

## Marine Institute Job Description

<b>Position</b>	<b>Laboratory Analyst – Freshwater Pearl Mussel Captive Breeding programme</b>
<b>Grade &amp; Contract</b>	<b>Laboratory Analyst Grade Temporary Specified Purpose Contract of Employment up to 30<sup>th</sup> September 2027– DHLGH Funded (35 Months)</b>
<b>Service Group</b>	<b>Fisheries &amp; Ecosystems Advisory Services service group</b>
<b>Location</b>	<b>Marine Institute, Newport, Co. Mayo, Ireland The Marine Institute has a Blended Working Policy in Place</b>

### Who will you work with and what will the role involve?

The successful candidate will work with the team of people in the Marine Institute in Furnace, Newport, who are running a captive breeding programme for Freshwater Pearl Mussels (*Margaritifera margaritifera*) in collaboration with the National Parks and Wildlife Service. The Freshwater Pearl Mussel is protected under the Wildlife Act and listed on Annex II and V of the EU Habitats Directive. It is on the verge of extinction, in unfavourable bad conservation status and categorised as critically endangered in Ireland, and one of the 365 most endangered species in the world. The National Conservation Strategy for the Freshwater Pearl Mussel recognises the importance of captive breeding projects for ensuring the short- to medium-term survival of populations in severe decline. Evidence of rapid population declines since 2010, particularly in the east and south of Ireland, but also from the large populations in the west of Ireland, has increased the importance of captive breeding as a conservation measure for the species. In 2019, The Marine Institute and NPWS began breeding mussels at the Marine Institute’s hatchery in Furnace, Newport, and the successful candidate will be working on the current phase of the programme which runs until the end of September 2027. The scope of this current phase (2024-2027) includes:

- Determining how best to keep adult FPMs alive, healthy and reproducing in the Furnace hatchery.
- Determining how repeated annual glochidiosis on salmonids can be induced successfully.
- Determining how to maintain juvenile FPMs in the hatchery environment.
- Comparing the success of glochidiosis on salmon and trout.
- Upgrading existing infrastructure to be capable of holding adult mussels from multiple rivers and so produce annual cohorts from up to 5 populations in 2025 and up to 10 populations from 2026 onwards.
- Upgrading existing infrastructure to rear juvenile mussels, comprising aquaria and/or flow through flumes.
- Producing a Standard Operating Procedure (SOP) for the production and maintenance of FPM in the Furnace hatchery, whilst maintaining acceptable fish health and minimising the risks in relation to fish and pearl mussel disease and non-native species transfers, as approved by the MI Animal Welfare Board.

## What will you be doing every day?

### Principal Tasks:

The successful candidate will be responsible for the day-to-day operation of the breeding programme, primarily focussing on fish health, mussel health, water checks and data collation. Specifically, the lab analyst's role will include:

- Responsibility for implementing the actions outlined above in conjunction with the wider MI and NPWS team.
- Ensure compliance with HPRA authorisation/legislation
- Collection and documentation of fish health records.
- Collection and documentation of FPM health records.
- Collection and documentation of all water quality records from the FPM programme area of Furnace hatchery.
- Assisting the Marine Institute staff with the production of host fish.
- Drafting of interim and final reports, including end of year statistical returns for HPRA.
- Supporting NPWS in the collection of FPM adults and the repatriation of mussels to their native rivers.
- Engaging with the wider captive breeding team and relevant stakeholders.
- Engaging with NPWS staff on wider FPM captive breeding and associated conservation actions as required.
- Outreach as required.
- Participate in internal MI meetings
- Participate in steering committee meetings of the FPM captive breeding programme
- Any other duties as may be required from time to time.

## 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:

- Minimum of a certificate in a relevant subject (biology, aquaculture, ecology, zoology)
- Relevant technical experience in an aquaculture facility, field station or fish biology laboratory
- Scientific and Technical Report Writing
- Industrious, decisive, have a proven ability to use his/her own initiative while at the same time working well as a team player
- Effective communication skills
- Relevant I.T. skills
- A full driving licence

### Ideally nice to have / desirable:

- A degree, or post-graduate qualification in biology, ecology, aquaculture, conservation ecology
- Knowledge of captive breeding programmes of fish and/or molluscs
- Experience in plumbing / construction / electrical / hatchery development
- Skilled in analytical troubleshooting and experience of method development
- Skilled in microscopy and handling of very small animals
- Experience in field sampling for environmental monitoring programmes/projects
- Experience in evaluating environmental/water quality data

- Proven experience in preparing technical reports and publications.
- Experience with data analysis software and/or laboratory software packages

## What else do you need to know?

### (Special personal attributes required for the role)

- A proven ability to use his/her own initiative while at the same time working well as a team player.
- Excellent oral and written communication skills and interpersonal skills.
- The ability to work to deadlines and manage time effectively.
- Experience in collaborating with scientists and members of a technical team.
- Excellent time management and organisation skills, with the ability to work well under pressure in the delivery of multiple deadlines.
- Attention to detail and an analytical approach to problem solving.

## Description of service group and the wider team

This position is based at the Marine Institute's facility in the Burrishoole catchment, outside Newport, Co. Mayo. Most of the staff based in Co. Mayo are part of the Fisheries Ecosystem Advisory Services (FEAS) section of the Marine Institute. The FEAS mission is "to assess, research and advise on the sustainable exploitation of marine fisheries resources". The Service group operates a significant part of their services from the headquarters in Oranmore, Co. Galway with additional port based facilities and the facility at Newport, Co Mayo. A key element of FEAS work is the provision of scientific support for the Irish government (principally the Department of Agriculture, Food and the Marine – DAFM) on Aquaculture and marine fisheries ecosystems related issues, and an important output of FEAS is the annual Stock Book and the annual Shellfisheries Stock Book. These provide the latest assessment and scientific advice for the resources exploited by Irish vessels and is a key reference for the Government's annual sustainability assessment. FEAS also publish much of its work in peer reviewed scientific journals. FEAS staff actively participate at many meetings of the International Council for the Exploration of the Seas (ICES). ICES organises many Expert Groups, Study Groups and co-ordination Groups related to provision of scientific advice on marine ecosystems. ICES is 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 also participate at other international fora including STECF (Scientific, Technical and Economic Committee for Fisheries), 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). In addition, FEAS is responsible for the salmon National Coded Wire Tagging and Tag Recovery programme and works closely with IFI (Inland Fisheries Ireland) on the Technical Expert Group on Salmon and the Technical Expert Group on Eel.

The Marine Institute's research station in the Burrishoole catchment, Co. Mayo is one of the few index sites for diadromous fish in the North Atlantic region. Burrishoole is a small (100 km<sup>2</sup>) upland catchment in the west of Ireland (53° 56' N, 9° 35' W) draining into the North-east Atlantic through Clew Bay. The primary work of the research station is the quantification of stocks of the native diadromous fish (Atlantic salmon *Salmo salar*, anadromous brown trout *Salmo trutta* and European Eel *Anguilla anguilla*). Permanent fish traps on the channels connecting the freshwater part of the catchment with Clew Bay via Lough Furnace have been in operation since the mid-20<sup>th</sup> century, providing a full census of these populations. In combination with the census data, the Institute maintains many long term ecological datasets which can be used to track climate and land use change.

The research station also operates a fully licenced salmonid aquaculture hatchery, and produces captive bred salmon as required. This hatchery is where the captive breeding of FPM takes place.

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

The successful candidate will report to the FEAS Senior laboratory analyst in Newport.

### 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.

#### Training

A full range of training will be provided as required, on the job and through appropriate courses. Training needs will be identified through the MI Performance Management Development System (PMDS).

### Contacts:

**Within the Marine Institute:** The candidate will have close interactions with the MI based Project Team in FEAS Newport. The candidate will be based within the MI’s FEAS group in Newport and will interact with other staff working in Burrishoole and the wider MI.

#### External:

The captive breeding programme is a collaboration between the MI and NPWS and is overseen by a steering committee comprising the key Marine Institute and National Parks and Wildlife Service staff, and external Freshwater Pearl Mussel specialists. The successful candidate will have frequent communication with our contacts in NPWS. In addition, the team meet frequently with other people running captive breeding programs across Europe

### Salary:

Remuneration is in accordance with the Public Sector, Dept of Finance approved Salary Scale for a Laboratory Analyst which runs from €39,773-€65,751 on a full-time basis per annum pro-rated with time worked. You will commence on the first point of the scale €39,773 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 the Laboratory Analyst Grade is 23 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 and using time and leave management system in place, by your manager or their authorised representative.

## Duration of Contract:

The contract will be issued on a temporary specified purpose basis for a duration up to 30<sup>th</sup> September 2027, subject to continued funding. Successful candidates will be on probation for the first 6 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 Ireland’s scientific agency responsible for supporting the sustainable development of the state’s maritime area and resources. We do this through conducting applied research and providing scientific knowledge, advice and services to government, industry and other stakeholders and users. This policy advice capacity, our broad mandate, and the research programmes we fund and undertake, give us a unique insight into the science-policy interface and make us an exemplar in the provision of integrated ocean knowledge.

The Marine Institute provides a broad range of essential scientific support to its parent department, the Department of Agriculture, Food and the Marine (DAFM). There is an increasing demand from Government for the data and evidence that are essential to inform national policy and to underpin the state’s governance of our maritime area. Through laboratory, field and seagoing work, the Institute carries out statutory environmental, fisheries and aquaculture surveys, seafood testing and other monitoring programmes assigned by government. The Institute plays an important role in supporting the state’s response to the impacts of our changing seas and oceans, through working with the national and international scientific community to observe, study and understand our changing oceans. This essential scientific advice supports industry, protects consumers and underpins legislative and other obligations aimed at the protection and management of the marine environment.

**Our vision** - *The Marine Institute is a national and international leader in ocean knowledge that benefits people, policy and planet.*

**Our Mission** - *The Marine Institute provides scientific, research and development services to government, agencies, industry and society that support the sustainable use of our maritime area, the protection and restoration of marine ecosystems, and promote a shared understanding of the ocean.*

There are 6 broad service areas within the Marine Institute; (1) Ocean, Climate and Information Services, (2) Marine Environment & Fish Health Services, (3) Fisheries Ecosystems Advisory Services, (4) Irish Maritime Development Office, (5) Policy, Information 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](mailto:recruitment@marine.ie) or posted to Human Resources at the Marine Institute, Rinville, Oranmore, Galway, H91 R673. All correspondence for this post should quote reference **8<sup>th</sup> of January 2025**

### **Closing date for Applications:**

All applications for this post should be received by the Marine Institute in advance of **FEAS/LA/Pearl/DEC24**. 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 (GDPR) 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.**