

Spinning or speeding the web? Accelerating biodiversity research using spiders as ambassadors of Greek arthropod hotspots or

SPIDOnetGR

The European year of spider biodiversity research in Greece

Taxonomy is the first step to the understanding of biodiversity, indispensable to other biological fields like phylogeny, ecology, biogeography and conservation biology. However, it has been increasingly judged as inadequate to meet the present challenge for fast acquisition of biodiversity information, needed for conservation management and planning.

SPIDOnetGR intends to dynamically intervene to the taxonomy impediment by presenting an efficient way to accelerate biodiversity knowledge in one of the most important biodiversity hotspots of Europe, Greece. The target group is spiders, especially ground spiders, one of the most diverse taxa in the study area and the whole Mediterranean, yet still overlooked in their use for the identification of biodiversity hotspots, due to their challenging taxonomy and the absence of relevant identification keys.

SPIDOnetGR entangles four main institutes and affiliated scientists: the Department of Molecular Biology and Genetics, University of Thrace, Alexandroupolis, Greece (Dr. Maria Chatzaki, coordinator of the project), the Natural History Museum of Crete, University of Crete, Irakleio, Greece (Dr. Apostolos Trichas, in charge of the macrophotography gallery), the Foundation for Research and Technology, Irakleio, Greece (Dr. Nektarios Chrysoulakis, senior researcher and in charge of species distributions modelling) and the Institute of Ecology and Evolution, University of Bern, Switzerland (Prof. Wolfgang Nentwig, in charge of the development of a detailed database for the spiders of Greece and its inclusion to araneae - The website Spiders of Europe).

Our long term aim is to develop a complete spider inventory at a national level, to be useful for ecosystem conservation and biogeographical research. With that goal in mind, some of our main objectives include the following:

- 1- Identification of the main geographic gaps in the knowledge of spiders of Greece in order to prioritize them for further study.
- 2- Enrichment of the knowledge of spiders in terms of further records of existing species, taxonomic clarification of poorly described species or description of new species.
- 3- Publication of taxonomic results.

- 4- Organization and dissemination of new arachnological knowledge through incorporating all previous and new data into a European-wide electronic database in order to accelerate the flow of information and increase the visibility of taxonomy for a broader public.
- 5- Sustain a dynamic flow of taxonomic information by inspiring students to the study of arachnology and activating experts to focus on the study of the Greek arachnofauna.
- 6- Add a milestone to overcome the taxonomist's impediment in a sustainable manner by training a new generation of taxonomists with a view to synthesize information from a multidisciplinary perspective.

This project has the dynamic to continue in the long term by constantly actualising data on the spider fauna of Greece once the base for this procedure is established. Aiming the optimum cost-benefit balance, the still unexplored collections from various Greek institutes, in addition to extensive collecting from most neglected areas of Greece, will be used to create a mass material pool.

In order to accelerate taxonomic work this material will be gradually accumulated, sorted out to family level and processed for taxonomical identification. Taxonomic results including new distributions of already known species, redescriptions of poorly known species and descriptions of new species to science will be assessed by experts inland and abroad.

With the help of the European Society of Arachnology we promote the idea of country-wise focal arachnological research in Europe, starting from declaring the first year of this project -2014- as "***The European year of spider biodiversity research in Greece***". By doing so, we hope to trigger the interest of spider experts who will be willing to collaborate by identifying spiders, therefore establishing a dynamic research network which will simultaneously focus on similar general objectives. Ultimately, biodiversity on a keystone European area will be promoted, thus filling the existing gaps of knowledge.