*

In the period 2021-2024, I worked as project manager and lead ecologist on the *Vertigo* National Monitoring Project, which aimed to gather data on the current status of three Annex II *Vertigo* species: *Vertigo angustior*, *Vertigo geyeri* and *Vertigo moulinsiana*. The survey involved surveying 60 existing or new sites to assess the *Vertigo* spp. population and habitat status. The resulting data were used to prepare Ireland's submission to the European Commission under Article 17 of the Habitats Directive.

- *Cavan/Monaghan White-Clawed Crayfish Survey 2020*

In 2020, I carried out a presence/absence survey for white-clawed crayfish (*Austropotamobius pallipes*) in river catchments in counties Cavan and Monaghan. The most recent outbreak of crayfish plague (*Aphanomyces astaci*) was first noted in 2015 in the River Bruskey, Co. Cavan, a subcatchment of the Erne System. Recent data on the distribution of white-clawed crayfish in

nearby river catchments were lacking and this project aimed to address that data gap. A number of sites were surveyed using hand-searching techniques on the Cavan, Annalee, Dromore, Blackwater (Monaghan) and Finn rivers, and the Mountain Water. Sixty percent of sites sampled were positive for white-clawed crayfish, and there was no evidence of crayfish plague at any of the sites. Evidence of otter activity was also recorded at a number of sample sites.

- Saltmarsh Monitoring Project 2017-2018

I was project manager for the saltmarsh monitoring project; a project aimed at fulfilling Ireland's reporting obligations under Article 17 of the Habitats Directive. I was responsible for health & safety, fieldwork planning, survey team management, field survey, data management and reporting.

- *Vertigo* National Monitoring Survey 2014-2017

BEC Consultants was contracted by the NPWS to carry out conservation assessment monitoring of three Annex II *Vertigo* spp. (*Vertigo geyeri*, *Vertigo moulinsiana* and *Vertigo angustior*) for Article 17 reporting. I carried out field surveys, sample processing, data management, GIS and contributed to the report writing.

- Rare Mollusc Survey 2012

This NPWS-funded project was aimed at confirming the presence of four rare mollusc species (*Vertigo geyeri*, *Vertigo moulinsiana*, *Oxyloma sarsii* and *Omphiscola glabra*) at a number of sites and assessing their populations. I carried out preparatory GIS work, which consisted of preparing field maps based on existing data, where available, assisted with all field surveys & sample processing and species identification, and completed the post-survey GIS work, which presented sample location data, habitat polygons and other associated information in maps for inclusion in the report and shapefiles for submission to the client.

- Blanchardstown Regional Drainage Scheme (BRDS) 2017

I was project manager for the ecological element of the proposed BRDS 9C sewer duplication project. I led surveys for birds, mammals, freshwater macroinvertebrates and alien invasive species, oversaw the habitat mapping, and completed screening for appropriate assessment and the Biodiversity chapter for the EIAR.

- Dún Laoghaire Cruise Berth

I was project manager for the marine ecology survey and reporting in relation to the proposed cruise berth at Dún Laoghaire, Co. Dublin. The project included subtidal grab sampling for macroinvertebrate and sediment analysis. The results of the survey, combined with information collected as part of a desk study, were used to carry out an impact assessment for inclusion in the EIS and NIS.

- Annual SSRS assessment for a wastewater treatment plant in Co. Meath
- Habitat survey of a proposed stormwater outfall location in Baldoyle Bay, Co. Dublin
- Ecological surveys at three railway bridges in Cos Limerick, Wicklow and Kildare.
- Ecological survey and screening for appropriate assessment for Kentstown WWTP, Co. Meath
- Ecological surveys (incl. habitats, mammals & birds) of the Old Roosky Canal, Co. Roscommon
- Ecological surveys (incl. habitats, mammals & birds) of Lough Allen Canal, Co. Leitrim
- Ecological surveys (incl. habitats, mammals & birds) of Killaloe Canal, Co. Clare
- Assessment of three proposed solar farms in Cos Wicklow and Wexford.
- Assessment of a proposed residential development at Blackcastle, Navan, Co. Meath
- Assessment of seismic survey applications for the DCENR/DCCA (2014-2018)
- Ecological surveys (incl. habitats, mammals & birds) of Royal Canal, Cos Dublin and Kildare
- River Liffey ecological monitoring, Co. Kildare
- Appropriate Assessments for remediation of unauthorised landfills, Co. Wicklow
- Identification of marine benthic macroinvertebrates from the North Sea
- Assessment of applications for offshore oil & gas exploration surveys
- Freshwater macroinvertebrate identification for a range of clients
- Marine mammal assessment of works on Dalkey Island, Co. Dublin

Aquatic Ecologist

2004 – 2008 and 2010 – 2012

Ecological Consultancy Services Limited (EcoServe), Dublin, Ireland

During this period I worked as an ecologist with EcoServe, covering both freshwater and marine environments. In the course of this work, I carried out numerous Environmental Impact Assessments (EIA), Appropriate Assessments (AA), desktop studies and field surveys, marine and freshwater macroinvertebrate sampling and identification, used kick sample, sediment core and grab methods, water and sediment physico-chemical sampling, mapping of marine habitats and biotopes using JNCC Marine Habitat Classification for Britain and Ireland, marine mammal surveys (land- and ship-based), Q-index determination, fisheries assessments including electro-fishing, seine netting, and trawling, and threatened and endangered species surveys, including freshwater pearl mussels (*Margaritifera margaritifera*), white-clawed crayfish (*Austropotamobius pallipes*) and otters (*Lutra lutra*).

With EcoServe I managed, and was involved in the fieldwork, laboratory work and report writing for, numerous projects, both freshwater and marine. A selection of these projects is presented here:

Freshwater projects

- Bellanaboy Gas Terminal Freshwater Survey, Co. Mayo
- Nore Freshwater Pearl Mussel (*Margaritifera margaritifera*), Co. Laois
- Kilbarry Bog Landfill Monitoring, Co. Waterford
- Bray Golf Course Mixed-use development, Co. Wicklow
- Dunsink Landfill Monitoring, Co. Dublin
- Harristown Car Park Development, Co. Dublin
- Lough Allen Salmon Farm Sediment Quality Assessment, Co. Leitrim
- Blessington Quarry Water Quality Assessment, Co. Wicklow
- Plassey Fisheries Assessment – University of Limerick Pedestrian Bridge, Co. Limerick
- River Dargle Flood Defence, Co. Wicklow
- Garvoge Bridge, Co. Sligo
- Clashacrow Quarry, Co. Kilkenny

Marine projects

- Boyne Coast and Estuary Subtidal Survey, Co. Louth/Meath
- Dublin Eastern Bypass, Co. Dublin
- S2S Sandymount Cycle Path, Co. Dublin
- Carnsore and Saltees Intertidal Survey, Co. Wexford
- North-South Share Aquatic Resources (NS-SHARE), Co. Donegal/Antrim
- Portmarnock Residential Project
- Baldoye Estuary Stormwater Outfall, Co. Dublin
- Cork Pipeline Survey, Co. Cork
- Aughinish Alumina Expansion, Co. Limerick
- Dungloe WWTP, Co. Donegal
- Rathmullan WWTP, Co. Donegal
- Schull Harbour Marina, Co. Cork
- Reenard Pier Redevelopment, Co. Kerry
- Dublin WtE Sediment, Co. Dublin
- Bull Island Cycle Path Feasibility Study, Co. Dublin

NPWS Conservation Ranger

Sept 2008 – June 2010

During this period I worked as a Temporary Conservation Ranger with the National Parks and Wildlife Service (NPWS), based in the Navan Office, but with primary responsibility for County Louth. The job had a wide remit including enforcement of the Wildlife Acts and Habitats Regulations, monitoring of Natura 2000 sites, reviewing planning applications, carrying out species surveys, etc. During my time in Louth, I prepared a GIS database of potential wetland sites based on analysis of aerial photography and carried out a number of site visits to record the habitats and species present. This database was intended to inform Louth County Council of the location and ecological value of wetlands in the county and subsequently formed the basis of the Louth Wetland Survey. I also contributed many records for County Louth to the Invasive Species Database of the National Biodiversity Data Centre and conducted an otter survey of the Boyne Catchment, Co. Meath.

Fisheries Observer

June 2004 – Aug 2004

Observer with the South Western Regional Fisheries Board working on the Cork Salmon Draft Net Survey. Monitored catch for salmon numbers, size and signs of disease.

Research Assistant

Nov 2003 – Dec 2003

Research assistant for Dr Emer Rogan, Department of Zoology, Ecology and Plant Science, NUI, Cork. Worked on dolphin stranding programme, assisted with post-mortems, maintained MS Access database and compiled the annual stranding list.

SKILLS & ADDITIONAL INFORMATION

Computer skills	MS Office, SPSS, PRIMER, ArcGIS, MapInfo, Recorder 6.
Sea time	Extensive research vessel experience including Celtic Voyager, Song of the Whale.
Qualifications	Diploma in Environmental Impact Assessment from Portobello Institute EPA-registered SSRS operator Freshwater Macroinvertebrate Species Identification Qualification (IdQ) from the Natural History Museum, London. JNCC-Approved Marine Mammal Observer (MMO) Basic Sea Survival, Fire & Safety Certificate National Powerboat Certificate - Level 2 Canoeing Ireland Level 3 Sea Kayak Skills

Membership of Professional Organisations

- Chartered Ecologist and full member of the Chartered Institute of Ecology and Environmental Management (CIEEM)
- Irish Whale and Dolphin Group (IWDG)
- Botanical Society of Britain and Ireland

PUBLICATIONS*Peer reviewed*

Brophy, J., Murphy, S. R. and Rogan, E. (2006) Records from the Irish Whale and Dolphin Group for 2003. *Irish Naturalists' Journal* **28(5)**: 214-218.

Brophy, J.T. and Penk, M.R. (2008) A new record for *Mysis relicta* Lovén, 1862 from Lough Allen, Co. Leitrim. *Irish Naturalists' Journal* **29(2)**: 122-124.

Brophy, J.T. and O'Connor, J.P. (2020) A new site for *Tricholeiochiton fagesii* (Guinard, 1879) (Trichoptera: Hydroptilidae) in Ireland. *Entomologist's Record and Journal of Variation* **132(5)**: 244-248.

Anderson, R., Long, M.P. and **Brophy, J.T.** (2013) Observations on the status of *Hippodamia tredecimpunctata* (Linnaeus) (Coccinellidae) in Ireland, with three new records. *The Coleopterist* **22 (2)**: 75-76.

Long, M.P., Nelson, B., Anderson, R. and **Brophy, J.T.** (2015) The Slender Amber Snail (*Oxyloma sarsii* (Esmark, 1886)) (Pulmonata: Succineidae) in Ireland; results of a habitat and distribution survey on the River Shannon, and recommended Red List status update. *Irish Naturalists' Journal* **34(2)**: 95-100.

Non-peer reviewed

Brophy, J.T. and Long, M.P. (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (*Vertigo*) (IWM 104). Appendix IV. *Vertigo angustior* site reports in Long, M.P. & Brophy, J.T. (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (*Vertigo*). *Irish Wildlife Manuals*, No. **104**. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Brophy, J.T. and Long, M.P. (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (*Vertigo*) (IWM 104). Appendix V. *Vertigo geyeri* site reports in Long, M.P. & Brophy, J.T. (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (*Vertigo*). *Irish Wildlife Manuals*, No. **104**. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Brophy, J.T. and Long, M.P. (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (*Vertigo*) (IWM 104). Appendix VI. *Vertigo moulinsiana* site reports in Long, M.P. & Brophy, J.T. (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (*Vertigo*). *Irish Wildlife Manuals*, No. **104**. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland

Brophy, J.T., Perrin, P.M., Penk, M.R., Devaney, F.M. and Leyden, K.J. (2019) Saltmarsh Monitoring Project 2017-2018. *Irish Wildlife Manuals*, No. **108**. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland

Penk, M., **Brophy, J.** & Nash, R. (2009) Implications for the natural heritage of Ireland's coast and inland waterways. In (eds. Kelly, B & Stack, M) *Climate Change, Heritage and Tourism: Implications for Irelands Coast and Inland Waterways*. The Heritage Council of Ireland Series pp97 ISSN 13936808

Long, M.P. and **Brophy, J.T.** (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (*Vertigo*). *Irish Wildlife Manuals*, No. **104**. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.