



**XIII INCONTRO DEI DOTTORANDI IN
ECOLOGIA E SCIENZE DEI SISTEMI ACQUATICI
Palermo, 3-5 Maggio 2017**

I WORKSHOP: *“Systematic Review techniques and application in environmental science”* & *“Successful applications of scientific evidence in resources conservation and management”* held by Dr. **M. Sciberras**, Bangor University

Introduction to the main techniques of systematic review applied in environmental and conservation science.

We will introduce methods to perform reviews techniques in environmental and conservation science and we will offer details on how to develop the systematic review process. The workshop will:

- explain the need for systematic reviews and meta-analyses;
- list the important aspects of a systematic review;
- perform a comprehensive search for relevant literature.

We will cover how to formulate an answerable research question, define inclusion and exclusion criteria, search for the evidence, extract data, assess the risk of bias, and synthesize and resume results.

Upon successfully completing this workshop, participants will be able to: Describe the steps in conducting a systematic review - Develop an answerable question using the “Participants Interventions Comparisons Outcomes” (PICO) framework - Describe the process used to collect and extract data from reports and scientific studies - Describe and interpret the results.

A good set of example in performing reviews will be showed to learn more on the applications of these techniques mostly in fields of natural resources management and biodiversity conservation.

II WORKSHOP: *“Systematic reviews techniques and tools in practice”* held by Dr. **M.C. Mangano**, University of Palermo and Dr. **M. Sciberras**, Bangor University

Practical session.

During this practical session we will discuss how to frame a question, as well as scope, elements, and refining the question. The workshop will specifically allow to:

- Frame “your own question”: decide the type and scope of the question; set up the elements of the question; refining the question
(each students is invited to formulate the “own question” and work on it during the session!);
- Searching Principles and Bias Assessment: finding the evidence, searching principles; identifying key sources and techniques for searching; building a high-quality search strategy;
- Data extraction and management: “coding” and database creation;
- Concluding and reporting a systematic review: document your search and conclusions.

Upon successfully completing this workshop, participants will be able to: search on specific database, compose search strings, arrange papers libraries (e.g. EndNote, Zotero, WorkRef), extract, organise and summarise evidence from literature.