



«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
TO PAY A PERMANENT TRIBUTE TO ARCHIMEDES AND GALILEO GALILEI, FOUNDERS OF MODERN SCIENCE  
AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES



# INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»

## 43<sup>rd</sup> Course: *WHERE SCIENCE MEETS SOCIETY: CITIZEN SCIENCE AS AN EMERGING TOOL TO EXPAND RESEARCH HORIZONS*

ERICE-SICILY: 26 NOVEMBER – 1 DECEMBER 2018

Sponsored by the: • Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government • COST Action-15212

### PROGRAMME AND LECTURERS

*Dealing with data quality in citizen science projects: perspectives, challenges and future visions*

• B. BALÁZS, Environmental Social Science Research Group ESSRG Ltd., Budapest, HU

*Mosquito Alert: the efficacy and challenges of citizen-science based research and vector control on invasive mosquitoes*

• F. BARTUMEUS, Centre for Advanced Studies (CEAB-CSIC) & CREAF, Barcelona, ES

*The research challenge: from an educational-inspired to a research-driven approach to citizen science*

• R. BONNEY, Cornell University, New York, NY, US

*School of Ants – Italy: a bridge between researchers and educators*

• C. CASTRACANI, University of Parma, Parma, IT

*The Challenges and Benefits of Crowdsourced Citizen Science for Building Research based citizen science projects*

• P. FLEMONS, Australian Museum Research Institute, Sydney, AU

*Outputs from the MammalWeb camera-trapping project and reflections on the relationship between research and civic engagement*

• P.-Y. HSING, Durham University, Durham, UK

*Working with different types of public. The experience of Vigie Nature*

• G. LOÏS, Musée National d'Histoire Naturelle, Paris, FR

*Education vs research: how many different approaches and definitions for citizen science?*

• A. SFORZI, Natural History Museum of Maremma, Grosseto, IT

*Designing for citizen science to meet volunteers' needs and requirements*

• A. SKARLATIDOU, UCL University College London, London, UK

*A win-win: How citizen science could improve students' data literacy skills*

• M. SORGER, North Carolina Museum of Natural Sciences & North Carolina State University, Raleigh, NC, US

### PURPOSE OF THE COURSE

Over the past decades, there has been a rapid increase in the diversity and scale of Citizen Science (the involvement of volunteers in science). Initiatives range from crowd sourcing activities, in which the time and effort of large numbers of people help to solve a problem or analyze a large dataset, to small groups of volunteers, collecting and analyzing environmental data and sharing their findings. When correctly planned and executed, Citizen Science can increase scientific knowledge and raise people's awareness of their environment. It can be beneficial to both people and researchers. The main purpose of the course is to provide insights of specific cases/projects/experiences, with the aim of giving to the participants the opportunity to investigate best practices and lessons learned of a very dynamic and promising field. Most of the speakers of the school are leading important citizen science projects in their countries or have developed experiences on different approaches to CS projects, both from the scientists (data quality) and people (motivation) points of view. This dual remit is an essential contribution to the course, whose main purpose is to provide the participants with in-depth insights of this emerging field, at the interface between science and society. The existence of a COST Action – 15212: To promote creativity, scientific literacy, and innovation throughout Europe give the opportunity to activate a collaboration with two working groups that are directly interested by the topics of the course.

### APPLICATIONS

Persons wishing to attend the Course should apply writing to:

Rick Bonney, Cornell University, New York, NY, USA  
E-mail: [reb5@cornell.edu](mailto:reb5@cornell.edu)

Cristina Castracani, University of Parma, Parma, Italy  
E-mail: [cristina.castracani@unipr.it](mailto:cristina.castracani@unipr.it)

Andrea Sforzi, Natural History Museum of Maremma, Grosseto, Italy  
E-mail: [direzione@museonaturalemaremma.it](mailto:direzione@museonaturalemaremma.it)

### PLEASE NOTE

Participants are expected to arrive in Erice on November 26, no later than 5 p.m.

### POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: «After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymi: their towns were Segesta and Erice.» This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchise, by his son Enea, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today. In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.

More information about the other activities of the  
«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
can be found on the WWW at the following address:  
<http://www.ccsem.infn.it>