AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Other Proposals

A. PROPOSAL

Transfer of Paphiopedilum spp. from Appendix II to Appendix I.

B. PROPONENT

The Kingdom of the Netherlands.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Monocotyledonae

12. Order: Orchidales

13. Family: Orchidaceae

14. Genus: Paphiopedilum Pfitz.

15. Common names: English: slipper orchids; lady's slippers
French: sabots de Vénus
Spanish:
German: Frauenschuh

16. Code Numbers:

2. Biological Data

21. Distribution: The genus contains about 60 species occurring in Nepal, Sikkim, Bhutan, India, China, Hong Kong, Viet Nam, Laos, Burma, Thailand, Kampuchea, Malaysia, Indonesia, Philippines, Papua New Guinea, Bougainville and Guadalcanal (Cribb, 1987; Braem, 1987 & 1988). The rate of endemism is very high among the species; many are restricted to only a small area, e.g. limestone outcrops, mountain tops.

Most species may occur terrestrial, (rooting among leaflitter and moss) as well as lithophytic (growing on rocks) or epiphytic (growing on trunks or branches of trees), provided that enough humus is present on the substratum. Some species show a more definite preference for only one of the three substrates mentioned.

The plants usually grow in clusters. Each new shoot produces roots, a number of leaves in two rows, and finally a flower-stalk with one or more flowers. New shoots arise from the base of the old ones.

3. Trade Data

31. Utilization and Economic Importance: For about 150 years the slipper orchids from tropical Asia are the best known and most popular orchids. Growing artificial hybrid slipper orchids

constitutes an industry of worldwide importance, first of all for their cut flowers, but also to be kept as indoor pot plants. The flowers of these hybrids are much larger than those of the natural parent species. They are often of bizarre shape and bright colours and have the additional advantage of lasting very long, up to a month or longer.

Plants of the species as they occur in their natural habitat are widely used and highly valued to breed in new desirable characteristics into artificial hybrids. At present particularly valuable characteristics found in newly discovered wild species are: flower size, new colours and the presence of more than one flower in an inflorescense.

Next to this, numerous collectioneurs are very keen on having the 'natural' species growing in their hothouses. They, too, take a special interest in newly discovered species and are willing to pay extravagant prices for the plants. In 1980 the newly discovered and at that time not yet officially described Chinese P. armeniacum showed up in trade and was sold for US$ 500.- a growth (Cribb, 1987). Since 1984 it has become available in huge quantities and prices have dropped to US$ 10.- a growth (offer in Am. Orch. Soc. J., Aug. 1987). In China the species is now on the verge of extinction. Of all the plants offered for sale only a negligible quantity was used for artificial propagation. Most plants have probably perished because the owners were not familiar with its environmental requirements (comm. Cribb). Another example is P. sanderianum which was rediscovered recently after being considered extinct for years. Plants were offered for the incredible price of US$ 3500.- a growth (5 growths US$ 15.000 'only'!). These were stolen from Gunung Mulu National Park in Sarawak (Cribb, 1987; comm. A. Lamb).

Making use of the fact that novelties sell for such high prices, slightly aberrant populations of already known species are described as as newly discovered species. The plants are then stripped from their natural habitat and marketed. This may well turn out to be the case with four recently described species: P. henryanum, P. sangii, P. schoseri and P. topperi. These species have been described by Braem (1987 and 1988), a scientist who presents himself as advisor of one of the most notorious traders in wild collected Paphiopedilum in the Federal Republic of Germany (comm. V. Vliet). Plants of one of these species have been traded already from Europe to the USA as 'P. new species'.

32. Legal Trade: In a few countries in which Paphiopedilum occurs in the wild it is not prohibited by law to trade or export wild collected Paphiopedilum plants: Thailand, Philippines.

33. Illegal trade: In most countries in which Paphiopedilum occurs in the wild export of wild collected plants is strictly prohibited: e.g. Indonesia, Malaysia.

Illegal trade is, however, rampant. Large quantities of plants are collected in not protected forest areas, or stolen from Forest Reserves and National Parks.

The plants are exported in different ways to the consumer countries, mainly Europe, the USA, Japan and Taiwan. Shipments without any export permit from the country of origin are frequently confiscated by the customs in consumer countries.

Other shipments of undoubtedly wild collected plants have been confiscated with export permits stating that the plants have been artificially propagated. Many of the shipments pass through the customs, uninspected.

A third method used to obtain export permits is to smuggle plants to countries without strict legislation on this matter. In those countries export permits are obtained stating that the plants derive from artificial propagation, or stating that the plants have been collected from its natural habitat in that country (even though the species may actually not be indigenous in the export permit issuing country). This way several very rare and now critically endangered species such as P. armeniacum, P. barbigerum, P. emersonii and P. purpuratum find their way to the consumer countries, being exported via Japan, Hong Kong, Taiwan and Thailand. In 1987 a shipment of approx. 3,500 Paphiopedilum plants from Thailand was confiscated in the Netherlands (comm. V. Vliet). According to the documents the plants were collected from the wild, and originating from Thailand. Fifty percent of the plants were extremely rare species not indigenous in Thailand, but in China, Bougainville, Laos and Burma.

34. Threats to the Populations Occurring in the Wild: The proceedings as described above are pernicious to populations in the wild. Many species face total extinction within a decade if the situation will not change within very short. An example is P. armeniacum. This species was discovered and described in 1982. The few plants available received the highest awards obtainable in the orchid world. Since then it has been stripped by the thousands from the only locality known (in the first half of the year 1986 35,000 wild collected plants were exported through Hong Kong). The species must be considered almost extinct now (Cribb, 1987, p. 56). P. druryi was already considered extinct when, in the mid 1970s, a single locality was discovered. Over 3,000 plants were taken from this locality and now the species must again be considered extinct. Without exception all species should be considered endangered to the highest degree.

The survival of populations of all rare or endemic species depends for a considerable part on whether the locality is known to commercial collectors or not. If so the population is under threat of immediate extermination; if not the population is safe provided that its habitat it not destroyed. Many species tend to occur in small colonies only. A single commercial collector can annihilate such a colony within a day.

Unlike many other orchids, populations of Paphiopedilum are threatened only to a very limited degree by habitat destruction. Most species occur in areas which are not suitable for agriculture nor commercial logging (limestone outcrops, areas with ultrabasic soil, mountain tops), although bushfires may cause havoc in areas which easily dry out such as limestone outcrops and on ultrabasic soils (J.J. Vermeulen obs.).

A detailed account for each species is given below. This account is based on Cribb (1987), several other articles and trade data provided by several consumer countries.

The varieties are listed under their variety name. Very often plants are traded under that name, using it as if it were a species name.

For the status assessment for each species the IUCN categories have been used.

P. acmodontum

DISTRIBUTION: Philippines (Negros). Very rare: known from only 1 or possibly 2 localities.

STATUS: Probably almost extinct.

The locality has recently been visited by commercial collectors: about 1400 presumably wild collected plants have been imported into the USA over the period 1982-87.

P. adductum

DISTRIBUTION: Philippines (Mindanao). Very rare: known from 1 locality only.

STATUS: Endangered or almost extinct.

Hundreds of most likely wild collected plants have been imported in the USA in recent years. Plants have also been offered for sale in the Federal Republic of Germany. About 50 wild collected plants, imported as 'artificially propagated' have been confiscated in the Netherlands in 1987 (comm. V. Vliet).

P. 'ang thong' (often considered synonymous with P. godefroyae)

DISTRIBUTION: Thailand. Very rare: known from a few small islands.

STATUS: Endangered. The localities have been visited recently by commercial collectors (c. 1000 plants imported into the USA over the period 1982-87). Even larger numbers have entered the EC, particularly the Netherlands. Regularly wild collected plants, certified as artificially propagated, have been confiscated there. It is oubtful whether a locally occurring taxon can sustain such depletion.

P. annamense (= P. villosum var. annamense)

DISTRIBUTION: Laos. Rare.

STATUS: Probably endangered. A few hundreds of presumably wild collected plants have been imported into the USA in recent years. Approx. 200 wild collected plants were confiscated by the Netherlands Customs.

P. appletonianum

DISTRIBUTION: Thailand, Laos, Kampuchea.

STATUS: Probably endangered.

P. argus

DISTRIBUTION: Philippines (Luzon). Rare: known from a few localities.

STATUS: Endangered. The localities are known to collectors: probably wild collected plants have been imported in some quantity into the USA.

P. armeniacum

DISTRIBUTION: China. Very rare: known from a small area only.

STATUS: Probably almost extinct (Cribb, 1987b). Discovered in 1982, the first plants reaching Europe and the USA made fancy prices (e.g. US$ 500.- a growth). Since then huge quantities of wild collected plants (35,000 plants exported through Hong Kong in the first half of 1986) have flooded the market and prices have dropped dramatically. Over 4,000 wild collected plants (mixed with P. micranthum) were confiscated in the Federal Republic of Germany.

P. barbatum

DISTRIBUTION: Malaysia (Peninsular). Rather rare: known from scattered localities.

STATUS: Endangered.

A few thousands presumably wild collected plants have been imported in Europe and the USA in the past years.

P. barbigerum

DISTRIBUTION: China. Probably very rare.

STATUS: Endangered or almost extinct.

Until recently only known from herbarium specimens collected long ago. In 1986 wild collected plants reappeared in cultivation (100 plants confiscated in the Federal Republic of Germany in 1988). These have probably been imported from China, through Hong Kong.

P. bellatulum

DISTRIBUTION: Burma. Thailand. China. Probably rather rare now.

STATUS: Endangered. Although rather widespread, the populations must be almost depleted now after almost a century of incessant collecting.

P. bougainvilleanum

DISTRIBUTION: Bougainville Isl. Very rare: known from a single locality.

STATUS: Almost extinct.

Only few plants remain from a previously sizeable colony (Cribb, 1987). Approx. 100 plants have been confiscated in the Federal Republic of Germany in 1988.

P. boxallii (= P. villosum var. boxallii)

DISTRIBUTION: Burma.

STATUS: Not known.

P. bullenianum (see also var. celebense)

DISTRIBUTION: Malaysia (Peninsular). Indonesia. Widespread.

STATUS: Endangered.

The species consists of a number of slightly different formae (see var. celebense). Some of these are under collecting pressure: presumably wild collected plants are imported into the USA in some quantity.

P. callosum (see also var. sublaeve)

DISTRIBUTION: Thailand, Kampuchea, Laos. Now rather rare.

STATUS: Endangered.

Undoubtedly heading for extinction within short. Thousands wild collected plants are imported yearly into Europe and the USA. Many of these are sold with a flower as indoor pot plants, to be thrown away as soon as the flower has whithered.

P. celebense (= P. bullenianum var. celebense)

DISTRIBUTION: Indonesia (Celebes). Rare.

STATUS: Endangered.

The localities are known to collectors: presumably wild collected plants have been imported into the USA.

P. charlesworthii

DISTRIBUTION: Burma. Recently also reported from Thailand. Rather widespread.

STATUS: Endangered.

Apparently not very rare locally but collected by the thousands ('I saw a whole bullock-cart [with] more than 2000 P. charlesworthii'), the plants being exported through Thailand and China [Held: Orch. Research Newsletter 12 (1988) 10]. Approx.

300 illegally imported plants have been confiscated in the Netherlands in 1987. No species is likely to survive such extermination.

P. chiwuanum (= P. hirsutissimum var. chiwuanum)

DISTRIBUTION: China. Very rare: only known from the type locality.

STATUS: Endangered.

Presumably wild collected plants identified as P. chiwuanum have been imported into the USA recently (US Fish & Wildlife Service).

P. ciliolare

DISTRIBUTION: Philippines (Mindanao and few neighbouring islands). Very rare: known from a few localities only.

STATUS: Endangered.

Hundreds of presumably wild collected plants have been imported into the USA in recent years.

P. concolor

DISTRIBUTION: Burma. Thailand. Laos. Kampuchea. Vietnam. China. Rather widespread.

STATUS: Endangered.

Heading for extinction soon. Although rather widespread originally huge numbers of wild collected plants are imported in Europe and America yearly. Many of them a sold as cheap indoor pot plants and die soon. It is improbable that a species can sustain such predacity for a prolonged period.

P. dayanum

DISTRIBUTION: Malaysia (Sabah). Very rare: known from a single locality only.

STATUS: Almost extinct (Cribb, 1987).

Although the locality is within the boundaries of a National Park plants are frequently stolen by collectors.

P. delenatii

DISTRIBUTION: Viet Nam. China (?).

STATUS: Probably extinct. Not found back in recent years (Cribb, 1987). In 1986 it was rumoured that it was rediscovered in China (Yunnan) but this could not be corroborated (Koopowitz & Hasegawa, 1986). Most plants in cultivation derive from plants collected long ago and grown for seed in France (Cribb, 1987).

P. dianthum (= P. parishii var. dianthum)

DISTRIBUTION: China. Thailand. Rather rare.

STATUS: Endangered. Presumably wild collected plants have been imported into the USA in some quantity in recent years.

P. dollii. See P. henryanum

P. druryi (Appendix I).

DISTRIBUTION: India. Very rare: known from a single locality only.

STATUS: Extinct. All plants have been stripped by commercial collectors from the last known locality. Protective measures have been taken by the Indian Government but it may well be too late now.

P. elliotianum (= P. rothschildianum, but see also under P. adductum)

P. emersonii

DISTRIBUTION: China. Probably very rare. Exact locality not known.

STATUS: Probably almost extinct.

The species was only described in 1986, but in the same year undoubtedly wild collected plants were traded as 'artificially propagated'. Large quantities of wild collected plants are available for sale, mostly exported illegally through Hong Kong (comm. V. Vliet); hundreds have been imported into the USA in recent years. Approx. 100 illegally imported plants have been confiscated in the Netherlands in 1988.

P. esquirolei (= P. hirsutissimum var. esquirolei)

DISTRIBUTION: China. Thailand. Probably rare now.

STATUS: Endangered.

Numerous wild collected plants have been imported into the USA in recent years, all from Thailand (Cribb, 1987).

P. exul

DISTRIBUTION: Thailand. Rare, known from a small area only.

STATUS: Endangered or almost extinct.

Hundreds of wild collected plants are imported yearly into the USA.

P. fairreanum

DISTRIBUTION: Sikkim, Bhutan, India. Now rare.

STATUS: Endangered.

The populations have suffered 80 years of commercial collecting now.

P. fowliei (= P. hennisianum var. fowlei)

DISTRIBUTION: Philippines. Very rare: known from one or a few localities only.

STATUS: Endangered or almost extinct.

Hundreds of presumably wild collected plants have been imported into the USA in recent years.

P. glanduliferum (see also var. wilhelminae)

DISTRIBUTION: Indonesia (Irian Jaya). Papua New Guinea. Rare: known from few populations only.

STATUS: Endangered.

Wild collected plants are frequently offered for sale in Europe and the USA (anon.). A new locality has recently been discovered (anon.).

P. glaucophyllum (see also var. moquetteanum)

DISTRIBUTION: Indonesia (Java). Now rare.

STATUS: Almost extinct. Widespread originally. Many populations have fallen under collecting pressure and habitat destruction, newly discovered populations are quicky depleted by collectors.

P. godefroyae (see also P. 'Ang Thong')

DISTRIBUTION: Thailand. Rather rare now.

STATUS: Endangered. Thousands of wild collected plants have been imported into Europe and the USA in recent years. Large shipments of illegally imported plants are regularly confiscated in the Netherlands. This species is often sold, with a flower, as a cheap indoor pot plant, to be thrown away as soon as the flower has whithered.

P. gratrixianum

DISTRIBUTION: Laos. Viet Nam (?). Rare: occurring in a small area only.

STATUS: Endangered. Hundreds of plants have been imported into the USA in recent years.

P. haynaldianum

DISTRIBUTION: Philippines (Luzon and Negros). Rare: known only from few scattered localities.

STATUS: Endangered.

The few localities suffer from collecting: a few hundreds of plants have been imported into the USA in recent years.

P. hennisianum (see also var. fowliei)

DISTRIBUTION: Philippines. Rather rare.

STATUS: Endangered. Hundreds of plants have been imported into the USA in recent years.

P. henryanum (= P. dollii)

DISTRIBUTION: China. Very rare: known from a small area only.

STATUS: Endangered. The species was discovered by a commercial collector and described (Braem, 1987); the population is therefore under immediate threat of extermination. Approx. 200 specimens have been confiscated in the Federal Republic of Germany in 1988 (V. Vliet).

P. hirsutissimum (see also var. chihuanum and var. esquirolei)

DISTRIBUTION: India. China. Thailand. Widespread but probably rather rare now.

STATUS: Endangered. Consisting of a number of slightly different subspecies: chiwuanum and esquirolei. These are often traded under the subspecies name. Large scale collecting in the past as well as in recent years (still imported in large quantities into the USA) undoubtedly took its toll.

P. hookerae (see also var. volonteanum)

DISTRIBUTION: Malaysia (Sarawak). Indonesia (Kalimantan). Rare; known from a few populations only.

STATUS: Endangered or almost extinct. Considered extinct for a long time, but rediscovered in recent years. The populations are undoubtedly under heavy collecting pressure (cf. recent imports of presumably wild collected plants into the USA).

P. insigne

DISTRIBUTION: India. Nepal. Rare: known from a small area only.

STATUS: Endangered.

P. javanicum (see also var. virens)

DISTRIBUTION: Indonesia [Java, Sumatra (?), Flores]. Now rare.

STATUS: Endangered. In Sumatra the species is very rare. In Java the populations are under heavy pressure because of commercial collecting. The Balinese population may well be extinct. On Flores a new, large population has been discovered recently (comm. Verheyen), but it is almost certain that word has passed through already to commercial collectors. Approx. 150 illegally imported plants have been confiscated in the Netherlands in 1988.

P. kalopakingii

DISTRIBUTION: Indonesia (Kalimantan). Very rare: known from one locality only.

STATUS: Endangered. Discovered by a commercial collector and trader in Java, and described in 1982. It is much sought after: the plant has potential for hybridizing because of the relatively large number of flowers per inflorescense (comm. Cribb). High prices are paid for this species: DM. 200.- to DM. 450.- a plant. In spite of this the plant appears only sporadically in collections. Presumably the only known locality has already been destroyed.

P. lawrenceanum

DISTRIBUTION: Malaysia [Sarawak, Sabah (?)]. Very rare, known from few populations only.

STATUS: Endangered. The species has been imported in Europe and the USA from time to time, usually in small quantities (Cribb, 1987). This may indicate that populations, once discovered, are immediately depleted by collectors.

P. liemianum

DISTRIBUTION: Indonesia (N Sumatra). Very rare; occurring in a very small area only.

STATUS: Endangered. The population is under collecting pressure: presumably wild collected plants have been imported into the USA recently. Five large clusters of plants have been confiscated in the Netherlands in 1987 as part of an illegal shipment of orchids.

P. lowii

DISTRIBUTION: Malaysia (Peninsular). Indonesia. Widespread but occurring in scattered localities only, in very small populations.

STATUS: Endangered. The only epiphytic species within the genus. The well known locality on Mt. Kinabalu (Malaysia, Sabah) has been destroyed to make place for a golf course (Lamb & Vermeulen obs.). A slightly aberrant population from Celebes has recently been described as P. richardianum (Asher & Beaman, 1988). Wild collected plants similar to this form have already been intercepted in the Netherlands in 1988.

P. malipoense

DISTRIBUTION: China. Very rare; known from a small area only.

STATUS: Probably almost extinct. Discovered in 1984 and since then frequently imported in Europe and the USA (approx. 200 plants imported in the USA over the period 1986-87; approx. 300 illegally imported plants confiscated in the Federal Republic of Germany in 1988).

P. mastersianum

DISTRIBUTION: Indonesia (Moluccas: Ambon and Buru). Rare; known from a few islands only.

STATUS: Endangered. Although only few plants have been imported in recent years the populations must have suffered considerably from collecting in the past.

P. micranthum

DISTRIBUTION: China. Very rare; known from one area only.

STATUS: Probably almost extinct. Appeared as an expensive novelty (e.g. US$ 500.- a growth) in cultivation in 1984. Since then large quantities of this species have been imported in Europe and the USA (USA: c. 5000 plants over the period 1984-87) and prices have dropped. Because it is difficult to grow many of these have died. The species must be very rare in the wild now (Cribb, 1987b). In 1988 approx. 300 plants have been confiscated in the Netherlands, together with plants of P. armeniacum.

P. moquetteanum (= P. plaucophyllum var. moquetteanum)

DISTRIBUTION: Indonesia (SW Java). Very rare: occurring in a small area only.

STATUS: Endangered. The remaining populations are badly depleted by large scale collecting.

P. niveum

DISTRIBUTION: Thailand. Malaysia (Peninsular). Now rare.

STATUS: Endangered. Despite depletion by generations of collectors and still imported by the thousands into the USA, the species still survives on several localities. Large shipments of illegally imported plants are regularly confiscated in the Netherlands. This species is often sold, with a flower, as a cheap indoor pot plant, to be thrown away as soon as the flower has whithered.

P. papuanum

DISTRIBUTION: Indonesia (Irian Jaya). Very rare; known from a few localities only.

STATUS: Endangered. Apparently not imported in substantial quantities in recent years. A new locality has been discovered recently. Approx. 800 plants have been confiscated in the Federal Republic of Germany in 1988.

P. parishii (see also var. dianthum)

DISTRIBUTION: Burma, Thailand, China. Rather widespread.

STATUS: Endangered. Rather large quantities have been imported into Europe and the USA in recent years. Large shipments of illegally imported plants are regularly confiscated in the Netherlands (approx. 50 in 1988).

P. philippinense (see also var. roebelenii)

DISTRIBUTION: Philippines. Malaysia (a tiny island off the North coast of Sabah). Widespread.

STATUS: Endangered. Large quantities of presumably wild collected plants have been imported into the USA recently.

P. primulinum (see also var. purpurascens)

DISTRIBUTION: Indonesia (Sumatra). Rare; occurring in a small area (Gunung Leuser National Park) only.

STATUS: Endangered. The only population grows in a National Park, which may render some protection against commercial collecting.

P. purpurascens (= P. primulinum var. purpurascens)

DISTRIBUTION: Indonesia (Sumatra). Rare; occurring in a small area (Gunung Leuser National Park) only.

STATUS: Endangered. The only population grows in a National Park, which may render some protection against commercial collecting.

P. purpuratum

DISTRIBUTION: Hong Kong. China. Rare; known from a small area only.

STATUS: Endangered. Small batches of plants are imported yearly into the USA, some of these undoubtedly wild collected.

P. randsii

DISTRIBUTION: Philippines (Mindanao only). Very rare: known from a single locality only.

STATUS: Endangered or almost extinct. Hundreds of presumably wild collected plants have been imported into the USA in recent years. Approx. 100 illegally imported plants have been confiscated in the Netherlands in 1988 (comm. V. Vliet).

P. roebelenii (= P. philippinense var. roebelenii)

DISTRIBUTION: Philippines (Luzon only). Very rare: occurring on one island only.

STATUS: Endangered or almost extinct. Hundreds of presumably wild collected plants have been imported into the USA and Europe in recent years. Approx. 100 illegally imported plants have been confiscated in the Netherlands in 1986 and 1988 (comm. V. Vliet).

P. rothschildianum

DISTRIBUTION: Malaysia (Sabah only). Very rare. Known from 2 populations only.

STATUS: Almost extinct. A very rare species often being sold at high prices (such as DM 900.- a plant). Although the populations are within the boundaries of a National Park two American amateur

collectors seeking quick profit were caught while trying to steal plants from one of the localities a few years ago (Comm. A. Lamb). Almost all plants from the other locality have been stolen by commercial collectors recently (obs. J.J. Vermeulen as well as E.F. de Vogel). A number of wild collected plants have been confiscated in a nursery in the Federal Republic of Germany in a very bad state of health. Attempts have been made (in 1986) to plant artificially propagated seedlings back on one of the localities (Grell et al., 1988).

P. sanderianum

DISTRIBUTION: Malaysia (Sarawak only). Very rare; nowadays known from a single population only.

STATUS: Almost extinct. The population is within the boundaries of a National Park and its exact locality has been a guarded secret for a number of years. However, yielding to threats of various kinds a biologist has disclosed the site to a commercial collector. Subsequently a large number of plants was stolen (1986). These plants later turned up in Europe and the USA, being offered for sale at up to $ 3500.- a growth (all from Cribb, 1987). Approx. 60 illegally imported plants have been confiscated in the Federal Republic of Germany in 1988.

P. sangii

DISTRIBUTION: Indonesia (Celebes). Very rare; known from a single locality only.

STATUS: Endangered or almost extinct.The only known population of this species has been discovered recently by a commercial collector. It is probable that most of the plants have been taken away.

P. schoseri

DISTRIBUTION: Indonesia (Bacan). Very rare; known from one island only.

STATUS: Endangered or almost extinct.This recently described species was discovered by a commercial collector. Probably most of the plants have been taken away.

P. spicerianum

DISTRIBUTION: India. Burma. Rare: known from scattered localities only.

STATUS: Endangered. Huge importations in the past (e.g. 40,000 plants from N India in 1884) as well as more recent depletion of the populations must have taken their toll.

P. stonei

DISTRIBUTION: Malaysia (Sarawak). Very rare: known from a small area only.

STATUS: Almost extinct. Large quantities of plants have been collected in the past. The remaining localities are still under heavy collecting pressure (comm. A. Lamb) (c. 500 plants imported in the USA during the period 1982-87).

P. sublaeve (= P. callosum var. sublaeve)

DISTRIBUTION: Thailand. Malaysia (Peninsular). Rather rare.

STATUS: Endangered. Hundreds to of wild collected plants are imported into the USA and Europe yearly.

P. sukhakulii

DISTRIBUTION: Thailand. Very rare: known from a small area only.

STATUS: Almost extinct. Discovered in 1964. Vast numbers of wild collected plants have been imported since then in Europe and the USA (c. 5000 plants into the USA over the period 1984-87). Few plants remain now in its natural habitat (Cribb, 1987).

P. supardii

DISTRIBUTION: Indonesia (Kalimantan). Very rare; only one locality known.

STATUS: Endangered or almost extinct. The known locality has been visited by commercial collectors and may well be destroyed now. It may perhaps be rediscovered on other places in Borneo.

P. superbiens

DISTRIBUTION: Indonesia (Sumatra). Rare; occurring in a small area only.

STATUS: Endangered. Probably wild collected plants have been imported into the USA in small quantities in recent years.

P. tonsum

DISTRIBUTION: Indonesia (Sumatra). Not very rare although occurring in a rather small area only.

STATUS: Endangered. Probably wild collected plants have been imported into the USA in small quantities in recent years.

P. topperi

DISTRIBUTION: Indonesia (Kalimantan). Very rare; probably known from few localities only.

STATUS: Endangered or almost extinct. This recently described new species was discovered by a commercial collector. Probably most of the plants have been taken away.

P. urbanianum

DISTRIBUTION: Philippines (Mindoro). Very rare; known from few localities only.

STATUS: Endangered, possibly almost extinct. Discovered by commercial collectors in 1981 and since then probably wild collected plants have been imported into the USA by the hundreds.

P. venustum

DISTRIBUTION: India. Nepal. Sikkim. Bhutan. Rare; known from scattered localities only.

STATUS: Endangered. Probably wild collected plants are imported into the USA in some quantity yearly.

P. victoria-mariae

DISTRIBUTION: Indonesia (Sumatra). Rare: known from a small area only.

STATUS: Endangered, although not imported in large numbers in Europe and the USA in recent years. The known localities are largely destroyed for mining purposes (comm. via V. Vliet).

P. victoria-regina

DISTRIBUTION: Indonesia (Sumatra). Rare: known from a small area only.

STATUS: Endangered, although not imported in Europe and the USA in recent years. The known localities are largely destroyed for mining purposes (comm. via V. Vliet).

P. villosum (see also var. annamense and var. boxallii)

DISTRIBUTION: India. Burma. Thailand. Widespread but probably becoming rare now.

STATUS: Endangered. Wild collected plants are imported by the hundreds into the USA yearly. The species consists of various subspecies which are also traded under their own names: annamense, boxallii.

P. violascens

DISTRIBUTION: Indonesia (Irian Jaya). Papua New Guinea. Rare: known from scattered localities only.

STATUS: Endangered.

P. virens (= P. javanicum var. virens)

DISTRIBUTION: Malaysia (Sabah). Very rare: known from few localities only.

STATUS: Endangered. Although all localities are within the boundaries of a National Park all plants except one seedling were stolen recently from at least one locality (obs. J.J. Vermeulen & E.F. De Vogel). Another locality was destroyed for the construction of a golf course. Approx. 100 plants have been confiscated in the Netherlands in 1988 (Comm. V. Vliet).

P. volonteanum (= P. hookerae var. volonteanum)

DISTRIBUTION: Malaysia (Sabah). Very rare; known from a small area only.

STATUS: Endangered. No information on recent imports but the localities may well be known to commercial collectors.

P. wardii

DISTRIBUTION: Burma. China. Very rare: known from a small area only.

STATUS: Endangered. This species has recently been rediscovered in Burma, close to the Chinese border. Plants were collected there 'in great quantities' and exported through China, probably to Hong Kong [M. Held: Orch. Research Newsletter 12 (1988) 10]. Some of these plants found their way to Europe: illegally imported plants have been found in a shipment confiscated in the Netherlands in 1986 (comm. V. Vliet).

P. wentworthianum

DISTRIBUTION: Bougainville. Guadalcanal. Very rare: known from a few small populations only.

STATUS: Endangered. Shipments of wild collected plants have arrived and still arrive in Europe and the USA. Probably the populations will soon be depleted. Several plants were present in a confiscated shipment into the Netherlands, from Thailand.

P. wilhelminae (= P. glanduliferum var. wilhelminae)

DISTRIBUTION: Indonesia (Irian Jaya). Papua New Guinea. Very rare; known from few populations only.

STATUS: Endangered. Wild collected plants are frequently offered for sale in Europe and the USA.

4. Protection Status

41. Measures Already Implemented: At present at least 25 of the approx. 60 species are severely threatened (Cribb, 1987). Many countries falling within the range of Paphiopedilum have created legislation to check exports of wild collected specimens. India has taken measures to protect the very rare indigenous P. druryi (now included in Appendix I). In 1988 the Federal Republic of Germany has prohibited all import of wild collected Paphiopedilum plants. The United Kingdom has taken similar measures with respect to all imports of plants from Thailand.

42. Problems in Checking the Trade of Wild Collected Specimens on World-wide Scale: Implementation of the legislation concerning CITES is inadequate in some countries of origin, due to the low priority this matter has among numerous more pressing problems. In many importing countries (USA, EEC, Japan) the control on artificially propagated plants and Appendix II plants is inadequate as well, or even non-existent (particularly in some European countries). Shipments can easily pass through as long as

the paperwork has a more or less thrustworthy appearance. Closer checks are rarely performed and customs officers are hardly aware of what passes through.

Many customs officers are not able to distinguish between wild collected plants and artificially propagated ones. Therefore, the inspection of shipments to determine whether the plants have been artificially propagated or collected from the wild, as well as a check on the species names being correct, takes place in very few countries only.

International traders gladly exploit the situation as it is. Shipments can even be exported without permits at all. This makes possible illegal export to countries without adequate implementation but falling within the range of Paphiopedilum, to obtain export permits there. Many species of Paphiopedilum have previously been described as Cypripedium species. Several notorious traders still ship their wild collected plants under this old name, thus avoiding custom checks (comm. V. Vliet). Paphiopedilum species can be easily recognized from real Cypripedium species, even without flowers, see Chapter 53.

43. Additional Protection Needs: Transferring all Paphiopedilum species to Appendix I will be a powerful instrument to control all trade in wild collected plants. It will also stimulate the production of artificially propagated material. At present the prices in the exporting countries are at such a low level that the production of artificially propagated plants cannot compete on an economical scale.

5. Recognition

51. How to Recognize Wild Collected Plants: Wild collected plants can be recognized very easily when they arrive at a customs office for a check-up. Even when grown in a hothouse they preserve these characteristics for a period of 1 - 2 years. Tell-tale signs of being collected in the wild are:

Root systems not adapted to growing in a flower pot.

Presence of many dead roots.

Presence of rock chips on the roots or other matter not used as potting medium.

Pruned roots.

Differential growth: young shoots which are distinctly smaller, or have distinctly wider or narrower leaves than the parent shoot.

Damaged leaves in general: damage due to crushing, tearing, or drying out. Drying out leaves have characteristical white pits on the leaf surface.

Presence of mosses and lichens on the leaf surface which occur in the natural habitat but never in a greenhouse.

Presence of mining furrows of insects in leaves.

Presence of entire inflorescenses in dried out state.

Presence of seed pods.

52. How to Recognize the Species: When flowering the plants can be easily identified with the aid of several recent publications on the genus, the most comprehensive being Cribb, 1987.

When not in flower many species can be recognized on account of the shape of the leaves, colouring of the leaves, presence/absence of spots on the leaves, way of growing, etc. A specialist can even recognize all species without too much trouble. A manual is being prepared to facilitate identification on account of vegetative characteristics.

53. Information on Similar Species: All related genera have always been in great demand by horticulturists. Presently an increase in demand has even been observed (V. Vliet, pers. comm.). This increase can be explained by a shift in the trade in wild collected plants from Paphiopedilum towards these related genera, now that legislation around Paphiopedilum becomes stricter.

Cypripedium is a genus of the temperate climates of the northern hemisphere. It shares with Paphiopedilum a 1-locular ovary. It can be recognized by the leaves which are arranged along an elongated stem in most cases, not in a rosette at the base of the stem as in Paphiopedilum. Besides, Cypripedium has a creeping, subterranean rootstock, as well as leaves with very distinct, thickened veins, whereas Paphiopedilum has no root-stock and leaves with very inconspicuous veins which are not thickened (except for the midvein). Phragmipedium and Selenipedium are South American genera. They have a 3-locular ovary. The flowers are very similar to those of Paphiopedilum in shape and colour. The species with red flowers in particular are very popular. The species of these genera are all endangered. After the ban on imports of wild collected Paphiopedilum plants in the Federal Republic of Germany the trade has already been observed to shift to these genera.

6. Additional Remarks

61. Possibilities of Artificial Propagation of Wild Species: It is a well established fact that it is not difficult to artificially propagate wild species through seed. It is also known that, whereas the wild collected plants are often difficult to keep alive in a nursery, the seedlings obtained from those plants will grow much more vigorously and flower more freely. An example of this is P. delenatii, of which only a single small shipment was imported in France in the 1920s. They proved very difficult to grow and most of the plants died soon. Seedlings, however, appeared much easier to grow and to flower abundantly. At present the species is common in cultivation, all plants deriving from those few seedlings. Wild collected plants of P. rothschildianum, the last colonies of which were recently destroyed by a trader, are notoriously poor growers, but plants raised from seed do much better.

Progagating wild species through seed is in fact not different from propagating artificial hybrids from seed which is done on an industrial scale. It is absolutely not necessary to deplete

populations occurring in the wild by taking large numbers of specimens for trading. We can safely assume that a large stock of specimens of each species is in cultivation at present which can easily be used for propagation. Any further collecting of plants from the wild can be considered harmful and serving no constructive purpose other than easy financial profit for traders.

62. The Importance not to Impede All the Trade in Paphiopedilum Plants: Artificial Paphiopedilum hybrids are very popular as a pot plant or as cut flowers. These plants are produced in huge quantities in Europe and the USA, but only in small quantities in those countries where the species occur. If the genus Paphiopedilum were placed on Appendix I it is to be expected that the production of hybrids as well as of artificially propagated plants of the species will increase in the latter (Third World) countries. Thus the profits may well shift from the commercial collectors, mainly originating from Europe and the USA, to the producers of the artificially propagated plants, living in third world countries. The development of the production of artificially propagated Paphiopedilum plants must be carefully screened by the plant-officer of the CITES Secretariat. Although at present the scale of the illegal as well as the legal trade of wild collected Paphiopedilum plants is appalling, the number of mala-fide traders is rather small. Their identity is in most cases known to the relevant authorities, but under the circumstances as they are now it is often impossible to take the appropiate legal action against them. Measures should be taken not to impede the trade in any artificially propagated specimens. Technically this is possible because wild collected plants are easily recognizable, see under Chapter 5.

63. Changing Mentalities. Much attention should be paid to develop a programme to inform amateur orchid growers about the fatal consequences of buying wild collected plants. By writing articles in the periodicals of local orchid societies in the consumer countries perhaps a change of mentality could be accomplished: the 'sport' may change from: getting a wild collected plant to flower into: getting an artificially propagated seedling or meristem to flower. This is not without precedent. A similar thing occurred among amateur herpetologists.

7. References

Asher, J.H., & Beaman, J.H., 1988. Paphiopedilum richardianum Asher & Beaman, sp. n., A New Species From Indonesia. Orch. Dig. (1988) 61 - 62.

Birk, L. (1983). The Paphiopedilum grower's manual. L. Birk, Santa Barbara, California, USA.

Braem, G.J., 1987. Paphiopedilum henryanum, a new species from Indochina. Schlechteriana 1: p. 3 - 6.

Braem, G.J., 1988. Two new species of the genus Paphiopedilum. Schlechteriana 1: p. 15 - 22.

Braem, G.J., 1988. Paphiopedilum henryanum, a new species from Indochina. Der Palmengarten 52: p. 108 - 109.

Braem, G.J., 1988. Paphiopedilum sangii, een nieuwe soort. Orchideeen 50: p. 155 - 156.

Braem, G.J., & Mohr, H., 1988. Two new species of the genus Paphiopedilum. Der Palmengarten 52: p. 110 - 114.

Cribb, P., 1987a. The genus Paphiopedilum. Kew Magazine Monographs. Publ. Collingridge Books. 222 pages.

Cribb, P., 1987b. Beautiful, Yes, But... Am. Orch. Soc. Bull. 56: p. 828 - 830.

Grell, E., et all., 1988. Re-introducing Paphiopedilum rothschildianum to Sabah, North Borneo. Am. Orch. Soc. Bull. 57: p. 1238 - 1246.

Held, M., 1988. Some notes on the orchid scene in Burma. Orchid Research Newsletter 12: p. 9 - 10.

Koopowitz, H., & Hasegawa, N., 1986. The New Parvisepalum Paphiopedilums. Am. Orch. Soc. Bull. 55: p. 684 - 690.

Schoser, G., 1988. Neue Paphiopedilum-Arten. Der Palmengarten 52: p. 107.

Doc. 0970c

Data on imports of wild collected plants of Paphiopedilum sp.

Only the most significant examples have been worked out in detail.

On account of the numbers of plants in illegally imported shipments, intercepted in various EC countries (V. Vliet comm.), it is feared that the actual number of plants imported yearly into the EC and the USA is much larger than shown in these statistics.

These statistics are based on the official import figures issued by the various countries.

Paphiopedilum acmodontum (all imports from TH and PH considered wild collected).

Imports USA:

CO:	PH	TH	Total/yr
1984	170		170
1987	1242		1242
1988	114	1	115
Total CO:	1526	1	1527

Imports EC:

CO:	PH	TH	Total/yr:
1986	2 NL 100 BRD	25 BRD	127
1987	10 GB 200 BRD	1 BRD	211
Total CO:	312	26	338

Total number (USA plus EC) of plants imported over the period 1982-1988: 1865

Paphiopedilum adductum (all imports from PH considered wild collected, incl. P. 'elliottianum').

Total number (USA plus EC) of plants imported over the period 1982-1988: 1019

Paphiopedilum 'Ang Thong' (incl. P. niveum 'Ang Thong').

Imports USA:

CO:	TH	Total/yr
1983	100	100
1985	22	22
1986	261	261
1987	607	607
1988	1954	1954
Total CO:	2944	2944

Imports EC:

CO:	TH	Total/yr
1986	31 NL	
	1 GB	32
1987	184 BRD	184
1988	20 BRD	20
Total CO:	236	236

Total number (USA plus EC) of plants imported over the period 1982-1988: 3180

Paphiopedilum appletonianum (all imports from TH considered wild collected; incl. P. wolterianum).

Total number (USA plus EC) of plants imported over the period 1982-1988: 1108

Paphiopedilum argus (all imports from MY and PH considered wild collected).

Imports USA:

CO:	MY	PH	Total/yr
1985	10		10
1986		50	50
1987		5586	5586
1988		247	247
Total CO:	10	5883	5893

Imports EC:

CO:	PH	TH	Total/yr
1986	2	50 BRD	52
1987	22 GB		52
	30 BRD		
Total CO:	54	50	104

Total number (USA plus EC) of plants imported over the period 1982-1988: 5997

Paphiopedilum armeniacum (all imports considered wild collected).

Imports USA:

CO:	JP	TH	TW	SG	Total/yr
1983	3				3
1985	260				260
1986	600	49	410		1059
1987	26	20		200	246
1988	50	50		2100	2200
Total CO:	939	119	410	2300	3768

Imports EC:

CO:	CH	TH	PH	TW	Total/yr
1986				25 BRD	25
1987	2	52 BRD	25 BRD		79
Total CO:	2	52	25	25	104

Total number (USA plus EC) of plants imported over the period 1982-1988: 3872

Paphiopedilum barbatum (all imports from TH, MY, SG considered wild collected).

Imports USA:

CO:	TH	MY	SG	Total/yr
1983	100	120		220
1984		15	15	30
1985	15	1300		1315
1986	1147	230	1	1378
1987	133			133
1988	200			200
Total CO:	1595	1665	16	3276

Imports EC:

CO:	TH	MY	Total/yr
1985	55 NL 40 GB	100 GB	195
1986	9 NL		9
1987	153 BRD		153
1988	1 GB 10 BRD		11
Total CO:	268	100	368

Total number (USA plus EC) of plants imported over the period 1982-1988: 3644

Paphiopedilum barbigerum (all imports from TH and SG considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 67

Paphiopedilum bellatulum (all imports from TH and SG considered wild collected).

Imports USA:

CO:	TH	SG	Total/yr
1982	5		5
1983	102		102
1985	459		459
1986	3524		3524
1987	2419	50	2469
1988	1408		1408
Total CO:	7917	50	7967

Imports EC:

CO:	TH	Total/yr
1985	55 NL	74
	18 BRD	
	1 GB	
1986	33 NL	233
	180 BRD	
1987	5 GB	782
	777 BRD	
1988	80 BE	185
	2 GB	
	103 BRD	
Total CO:	1254	1254

Total number (USA plus EC) of plants imported over the period 1982-1988: 9221

Paphiopedilum bullenianum (all imports from TH, MY and ID considered wild collected; incl. var. celebense, 'johorense' and 'linnii').

Total number (USA plus EC) of plants imported over the period 1982-1988: 394

Paphiopedilum callosum (incl. callosum 'ssp.', 'colosum', var. sublaeve and P. thailandicum).

Imports USA:

CO:	TH	MY	HK	Total/yr
1983	102	450		552
1984		10		10
1985	312	1000		1312
1986	8129	1010	78	9217
1987	5517			5035
1988	6972			6972
Total CO:	21032	2470	78	23098

Imports EC:

CO:	TH	MY	Total/yr
1985	16838 NL		33568
	30 GB		
	16700 BRD		
1986	71735 NL		76558
	4823 BRD		
1987	100 B	2000 BRD	24547
	22988 BRD		
	1459 GB		
1988	26 GB		120
	94 BRD		
Total CO:	134793	2000	136793

Total number (USA plus EC) of plants imported over the period 1982-1988: 159891

Paphiopedilum charlesworthii (all imports from TH, SG and CH considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 205

Paphiopedilum ciliolare (all imports from TH and PH considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 922

Paphiopedilum concolor (incl. concolor 'Chedi Sam Ongenies', 'Cheltisunrougse', 'Chorburi', 'giganteum', 'Khanburi', 'Wangka').

Imports USA:

CO:	TH	MY	Total/yr
1983	102	10	112
1984		10	10
1985	46		46
1986	1825		1825
1987	4050		4050
1988	2259		2259
Total CO:	8282		8302

Imports EC:

CO:	TH		Total/yr
1985	161	NL	989
	828	BRD	
1986	176	NL	387
	211	BRD	
1987	23	GB	1608
	1585	BRD	
1988	60	BE	142
	82	BRD	
Total CO:	3126		3126

Total number (USA plus EC) of plants imported over the period 1982-1988: 11428.

Paphiopedilum dayanum (all imports from ID considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 35

Paphiopedilum emersonii (all imports considered wild collected; incl. P. emersonii 'funin').

Imports USA:

CO:	JP	SG	TH	CH	Total/yr
1986	320				320
1987	210	100			310
1988		100	1	1	102
Total CO:	530	200	1	1	732

Imports EC:

CO:	TW	JP	Total/yr
1986	38 BRD		38
1987		5 BRD	5
1988		5 BRD	5
Total CO:	38	10	48

Total number (USA plus EC) of plants imported over the period 1982-1988: 780

Paphiopedilum exul (all imports from TH considered wild collected; incl. var. giganteum).

Imports USA:

CO:

	TH	Total/yr
1982	5	5
1983	101	101
1985	63	63
1986	384	384
1987	1143	1143
1988	2069	2069
Total CO:	3765	3765

Imports EC:

CO:	TH	Total/yr
1985	51 NL	51
1986	29 NL	29
1987	100 BE	452
	1 GB	
	351 BRD	
1988	26 GB	26
Total CO:	558	558

Total number (USA plus EC) of plants imported over the period 1982-1988: 4323

Paphiopedilum glaucophyllum (all imports from ID considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 2

Paphiopedilum godefroyae (all imports from Thailand considered wild collected; incl. var. leucochilum).

Imports USA:

CO:	TH	MY	Total/yr:
1982	5		5
1983	102		102
1985	172	25	197
1986	919		919
1987	2655		2655
1988	2866		2866
Total CO:	6719	25	6744

Imports EC:

CO:	TH	Total/yr:
1985	54 NL	222
	168 BRD	
1986	29 NL	84
	55 BRD	
1987	1654 BRD	1654
1988	60 BE	60
	1 GB	237
	176 BRD	
Total CO:	2257	2257

Total number (USA plus EC) of plants imported over the period 1982-1988: 9001

Paphiopedilum gratixianum (all imports from TH considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 464

Paphiopedilum haynaldianum
(all imports from TH and PH considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 580

Paphiopedilum hennisianum (all imports from TH and PH considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 1399

Paphiopedilum henryanum (all imports from TH and SG considered wild collected; incl. P. yunnanense).

Total number (USA plus EC) of plants imported over the period 1982-1988: 1175

Paphiopedilum hirsutissimum (all imports from TH considered wild collected; incl. var. esquirolei and var. chihuanum).

Imports from IN also shown between brackets, not adding to the totals because the possibility exists that these concern art. propagated plants. Note the decrease of numbers of imp. plants from India through the years, coinciding with an increase from Thai plants.

Imports USA:

CO:	TH	IN	Total/yr
1982		(264)	
1983		(97)	
1984		(882)	
1985	8	(421)	8
1986	1137	(339)	1137
1987	1760	(244)	1760
1988	661		661
Total CO:	3566	(2247)	3566

Imports EC:

CO:	TH	Total/yr
1986	28 NL	458
	430 BRD	
1987	1150 BRD	1150
1988	1 GB	47
	46 BRD	
Total CO:	1655	1655

Total number (USA plus EC) of plants imported over the period 1982-1988: 5221

Paphiopedilum hookerae (all imports from MY considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 622

Paphiopedilum 'hybrid' (all imports from TH considered wild collected species wrongly named on purpose).

Total number (USA) of plants imported over the period 1982-1988: 854

Paphiopedilum kalopakingii (all imports from MY and ID considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 22

Paphiopedilum lowii (all imports from MY considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 8

Paphiopedilum malipoense (all imports considered wild collected).

Imports USA:

CO:	JP	TH	SG	Total/yr
1986	80	15		95
1987	27		100	127
1988		1	100	101
Total CO:	107	16	200	323

Imports EC:

CO:	TW	JP	Total/yr
1986	26 BRD		26
1987		25 BRD	25
1988		5 BRD	5
Total CO:	26	30	56

Total number (USA plus EC) of plants imported over the period 1982-1988: 379

Paphiopedilum mastersianum (all imports from considered ID wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 2

Paphiopedilum micranthum (all imports considered wild collected).

Imports USA:

CO:	JP	TH	Total/yr
1985	3324		3324
1986	500	185	685
1987	727	10	737
1988	50	61	111
Total CO:	4601	256	4857

Imports EC:

CO:	CH	TW	JP	Total/yr
1986		38 BRD		38
1987	2		25 BRD	27
1988			5 BRD	5
Total CO:	2	38	30	70

Total number (USA plus EC) of plants imported over the period 1982-1988: 4927

Paphiopedilum niveum (all imports from TH and MY considered wild collected).

Imports USA:

CO:	TH	MY	Total/yr
1983	101	110	211
1984		27	27
1985	162	25	187
1986	2549	100	2649
1987	2008	2	2010
1988	623		623
Total CO:	5443	264	5707

Imports EC:

CO:	TH	MY	Total/yr
1985	100 NL 168 BRD	300 GB	568
1986	96 NL 33 BRD		129
1987	100 BE 2484 BRD 4 GB	2 GB	2590
1988	60 BE 51 GB 150 BRD		261
Total CO:	3246	302	3548

Total number (USA plus EC) of plants imported over the period 1982-1988: 9255

Paphiopedilum papuanum (all imports from ID considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 2

Paphiopedilum parishii.

Imports USA:

CO:	TH	Total/yr
1983	1	1
1985	315	315
1986	1192	1192
1987	1082	1082
1988	1779	1779
Total CO:	4369	4369

Imports EC:

CO:	TH	Total/yr
1985	57 NL	227
	130 BRD	
	40 GB	
1986	247 NL	281
	34 BRD	
1987	100 BE	1134
	105 GB	
	929 BRD	
1988	26 GB	40
	14 BRD	
Total CO:	1682	1682

Total number (USA plus EC) of plants imported over the period 1982-1988: 6051

Paphiopedilum philippinense (all imports from PH and TH considered wild collected; incl. var. roebelenii and P. laevigatum).

Imports USA:

CO:	TH	PH	SG	Total/yr
1982		15		15
1983		20		20
1985	11	1020		1031
1986	63			63
1987	82	2101	41	2224
1988	4	708		712
Total CO:	160	3864	41	4065

Imports EC:

CO:	TH	PH	Total/yr
1985	20 BRD	20 DE	40
1986	175 BRD	16 NL	191
1987	11 GB	12 GB	94
	71 BRD		
Total CO:	277	48	325

Total number (USA plus EC) of plants imported over the period 1982-1988: 4390

Paphiopedilum primulinum (all imports from MY and ID considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 71

Paphiopedilum purpuratum (all imports from TH, SG, CH, HK considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 177

Paphiopedilum randsii (all imports from PH considered wild collected).

Imports USA:

CO:	PH	Total/yr
1983	133	133
1985	20	20
1987	84	84
1988	253	253
Total CO:	490	490

Imports EC:

CO:	TH	PH	Total/yr
1985		10 NL	10
1986		2 NL	2
1987	50 BRD	15 BRD	65
Total CO:	50	27	77

Total number (USA plus EC) of plants imported over the period 1982-1988: 567

Paphiopedilum 'new species' (all imports from ID considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 55

Paphiopedilum 'species' (all imports from TH, MY, PH, HK, CH considered wild collected).

Imports USA:

CO:	TH	MY	PH	Others	Total/yr
1982	175				175
1983	1396		649	226	2271
1984	2382		5818	22	8222
1985	12858	785	5133	7303	26079
1986	852	141	3868	4532	9393
1987	1193	150	447	9967	11757
1988	1484	50	204		1738
Total CO:	20340	1126	16119	22050	59635

Imports EC:

CO:	TH	PH	Total/yr
1985	30 BRD		30
1986	25 BRD		25
1987	24 BRD	3330 BRD	3354
1988	92 BRD		92
Total CO:	171	3330	3501

Total number (USA plus EC) of plants imported over the period 1982-1988: 63136

Paphiopedilum stonei (all imports from TH and MY considered wild collected).

Imports USA:

CO:	TH	MY	Total/yr
1983		100	100
1984		18	18
1985		65	65
1986	2	78	80
1987		112	112
Total CO:	2	373	375

Imports EC:

CO:	MY	Total/yr
1985	50 NL	100
	50 GB	
1987	325 BRD	325
Total CO:	425	425

Total number (USA plus EC) of plants imported over the period 1982-1988: 800

Paphiopedilum sukhakulii (All imports from TH considered wild collected).

Imports USA:

CO:	TH		Total/yr
1985	303		303
1986	1863		1863
1987	2771		2771
1988	4128		4128
Total CO:	9065		9065

Imports EC:

CO:	TH		Total/yr
1985	2906	NL	6206
	3300	BRD	
1986	1085	NL	2761
	1676	BRD	
1987	100	BE	9146
	102	GB	
	8944	BRD	
1988	1	GB	
	120	BRD	121
Total CO:	18234		18234

Total number (USA plus EC) of plants imported over the period 1982-1988: 27299

Paphiopedilum supardii (all imports from ID considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 40

Paphiopedilum superbiens (all imports from MY considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 23

Paphiopedilum tonsum (all imports from MY considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 235

Paphiopedilum urbanianum (all imports from PH considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 656

Paphiopedilum villosum (all imports from TH considered wild collected).

Total number (USA plus EC) of plants imported over the period 1982-1988: 1873

TOTAL NUMBER (USA PLUS EC) OF WILD COLLECTED PAPHIOPEDILUM PLANTS IMPORTED OVER THE PERIOD 1982-1988: 347,237

List of wild collected Paphiopedilum plants confiscated at the greenhouse of a single trader in the BRD in 1988.

P. armeniacum/micranthum	2775
P. barbigerum	111
P. bougainvilleanum/wentworthianum	115
P. chamberlainianum	457
P. emersonii	141
P. henryanum	239
P. malipoense	424
P. papuanum	858
P. purpuratum	318
P. rothschildianum	136
P. tonsum	940
P. villosum	80
P. wardii	229
Total	6823

Doc. 0970c