



The Italian National Node of DNA Barcoding – ItaBOL

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The Italian Barcode of Life (ItaBOL) represents the national node of a broader international community advancing DNA barcoding and DNA metabarcoding as powerful tools for biodiversity research, including assessment, monitoring, and management. ItaBOL is conceived as an open, inclusive, and interdisciplinary community bringing together scientists and stakeholders interested in applying these approaches across a wide range of biological disciplines and applications.

The initiative aims to strengthen collaboration at the national level while maintaining strong connections with the International Barcode of Life (iBOL) and iBOL Europe. ItaBOL will promote best practices across fieldwork, laboratory procedures, and bioinformatics, including shared infrastructures, coordinated sampling campaigns, and the development of reference DNA sequence libraries for flora, fauna and funga across Italy and the broader Mediterranean region, linked to well-documented specimens and associated metadata. These efforts will support integrative taxonomy studies and biodiversity assessment at local and global scales, across terrestrial and aquatic ecosystems, targeting species of ecological, agricultural, and conservation relevance, while also enabling applications in food security, forensic science, and the monitoring and detection of pest and allochthonous species.

Currently, 30 institutions are involved in the ItaBOL network, including universities, research organizations, a natural history museum, and a cultural organization, for a total of more than 110 researchers, with a homogeneous distribution across Italy. This diversity reflects ItaBOL's commitment to inclusivity, interdisciplinarity, gender balance, and the representation of diverse expertise and career stages.

Beyond research, ItaBOL will disseminate knowledge and foster the uptake of DNA-based identification tools among stakeholders, including policymakers, environmental agencies, and industry. By integrating scientific excellence with collaborative governance and open participation, including public engagement, ItaBOL aims to become a national reference point, together with initiatives such as the National Biodiversity Future Center, Agritech, and Elixir, and a key contributor to global initiatives in the field.