

| EVOLUTIONARY BIOLOGY AND ECOLOGY                          |   |  |  |  |
|---|---|--|--|--|
| Cycle   | XXXVI   |  |  |  |
| Coordinator   | Prof. Pierluigi VIAROLI Department of Chemistry, Life Sciences and Environmental Sustainability email: pierluigi.viaroli@unipr.it |  |  |  |
| Duration  | 3 years   |  |  |  |
| Starting date of the PhD program                          | 01/11/2020  |  |  |  |
| Partner Institution                                       | <ul><li>University of Ferrara</li><li>University of Firenze</li></ul>   |  |  |  |
| Partner Institution for University Cooperation Agreements | University Klaipėda (Lithuania)   |  |  |  |

## **Research Topics**

- Plant Biology and Biotechnology
- Ecology and Ethology
- Genetics and Evolution

## **Training Objectives**

Evolutionary Biology and Ecology are an integrated area of research which in many prominent scientific institutions belong to the same Department. The doctoral program in Evolutionary Biology and Ecology focuses on the study of biological diversity and its evolution, of animal behavior, and of the relationships of all living organisms, including humans, among them and with the environment. By integrating information ranging from the molecular level to the levels of organism, population and community, Ph.D. students are encouraged to develop their research in both basic and applied fields of investigation. Innovative methods are given a central role, both in fieldwork and in the laboratory and numerical analyses, the latter based on state-of-the-art biostatistics and simulation methods. Therefore, the holder of a Ph.D. in Evolutionary Biology and Ecology will be a highly qualified expert in the analysis and interpretation of biological processes and in the management of natural resources, who will be able to independently plan and conduct empirical research, to thoroughly exploit public bioinformatic resources, to develop quantitative models and to in-depth analyze biological data.

## **Admission requirements**

Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:

- Laurea specialistica or Laurea magistrale (second cycle master's degree)
- Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);
- Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program

Undergraduate applicants may also submit applications with the obligation of getting their degree by **October 31**st **2020.** 



| POSITIONS PUT OUT TO COMPETITION   |  |   |      |  |  |  |
|--|--|---|------|--|--|--|
| With Scholarship   |  |   | 10   |  |  |  |
| Withou   | ut Scholarship   |   | 1    |  |  |  |
| Reserved to employees of companies having an "Industrial Doctorate" arrangement  |  |   | 2    |  |  |  |
|  |  | TOTAL   | 13   |  |  |  |
| Positions with University Scholarship  |  |   |      |  |  |  |
| N°   | Funding entity   | Research Topic, if any  |      |  |  |  |
| 2  | Scholarship funded by University of Parma  |   |      |  |  |  |
| 3  | Scholarship funded by University of Ferrara  | For information on the topics relate  |      |  |  |  |
| 3  | Scholarship funded by University of Firenze  | under competition, please refer to the PhD web<br>https://scvsa.unipr.it/en/node/4030 |      |  |  |  |
| 1  | Scholarship co-funded by Fondazione Cariparma  |   |      |  |  |  |
|  | Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)   |   |      |  |  |  |
| During the Oral Exam, applicants may express their interest in being assigned a scholarship dedicated to a specific research topic to the Examination Board. The Board will express its judgement on eligibility to be assigned the scholarship in consideration of the specific competences, experience and specific aptitudes of the applicants. |  |   |      |  |  |  |
| N°   | Funding entity BOUND RESEARCH  |   | OPIC |  |  |  |
| 1  | Funded by the University of Firenze - Department of Biology (with funding from MIPAF decree No 89267 on 19 Decembre 2019 –CUP code B541200004500001) | The symbiont plant microbiome as a tool to improve the forage legumes (MICRO4Legume)  |      |  |  |  |
| Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)  |  |   |      |  |  |  |
| N°   | Company/Institution  |   |      |  |  |  |

| N° | Company/Institution                                       |
|----|---|
| 2  | Reserved to employees and/or collaborators of GATE S.r.l. |

# **ADMISSION PROCEDURES**

**Assessment of QUALIFICATIONS:** up to 60 points

(a minimum score of 36 points shall be required to be admitted to the Oral Exam)

**ORAL EXAM:** up to 60 points

Minimum score for ELIGIBILITY: 70/120

Foreign Language

Language which shall be assessed during the Oral Exam: **ENGLISH**.

The evaluation of the knowledge of this language will be oral and will consist in translating of a scientific text.

# APPLICANTS SHALL TAKE THE EXAM REMOTELY.

For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.

THE INTERVIEW MAY BE HELD ALSO IN ENGLISH



#### LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT

### Mandatory documents to be attached to the on-line application

- ANNEX A (art. 5 of the Call for Applications)
- Scanned Copy of a valid identification document with photo
- Curriculum Vitae et studiorum (art. 4 of the Call for Applications)
- Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Call for Applications):
  - University that granted the degree
  - Type of degree (first cycle/second cycle/single cycle)
  - Name of the degree program
  - Date of graduation
  - o Final mark
  - List of exams and corresponding scores (academic transcript of records)
  - o Translation into Italian or English (only for degrees issued in languages other than Italian or English)
- Research Project: The research project shall consist of a maximum of 4 pages, be written in Italian or in English, be focussed on one of the research topic offered in the call (mandatory, for topis see <a href="https://scvsa.unipr.it/en/node/4030">https://scvsa.unipr.it/en/node/4030</a>). The project must be structured as follows: introduction of the problem in the international scientific context, significance of the problem, experimental design and methodologies to be used, expected results.
- Statement of Research interest: Short text maximum 2 pages in Italian or in English, aimed at explaining the
  candidate's reasons to attend the PhD and at describing the specific research interests.
- Reference Letters: A maximum of 3 written by professors or researchers at the University of origin of the
  candidate or from other experts in the research areas working in public or private univesities or research
  institutions. Reference letters by members of the Jury are not allowed.

# Further qualifications that may be attached to the application, if in possession of the applicant (only qualifications attested by a document drawn up in Italian or in English)

 Scientific Publications: Articles on national and international journals with peer reviewing, papers presented at conferences or symposia, book chapters, abstracts of papers or posters presented at congress, workshops, etc

| EVALUATION CRITERIA   |   |                 |  |  |
|---|---|-----------------|--|--|
| QUALIFICATION   | EVALUTATION CRITERIA  | POINTS          |  |  |
| Curriculum Vitae et studiorum   | Consistency of the Master's Degree or equivalent with the research topics of the PhD course. Further qualifications and academic experiences consistent with the objectives of the PhD program: language skills, any professional experience, study abroad, awards on the training path | Up to 20 points |  |  |
| Graduation mark (for graduates)   | Score related to the final mark   | Up to 10 points |  |  |
| Average of the exam marks (if<br>the candidate will attain the degree<br>no later than 31 October 2020) | Attribution of a score based on the credit weighted mean mark   | Up to 10 points |  |  |



| Graduation thesis  |       | Relevance of the thesis topics with the themes of the doctorate course   | Up to 5 points   |  |
|--|-------|--|------------------|--|
| Research Project   |       | Relevance with the PhD topics, with specific reference to:      Scientific value and originality of the proposal     experimental design and methodologie     proposal feasibility | Up to 10 points  |  |
| Statement of Research Interest   |       | est Consistency with the PhD topics  | Up to 5 points   |  |
| Scientific publications  |       | Publications with peer reviews ISI/SCOPUS indexed, non-indexed journals, conference proceedings and abstracts of conference presentations.   | Up to 5 points   |  |
| Reference Letters  |       | Relevance with the doctorate and prestige of the institution or the signer of the letter   | Up to 5 points   |  |
| ORAL EXAMINAT  | ION   | EVALUATION CRITERIA  | POINTS           |  |
| ORAL EXAM is based on the presentation of the research project and aims at assessing the attitude of the applicant to pursue scientific research as well as the general knowledge of the main topics of the PhD course |       | o knowledge of foreign languages (Italian or English)  itific o presentation and discussion of the project  eral o general knowledge of topics related to the PhD course           | Up to 60 points  |  |
|  |       | SCHEDULE OF THE ADMISSION EXAMS  |                  |  |
|  | DATE  | 16 September 2020  | 5 September 2020 |  |
| ORAL EXAM  | TIME  | 9:30 am (Italian time)   |                  |  |
|  | PLACE | remotely using the Microsoft Teams platform  |                  |  |
| I CHER INFORMATIONS  |       | foreign candidates, the admission examinations may be held in English at the didate's choice.  |                  |  |