

## ***Atta*: Towards biodiversity information systems for decision-making in conservation and sustainable use in Costa Rica**

INBio's mission to "promote a greater level of awareness of the value of biodiversity, as means to ensure its conservation and improve the quality of life of human beings" has defined its strategy to enforce the impact of information from the National Inventory in conservation and sustainable development efforts.

The definition of prioritized target audiences of the information among general public (politicians, biodiversity managers, resource users, communication media and opinion formers, educators and religious leaders and conservation NGO's) has raised the need of scientifically validated, relevant, up-to-date, representative, at multiple scales and accessible information on composition, structure and function of species, genes, ecosystems and landscapes, conservation status, monitoring, threats, values and uses and management models.

*Atta* is INBio's second version of a comprehensive, efficient, scalable, multi-taxa information system that supports the core information process at the National Biodiversity Institute in Costa Rica (INBio). As such, *Atta* facilitates the processes of capturing, managing, generating and disseminating information on Costa Rican biodiversity.

This system maintains a relational database with over two million records, each one corresponding to a single specimen. Through a unique bar code physically attached to each specimen, users of *Atta* have efficient and systematic access to the associated digital information. This information includes, but is not restricted to, the *where*, *when*, *how*, and *who* collected the specimen. When the taxonomic identification process is concluded, this information is supplemented with a

complete taxonomic description of the specimen (*what* it is).

*Atta* includes modules for generating, consulting, editing, and analyzing taxonomic, geographic, and ecological information, as well as information on potential uses of Costa Rican species of plants, insects, mollusks, arachnids, fungi and nematodes.

*Atta* is a flexible system that manages up to 22 taxonomic levels, from the Dominion down to Form. Moreover, it includes a basic geographic information system that permits the combination of taxonomic and ecological information coming out of the ecosystems inventory being carried out by INBio.

With the aim of facilitating the dissemination of information generated using *Atta*, the system also includes interfaces to exchange information with standard tools such as ArcView<sup>®</sup>, MS-EXCEL<sup>®</sup> and the world wide web ([www.inbio.ac.cr/attaing](http://www.inbio.ac.cr/attaing)).

A digital publication system for the description of species belonging to the Costa Rican biodiversity stands out as one of *Atta*'s modules on the web. By using this system, national and international collaborators are able to use the web in order to submit species descriptions by means of an electronic publication process. The resulting publication includes at least a photo or illustration of the species and a distribution map (generated for almost all taxonomic groups from the information contained in *Atta*'s specimen database). The publication may be accessed free of charge at our website.

Besides, we are currently in the process of integrating all the available information on taxa observations at the species and specimen levels to make it also available through the website.



Comprometidos con la  
conservación