

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Tenth meeting of the Plants Committee
Shepherdstown (United States of America), 11–15 December 2000

Significant trade in plants

Significant trade plant projects pre CoP11

TRADE IN CHINESE ORCHIDS (CITES PROJECT S-114): PROGRESS REPORT

This document has been jointly prepared by the Management Authority of China and the Scientific Authority for plants of the United Kingdom, Royal Botanic Gardens, Kew.

1. At the eighth meeting of the CITES Plants Committee this project was rated as the third highest priority in the programme of studies of significantly traded plant species. The objective of the project is an analysis of trade in orchid species from the People's Republic of China in order to assist the Chinese Management and Scientific Authorities by providing recommendations on sustainable trade in wild-collected orchids and on commercial propagation of species of horticultural interest or those used for their derivatives.
2. The work is being carried out by the Royal Botanic Gardens, Kew, UK and the CITES Management Authority of China.

Work to date (Royal Botanic Gardens, Kew)

3. The World Conservation Monitoring Centre (WCMC) provided CITES trade data on the orchid trade for the years 1990 - 1997. These data were transferred into a database created and maintained by the Royal Botanic Gardens, Kew, UK. A review of Chinese orchid species offered for sale via the internet, in catalogues and price lists, was also undertaken and these species included in the database.
4. Supplementary information on nomenclature, distribution (national and global) and conservation was collected and included in the database. A copy of the database including all the information mentioned above was sent to the Management Authority of China.

Work to date (CITES Management Authority of China)

5. In order to carry out the work China was responsible for in phase I, the Management Authority of China organized a workshop in December 1998, in which orchid expert and other staff involved in the project participated, and invited experts to train the staff and discussed ways to conduct the project to completion. It was decided to divide the work into four parts:

- a) Review of the distribution in China of orchid species common in international trade or having potential for trade and evaluation of their conservation status: this task was carried out by orchid experts from the Beijing Botanic Institute of Chinese Academy of Science (CAS).
 - b) Survey of orchid cultivation: this task was dealt with the Plants Conservation Department at the provincial level.
 - c) Preliminary investigation of orchid markets: this task was also conducted by orchid experts from the Beijing Botanic Institute of CAS.
 - d) Survey of orchids used in medicinal purposes in China: this task was done by experts from the Medicine Identification Institute of Shanghai.
6. The CITES Management Authority of China organized and coordinated all the work and also compiles and analyzed the results of this study.

Distribution review and preliminary survey

7. The distribution of 262 orchid species within 34 genera that have international trade or potential for trade was reviewed by experts from the information available, herbaria and field work records.
8. The information on the distribution of each species was detailed down to country level and the data on global distribution were also collected. This information was then put into the GIS (Global Information System), and a distribution map of GIS was created for each species.

Cultivation survey

9. The investigation of cultivation is concentrated in 12 provinces: Guangdong, Guangxi, Yunnan, Sichuan, Chongqing, Fujian, Hunan, Hainan, Jiangsu, Zhejiang, Beijing and Liaoning. 293 orchid nurseries were investigated which cultivate altogether 261 million stocks of 173 different species of orchids and propagate about 32 million stocks every year.

Preliminary investigation on trade and markets

10. The orchid trade patterns and markets in China were investigated, and related data were obtained in the following ways.
 - a) First, direct contact with the orchid dealers or collectors who mainly deal with the collection of wild orchids in China and their export. The commercial activities of at least one dealer were recorded in detail.
 - b) Second, some markets specialized in orchids were visited, and the orchid species and the quantity of each species were recorded and photographed.
 - c) Third, more than 100 orchid trading information tables were distributed for data collection among commercial growers, amateurs and commercial collectors, and 42 tables were returned.
 - d) Last, the information available in quite a wide range of magazines and articles was reviewed.

Survey of medicinal plants

11. The following investigation concerning the orchids used for medicinal purposes was carried out according to the distribution and trade status of these species:
 - a) Investigation by letter to the main producing areas, including Guangdong, Guangxi, Sichuan, Guizhou, Hubei and Hunan;
 - b) Investigation on the cultivation of *Dendrobium officinale* in Tiantai of Zhejiang;
 - c) Investigation on production and processing of Shihu in Leqing of Zhejiang;
 - d) Investigation on the use of Shihu of Nanjing Jinling Pharmaceutical Factory;

- e) Investigation on the production of Shihu (*D. huoshanense*) in Huoshan of Anhui;
 - f) Investigation on the trade of orchids species used for medicinal purposes in Yunnan; and
 - g) Investigation on the trade of orchids species used for medicinal purposes in the main consumer areas of Guangzhou, Shenzhen and Shantou of Guangdong.
12. More than 60 persons, including civil servants and businessmen, were interviewed during the investigation.

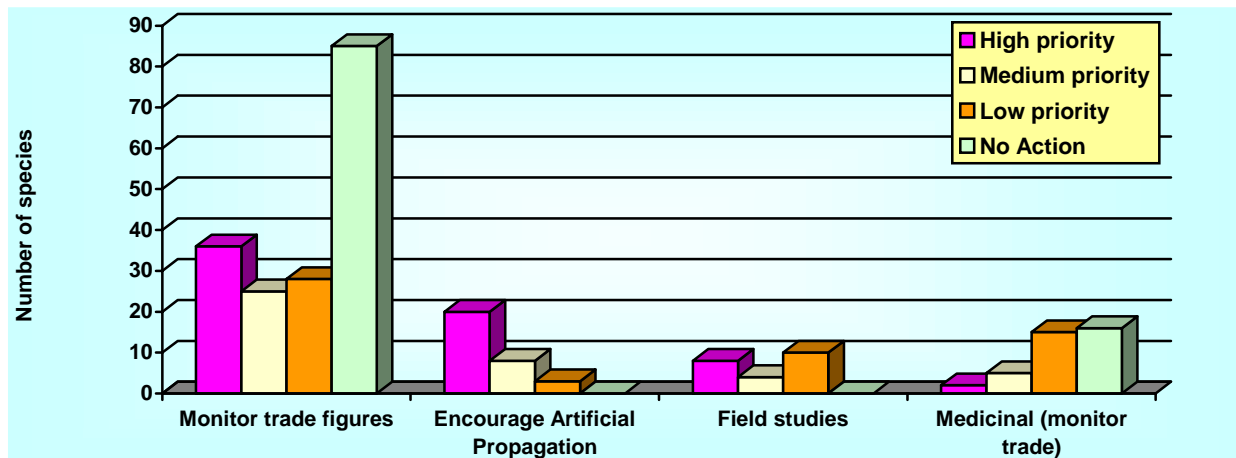
Training course

13. A training course was organized by the CITES Management Authority of China thereafter, which more than 20 participants from the local office of the CITES Management Authority of China attended.

Workshop

14. A workshop to review the results of the trade analysis carried out by RBG Kew and the research carried out by the CITES Management Authority of China took place in Kunming, China in June 2000.
15. Participants in the workshop were provided with more than 245 datasheets covering the species identified for consideration as a result of the data analysis:
- Most highly traded species
 - Species endemic to China
 - Species with distributions in countries bordering China
 - Species rated Endangered, Vulnerable or Rare on a country basis
 - Species rated Endangered, Vulnerable or Rare on a global basis
 - Species traded mainly as derivatives
16. Each data sheet included accepted name, synonymy, national (at province and county level where possible) and global distribution (including map), national and global conservation status and trade figures. An example of a data sheet is given in figure 1 (see Annex).
17. Following discussion, comments and recommendations were made on the following basis:
- No action
 - Monitor trade figures
 - Encourage artificial propagation
 - Field studies
 - Medicinal (monitor trade)

Recommendations for Action



18. The bar chart above summarizes the discussions and subsequent recommendations of the review process. Of the taxa above, 44 species were identified as having a high priority for action:

Monitor trade

Amitostigma gonggashanicum,
A. hemipillioides, *A. pinguicula*, *A. simplex*
Cymbidium eburneum, *C. sinense*,
C. wenshanense
Cypripedium palangshanense,
C. bardolphianum, *C. calceolus*, *C. fargesii*,
C. farreri, *C. fasciolatum*, *C. japonicum*,
C. lentiginosum, *C. micranthum*, *C. wardii*
Dendrobium chrysanthum
Neofinetia falcata
Paphiopedilum armeniacum, *P. barbigerum*,
P. bellatulum, *P. henryanum*, *P. emersonii*,
P. malipoense, *P. micranthum*, *P. parishii*,
P. tigrinum, *P. villosum*, *P. wardii*
Phalaenopsis wilsonii
Pleione albiflora, *P. chunii*, *P. forrestii*,
P. grandiflora, *P. hookeriana*

Artificial propagation

Bletilla ochracea, *B. striata*
Cymbidium eburneum
Dendrobium aduncum, *D. crepidatum*,
D. chrysanthum, *D. nobile*
Neofinetia falcata
Paphiopedilum armeniacum, *P. barbigerum*,
P. bellatulum, *P. emersonii*, *P. henryanum*,
P. malipoense, *P. micranthum*, *P. parishii*,
P. tigrinum, *P. villosum*, *P. wardii*
Pleione yunnanensis

Medicinal (monitor trade)

Bletilla striata
Dendrobium aduncum

Further recommendations from the Workshop

Database

19. It was agreed that a database would be established on China's indigenous species of orchids in trade and that this database would include information on distribution within protected areas and conservation status. The database would be held and used in China. The database developed by RBG Kew would serve as the framework database, but additional information would be added, for example:

- Protected areas
 - Conservation status of species within China
 - Illustrations as an aid to identification - photograph and/or line-drawing
 - Information pertaining to artificial propagation - where and quantity
 - Markets trading in wild-collected specimens - and quantity and cost (with date)
20. Distribution information in the database would be regularly verified and updated by experts in China, including the CITES Scientific Authority.
21. It was also agreed that sensitive information (such as locations of very rare species and information on nurseries and traders) should not be freely accessible.
22. It was suggested that the RBG Kew be requested to further develop the database, after which the Management Authority of China would be responsible for its maintenance and updating.

Training and identification materials

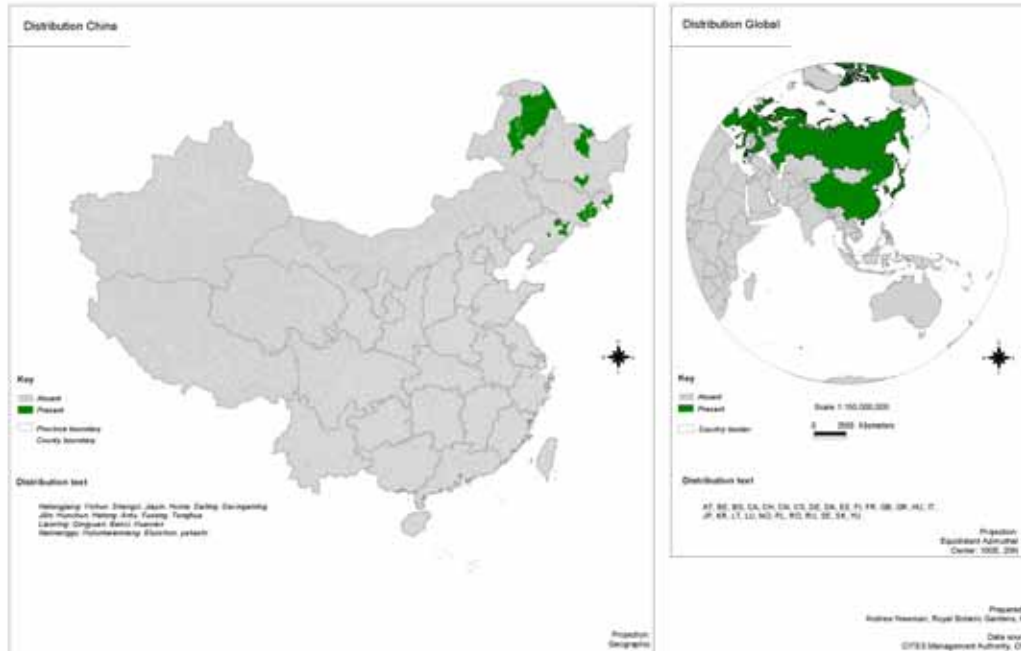
23. It was recommended that high priority be given to the training of enforcement officers and the preparation of an identification guide, which illustrates how to recognise the most commonly smuggled and threatened orchid taxa (*Calanthe*, *Cymbidium*, *Cypripedium*, *Dendrobium*, *Paphiopedilum* and *Pleione*) in their vegetative form and how to differentiate wild-collected from artificially propagated orchid plants. Such an identification guide should be relevant to enforcement officers in the major importing countries.

Orchid propagation

24. An assessment was recommended of the methods and extent of commercial orchid propagation within Chinese nurseries and the potential for further development of nursery production. This should be followed by an investigation into the feasibility of expanding small-scale orchid production in rural areas and in association with protected areas.
25. It was agreed that promotion of artificial propagation should not be carried out at the expense of sustainable trade in wild-collected plants.
26. It was recommended that a pilot project be developed.

Example of species sheet used in Kunming

Cypripedium calceolus Lindl.



Microsoft Access - [All details]

File Edit View Tools Window Help

1. Accepted Name *Cypripedium calceolus*

Author: Lindl.

2. Distribution (See map on previous page)

3. Synonyms

- Cypripedium alternifolius* St.-Lag.
- C. atamoni* Moresn.
- C. boreale* E. Salisb.
- C. calceolus* var. *atamoni* (C.Moresn) Pfitzer
- C. crinitatum* Dulac
- C. ferrugineum* Gray
- C. marianus* Rouy
- C. marianus* Grantz
- C. microcaecus* Kraenzl. (120)

4. Conservation ratings

IUCN country ratings

AT - V (8000), BA - E2(1091), BE(FreJange) - EX (8000), B G(south) - V (8000), CH - V (8000), CZ - V (2050), DE - E (8000), DK(Buddsenupholm, Skindberglund) - V (18216), EE - R (18216), ES - V (8000), FI - I (8000), FR(Breconnes, Breconnes), G (8000), GB(Lordship), E (10215) G2, G, 2

IUCN world rating

nt (1098)

5. Trade Data

Year	Net Exports
1990	0
1991	0
1992	6000
1993	5200
1994	8216
1995	2200
1996	6050
1997	4000

6. Cultivation

Province	Num per in cultivation	Stocks
Guangdong:	0	0
Guangxi:	0	0
Hainan:	0	0
Hunan:	0	0
Jiangsu:	0	0
Liaoning:	0	0
Sichuan:	20000	50000
Yunnan:	0	0
Zhejiang:	0	0
Chongqing:	0	0
Total:	20000	50000

Propagation method: D
Stock source: W

Trade graph

Comments

W*

Data source: 1

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