



MONICA FABRA

CONTACT

Phone: +18562575424

Email: mfabra@umces.edu

Location: Cambridge, MD

LinkedIn:

www.linkedin.com/in/monica-fabra-183472151/

?originalSubdomain=uk

KNOWLEDGE

Ecological restoration

Shellfish aquaculture

Biodiversity & conservation

Oyster hatchery production

Microplastic pollution

Nutrient remediation

Zooplankton larval dynamics

SKILLS

Research design

Data analysis (R, Excel, SPSS)

Scientific writing

Project Management

Science Communication

Science Outreach

Stakeholder Engagement

SUMMARY

I am a marine ecologist with over ten years' experience in ecological restoration of marine habitats (e.g., oyster reefs, seagrass meadows). I am currently a postdoc at the Horn Point Laboratory of the University of Maryland Center for Environmental Science (UMCES), where I am working as a research leader on alternative substrates and their use in oyster restoration, aquaculture, and fisheries. During my PhD I designed, built and managed a small-scale restoration hatchery in Portsmouth (UK), where I worked on the production of the European native oyster for restoration purposes. I also have experience with nutrient pollution and nitrogen remediation by oyster habitat, as well as microplastic pollution and the role of microplastics as pathogen vectors.

WORK EXPERIENCE

2024 - Present

Postdoctoral Researcher |

Horn Point Laboratory, UMCES, Cambridge (MD)

Research lead of a large State project on sustainable alternative substrates for the use in oyster fishery, aquaculture, and restoration.

Design and performance of lab and field experiments, peer-review and grant writing, stakeholder engagement.

2023 - 2024

Senior Research Associate | *University of Portsmouth (UK)*

Investigation of oyster-mediated nutrient assimilation and denitrification in coastal and estuarine ecosystems

2023

Research Assistant | *University of Portsmouth (UK)*

Search and gathering of research evidence: impacts of eutrophication and water quality (e.g., nutrient enrichment, turbidity, harmful algal blooms) on oyster habitat

REFERENCES

Elizabeth North

Supervisor

Professor in fisheries

oceanography and plankton

physical-biological interactions

Horn Point Laboratory,

UMCES, Cambridge, MD,

enorth@umces.edu

Matthew Gray

Supervisor

Associate professor in

aquaculture and ecological

restoration

Horn Point Laboratory,

UMCES, Cambridge, MD,

mgray@umces.edu

Joanne Preston

Supervisor

Professor in marine biology

and evolution

Institute of Marine Sciences,

University of Portsmouth, UK

joanne.preston@port.ac.uk

2019 - 2022

Hatchery Manager | *University of Portsmouth (UK)*

Management of oyster hatchery production – restorative aquaculture of the European native oyster in the Solent

2019

Research Assistant | *University of Portsmouth (UK)*

Collection of evidence of Impacts for the Research Excellence Framework

2018

Research Assistant | *University of Portsmouth (UK)*

Investigation of the impact of pathogen-enriched microplastics on oyster health and the role of microplastics as vectors for diseases

2016 - 2019

Lab demonstrator; Essays marker | *University of Portsmouth (UK)*

Assistance with lab and field courses; marking of students' essays

2016 - 2017

Guest Researcher | *University of Portsmouth (UK)*

Analysis of zooplankton communities and oyster larval interactions (Solent Oyster Restoration Project)

EDUCATION

2024 - Present

Professional certificate | *Horn Point Laboratory, UMCES, Cambridge (MD)*

Environmental Project Management – co-creating sustainable solutions

2019 - 2023

PhD | *University of Portsmouth (UK)*

- Investigation of the factors affecting *O.edulis* gametogenesis and broodstock conditioning in hatchery settings
- Design and setup of a small-scale oyster restoration hatchery

2015

Master's degree | *University of Palermo (Italy)*

- Degree in Marine Ecology
- Internship - Analysis of meiobenthic molluscan communities associated with endangered intertidal vermetid reefs

2012

Bachelor's degree | *University of Palermo (Italy)*

- Degree in Biological Sciences
- Internship - Transplantation of *P. oceanica* (seagrass restoration)

LANGUAGES

English - Fluent

Italian - Fluent

Portuguese - Basic

ORGANISATIONS

2018 – present Member of Native Oyster Restoration Alliance (NORA)

2018 – present Member of Native Oyster Network, UK and Ireland

2018 – 2021 Member of UK Microplastics Network

2018 – 2019 Organizer/Volunteer for See Bin Sea Change (non-profit)

PUBLICATIONS

- Fabra M., Morrall Z., Helmer L., Watson G., Preston J. (2024). Filtration behaviour of *Ostrea edulis*: diurnal rhythmicity influenced by light cycles, body size and water temperature. *Estuaries and Coasts*, 48(1), 18.
- zu Ermgassen P. S., Albentosa, M., Bakker, N., Blanco, A., Bonačić, K., Carboni, S., ... & Kamermans, P. (2023). Ten priority questions for increasing the consistency and success in hatchery production of the European flat oyster for habitat restoration. *Aquatic Living Resources*, 36, 29.
- zu Ermgassen, P.S.E., Strand, Å., Bakker, N., Blanco, A., Bonačić, K., Boudry, P., Brundu, G., Cameron, T.C., Connellan, I., da Costa, F., Debney, A., Fabra, M., Frankic, A., Gamble, C., Gray, M. W., Helmer, L., Holbrook, Z., Hugh-Jones, T., Kamermans, P., ... Colsoul, B. (2023). Overcoming *Ostrea edulis* seed production limitations to meet ecosystem restoration demands in the UN decade on restoration. *Aquatic Living Resources*, 36, [16].
- Fabra M., Williams L., Watts J.E.M., Hale M.S., Couceiro F., Preston J. (2021). The plastic Trojan horse: Biofilms increase microplastic uptake in marine filter feeders impacting microbial transfer and organism health. *Science of the Total Environment*, 797-149217.
- zu Ermgassen P.S.E., Bos O., Debney A., Gamble C., Glover A., Pogoda B., Pouvreau S., Sanderson W., Smyth D., Preston, J. (eds) (2021). European Native Oyster Habitat Restoration Monitoring Handbook. The Zoological Society of London, UK., London, UK.
- zu Ermgassen P.S.E., Gamble C., Debney A., Colsoul B., Fabra M., Sanderson W.G., Strand Å., Preston J. (eds) (2020). European Guidelines on Biosecurity in Native Oyster Restoration. The Zoological Society of London, UK., London, UK.
- Preston J., Gamble C., Debney A., Helmer L., Hancock B., zu Ermgassen P.S.E. (eds) (2020). European Native Oyster Habitat Restoration Handbook. The Zoological Society of London, UK., London, UK.
- Preston J., Fabra M., Helmer L., Johnson E., Harris-Scott E., Hendy I.W. (2020). Interactions of larval dynamics and substrate preference have ecological significance for benthic biodiversity and *Ostrea edulis* Linnaeus, 1758 in the presence of *Crepidula fornicata*. *Aquatic Conserv: Mar Freshw Ecosyst.*, 30: 2133-2149.

