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GLOBAL TAXONOMY INITIATIVE IN ITALY: SUPPORTING THE 2010 GOAL

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INTRODUCTION

Since the 1990s the Nature Protection Directorate of the Italian Ministry for Environment and Territory Protection has carried out a number of initiatives that allowed the collection of standardized data and the compilation of checklists. Among the first initiatives of the Directorate as National Focal Point for the Global Taxonomy Initiative (GTI) was the proposal of a GTI portal under COP VII of the Convention on Biological Diversity (CBD) website (Kuala Lumpur, 2004) and the compilation of the thematic report on the GTI. A second activity was the organization of the Side Event on GTI during the Ad Hoc Open-Ended Working Group on Protected Areas (Montecatini, June 2005). The main result of the Side Event was the establishment of collaboration between the International Commission for Zoological Nomenclature and the Global Biodiversity Information Facility, which puts taxonomy at the basis of biodiversity database assemblages. This important result focuses on the need for a major role of taxonomy in structuring the initiatives of the Convention of Biological Diversity in assembling information and planning the tools supporting the 2010 goal. Italy, which launched the National Countdown 2010 program during the Montecatini meeting, is carrying out several initiatives in the field of taxonomy with the support of a number of scientific institutions. Moreover, the National Focal Point promoted the GTI as a point of agenda at the regional, pan-European Fourth Intergovernmental Biodiversity in Europe Conference (initiative of the Council of Europe, scheduled to be held in Dubrovnik, Croatia, in February 2006).

ITALIAN FOCAL POINT ACTIVITIES TO IMPLEMENT THE GTI PROGRAMME OF WORK

The main activities of the Italian Focal Point on GTI deal with assembling pre-existing taxonomic information in terms of: identification keys, digitized checklists, digitized collection and distributional data, thematic atlases, improving their updates and contributing to filling the gaps (Figure 1). The main taxonomic initiatives lie in the field of database construction, including directories of taxonomists and checklists. Further steps deal with the screening of the available checklist (implemented in a hierarchical structure) to assemble distributional data sets of selected species obtaining thematic maps using GIS software. At present, the following products are publicly available:

- ◆ Volumes of the “Fauna d’Italia” series. Thus far, 40 volumes with identification keys and general information on all the species of the considered taxa have been published.
- ◆ *Field guides of the Italian flora and fauna* (within the “Quaderni di Conservazione della Natura” series 21 issues published so far).
- ◆ *Checklist of the Italian fauna* (Minelli et al., 1993-95; on-line version: <http://checklist.faunaitalia.it>), including all the 57,468 species up to now reported from Italy. Recently updated for marine species by the Italian Society for Marine Biology (Relini et al., unpublished)
- ◆ CKmap (Ruffo and Stoch, 2005). A distributional database of 10,000 terrestrial and freshwater animal species including over 537,000 distribution records (see Figure 2 for an example of application to thematic maps dealing with the richness of endemic species in Italy).
- ◆ *Checklist of the Italian vascular flora* (Conti et al., 2005), including over 6,700 species with admin-

istrative regional distribution (Figure 3).

- ◆ Assessment of knowledge of Italian vascular flora (Scoppola and Blasi, 2005)
- ◆ Checklist of basidiomycetes (Onofri, 2001), including over 4,000 species.
- ◆ Checklist of planktonic microphytes of the Italian seas (Italian Society of Marine Biology). Including over 1,200 species.
- ◆ Checklist and distribution of marine macrophytes (Furnari et al., 2003), including over 900 species with administrative regional distribution.

A more recent initiative was the dissemination, at international and national levels, of available taxonomic information on Italian biodiversity through the Clearing-House Mechanism (CHM) website (www.minambiente.it/Sito/settori_azioni/scn/chm/gti.htm).

Obviously, the huge amount of data contained in these datasets and the continuous evolution of scientific knowledge require an incessant effort to update the databases.

GTI IN ITALY: FULFILLING THE OBJECTIVES TOWARDS THE 2010 TARGET

The creation, implementation and maintenance of such resources will allow current gaps in Italian taxonomic production and capacities to be identified in terms of: (1) taxonomic groups, (2) geographic areas and/or (3) taxonomic toolkits. Further work is required in relation to operational objective 4 (link to thematic areas) and in the identification of gaps which will allow the Focal Point to suggest and support the most efficient activities to increase GTI toolkits in Italy, activating capacity-building initiatives to create new taxonomic competences and to repatriate to the countries of provenance taxonomic knowledge based in Italy. The integration of national database experience with international initiatives, like *Fauna Europaea* and Important Plant Areas programme by *Plant Europa*, is in progress. Moreover, additional activities are essential to raise the level of recognition for the applied nature of much taxonomic work, to popularize the GTI among taxonomists and to support the sustainable use of biodiversity for the effective implementation of the Convention. All these activities will contribute to overcoming the taxonomic impediment stated by the Darwin Declaration at the national and international levels. Further steps include taxonomic support for the identification of national priority areas for conservation and providing an interface between taxonomy and the end-users of taxonomy for fulfilling the objectives of the 2010 target.

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FIGURE 1: Implementation of operational objective 3 of the GTI Programme of Work in Italy: a network of information including databases of taxonomists, species checklists, identification keys, distributional data and validation of biodiversity conservation strategies (under construction by the Italian Focal Point).

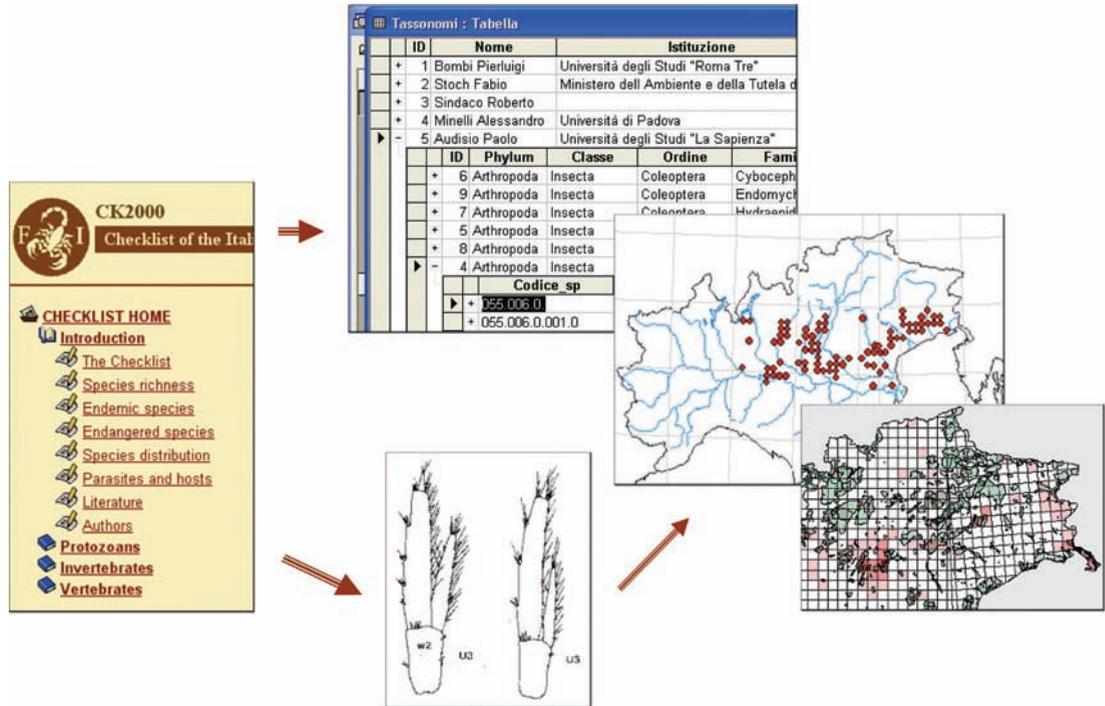


FIGURE 2: Distribution pattern of endemic species richness of terrestrial and freshwater animals in Italy (from the *Checklist and distribution of the Italian fauna* – 10,000 terrestrial and inland waters species).

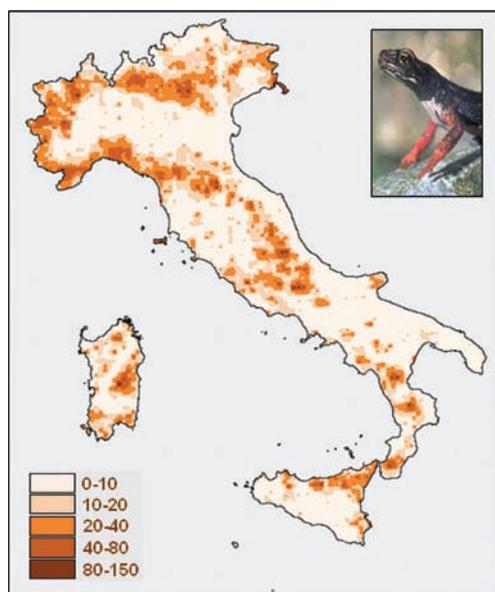


FIGURE 3: An example of the distribution data of a vascular plant (*Lycopodium clavatum*) in Italian administrative regions (from the *Checklist of the Italian vascular flora*)

