

## **Anna L. Weitzman**

Dr Anna Weitzman heads the Informatics Branch of the Smithsonian's National Museum of Natural History. Dr Weitzman has over 25 years experience as a plant taxonomist, specializing in Theaceae, Ternstroemiaceae, and Bonnetiaceae. Since taking on a role in Informatics for the NMNH, she led the project to specify requirements, data model, and implement a major database system that is integrating all NMNH collections data into a single system and make those data freely available on-line. She has oversight of NMNH informatics projects and programs, providing advice and assisting with implementation of databases and other information management tools for research and collections at NMNH. In addition, Dr Weitzman represents the museum in a number of Smithsonian and external (interagency and intergovernmental) committees and projects. Dr Weitzman serves as chief scientific advisor to the *INOTAXA* (INtegrated Open TAXonomic Access) project and as coordinator of a group drafting XML standards for Taxonomic Literature. Dr Weitzman is particularly interested in promoting open access to and linkages between all kinds of biodiversity information, especially those found in natural history collections worldwide. She is especially dedicated to promoting the importance of taxonomic information to a variety of topics of global importance from understanding biodiversity for scientific reasons to conservation and invasive species policy decisions. Dr Weitzman received her PhD from Harvard University in Biology in 1987.

## **National Museum of Natural History, Smithsonian Institution**

The National Museum of Natural History of the Smithsonian Institution is dedicated to understanding the natural world and our place in it. NMNH has stewardship responsibility for the world's largest museum collection – over 126 million objects and specimens – in the world. It is also one of the most important because it includes seven significant fields of learning (Anthropology, Botany, Entomology, Invertebrate Zoology, Mineral Sciences, Paleobiology, and Vertebrate Zoology), and has been expanded by knowledge from nearly two centuries of study by the international scientific community. Responsibility for a collection of this magnitude demands management of the highest standards and provision of enduring public benefit. The information is available to and used by universities around the world, students of all ages, US agencies such as the Departments of Agriculture, Defense, and Commerce, and the NASA, the media, NGOs, and foreign governments.

NMNH is a long way from its goal of making all its data accessible. Collating and manually entering this information in non-automated records throughout the museum, enhancing the data content, and creating and linking digital images, sounds, and video to museum records will be needed on a continuing basis. Related data from archival materials (field notebooks, photographs, etc) and research will further increase the utility of the museum's databases for everyone from researcher to the public.

NMNH plans to take a lead role in the museum community in developing an integrated framework of interconnected data that will provide the broadest understanding and use of this information. By linking previously separate and unique sets of information together, a well-structured informatics initiative will allow researchers to use the data and present a unique and important view of their importance and relationships to the public. Initial developments of applications using museum data focus on biodiversity informatics, particularly combining specimen data with environmental data in analyses focused on questions of biogeography, conservation, and environmental change.