Annex A

Ph.D. PROGRAMME IN ECOLOGY AND SUSTAINABLE MANAGEMENT OF ENVIRONMENTAL RESOURCES			
Coordinator	Prof. Massimiliano Fenice		
Department	Department of Ecological and Biological Sciences		
Program duration	3 years: 1st November 2024 – 31th October 2027 PhD Thesis due date: 30th September 2027		
Program objectives	The PhD Program in "Ecology and Sustainable Management of Environmental Resources" is active at the Department of Ecological and Biological Sciences (DEB). It is an innovative program with high interdisciplinarity, in which themes of ecological, biological, agro-forestry and chemical sciences converge. The unifying theme is the application of general principles of Life Sciences for the purpose of sustainable management of environmental and natural resources: from biodiversity, to agricultural and forestry resources, to biomolecules. The aim of the course is training in the field of basic and applied ecological research with particular regard to the sustainable use of natural resources, environmental management, eco-sustainable optimization of production processes (including the development of new green active compounds) and the mitigation of human impacts on biodiversity at all organization levels. PhD students will acquire the skills needed to address complex and multidisciplinary problems associated with both the research activity and the management and conservation of natural resources. From a training point of view, specific objectives are: i) to provide the skills needed to operate in highly multidisciplinary scientific research areas with a high degree of autonomy, originality and the use of rigorous methodological approaches; (ii) to drive the development of communication skills in presenting research results and in drafting competitive scientific projects. According to these goals, compulsory educational activities aimed at enhancing language proficiency, data analysis capabilities, and the ability to disseminate scientific results will be offered. The multidisciplinary nature of the research developed by the members of the Scientific Board ('Collegio dei Docenti') matches with the width of the course, including many different disciplines ranging from green chemistry to forestry, from molecular genetics to evolutionary ecology also in relation to global change.		
No. of positions	Total positions	9	
	Positions with scholarships funded by the University of	5	

	Tuscia and Department of Ecological and Biological Sciences		
	Positions with PNRR scholarships	2	D.M. 630/2024 - M4C2 Inv. 3.3
	Position with scholarship funded by the Istituto Superiore di Sanità (Italian National Institute of Health)	1	
	1 PhD position within the programme Horizon Europe, MSCA Doctoral Networks, Marie Skłodowska-Curie Actions	1	Project 101120280 — PHABB
Scholarships funded by University of Tuscia and Department of Ecological and Biological Sciences	**No. 5 (five) scholarships funded by the University of Tuscia and Department of Ecological and Biological Sciences on the following topics** 1. "Studies of prebiotic chemistry and biotechnology in space and terrestrial environments" Project leader: Prof. Raffaele Saladino 2. "Analysis of burned Mediterranean soils influenced by global warming" Project leader: Prof. Laura Selbmann 3. "Development of multicomponent prebiotic chemistry models for the study of the origin of life and biological applications" Project leader: Prof. Raffaele Saladino 4. Management effectiveness of protected areas" Project leader: Prof. Gianluca Piovesan 5. "Ecology, evolution and conservation of marine organisms" Project leader: Prof. Daniele Canestrelli		
Positions with PNRR DM 630/2024 scholarship	**M4C2 Inv. 3.3 Innovative doctorate scholarship co-funded by companies** **No. 2 (two) scholarships on the topics:** a. "Evolution of scientific communication strategies and their impact on biodiversity conservation" Co-funding body: ITRO Team S.r.l. , Viterbo Project leaders: Prof. Daniele Canestrelli and Prof. Chiara Baldacchini b. "Identification of natural and anthropogenic barriers to the connectivity of populations within a protected area" Co-funding body: Centro Nazionale delle Ricerche – IRET, Porano TR Project leader: Prof. Daniele Canestrelli		
	Please note that the acceptance of a PNRR scholarship implies obligations additional to those of a regular scholarship: see art. 16 of this Call.		

Position with scholarship funded by the istituto Superiore di Sanità	The topic of the position is the following: '' A One Health approach to antibiotic resistance: role of toxic freshwater cyanobacteria in the evolution and spread of antibiotic resistance. A study of cultures and natural communities'' Project leader: Dr Maura Manganelli (ISS)
1 PhD position within the programme Horizon Europe, MSCA Doctoral Networks, Marie Skłodowska-Curie Actions	The topic of the position is the following: "Identification, through meta-barcode sequencing, and in vitro culturing Harmful Algal Blooms (HAB) species (i.e., *Planktothrix* spp.) and their associated microbiota from Italian inland lakes. Identification of possible non-toxigenic HAB-related strains by specific targeting" Project leader: Prof. Massimiliano Fenice
Admission requirements	Application to the public competition is open to all who, by the date this call expires, possess one of the qualifications listed hereunder, regardless of age and citizenship: - an Italian "laurea specialistica" obtained according to the Ministerial Decree n. 509/1999; - an Italian "laurea magistrale" obtained according to the Ministerial Decree n. 270/2004; - an Italian equivalent university degree obtained under Italian regulations previously in force and whose length is no less than 4 years; - a foreign degree equivalent to those mentioned above. Applications can be submitted also by graduate students who are going to graduate no later than 31st October 2024.
Admission requirements for The Marie Curie scholarship	The admission requirements for the Marie Skłodowska-Curie scholarship are specified in **Annex B**.
Evaluation of candidates (maximum score: 80/80 points)	**Evaluation of academic qualification and oral interview including English language knowledge** The results will be published on the Tuscia University Website, under the label "Dottorati di Ricerca". Along with the application form, the candidates must present a research project concerning one of the topics of the Ph.D (listed above), with a maximum length of 3 pages, written in Italian or in English. The research project will be discussed during the oral exam. All the (non-mother language) applicants will be evaluated for their English language during the oral examination.
Evaluation criteria for academic qualification (maximum score: 20/80 points)	- Academic career (Certificate with the list of marks obtained during the academic career and final grade): max score: 6 points - Scientific publications related to the topics of Ph.D.: max score 6 points - Participation in research projects: max score: 4 points - Professional experiences and other qualifications considered useful: max score 4 points
Evaluation of the oral exam	Oral exam: maximum score 60/80 points Minimum score required to pass the oral interview 21/80 points Language for the examinations: Italian (Italian candidates, with a further English exam) or English (foreign candidates)

Examination topics	The interview, aimed at ascertaining the aptitude of candidates for scientific research, will focus on the presentation and discussion of the proposed research project, on the research topics of the PhD program and on knowledge of the English language.
Exam dates and location	The exams will be held by 12 September 2024. The timetable of the interview will be on the Tuscia University website, under the label "*Dottorati di Ricerca*" by the deadline of the application call.
Contacts	Contact persons: Prof. Massimiliano Fenice (Coordinator): e-mail: fenice@unitus.it Dr. Fabrizio Scialanca: e-mail: fabrizio.scialanca@unitus.it