IDAO

A Multimedia Approach to Computer Aided Identification for Capacity Building in Taxonomy

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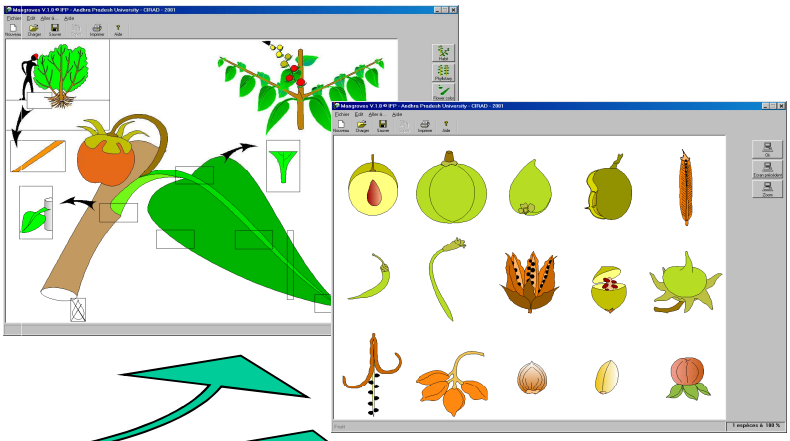
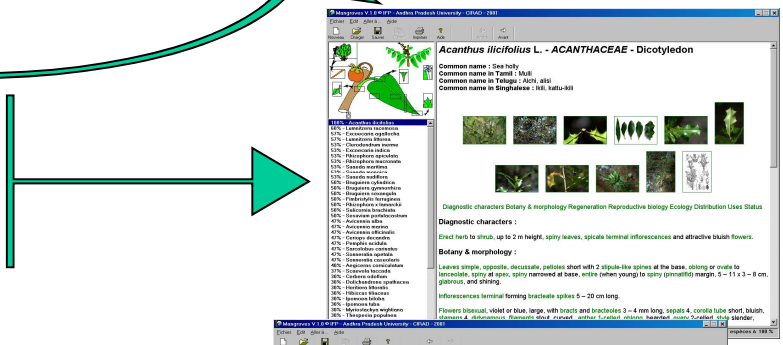
The difficulty encountered by non-botanists when identifying species using standard flora is centred around three major constraints, namely:

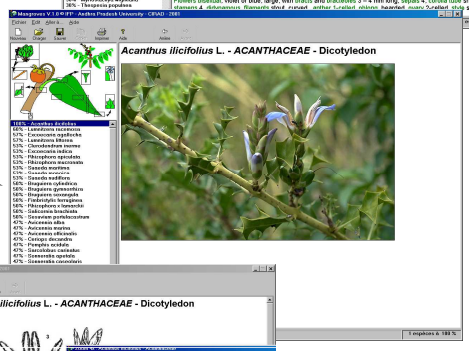
- •The ability to identify the species without its flowers or before it flowers;
- •The use of dichotomous key, which cannot tolerate any error and imposes the choice as well as the order of questions; and
- •The use of technical terms not understood by the non-specialists.

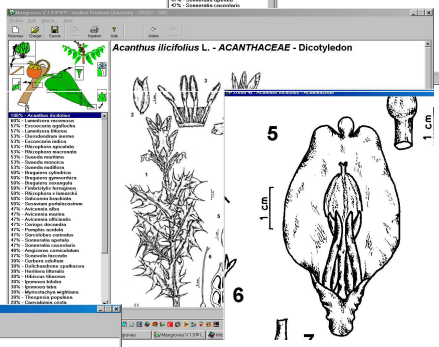
In order to minimise and resolve these constraints, the identification system in the CD-ROM uses a graphical system which reconstitutes the plants using images. This method has several advantages:

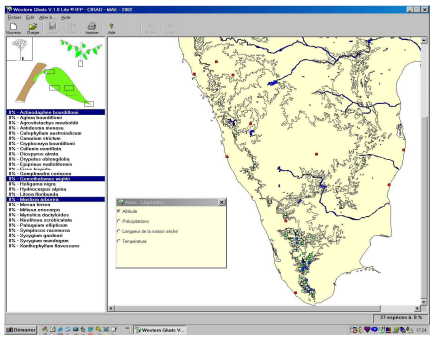
- •It only uses drawings instead of technical jargon.
- •It provides users the freedom to choose the character that needs to be described.
- •Missing information or data are permitted, thus allowing for the identification of incomplete samples.
- •Certain level of observational errors are also tolerated.
- •At each step of the identification process, a probability of resemblance is calculated for each species. Thus species are sorted by decreasing order of similarity.
- •At each step and moment, users could access the photos, the description, and the botanical illustrations of the species.
- •In case users encounter doubt in the choice of characters (for description), they could ask the program for the most pertinent one.
- •If the probability of a species identified is less than 100 percent, the program indicates the characters that contain bad description.
- •Descriptions of the species can be available through Internet Website with any type of browser.
- •The program being multilingual, it caters to a larger section of people.
- •All the technical terms used are highlighted and at a click, an hypertext illustrated definition is accessible.
- •Distribution of the species with GIS capabilities

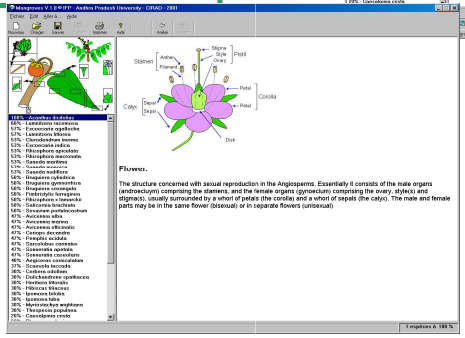












A tool for :

- •Young scientist training and capacity building
- •Species identification for biodiversity studies
- •Information dissemination

Applications on :

- •Weeds of West Africa
- •Major weeds of Réunion Island
- •Western Ghâts trees
- •Flora of mangroves
- •Pollen *taxa* of south India

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