Recruitment at the Mediterranean Institute of Advanced Studies (IMEDEA, CSIC-UIB)

As part of the Mediterranean Institute of Advanced Studies, the Global Change Research Group, more specifically the Terrestrial Ecology Lab (http://www.travesetlab.com/) which focuses its research on the effects of global change on island biodiversity, community structure, and ecosystem functioning, is seeking:

Three Postdocs in Terrestrial (Island) Ecology. The applicants will work on the effect of disturbances on island multilayer network structure. One postdoc will work in the Seychelles archipelago, the other in Galapagos, and the third one in the Balearic and Canary Islands. (Contract duration: 3 years, extendable).

These positions are part of the ERC Advanced Grant *IslandLife* "*Determinants of island ecological complexity in the context of global change*" led by Anna Traveset. The project will combine direct observations during intense fieldwork, automated video monitoring and deep-learning, cutting-edge molecular techniques, and newly developed coextinction models to predict persistence and resilience of island biota to disturbances. For more information on the project, click here.

We seek highly motivated and creative individuals with a strong command of the English language and with expertise in the study of biodiversity. Candidates will join an interdisciplinary research center, recently accredited as a Center of Excellence María de Maeztu by the Spanish Ministry of Science and Innovation, where terrestrial and marine ecologists, physical oceanographers, chemists, and evolutionary biologists work in collaborative projects.

To apply, follow the application instructions of each job offer.
Review of applications will start immediately until the positions are filled.

About the project: ERC AdG *IslandLife –Determinants of island ecological complexity in the context of global change*

PI: Anna Traveset. Mediterranean Institute of Advanced Studies (IMEDEA, CSIC-UIB)

Biodiversity is declining globally at an unprecedented rate. Representing ~30% of the biodiversity hotspots, islands are particularly vulnerable to anthropogenic activities, indeed 80% of reported extinctions are island species. Yet, unique island biodiversity – which includes not only the species but also the myriad of interactions among them – is still greatly unknown. It is thus urgent to describe it and forecast the consequences of its annihilation so we can mitigate the effect of further losses. Detecting ecological interactions and understanding their complexity is, however, one of the big challenges in the natural sciences. The advent of new theories and analytical tools, such as critical transition theory and

complex network analysis, provides hope to reach that goal. As relatively simple systems with well-defined borders, islands have a great potential to advance our comprehension of nature complexity.

The *IslandLife* project will provide the most comprehensive and quantitatively sophisticated study of multilayer networks to date in any terrestrial ecosystem. We will focus on five archipelagos encompassing four oceans and a wide latitudinal gradient, comparing for the first time the food web structure of 'pristine' (little-disturbed) islands (of a few km^2) with areas of similar size in nearby disturbed (human-inhabited) islands. The objective is to unveil the unique biodiversity of these ecosystems, understand their complexity, and evaluate their fragility to global change drivers, such as biological invasions. We will combine direct observations during intense fieldwork, automated-video monitoring and deep-learning, cutting-edge molecular techniques, and newly developed coextinction models to predict persistence and resilience of island biota to disturbances. The project will represent a major breakthrough towards understanding the effects of global change on these valuable ecosystems, of great relevance to both theoretical ecologists and applied conservationists.

JOB OFFERS 1-3: Three Postdocs in Terrestrial (Island) Ecology

Job description: The Mediterranean Institute of Advanced Studies (IMEDEA) offers three Postdoctoral positions to support the research activities in the context of the European Research Council (ERC) project *IslandLife* (ID: 101054177), led by Prof. Anna Traveset. This is a 5-year research project funded by the ERC that will be developed at the Terrestrial Ecology lab, within the Department of Global Change and Oceanography of IMEDEA.

The three postdoctoral researchers will lead, together with the PI and other researchers of the project, the construction and analyses of the multilayer ecological networks in the islands of four archipelagos. One postdoc will work with data from the Seychelles (Postdoc 1), one with data from the Galápagos (Postdoc 2), and the third one with data from the Balearic and Canary Islands (Postdoc 3). The work will involve stays in the field gathering data as well as lab work at IMEDEA, processing data, analyzing them and preparing manuscripts for their publication. They all will support the PI and the rest of the team to achieve the scientific objectives of the project, publish and disseminate the findings.

Main tasks:

- Field work in two islands in the study archipelago (Seychelles, Galapagos or Balearics/Canaries)—periodical sampling of a variety of ecological interactions, monitoring plant community composition. Field work will involve about 5-6 months per year the two first years of the postdoc.
- Conduct an extensive literature review on species interactions from each archipelago
- Laboratory work-- sorting and processing samples, getting in touch with taxonomists and molecular laboratories for species identification.
- Build the multi-layer networks, analyse and visualize data

- Write manuscripts and disseminate results
- Actively engage in the research group and support the organization of project meetings and conferences across the project.
- Help train and mentor other team members if necessary

Main requirements/skills:

- Candidates holding a PhD in Biology or Environmental Sciences, with experience in network analysis and complex coding and modeling in R will be given priority.
- Experience with management of research team (with diverse cultural background) including the co-supervision of PhD students is preferred.
- Evidence of the ability to publish high-quality peer-reviewed publication is essential.
- Proven track-record of extensive field work is highly desirable.
- The applicant must have good interpersonal and communication skills, as well as excellent written and oral command of English is required. Good command of Spanish is not indispensable but desirable because the applicant will be part of the time living in Mallorca, Balearic Islands, Spain.

  IMPORTANT: Applications including links to previous works/projects/ initiatives that show how the applicant meets these requirements will be given priority.

Benefits and work environment:

- Interdisciplinary and inspiring work environment. Researchers will join a vibrant interdisciplinary research center of terrestrial and marine ecologists, physicists and chemists working on different aspects of global change. IMEDEA has recently been accredited as Center of Excellence Maria de Maeztu by the Spanish Ministry of Science and Innovation (https://imedea.uib-csic.es/en/).
- Quiet and spacious workspaces
- Possibility of participating in internal training, learning, or corporate social responsibility activities at IMEDEA. Possibility of participating in field work in other archipelagos studied within the ERC project.
- 35-hour week work calendar
- 30 days of vacation per year

Term of contract: Starting in 2023, the position will be initially for 3 years, with a 3-months' probation period based on performance. Guaranteed opportunities for longer-term employment upon successful performance after the 3 years will be offered (up to one more year).

Salary: The position will carry competitive salary, matching the academic and professional profile of the applicant, and excellent work conditions. The annual salary of a person contracted by CSIC is 39,709 €.

Location: Mediterranean Institute of Advanced Studies, Mallorca, Spain

Additional information: IMEDEA is committed to conciliating research-academic requirements and family duties. Being a center of CSIC, it is particularly concerned with creating equal opportunities for people independently of gender, culture, and race. Anyone with relevant qualifications is therefore strongly encouraged to apply for the position.

Application procedure: Send one PDF document with the following information: Letter of application / motivation, a CV, and the names and email addresses of two referees to the following email address: IslandLife.ERC@gmail.com, noting in the subject of the message "**JOB TITLE**"

The deadline for applications is **January 30th 2023**; candidate interviews will start as applications are received.