Biodiversity Informatics and Co-Operation in Taxonomy for Interactive Shared Knowledge Base (BIOTIK)

Objectives

The project aims to develop and sustain a long-term cooperation between Europe and South Asia in the area of taxonomy and information technology or broadly speaking, in the emerging discipline of Biodiversity Informatics. By sharing European know-how in the field of taxonomy (species identification system IDAO (Identification Assistée par Ordinateur), Grard, P. 2002) with the partners in Asia, this project intends to build a knowledge base, to widely benefit the communities of South and South East Asia and also the larger scientific community of Europe. This extensive knowledge base on the tree species of two hotspots in the region (Western Ghats of India and the Annamite Mountain range of Lao PDR) will enhance environment-monitoring capabilities and therefore improve the designs for sustainable management strategies in the region.

Materials and Methods

Existing software for species identification (IDAO) will be developed for two CD-ROMs applications (one for each area) and will be adapted to run on a low-cost computing device (a Personal Digital Assistant (PDA), working with Linux - an Open Source Operating System) and to be available for online identification of the species.

A comprehensive list of the tree species for both the regions will be drawn up based on the existing data available in various repositories. A survey of these repositories will be done to collect all the required information available with respect to the species, e.g. specimens, illustrations, images, etc. Based on this survey it will be possible to derive the specific requirements to define these species in the software with all the necessary information. Any further requirements in terms of collecting fresh specimens, photographic images and drawing illustrations will be carried out during the field trips and the subsequent herbarium work.

Expected Results

- Two CD-ROMs will be developed for tree species identification for Western Ghats (India) and Annamite Mountain Range (Lao PDR).
- Linux based software for tree species identification which will run on a PDA.
- Web based application for online identification of tree species.

Partners
- National Herbarium Nederland (NHN-Leiden), University of Leiden, The Netherlands
- National University of Laos, Lao PDR
- CIRAD, Montpellier, France

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