CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

Proposals resulting from reviews by the Plants Committees

A. Proposal

a) Change the current listings of Cyatheaceae spp. to *Cyathea* spp. (including *Alsophila*, *Nephelea*, *Sphaeropteris, Trichipteris*).

b) Change the current listing of Dicksoniaceae spp. to *Dicksonia* spp. (originating in the Americas only) and *Cibotium barometz*.

B. Proponent

Swiss Confederation.

C. Supporting Statement

1. Taxonomy

1.1 Class:
a) Filicidae
b) Filicidae

1.2 Order:
a) Cyatheales
b) Dicksoniales

1.3 Family:
a) Cyatheaceae
b) Dicksoniaceae

1.4 Genus:
a) *Cyathea* spp. (including *Alsophila*, *Nephelea*, *Sphaeropteris, Trichipteris*)
b) i) *Dicksonia* spp. (originating in the Americas)
ii) *Cibotium*: *Cibotium barometz*

1.5 Scientific synonyms:

1.6 Common names:
a)
English: tree ferns
French: fougères arborescentes
Spanish: helechos arborescentes

b) i)
English: tree ferns
French: fougères arborescentes
Spanish: helechos arborescentes

ii)
English: Golden haired dog fern
French:
Spanish:

1.7 Code numbers:

2. Biological Parameters

2.1 Distribution

Representatives of the Cyatheaceae and Dicksoniaceae can be found in all tropical regions of the world. Some smaller genera have a more restricted, continental distribution.

Family	**Genus**	**Comments**	**Com-mercial Trade**
Cyatheaceae	*Alsophila*	Included in *Cyathea* as subgenus	---
Cyatheaceae	*Cnemidaria*	Tropical America; ca. 23 species	No
Cyatheaceae	*Cyathea*	Pantropical, 600 species	Yes
Cyatheaceae	*Nephelea*	Included in *Cyathea* as subgenus	---
Cyatheaceae	*Sphaeropteris*	Included in *Cyathea* as subgenus	---
Cyatheaceae	*Trichipteris*	Included in *Cyathea* as subgenus	---
Dicksoniaceae*	*Calochlaena*	Tropical Asia, Oceania, segregated from *Culcita senso stricto*	Yes
Dicksoniaceae	*Cibotium*	Pantropical 12 species, only *C. barometz* reported to be in trade	Yes
Dicksoniaceae*	*Culcita*	Tropical America, 1 species	No
Dicksoniaceae	*Cystodium*	Tropical Asia, Oceania, 1 species	No
Dicksoniaceae	*Dicksonia*	Tropical America, Oceania, South East Asia (high elevations); *D. sellowiana*: widespread from Mexico to South Brazil, height 10m. Easy to recognize because of the presence golden hairs and the absence of spines or scales	Yes
Dicksoniaceae**	*Thyrsopteris*	Endemic; Juan Fernandez Island; 1 species	No
Lophosoriaceae	*Lophosoria*	1 species, tropical South America	No
Metaxyaceae	*Metaxya*	1 species, tropical South America	No

* Also treated in a separate family; Culcitaceae (see, e.g., Pichi Sermolli 1977).
** Also treated in a separate family; Thyrsopteridaceae (see, e.g., Pichi Sermolli 1977).

2.2 Habitat availability

2.3 Population status

The trade data – quality of which was sometimes poor and inconsistent – demonstrated that about 60 species of Cyatheaceae and Dicksoniaceae have appeared in international trade. Most of the species are traded in very small quantities, almost all for scientific purposes. Ten species are traded in significant quantities: *Cyathea arborea, Cyathea biformis, Cyathea latebrosa, Cyathea lepifera, Calochlaena dubia, Dicksonia antartica, Dicksonia fibrosa, Dicksonia sellowiana, Dicksonia squarrosa*. These are common, non-threatened species. Only *Dicksonia sellowiana* and *Cyathea biformis* are considered as 'Endangered' in its major country of export: Brazil. In Australia and New Zealand, commercial trade of tree fern is well regulated. They are export countries for four of the commercially traded species *(Calochlaena dubia, Dicksonia antartica, Dicksonia fibrosa and Dicksonia squarrosa).* D. Given reported that there are no threatened species in New Zealand and that there would be no benefit for them to be listed by CITES. Trade is mostly national or local, there is little export.

2.4 Population trends

Species may be threatened locally, mainly because of habitat destruction.

2.5 Geographic trends

Not applicable.

2.6 Role of the species in its ecosystem

Not applicable.

2.7 Threats

Not applicable.

3. Utilization and Trade

3.1 National utilization

Stems of species of *Cyathea* and *Dicksonia* are used as substrate for orchid propagation. *Cibotium barometz* is used for its medicinal properties.

3.2 Legal international trade

Taxa are traded either as:

- live plants (all taxa);
- leaves (*Cyathea alata, C. albifrons, C. intermedia, C. novae-caledoniae, C. veillardii, Calochlaena dubia*);
- stems (*Cyathea contaminans, Calochlaena dubia, Dicksonia fibrosa, D. squarrosa*);
- fibres (*Cyathea arborea, Cyathea spp., Dicksonia squarrosa*);
- flowerpots (*Dicksonia fibrosa, D. sellowiana*);
- roots and rhizoms (*Cibotium barometz*).

Import / Export of Tree Ferns 1996-1997 (data from WCMC)

Family	Taxon	Exporter	Importer	Quantity
CYAT	*Alsophila firma*	CR	US	2
CYAT	*Alsophila polystichoides*	CR	US	2
CYAT	*Alsophila spp.*	CR, ES	US, MA	9
CYAT	*Cnemidaria choricarpa*	CR	US	2
CYAT	*Cyathea abbottii*	DO	US	4
CYAT	*Cyathea alata*	NC	US	2 / 1 ship, leaves
CYAT	*Cyathea albifrons*	NC	US	1 ship, leaves
CYAT	***Cyathea arborea***	**GT**	**US**	**139 m2, fibres**
CYAT	*Cyathea bicrenata*	CR	US	2
CYAT	*Cyathea borbonica*	MG	FR	1
CYAT	*Cyathea brownii*	AU, NZ	GB	123
CYAT	***Cyathea contaminans***	**ID**	**JP, TW**	**50, 17940 stems**
CYAT	*Cyathea cooperi*	AU, NZ, ZA	GB	129
CYAT	*Cyathea crassa*	DO	US	2
CYAT	*Cyathea cunninghamii*	GB	AU	50
CYAT	***Cyathea dealbata***	**AU, NZ**	**GB, CA, FR, NL**	**400 +**
CYAT	*Cyathea delgadii*	CR	US	2
CYAT	*Cyathea dregei*	HK, ZA	US, GB	66
CYAT	*Cyathea fulgens*	DO	US	4

Family	Taxon	Exporter	Importer	Quantity
CYAT	*Cyathea fulva*	CR	US	2
CYAT	*Cyathea imrayana*	CR	US	2
CYAT	*Cyathea incisoserrata*	ZA	GB	12
CYAT	*Cyathea insignis*	DO	US	2
CYAT	*Cyathea intermedia*	NC	US	1 ship, leaves
CYAT	*Cyathea lepifera*	ZA	GB	12
CYAT	*Cyathea medullaris*	AU, NZ	GB, NL, FR, CA	500 +
CYAT	*Cyathea microdonta*	CR	US	2
CYAT	*Cyathea milnei*	ZA	GB	6
CYAT	*Cyathea minor*	DO	US	4
CYAT	*Cyathea novae-caledoniae*	NC	US	2, 1 ship, leaves
CYAT	*Cyathea parvula*	DO	US	2
CYAT	*Cyathea pinnula*	CR	US	2
CYAT	*Cyathea robertsiana*	AU	GB	1
CYAT	*Cyathea robusta*	AU	GB	50
CYAT	*Cyathea schiediana*	CR	US	2
CYAT	*Cyathea smithii*	NZ	GB, CA, FR	300 +
CYAT	*Cyathea stelligera*	NC	US	3
CYAT	*Cyathea suprastrigosa*	CR	US	2
CYAT	*Cyathea tomentosissima*	AU, ZA	GB	64
CYAT	*Cyathea urbanii*	DO	US	2
CYAT	*Cyathea vieillardii*	NC	US	2, 1 ship, leaves
CYAT	*Cyathea woodwardiodes*	DO	US	2
CYAT	*Cyathea woollsiana*	AU	GB	15
CYAT	***Cyathea* spp.**	**CR, GT, ID, MG, ST, AU, CU, FJ, PY**	**US, FR, PT, GB, GH, CH, MU, AT**	**160 +, fibres (300 + m3), dried pl. (48)**
DICK	***Calochlaena dubia***	**AU**	**JP, US**	**50000 leaves, 45000 stems**
DICK	***Cibotium barometz***	**CN, HK, VN, CL**	de, ca, hk, kr, us	**100'000 + roots, 25kg live**
DICK	*Cibotium* spp.	CL, DE, VN	DE, CL, US	1, 200gr. derivatives
DICK	***Dicksonia antarctica***	**AU, (CA), (FR)**	**NL, AE, AU, FR, GB, IT, JP, NL, US, CH**	**125'000 +**
DICK	***Dicksonia fibrosa***	**NZ**	**GB, JP, NL, CA, FR**	**150 +, 205 + stems, 590 flowerpots**
DICK	*Dicksonia gigantea*	CR	US	2
DICK	***Dicksonia sellowiana***	**BR, (ZA)**	**DE, GB**	**6, 14'400 + flowerpots**
DICK	***Dicksonia squarrosa***	**NZ**	**GB, JP, CA, FR, NL**	**220 +, fibres +, flowerpots +, stems +**
DICK	*Dicksonia thyrsopteroides*	NC	US	1 ship live
DICK	*Dicksonia youngiae*	ZA	GB	6
DICK	*Dicksonia* spp.	NZ, CA, AU, PY	GB, US, AT	120 +

(from WCMC, Dec. 98)
in ( ) = re-exports

3.3 Illegal trade

Some shipments have been confiscated in the past. There is no information on recent illegal trade.

3.4 Actual or potential trade impacts

Those taxa for which it is believed that trade might have a negative impact on the populations are maintained in Appendix II.

3.5 Captive breeding or artificial propagation for commercial purposes (outside country of origin)

Tree ferns of the genera *Cyathea* and *Dicksonia* are relatively easy to propagate although this is currently not happening on a very large scale. *Cibotium barometz* is currently not in cultivation on a commercial scale.

4. Conservation and Management

4.1 Legal status

4.1.1 National

Through national legislation, protection is provided in many range States. However, the level of this protection may vary between the range States.

4.1.2 International

Cyathea capensis, *C. dredgei*, *C. mexicana* and *C. calwinii* have been included in Appendix II since 1 July 1975. At the first meeting of the Conference of the Parties this listing was amended to Cyatheaceae spp. and at the same time the family Dicksoniaceae was also included in Appendix II.

4.2 Species management

4.2.1 Population monitoring

Not applicable.

4.2.2 Habitat conservation

Not applicable.

4.2.3 Management measures

Harvesting of tree ferns, as part of the forest management, is apparently well regulated in Australia and New Zealand.

4.3 Control measures

4.3.1 International trade

Not applicable.

4.3.2 Domestic measures

Not applicable.

5. Information on Similar Species

None.

6. Other Comments

All range States have been informed about the recommendation of the Plants Committee (see below).

The following Parties expressed support for the proposal: Argentina, Australia, Belize, Bermuda, Brazil, Chile, China, Namibia, New Zealand, Peru, Philippines, St. Helena (United Kingdom), Seychelles, Singapore, Suriname, United States of America.

Bangladesh indicated in its response that few species occur in its territory, in two densities. It would thus support recommendations in favour of strict regulation or prohibition of trade in tree ferns from nature.

7. Additional Remarks

At its fifth meeting (San Miguel de Allende, Mexico, 1994), the Plants Committee discussed a document prepared by WCMC, containing information on trade and conservation status. It was decided that a more detailed review should be carried out. At its sixth meeting (Tenerife, Spain, 1995) the Plants Committee discussed the document *International trade in tree fern – an evaluation of CITES* prepared by WCMC under contract with the Secretariat. At its seventh meeting (San Juan, Costa Rica, 1996) and eight meeting (Pucón Chile, 1997), the Plants Committee discusses this subject in further detail, also in relation to possible identification problems. At its ninth meeting (Darwin, Australia, 1999) the Plants Committee, as part of its programme on the review of the Appendices, recommended that the current listing of tree ferns be amended as proposed in this document.

8. References

Buchner R., Dietrich G., Kiehn M., 1997: Tree fern parts in trade in Central and South America. - CITES News - Plants, March 1997: 3.

Pichi Sermolli, R.E.G., 1977: Testamen Pteridophytorum genera in taxonomicum ordinem redigendi. - Webbia 31, 313-512.

Proctor, G.R., 1977: Pteridophyta. In Howard, R.A. (ed.): Flora of the Lesser Antilles 2: 103. - Arnold Arboretum, Cambridge, Mass. (USA).

Tryon R.M., Tryon A.F. (1982) Ferns and allied plants. Springer, New York, Heidelberg, Berlin.

World Conservation Monitoring Centre (1995) International trade in tree ferns - an evaluation of the application of CITES and literature cited therein.