

CALL FOR N. 1 RESEARCH GRANT AT THE MUSE - Museo delle Scienze

English Version in brief – the complete version is available in Italian

Description

The MUSE - Museo delle Scienze awards N. 1 research grant within the Climate and Ecology Unit.

Scientific Disciplinary Area: Ecology (Freshwater ecology, Invertebrate zoology)

Responsible of the research (Tutor): Dr. Valeria Lencioni (MUSE).

Research title: "**The impact of climate and environmental changes on high altitude aquatic ecosystems**".

Background: In the alpine region, the most evident manifestation of global warming is the retreat of glaciers with the consequent progressive loss of ecosystem services associated with glaciers, which are productive, regulatory and cultural. Glaciers that are now less than one square kilometer in size are likely to become extinct within a few decades, and the biodiversity of glacial streams and other alpine habitats is at risk of extinction. They are considered extreme environments for life, both plant and animal, due to natural low temperatures, lack of food, high current velocity, riverbed instability, and snow cover in winter, and are populated by few species extremely specialized to live in the cold. For some of these species local extinction has been already observed in the Alps. Not only the quantity of meltwater is decreasing, but also its quality, due to the release of pollutants from glaciers that trap pesticides, fragrances, and many other organic and inorganic substances carried by wind.

Activities:

- study of the effects of climate change on high altitude aquatic ecosystems, with (i) field collection of environmental data and samples to be analyzed in the laboratory for the measurement of primary production, organic matter and turbidity; (ii) field collection and microscopic study of biological samples in glacial streams, rock glaciers outfalls and high mountain springs;
- study of macroinvertebrate communities of intermittent streams in the Southern Apennines (including colonization strategies);
- statistical analysis of ecological data to study community structure, ecosystem functions, trophic network and ecological niche;
- make distribution maps of sites and ecological data using GIS software;
- writing scientific publications in international journals;
- participate in conferences, workshops, and events for the public.

The selected researcher will have the opportunity to collaborate on several projects related to the impact of climate and environmental changes on high-altitude aquatic ecosystems, investigating complementary issues, also to the benefit of his/her scientific training.

Gross amount: **23,400.00 Euros per year, excluding taxes (research expenses paid by the project).**

Duration of the contract: **12 months from June 2022.** The grant may be renewed on the subject identified, verified the availability of funds.

Location of the activity: MUSE (Trento, Italy). The activity of the researcher will be carried out in the field and at the laboratories of the entomology and hydrobiology team of MUSE. It should be noted that, in case of restrictions on movement and/or travel resulting from the entry into force of provisions on the containment and management of the epidemiological emergency from COVID-19, the activity will be adequately modulated in accordance with the rules in force.

Requirements for participation:

Essential requirements:

- Master's degree in naturalistic disciplines (biology, natural sciences, environmental sciences or similar) achieved in Italy or abroad;
- Car driving license.

Preferential requirements:

- topic of dissertation and curricular internships;
- PhD;
- scientific and popular publications;
- professional experience.

Application and terms of presentation

To participate, the candidate must send the application no later than **CET 12.00 on April 29, 2022** under penalty of exclusion from the selection to the following email address: selezioni@muse.it.

In the application the candidate must declare clearly and precisely under his/her own responsibility:

- their personal details, date and place of birth, citizenship, residence and address for the purposes of selection;
- to be in possession of essential requirements;
- to have any existing contracts with the Trento Science Museum;
- for non-EU citizens, or from countries with which the same Union has stipulated free circulation agreements, to be in possession of a regular residence permit for self-employment covering the entire duration of the contract or to have presented a request for conversion of their residence permit; this requirement is not required for mere participation in the selection process;
- to undertake to promptly notify any change of residence or address indicated in the application form.

Candidates must attach to the application:

- scientific-professional curriculum (European format, with the academic qualifications, professional experience, etc.);
- publications, certificates and any other title useful to prove qualification and skills;
- copy of the identity document or other identification document.

The application form (Annex) is available in Italian language and must be completed in full.

The administration assumes no responsibility in case of loss of communication due to inaccurate information from the candidate or failure, or late communication of change of the same.

The assessment of the possession of requirements and evaluation of qualifications is based exclusively on the information declared in the application form (Annex).

To have support in application preparation please contact Dr. Veronica Vecchietti (+39 0461 270348; veronica.vecchietti@muse.it).

The selection is by CV and online interview.

The evaluation criteria are decided by the Commission itself.

The selection tests will tend to evaluate the preparation, experience and attitude to research of the candidates.

They will consist of

- in the evaluation of the scientific - professional curriculum and of the titles presented;
- an oral interview aimed at discussing the qualifications and experience, with an examination of the topics of scientific importance for the research program.

The total score is equal to 100 points, divided as follows:

- 60 points for the evaluation of the titles;
- 40 points for the interview.

The evaluation of the CV is divided as follows:

- PhD, postgraduate specialization courses, professional qualification and updating courses and qualifications for the exercise of the profession: up to 20 points

- Publications: up to 20 points

The candidate may submit a maximum of 20 publications relevant to the assignment. The evaluation is related to the originality of the production, the relevance of the journal, the role of the candidate in the publication and the degree of relevance to the assignment to be conferred, preferably concerning the river ecology, the autecology of macroinvertebrates, the ecosystem functions and trophic networks.

- Professional curriculum: up to 20 points

Professional experiences in the following fields will be evaluated: taxonomy and autecology of macroinvertebrates, structure of benthic communities, analysis of functional traits, methods of statistical data analysis (including models of ecological niche and trophic networks) and use of GIS software, ecology of inland waters with particular reference to alpine streams.

The candidate must provide in the curriculum all the elements for the above-mentioned titles; otherwise, the title will not be evaluated.

Candidates who have obtained a score of at least 36 points in the first evaluation (qualifications) will be admitted to the interview.

During the interview will be evaluated

- the skills related to sampling techniques of macroinvertebrates in a river environment;
- the experience in organizing field activities;
- the knowledge of taxonomy and autecology of macroinvertebrates as well as of the ecology of alpine aquatic ecosystems;
- the realization and management of databases and statistical data analysis;
- the ability of scientific communication;
- the level of knowledge of the English language.

The final score is given by the sum of the two evaluations (titles + interview).

The list of admitted persons to the oral interview and the calendar with the indication of the date, time, place and/or on-line modality in which the interviews will be held, as well as the criteria for the evaluation of the interview itself, will be made known at least 15 days before their performance with a notice published on the Internet portal:

<https://www.muse.it/it/partecipa/collabora-con-noi/selezioni/Pagine/selezioni.aspx>

Failure of the candidate to attend the interview will be considered as renunciation of the selection. The judgement of the Commission is unquestionable.

The competition procedure ends with the formulation of a ranking list that will be published on the website:

<https://www.muse.it/it/partecipa/collabora-con-noi/selezioni/Pagine/selezioni.aspx>

According to Article 13 of the EU General Data Protection Regulation 2016/679 ("GDPR" or "Regulation"), personal data provided by candidates will be used exclusively within the scope and for the purpose of this selection and will be subject to processing carried out - with or without the aid of computer systems - in compliance with applicable regulations and confidentiality obligations.

The Data Controller of personal data is MUSE - Museo delle Scienze, in Corso del Lavoro e della Scienza 3, 38122 Trento (TN), Italy.

Risorse umane

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