



# UNIVERSITY OF MONTENEGRO INSTITUTE OF MARINE BIOLOGY

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## Call for Applications

### Posts of Research Assistant (PhD Student)

Host Institution: Institute of Marine Biology, University of Montenegro

MEDiverSEAty – “In quest of the human dimensions of MEDiterranean Marine Biodiversity”

Funded by HORIZON-TMA-MSCA-DN

1. Applications are invited for two full-time Research Assistant to work as an Early-Stage Researcher (PhD candidate) on the grant “In quest of the human dimensions of MEDiterranean Marine Biodiversity” (MEDiverSEAty). This project has received funding from the European Union’s Horizon Europe programme under the Marie Skłodowska-Curie grant agreement No. **101119700**. For further information on the Marie Curie schemes and eligibility, please visit [http://ec.europa.eu/research/mariecurieactions/actions/research-networks\\_en](http://ec.europa.eu/research/mariecurieactions/actions/research-networks_en). Further information on the MEDiverSEAty project is available at <http://mediverseaty.eu>.
2. Applicants must be in possession of Master’s degree or equivalent (minimum 300 ECTS credits) in an area of study related to the proposed area of research and ideally in one of the following areas: biology, ecology, marine biology, fishery sciences, aquaculture, and any other area deemed appropriate by the selection board. Applicants are required to be in possession of appropriate qualifications to demonstrate excellent skills in English (minimum level B2), and excellent scientific writing skills.
3. Applicants must comply with the following Marie Curie Grant rules.

**H2020 MSCA Mobility Rule:** *Candidates must not have resided or carried out their main activity (work, studies, etc.) in the country of the host organisation for more than 12 months in the 3 years immediately prior to the recruitment date. Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention will not be taken into account.*

**H2020 MSCA ESR eligibility criteria:** *Candidates must be, at the date of recruitment by the host organisation, in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree. Full-Time Equivalent Research Experience is measured from the date when the researcher obtained the degree entitling him/her to embark on a doctorate (either in the country in which the degree was obtained or in the country in which the researcher is recruited, even if a doctorate was never started or envisaged).*

4. The two ESR projects are distinct, but complementary, and synergise to achieve MEDiverSEAty specific research objectives.

#### **4.1. Using artificial reef to preserve biodiversity: potential implications on Marine Literacy and Education**

*The general methodology of the project is:*

Collection of available data on distribution of priority habitats along Montenegrin coast, and creation of GIS database. Field-work and contribution to habitat mapping by diving and the use of ROV will be performed in coastal areas, where habitat distribution maps are missing or should be evaluated. Creation of national list of habitats and their correlation with EUNIS and other regional habitat classifications. Parallel to that, estimation of reefs’ ecological status and needs for restoration will be evaluated. Legal and institutional framework for installation of artificial reefs in Montenegro will be assessed, and possibilities for installation of electric reefs will be proposed.

In case of installed electric reefs they will be monitored regularly by diving and restoration process will be evaluated.

*Objectives of the research are:*

1. Assessment of legal and institutional framework for conservation of marine environment and installation of artificial reefs in Montenegro;
2. To collect available data on habitats distribution and create a GIS database;
3. To contribute to habitat mapping in coastal areas with missing or incomplete data;
4. To develop national habitat classification scheme in correlation with EUNIS and other regional habitat classifications;
5. To evaluate ecological status of priority habitats (specifically reefs), and define locations where restoration by artificial reefs could be implemented;
6. To install electric artificial reefs and evaluate restoration process;
7. To create a guideline for restoration based on artificial reefs and other possibilities.

#### **4.2 Socio-economic impacts of sea-surface microplastic concentrations along the coastal shelf of Montenegro**

*The general methodology of the project is:*

Sampling of surface microplastics (MPs) in the area of the Boka Kotorska Bay and the open sea of the Montenegrin coast. All samples will be collected with a stainless-steel Manta net with nylon mesh, typically used to collect surface plastics. Methodology for sea surface sampling is according to Viršek et al. (2016). MPs particles will be analysed for their size using an image analysis program, and for their chemical structure using ATR-FTIR and micro FTIR spectroscopy.

Open sea sampling locations will be defined in accordance with the proximity of rivers, ports and/or marinas. Sampling within the area of the Boka Kotorska Bay will be defined near the existing municipal wastewater outlets and shellfish farms.

*Frequency of sampling:* Seasonal replicates.

*Objectives of the research are:*

1. To investigate the amount and distribution of microplastics along the coastal shelf of Montenegro;
2. To analyse surface currents using drifters and prediction of microplastic transport in the area of the Boka Kotorska Bay;
3. Develop and evolve the standardised laboratory analysis (microscopic and chemical spectroscopic) of environmental monitoring samples to meet global harmonised standards and enable the direct comparison of microplastics monitoring data with other national and international studies;
4. Contributing to the development of mathematical models to understand sources and fates of microplastics in marine ecosystems;
5. To analyse environmental/ecosystem impacts of marine litter;
6. To analyse potential economic impact and risk assessment on the aquaculture sector;
7. To analyse potential economic impact and risk assessment on the tourism, aesthetic value, and recreation.

5. Throughout the programme, the appointed candidates will be hosted by the Institute of Marine Biology at the University of Montenegro. The selected candidate might opt to be seconded to one of the research locations agreed by the MEDiverSEAty project consortium, for which length of stay and location shall be agreed and endorsed by the supervisory team of the Early-Stage Researchers (PhD candidate). The candidates will also be expected to attend a number of multidisciplinary research-related scientific courses as well as summer schools, winter schools and skills workshops. These will be organised by the MEDiverSEAty project partners.

6. The successful candidates will be expected to work forty hours per week for a definite period of three years. The post carries an initial gross salary of €2,094 per month (€25,128 per year). The candidates are also eligible for mobility allowance of €600 per month and, where applicable at the time of application, a family allowance of €660 per month.
- **The mobility allowance** covers the costs related to the mobility of recruited researchers, such as travel and accommodation. This allowance covers only personal costs incurred by researchers (as opposed to costs linked to professional activities which are covered under the contribution for research, training and networking).
  - **The family allowance** aims to compensate additional costs due to family obligations.
7. The candidates must work exclusively for the project during the employment contract. The candidates must fulfil the conditions to be admitted in the PhD programme indicated in the Job Vacancy.
8. Candidates should submit the following to [MEDiverSEAtyproject@ucg.ac.me](mailto:MEDiverSEAtyproject@ucg.ac.me):
- A Curriculum Vitae, including their skills and educational and career trajectory and their place of residence and place of main activities (work, studies, etc.) in 3 preceding years (maximum 3 pages, font size 11);
  - University Qualification transcripts (grades) and ECTS credits (minimum 300 ECTS credits);
  - A personal statement, explaining their motivation (up to 1 page, font size 11);
  - A statement letter addressing their research interests in relation to the specific research project “In quest of the human dimensions of MEDiterranean Marine Biodiversity” offered by the Institute of Marine Biology of the University of Montenegro;
  - The name and contact details of two referees, who can provide comment on your skills, experience, and suitability for postgraduate research;
  - A one-page outline of the proposed research questions, approach and research design of your PhD project building on the project description offered by the IBMK-UoM “In quest of the human dimensions of MEDiterranean Marine Biodiversity”.

Additionally, a diving licence (minimum **R1**) is required for application to the **Using artificial reefs to restore biodiversity** ESR project.

A driving licence (B category of vehicles) and/or boat skipper licence (covering boats of 6.50 m LOA) would be a benefit, but is not a requirement.

Applications should be received by not later than **31st May 2024**. Below is the tentative recruitment process timeline:

- Interviews: 13-17 June 2024 (online)
- Final results: in the first week of July.
- Contract starting day: 30th September 2024 (total duration 36 months)
- PhD Enrolment: end of November 2024.

**Late applications will not be considered.**

8. Further information may be found on <https://www.ucg.ac.me/cims>, and any questions or queries should be sent via e-mail to [MEDiverSEAtyproject@ucg.ac.me](mailto:MEDiverSEAtyproject@ucg.ac.me).

