

Climate Impacts on Insect Habitats: PAEOSIM A Marie Curie Project

The Sixth IPCC (Intergovernmental Panel on Climate Change) Assessment Report, published in 2021, reveals a trend of increased aridity in the Mediterranean, which will be especially damaging to small islands. The ecosystems on these islands are especially vulnerable to climate change, as well as Land-Use Change (LUC), due their limited space and natural resources. Recent advances in climate modelling allow users the possibility of achieving a very high horizontal resolution, enough to study climate impacts on small islands, such as the Circum-Sicilian (including the Maltese) Islands (CSI).

PAEOSIM (PAEOclimate modelling of Small Islands in the Mediterranean and possible impacts on arthropod habitats) is a Marie Skłodowska-Curie Actions Postdoctoral Fellowship focusing on the climate and Land-Use Change impacts on arthropod (insects, spiders, millipedes, etc.) habitats of small islands using a Regional Climate Model. PAEOSIM focuses on the climate impacts on arthropod habitats since these play vital roles in the ecosystem (e.g., pollinators, decomposers, and others), and thus can act as indicators of ecosystem integrity.

The project is hosted by the University of Malta in collaboration with the Abdus Salam International Centre for Theoretical Physics in Trieste, Italy and the Esplora Interactive Science Centre.

The intention of this seminar is to introduce the project to the University of Malta staff and students and encourage participation through PAEOSIM's citizen-science program (volunteers are encouraged to visit: <https://www.um.edu.mt/projects/paleosim/citizenscienceprogramme/>).

- The seminar will be held on **Friday 25th November at Erin Serracino Inglott Hall at 2pm**. Register here: <https://paleosim-seminar1.eventbrite.co.uk>
- A Bioblitz activity will also take place on Saturday 26th November at ir-Razzett tal-Għorof, Triq Il-Buskett, Is-Sigġiewi (<https://goo.gl/maps/cX9Hw4JRyjsRzbPp8>) at 9am. Register here: <https://paleosim-bioblitz.eventbrite.co.uk>

About the speaker

Dr James Ciarlo` is an early-career scientist specializing in regional climate modelling, and the recipient of the Marie Skłodowska-Curie Actions Postdoctoral Fellowship that funds this project. He obtained his Ph.D. in 2017, from the Department of Geosciences, at the University of Malta (UM) where his research was focused on the development of atmospheric chemical reactions and their impacts in a regional climate model. He was awarded a "JRC Malta Young Scientist Award" for his doctoral research and contributed to the 6th, 7th, and 8th 'National Communication to the United Nations Framework Convention on Climate Change'. He spent four and a half years working as a researcher at the Abdus Salam International Centre for Theoretical Physics in Trieste, Italy, where he collaborated with top researchers in the field to prepare and analyse high-resolution climate simulations featured in the Intergovernmental Panel for Climate Change's Sixth Assessment Report.

PALEOSIM

