

Integrated Data Management of Fish Specimen Collections in BRCAS Museum

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ABSTRACT

The collections of Biodiversity Research Museum, Academia Sinica, consist of research specimens from various taxonomic groups including approximately 115 thousands of plants, 13 thousands of fishes, two thousands of birds, and five thousands of invertebrates (cnidarians, annelids, mollusks, arthropods and echinoderms). Among them, the fish collection which covers extensive local fish fauna is the most comprehensive collection of its kind in Taiwan and adjacent areas °

The Research Museum develops cutting-edge information managing systems and on-line databases for all specimens in the collections. Information on the specimens can be inquired and easily accessed through the Internet by scholars and the public around the world. The data management system of the Fish Collection adopts traditional two-tier architecture (Presentation tier and Data Service tier) and web three-tier architecture (Presentation tier, Logic tier and Data Service tier), fully integrating manager's data input and output as well as user's data query and specimen loan.

The museum also houses and manages several websites relating to the biodiversity information in Taiwan, such as The Fish Database of Taiwan, Database for Native Plants in Taiwan, The Taiwan Malacofauna Database, Taiwan Biodiversity National Information Network (TaiBNET), and Taiwan National Node for Global Biodiversity Information Facility (GBIF). In particular, "The Fish Database of Taiwan" represents an integral part of the global "FishBase," which by far is considered the most comprehensive biodiversity database. Ever since the online databases were launched, the average number of visitors to these websites is over 30,000 per month.

Keywords : Biodiversity data, Fish Collection, Presentation tier, Logic tier, Data Service tier