

# THE RARE AND ENDANGERED PLANT CONSERVATION IN CHINESE BOTANICAL GARDENS

- The Values of Rare and Endangered Plants in China  
& The Roles of Chinese Botanical Gardens -

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## Research Purpose:

Though the Chinese Botanical Gardens have done many research works on the *ex situ* conservation on endangered plants, due to lack of necessary research foundation, qualified research staff and international co-operation information, the conservation works still in the primary stage and profit pursuit state. The objectives of this research are:

- To identify the values of rare and endangered plants for mankind
- To evaluate the roles of Chinese Botanical Gardens in rare and endangered plants conservation
- To conclude some rules to guide the *ex situ* conservation works for rare and endangered plants in Chinese Botanical Gardens and to establish a network for the endangered plant conservation in whole China.

## Research Methods:

There are some literatures have been published on the rare and endangered plant conservation in recent years. Some Chinese Botanical Gardens also constructed dispersed database individually. So the research method have been taken following ways:

- Literature review, database review in Beijing Botanical Garden, Nanjing Botanical Garden, Shanghai Botanical Garden...
- Questionnaire to Chinese botanical gardens
- Personal visits to some leading botanical garden, arboreta in both domestic and international

## Research Discussions:

Rare and endangered plants are the most important treasures for human kind. What we have been spending a lot strength to conserve to some of them are no use today may be of great value of nature conservation, environment beautification, soil and water conservation, wind breaking and desert fixation, future foods, disease controlling, etc. In order to save the rare and endangered plants effectively, some ways should work together.

- The rare and endangered plant conservation needs the co-operation among *in situ* and *ex situ* methods
- To strengthen the introduction and acclimatisation of rare and endangered plants and preserve these plants *ex situ*, some leading botanical gardens should support the small gardens with information, technology, as well as certain financial projects.
- Conduction of reintroduction research is necessary on rare and endangered plants, but this work should be directed and monitored by professional botanists or ecologists.
- Rare and endangered plant conservation needs the combination of qualitative and quantitative.

- The conservation of rare and endangered plant needs the co-operation of all the botanical gardens all over country.

Based on this research, some conclusions can be given out as follow:

- The rare and endangered plants in china are very important for human beings. Some species are potential new crops for future, some are breeding germplasm resources (for crops, fruits, ornamental plants, tee etc.), some can act as natural products (e.g. pesticides or disease chemicals, medicines, materials), some are environmental services (keystone species, environment improvement, silviculture species), some are interesting and future option plants.

Chinese Botanical gardens have being taken an important role in rare and endangered plant conservation. There are 327 of 389 species are in cultivation at present. The function of Chinese Botanical Gardens primarily concluded in 10 aspects as scientific research, to improve and protect natural environments and help to conserve natural vegetation, introduction and development economic plants, ornamental plants, medic plants, to serve the tourism, education and culture, extension of modern horticultural and promising cultivars, database construction and sustainable development