

Marine Institute Job Description

Position	Postdoctoral Researcher - Sustainable Development of Mesopelagic Resources - MEESO2
Grade & Contract	Postdoctoral Researcher - Temporary specified purpose contract for a maximum duration of up to end December 2025, funded under the EU EMFAF funding programme
Service Group	Fisheries Ecosystems Advisory Services (FEAS)
Location	Marine Institute, Rinville, Oranmore, Co Galway. (Noting the Marine Institute has a Blended Working Policy in Place)

Who will you Work with and What Will The Role Involve?

The Post-Doctoral Researcher (PDR) will work closely with the project manager in the Ecosystem Approach to Fisheries Management Team as well as with colleagues in the wider Fisheries Ecosystem Advisory Services team to deliver research for the MEESO2 project.

In the MEESO2 project they will help produce important ecosystem data and information on the nature of the Deep Scattering Layer/Mesopelagic community and the ecosystem that supports and drives that community. The main tasks will be:

- Collecting and analysing new data and material from the Marine Institute acoustic surveys in Atlantic waters.
 - This will involve working with the acoustic survey team on the collection of detailed acoustic data, as well as sampling the mesopelagic biota.
 - It will also involve working with other project partners on the deployment of novel sampling tools including eDNA analysis for biodiversity, as well as new sampling nets.
 - Where possible, biological sampling will also include collecting information on stomach contents, trophic status and vital rates
 - As appropriate, the role will also involve the collection of additional oceanographic data to characterise the mesopelagic ecosystem
- Combining the above to build as full a picture as possible of the DSL/mesopelagic community as possible. This will include statistical analyse and modelling.
- Collaboration with colleagues at the Atlantic Technical University ATU on eDNA work, and University of Galway UoG on linkage to oceanographic drivers of abundance and distribution

What Will You Be Doing Every Day?

Principal Tasks:

The main tasks will be linked to the overall project work, and the research in Irish waters. This will include:

- Taking part in Marine Institute hydro-acoustic surveys
- Working with the in house acoustic team to collect acoustic data to provide biomass data for the Deep Scattering Layer (DSL)/mesopelagic community
- Collection of biological samples from the DSL/mesopelagic community
- Identification of the main mesopelagic species or taxa, on board or on return to the laboratory
- Deployment of novel optical, acoustic and net sampling tools being developed by project partners, and working with their personnel
- Collect appropriate oceanographic data; temperature, salinity, light penetration, and chlorophyll-a for subsequent analysis
- Again, working with the in house acoustic team develop methods for the analysis of the survey acoustic data to provide abundance indices for the key mesopelagic taxa
- Using approaches from this, determine the potential for the analysis of historical acoustic survey data to estimate abundance of key mesopelagic species
- Collaboration with partners at ATU and UoG on eDNA analysis and oceanographic drivers
- Using all or some of the above analyses, identify the most important explanatory variables that can explaining mesopelagic species abundance patterns, both in horizontal and vertical scale.
- Present the work at local, national and international meetings, including project meetings.
- Publish regular articles in peer reviewed journals.
- Participate in and/or lead Research Surveys on commercial and research survey vessels at sea as required.
- Carry out any other duties assigned from time to time, appropriate to the position.

What do You Need to Have Done to Apply for This role? (Education, Professional or Technical Qualifications, Knowledge, Skills, Aptitudes, Experience and Training)

Essential / Important:

- A relevant PhD in a fisheries science, renewable resource management, marine science or related field, with at least one year of relevant work experience.
- Demonstrated experience of working with biological analyses in the marine or fishery fields. This could include work on acoustic survey analysis, biological sampling, trophic status (lipids, stable isotopes), diet analysis and diel feeding patterns (stomach contents) & vital rates (e.g. respiration or productivity) on key mesopelagic or other species where the approaches could be transferable. Experience is not required in all of these, and expertise in similar or related fields

will be considered. The main factor is experience in analytical biology in a marine fishery context.

- Experience of working at sea and collecting biological samples, curating and identify these.
- Evidence of working in a relevant multi-disciplinary context. Ideally, this would be in fisheries and associated biological analyses, but other experience will be considered.
- Excellent interpersonal skills and an ability to work with and effectively communicate with the fishing Industry and stakeholders.
- High level of experience in the use of Microsoft Office applications.
- High level statistical analysis skills (ideally implemented in R).
- Proven Scientific Report and peer reviewed paper writing skills.
- Effective organisation and administration skills.
- Good time management and the ability to prioritise and meet deadlines.
- The ability to work unsupervised and as part of a team.
- Good written and verbal communication skills in addition to effective numeracy skills.
- Sea going experience or sufficiently fit to pass an ENG II Medical.
- Full, clean driving license.

Ideally Nice to Have / Desirable:

- Experience with spatial data analysis and GIS, or other task appropriate statistical and data handling skills.
- Strong data handling and data manipulation skills (e.g. experience of SQL server, Access, or other relational databases).
- Understanding of the issues surrounding Ecosystem Based Fisheries Management.
- Experience with commercial and research vessel fisheries surveys and sampling programmes, and particularly acoustic survey methodology.
- A good knowledge of the Irish fishing industry.

What else do you need to know?

(Special personal attributes required for the role)

This is an exciting opportunity to work in an Ocean frontier context, and will suit an adaptable, enthusiastic, fast learner. There will also be access to new technologies in acoustics, eDNA, and oceanography etc. as well as a project team of highly skilled scientists at the MI, ATU and UoG to help focus and develop the work, so experience working in such an environment would be valuable.

Dynamic and reliable.

An ability to work in an organised manner and progress work independently.

Self-sufficient while being a good team player.

Experience in collaborating with scientists and members of a technical team.

Description of Service Group: Fisheries Ecosystem Advisory Services – The Wider Team

Currently, FEAS consists of over 90 scientific, technical, post graduate and administrative staff under the directorship of Dr Ciaran Kelly. The Service group operates a significant part of their services from the Marine Institute headquarters in Oranmore, Co Galway with additional port-based facilities and a major [research facility at Newport](#), Co Mayo. The mission of FEAS is “to research, assess and advise on the sustainable use of marine fisheries resources”.

FEAS provide integrated advice and scientific support for the Irish government (principally the Department of Agriculture, Food and the Marine [DAFM](#)) on marine fisheries ecosystems related issues and particularly on the effects of fisheries in Natura 2000 sites. A key output of FEAS is the annual [Stock Book and the annual Shellfish Stocks and Fisheries Review](#). These provide the latest assessments and scientific advice for the resources exploited by Irish vessels and is a key reference for the Governments sustainability assessment presented annually to the Oireachtas. FEAS experts also provide scientific services and support to other government departments including Department of Housing, Local Government and Heritage ([DHLGH](#)) to address the Marine Strategy Framework Directive ([MFSD](#)) requirements through [OSPAR](#) FEAS provide scientific services to Department of Environment, Climate and Communications ([DECC](#)) related to offshore renewable energy development.

FEAS participates in a number of forums on fisheries advice and management with DAFM and the marine agencies, with the regional and national inshore fisheries representative groups and with the Irish Fisheries Science Research Partnership (IFSRP).

FEAS experts actively participate at many meetings of the International Council for the Exploration of the Seas ([ICES](#)). At ICES our scientists are focused on advancing scientific understanding of marine ecosystems, providing information, knowledge and advice on the sustainable management of human activities affecting and affected by marine ecosystems. ICES is a key forum for scientific co-ordination of data collection and the provision of independent scientific advice. FEAS scientists are also encouraged to publish much of their work in peer-reviewed scientific journals.

FEAS experts also participate at other international fora including [STECF](#) (Scientific, Technical and Economic Committee for Fisheries), [ICCAT](#) (International Commission for the Conservation of Atlantic Tunas), [NEAFC](#) (North East Atlantic Fisheries Commission) and [NASCO](#) (North Atlantic Salmon Commission). FEAS provide scientific support for DAFM at various EU meetings (e.g. the EU Norway Agreements and the EU Council of Fisheries Ministers).

FEAS experts also carry out research and stock assessments on diadromous fish species (salmonids and eels) and are responsible for the salmon National Coded Wire Tagging and Tag Recovery programme and working closely with [IFI](#) (Inland Fisheries Ireland) on the Technical Expert Group on Salmon and the Technical Expert Group on Eel. In recent years FEAS has developed a core expertise in oceanic tracking of large marine fish. The FEAS Aquaculture Section is responsible for the operation of the National Sea Lice Monitoring Programme and carries out a range of national and internationally funded research projects based at MI facilities.

Further details can be found on the Marine Institute website:

<http://www.marine.ie/Home/site-area/about-us/fisheries-ecosystems-advisory-services>

<https://www.marine.ie/site-area/areas-activity/fisheries-ecosystems/fisheries-ecosystems>

Who Will You Report to / Who will Manage and Support You?:

The successful candidate will be based at MI Oranmore and will report to the project manager for the MEESO2 project.

What we offer

We value our staff, and we value their contribution to the work of the Marine Institute. In return for this, we provide benefits that promote a healthy work-life balance and which we hope will help them to develop professionally. These include personal and career development, work/life balance policies, an employee assistance programme, “Bike to Work” Scheme, staff medicals and annual flu vaccination.

Contacts:

Within the Marine Institute: MEESO2 project manager

External: BIM, ATU, UoG, Fishing Industry

Salary:

Remuneration is in accordance with the Public Sector, Department of Finance approved Salary Scale for a Post-Doctoral Researcher (as per HEI University appointments), a scale that starts at €44,847-€51,313 per annum pro-rated with time worked. You will commence on the first point of the scale at €44,847 and become a member of the Single Public Service Pension Scheme unless you are currently or have worked in the Public Sector in the past 6 months and are a member of another Public Sector Scheme.

Annual Leave:

Annual leave entitlement for a Post-Doctoral Researcher is 24 working days per annum pro-rated to reflect time worked. Annual leave entitlements are exclusive of Public Holidays. All leave must be approved in advance in line with Marine Institute leave policies, by your manager or their authorised representative.

Duration of Contract:

This temporary specific purpose contract of employment will run to 31st December 2025 from start date. The successful candidate will be on probation for the first six months of this contract.

Who is the Marine Institute?

The Marine Institute is a non-commercial semi-state body, which was formally established by statute (Marine Institute Act, 1991) in October 1992.

Under the Act, the Marine Institute was given the responsibility:

“to undertake, to co-ordinate, to promote and to assist in marine research and development and to provide such services related to marine research and development, that in the opinion of the Institute will promote economic development and create employment and protect the marine environment”.

The Marine Institute is the national agency responsible for marine research, technology, development and innovation (RTDI). The Marine Institute seeks to assess and realise the economic potential of Ireland’s 220-million-acre marine resource; promote the sustainable development of marine industry through strategic funding programmes and scientific services; and safeguard the marine environment through research and environmental monitoring. The Institute works in conjunction with the Department of Agriculture, Food and Marine (DAFM) and a network of other Government Departments, semi-state agencies, national and international marine partners.

Our vision - The Marine Institute, as a global leader in ocean knowledge, empowering Ireland and its people to safeguard and harness ocean wealth.

Our Mission - The Marine Institute, provides government, public agencies and the maritime industry with a range of scientific, advisory and economic development services that inform policy-making, regulation and the sustainable management and growth of Ireland’s marine resources. The Institute undertakes, coordinates and promotes marine research and development, which is essential to achieving a sustainable ocean economy, protecting ecosystems and inspiring a shared understanding of the ocean.

In order to achieve this vision, the MI have six service areas; (1) Ocean, Climate and Information Services, (2) Marine Environment & Food Safety Services, (3) Fisheries Ecosystems Advisory Services, (4) Irish Maritime Development Office, (5) *Policy, Innovation and Research Services* and (6) Corporate Services.

The Marine Institute 5 Year Strategic Plan (2023 to 2027) is available [Here](#)

How to Apply:

A C.V. and letter of application, summarising experience and skill set applicable to the position should be emailed to recruitment@marine.ie or posted to Human Resources at the Marine Institute, Rinville, Oranmore, Galway. All correspondence for this post should quote reference **FEAS/PDR/MEESO2/OCT24**

Closing date for Applications:

All applications for this post should be received by the Marine Institute in advance of **13th of November 2024**. Unfortunately, late applications cannot be accepted.

Use of Data - all personal data and the information submitted for this application will be used solely for the purpose of this campaign, after which it will be deleted in line with our General Data Protection Regulation Policy and data retention schedule. All information will be treated with the strictest confidence and accessed only by those involved directly in the campaign.

The Marine Institute is an organisation that champions Diversity, Inclusion & Equality for all. We encourage and welcome applications from anyone interested in this role.

Please do advise if there are any special accommodations required for the recruitment process.

We are here to help you access opportunities with us.