Chinese Field Herbarium--Turning the Earth into a Living Museum

Chen Bin[1], Chen Jianping[2], Ma Keping[1]

[1]Institute of Borany, Chinese Academy of Science, [2]Northwest Agriculture and Forestery University

Abstract: The study of biodiversity depends upon huge amount of research materials and observational data collected from nature field. In field works, people always encounter great amount of living biodiversity, but only very few of them have been properly collected as specimens, processed and deposited in herbariums and zoology museums. To facilitate the information flow from living biodiversity form field to our knowledge system, Chinese Field Herbarium(CFH) biodiversity information system is trying to give high efficient solutions for biological field observation and data management.

The solutions include 3 parts. The first part, field work planning with Google Earth software. The second part, using global positioning system and digital multimedia devices in field observations. The third part, use CFH website to manage the observational data. On CFH website people can calculate geographic coordinates from GPS tracks for observational data (digital photos and other multimedia files) and then create maps, can identify the species by online social user community, can find relating encyclopedic information by the link of taxon name and get species checklists of field observations. Finally people will have rich and easy use information on CFH website and have living materials in field, which can be retrieved by precise coordinates. Now there are 2,700,000 photos deposited on CFH website, 530,000 of which are precisely geo-referenced and in which 25,000 taxa are identified. As a result, we are turning the Earth into a living museum with digital information on website and living materials deposited in the field.

Key words: Chinese File Herbarium, living museum, biodiversity, citizen science, GIS