

A network of Italian amphipodologists in the frame of MOTax (Marine Organisms Taxonomy) at the Stazione Zoologica Anton Dohrn di Napoli (Italy)

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ABSTRACT A proposal for a network of Italian amphipodologists among the activities of the Marine Organisms Taxonomy Service at the Stazione Zoologica Anton Dohrn di Napoli (Italy) is launched.

KEY WORDS Taxonomy; Crustacea Amphipoda; network; MOTax; Italy.

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Taxonomy is today facing a variety of problems and a possible decline (Coleman, 2015) while at the same time, due to a possible loss of biodiversity predicted for the next years and the importance that the species have in this frame (Boero, 2010), an increasing interest is observed at different levels. Therefore, taxonomy has now a prominent role in all projects for the protection, preservation and restoration of the marine environment.

The Stazione Zoologica Anton Dohrn di Napoli (SZN), boasting a long tradition in taxonomic studies, has over time nurtured the idea to create a study area devoted to different aspects of taxonomy and in particular an Italian reference platform for marine taxonomy. This led to the creation of MOTax (Marine Organisms Taxonomy) (Fig. 1), which aims to promote a wide range of taxonomy initiatives and provide specialized identification



Figure 1. The MOTax logo: artistic creation by the colleague Flora Palumbo.

services based on integrated morphological and molecular approaches. MOTax will be organized in the frame of the European Marine Biological Resource Centre (EMBRC), a distributed European infrastructure which offers a range of high-level services

to support marine biology and ecology research, and in particular in the frame of the EMBRC-Italy, coordinated by the SZN. The President of the SZN R. Danovaro and the President of the SZN Scientific Council F. Boero strongly supported the birth of MOTax, affirming the need to enhance and share at national level the existing skills in marine organisms taxonomy and systematics. With the contribution of many SZN internal and external scientists, MOTax started its activity during the First Workshop MOTax "Marine Organisms Taxonomy: creation of a national integrated service in support of the EMBRC infrastructure", which took place in Naples on 26 and 27 October 2016.

The main objectives of MOTax are:

- to coordinate the taxonomic expertise present in Italy, promoting the creation of a network of marine taxonomists, in the framework of the study and conservation of marine biodiversity;

- to create and optimize a national reference point in Europe providing taxonomic services and skills to research communities, through the EMBRC infrastructure;

- to define shared strategies aiming at developing a high-quality training in taxonomy.

To date the actions of MOTax have been:

- the "Naples Declaration" in which the taxonomist community expressed its position concerning the application of the Nagoya Protocol for marine genetic resources; the declaration was shared and signed by the experts who attended the Workshop and sent to the Italian Governmental Institutions;

- the creation of the "MOTax Newsletter", aimed at sharing news, comments and other information concerning the taxonomy activity; issues are available at www.szn.it or can be requested to motax@szn.it;

- the launch of the "MOTax Survey", the first national census to identify a national reference community for the systematics and taxonomy of marine organisms; the survey was distributed online to about 130 Italian taxonomists, mainly represented by the experts who attended the MOTax WS 2016.

Crustacean amphipods are one of the most represented taxa in marine and fresh waters, colonizing almost all habitats and systems. The Gulf of Naples and the Stazione Zoologica Anton Dohrn have a long tradition in studies on amphipods, it is enough to remember those of Costa (1853–7), Mayer (1882,

1890), Della Valle (1893), Cecchini & Parenzan (1934), Schiecke (1973) (see Ruffo, 1982–1998). Actually, in Italy amphipod studies meet at different levels the "true taxonomy", therefore probably this is the right time to launch the proposal for an Italian amphipod "Working/Reference Group" or "Network" in the framework of MOTax, which may contribute to enhance and support taxonomy through several actions.

Important initiatives were carried out worldwide in the last years, such as the creation of the World Amphipoda Database (<http://www.marinespecies.org/amphipoda>) by T. Horton et al., which is part of the World Register of Marine Species (WoRMS), apart from a compilation of amphipod relevant literature in pdf files which may be downloaded from a Bibliography Server (<ftp://amphipod.dnsalias.net>) by C.O. Coleman, and the editing of Amphipod Newsletter, by W. Vader together with A. Baldinger, M. Lowe and A.H. Tandberg, which from 1972 provides lists of the new taxa, literature updating and news from the amphipodologists' world. Furthermore, skills and outcomes are usually revealed and shown at the International Colloquium on Amphipoda (ICA), this year at the 17th edition.

In the Mediterranean Sea and in Italy, the important presence of S. Ruffo brought to the volumes of the Amphipoda of the Mediterranean (1982–1998) and to the checklist of the coasts of Italy (2010). After the loss of S. Ruffo the Italian experts on amphipods (and not only them) probably feel without a reference point, although the Museo Civico di Storia Naturale in Verona still hosts Ruffo's precious amphipods collection, available for consultation (Ruffo & Krapp, 2005). Everyone certainly has the impression that nobody will substitute, in the future, such a great and special Person, but all together might probably contribute to avoid the dispersion of the knowledge achieved and stimulate amphipod studies in Italy.

As a proposal, the principal aims of the future Network should be focused on the following main actions:

- census of Italian amphipodologists, aiming at evaluating the state of art of knowledge; first of all to learn more about which are the approaches used in studying amphipods (Systematics, morphological and genetic taxonomy, genetics, population dynamics, structural and functional ecology, ethology, biodiversity, environmental stress, alien species,

biogeography), and where and in which habitat studies are being carried out, to facilitate exchange of information and collaborations;

- identification and promotion of research approaches on subject matters not yet addressed and on geographical areas not yet studied as concerns amphipod fauna;

- dissemination of scientific knowledge and promotion of amphipod studies among students and young researchers through short courses, seminars, exhibitions, etc., bringing the results under the Citizen Science;

- contribution to the constant updating of the Checklist of the Italian Amphipod Fauna;

- location and identification, also through available checklists, of amphipod collections present in both Museums (Innocenti, 2017) and Laboratories (personal collections) in Italy, and where they are available for consultation;

- archive in pdf format (eventually also in paper form) of the scientific production on amphipod studies conducted in Italy, which should include also the so called “gray literature”.

The network might include different levels of expertise, and the members will find it useful to exchange ideas and identify the major needs. Although constituted by Italian scientists, it could take advantage from the experience and cooperation of non-Italian amphipodologists who extensively worked along the Italian coasts and gave a fundamental contribution to the Italian amphipod fauna.

On the whole, the proposed actions seem very ambitious, but a first step towards this direction is desirable and feasible. Every expert on amphipods probably in the framework of her/his studies felt the necessity of at least one of the above mentioned actions! So if each of them puts some energy in what she/he believes more in, something good for all of us might be created.

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