AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Other Proposals

A. PROPOSAL

Inclusion of Swietenia spp. in Appendix II.

B. PROPONENT

Costa Rica.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Dicotyledoneae

12. Order: Sapindales

13. Family: Meliaceae

14. Genus: Swietenia (Jacquin)

Following Styles (1981) the following species are listed under the genus Swietenia:

* S. humilis Zuccarini
S. macrophylla King
S. mahogani (L.) Jacquin
S. aubrevilleana Stehle & Cusin

* Species currently listed in Appendix II of CITES.

Discussion

Hybrids between the Swietenia spp. are common where previously isolated species are now in close proximity. S. aubrevilleana is a putative hybrid between S. mahogani and S. macrophylla, and is found on a variety of islands in the Caribbean and also in the far east (Styles, 1981). A hybrid between S. macrophylla and S. humilis occurs naturally in the drier parts of northwestern Costa Rica (Styles, 1981).

Other species have in the past been classified under the genus Swietenia, including Khaya senegalensis and Entandrophragma angolensis (colloquially known as African mahoganies). For a more complete list see Styles (1981).

15: Common Names: English: American mahogany
Small leaf mahogany (S. mahogani)
Big leaf mahogany (S. macrophylla)
Spanish mahogany (esp. S. mahogani)
Honduras mahogany (esp. S. mahogani)
Pacific coast mahogany (esp. S. humilis)

French: Acajou
Spanish:
Portuguese: Mogno, Aguano

16. Code Numbers:

2. Biological Data

The biology of this genus is discussed by Record and Hess (1943), and more recently by Styles (1981). Detailed information on the history, trade, ecology and silviculture of mahoganies is available from Lamb (1966). The conservation status of mahoganies has been reported by Knees and Gardner (1984), Reed (1990) and more briefly by Oldfield (1988).

21. Distribution:

Swietenia humilis:	Mexico, Guatemala, Honduras. El Salvador, Nicaragua, Costa Rica.
Swietenia mahogani:	Florida (US), Bahamas, Cuba, Jamaica, Hispaniola. (Introduced onto other Caribbean islands).
Swietenia macrophylla:	Mexico, Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Colombia, Venezuela, French Guiana, Peru, Bolivia, Brazil.

22. Population: Although the ranges of Swietenia spp. have not decreased markedly, populations have been substantially reduced. This reduction is particularly marked when one considers regional and indigenous populations, in contrast to cultivated, ornamental, hybrid and translocated specimens. Genetic factors within populations are also of critical importance, with selective logging of the best specimens having occurred for centuries.

S. humilis: Populations are now limited to occasional trees on the borders of cultivated land in much of the range.

S. mahogani: Centuries of exploitation for its timber value have greatly reduced the numbers and quality of the remaining indigenous stands of S. mahogani over its entire range. S. mahogani is "a prime example of extreme genetic erosion due to past exploitation of the best genotypes" (Styles, 1981). Though now grown as a forest crop or ornamental tree, this once prized tree now occurs as little more than a much-branched bush (Styles, 1981). Though reportedly widespread still on Hispaniola (pers. com. Haiti and Dominican Republic reports), inventories are scarce, plantations rare, and protection lacking. Populations occur in Florida, though it is regarded as a locally threatened species (Florida Natural Resources Inventory). Contemporary information on Cuban populations is lacking, though Lamb (1966) reported that by 1966 Cuba could no longer supply its own domestic mahogany requirements.

S. macrophylla: Trade pressures are exploiting the remaining indigenous stands of S. macrophylla throughout its range (pers. com. Pennington). Large timber reserves are still present in Brazil, though these also are suffering from logging and land clearing. Other populations include:

Nation	Status	Source	Comment
Venezuela	Vulnerable (BIOMA)	Cremone & Capobianco	Abundant in high western extractive reserves. Population has declined by 2/3 in less than fifteen years, and may be gone the year 2000.
Peru	Threatened (L1-L2)	CDC Peru	Selective extraction has lead to an urgent need for protection.
Colombia	Rare	CDC Col.	9687 m^3 remain in Juarado region (1989 forest inventory). Temporary prohibition on exploitation recommended.
Honduras	Abundant	???	Limited data. Exportation of unfinished wood prohibited.
Costa Rica	Threatened	Biodiv. DB	Over-exploited and scarce.
Guatemala	--	CDC Guat.	Illegal extraction prevalent. Last remnants in El Peten state.
Bolivia	Common	Pennington Pers. com.	Minimum diameter for logging. Common in Pando region, and as yet not being logged.

23. Habitat: S. humilis occurs in tropical dry deciduous forest and savanna, at altitudes from 0-1200 meters (Styles, 1981). S. mahogani and S. macrophylla occur in dry forest as well as moist and gallery forest. S. mahogani occurs from sea level up to 800 meters (Styles, 1981), and S. macrophylla to 1400 meters (Lamb, 1966).

3. Trade Data

The national and international trade and utilization of Swietenia spp. involves principally timber. Mahoganies have been in international trade for over four centuries, with the earliest surviving use being a cross presented in the Cathedral of St. Domingo from 1514 (Lamb, 1966). The properties of mahogany, such as its stability, durability, and above all its beauty, have made this perhaps the most valuable timber tree of Latin America (Styles, 1981). It is now particularly prized for high-class cabinets and reproduction furniture, chairs, panelling, and pianos, and may be used as solid wood or as veneers (Walker, 1989).

The initial mahogany trade was in S. mahogani from the Caribbean, though with the exhaustion of these stocks commerce shifted to S. macrophylla. Most of the mahogany on today's commercial market is provided by S. macrophylla, although easily accessible resources in Central America are much diminished. Most of the neotropical mahogany now traded originates in Brazil, with the highest volumes being exported to the United Kingdom. A sporadic international trade in mahoganies still appears to be emanating from Caribbean nations, possibly from residual stands of

S. mahogani. S. humilis has never been a major species in international trade, although CITES records indicate continued trade in worked S. humilis to Japan.

No information is available on illegal trade.

Discussion

Extensive data on the international trade in mahoganies is available from import and export customs data. However, tariff schedule listings vary and do not permit correlation between import and export data, nor is the primary country of origin specified in these documents.

Increasing costs and decreasing supplies have created a greater emphasis on trade in veneers.

Silviculture of Swietenia spp. has been severely restricted by the shoot borer, Hypsipyla grandella Zell. These moth larvae feed on the growing, terminal shoots of young trees, leading to excessive branching and poorly formed trunks (Lamb, 1966).

4. Protection Status

41. National: National protection measures for mahoganies have included restrictions on logging and inclusion within timber reserves and/or national parks. However, the demand for this timber and inadequate enforcement capacity have resulted in widespread logging of ostensibly protected specimens.

S. humilis occurs within Montecristo, El Imposible, Namchuminame and Deinninger protected areas of El Salvador (TPC, 1982).

S. mahogani is not protected under any specific law in the Dominican Republic, although all timber felling is generally restricted. S. manogani occurs in Parque Nacional Los Haitises, P.N. del Este, P.N. Jaragua, although there are no inventories for most parks (pers. com. Moscoso). In Haiti, although the timber regenerates naturally over a wide range, it is found only in a few small reserves. This is considered inadequate to assure future preservation of representative samples (pers. com. Ashley). The Florida Natural Areas Inventory lists S. mahogani as a threatened species, and it is protected in North Key Largo and Lignum Vitae State Preserves, and Everglades National Park.

S. macrophylla is listed by the International Board for Plant Genetic Resources (IBPGR) as a high priority species for genetic resource conservation. The wide distribution of S. macrophylla has led to its inclusion in a number of national parks and forestry reserves, though in many instances these are considered inadequate for assuring preservation of the species and of genetic resources. Even in Brazil, with the largest remaining stocks of S. macrophylla, there is only one sample of this species in the Botanical Gardens of Rio de Janeiro (pers. com. Martinelli). In Venezuela, S. macrophylla is listed in 4 forestry reserves but no national parks. In Peru, though listings occur in a variety of parks and reserves, extraction pressures have meant that the only effectively guarded populations occur in the Manu N.P.

42. International: Many exporting nations have placed restrictions on the trade in Swietenia spp., especially as unprocessed logs. In some instances the restrictions have also included bans on the export of timber that has not been

processed beyond the first stage of transformation, such as wood simply cut to tablets and blocks.

S. humilis is included in Appendix II of CITES.

43. Additional Protection Needs: Research and conservation of local populations is urgently needed for the development of plantation trees (Unesco/UNEP/FAO, 1978). Genetic deterioration of Swietenia spp., especially Swietenia mahogani, is a major factor in the need to monitor and control trade. Although populations occur and regenerate over much of their original range, the best indigenous genotypes have been selectively logged leading to severe genetic erosion. On some islands, the once prized timber species S. mahogani now occurs as a much branched bush and is regarded as a little more than a weed species (Styles, 1981).

5. Information on Similar Species

Within the Meliaceae family, Khaya and Entandrophragma spp. produce similar timber to Swietenia spp., although these are considered by the trade to be distinct. Khaya and Entandrophragma spp. are occasionally referred to as mahoganies, but with the prefix "African".

6. Comments from Countries of Origin

7. Additional Remarks

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