CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

Proposals resulting from reviews by the Plants Committees

A. Proposal

Delete *Lewisia cotyledon*, *L. maguirei* and *L. serrata* from Appendix II.

B. Proponent

Swiss Confederation.

C. Supporting Statement

1. Taxonomy

   1.1 Class: Dicotyledonae
   1.2 Order: Caryophyllales
   1.3 Family: Portulacaceae
   1.4 Genus: *Lewisia*

   1.4.1 Species: 
   a) *Lewisia cotyledon*
   b) *Lewisia maguirei* A. Holmgren
   c) *Lewisia serrata* Heckard & Stebbins

1.5 Scientific synonyms:

1.6 Common names: 
   English: 
   a) Siskiyou Lewisia
   b) Maguire's Bitter-root
   c) Saw-toothed Lewisia

   French:
   Spanish:

1.7 Code numbers:

2. Biological Parameters

2.1 Distribution

   *Lewisia cotyledon*: In rocky crevices and stony places between 500 and 3000 m altitude in northern California and southern Oregon. Four subspecies have been identified.
   *Lewisia maquirei*: Confined to south facing, gravelly slopes of the Cherry Creek Summit of the Quinn Canyon Range, Nevada
   *Lewisia serrata*: shady, mossy cliffs in steep gorges in the El Dorado and Placer Counties in eastern California.

2.2 Habitat availability

   See above.

2.3 Population status

   *L. cotyledon* is rather common in most of its area of distribution
   *L. maquirei* is known from only 8 sites, all within an eight kilometers radius.
L. serrata is rare, most occurrences exist on National Forest System lands.

2.4 Population trends

Lewisia cotyledon is globally ranked as apparently secure, but factors exist that cause some concern. These may involve timber harvesting and road building.
L. maquirei is protected from most threats (except potential mineral exploitation and development) because of its high altitude habitat.
L. serrata is a rare species occurring in one to several highly restricted areas. Of the four known localities in the Eldorado National Forest, one has been extirpated, the other three consist of about 3,800 individuals. The Tahoe National Forest holds four localities of an unknown number of individuals.

2.5 Geographic trends

Not applicable.

2.6 Role of the species in its ecosystem

Not applicable.

2.7 Threats

Lewisia cotyledon: Timber harvesting, road building;
L. maquirei: Mining and development.
L. serrata: mining, timber harvest, development, horticultural collecting and small hydroelectric power projects.

3. Utilization and Trade

3.1 National utilization

L. cotyledon: of horticultural interest; trade in artificially propagated specimens only. The main reason for the trade being in artificially propagated specimens is that the producers do not want their cultivated, selected stock be contaminated by genes of wild origin. According to Mathew (1994) much-collected in the past.
L. maquirei: of interest to alpine plant enthusiasts, but probably not traded (Mathew, 1994).
L. serrata, although not showy, of interest to alpine plant enthusiast, small scale trade, mostly from nursery propagated stock (Mathew, 1994).

3.2 Legal international trade

L. cotyledon: All international trade from the USA was in artificially propagated specimens; for 1995-1997 the figures were respectively 1,751; 684 and 751 specimens. In 1991, Denmark exported more than 20,000 artificially propagated specimens to various European countries; in 1993 and 1994 Denmark exported respectively 1806 and 1064 artificially propagated specimens to Sweden. Few specimens were exported by Canada to the USA (3 and 3) in the same period. Most of the recent trade will no longer appear in the trade statistics, because it is internal trade in the European Union.
L. maquirei and L. serrata: Not recorded in the WCMC trade statistics.

3.3 Illegal trade

Not known to occur.

3.4 Actual or potential trade impacts

None, because international trade in wild specimens has not been recorded.
3.5 Captive breeding or artificial propagation for commercial purposes (outside country of origin)

L. cotyledon is cultivated on a large scale; many cultivated forms are now available (Mathew, 1994).
L. maquirei and L. serrata are rarely cultivated (Mathew, 1994).

4. Conservation and Management

4.1 Legal status

4.1.1 National

L. cotyledon is a federally-listed species of concern (California Fish and Game Department, 1998b).
L. maquirei: not known.
An Interim Management Guide for L. cantelovii and L. serrata has been prepared (Richerson, 1977).

4.1.2 International

All three species have been included in CITES Appendix II since 1983; L. tweedyi, included at the same time, was delisted in 1997.

4.2 Species management

4.2.1 Population monitoring

Not applicable.

4.2.2 Habitat conservation

Not applicable.

4.2.3 Management measures

A third of the populations of L. cotyledon var heckneri and many populations of L. cotylon var. howelli occur in various reserved land management areas.
L. maquirei: no information.

4.3 Control measures

4.3.1 International trade

Not applicable.

4.3.2 Domestic measures

Not applicable.

5. Information on Similar Species

These species could be confused with L. tweedyi, deleted from Appendix II in 1997.

6. Other Comments

The Management Authority of the United States of America provided the following comments:

Lewisia cotyledon is apparently secure, but factors exist to cause some concern regarding this species. The USDA Forest Service cites collection from the wild for the horticultural trade as one of the primary activities that could pose a threat to this species. In addition, the Forest Service has
documented specific, though limited, instances of collection pressure on some varieties of this species (especially Lewisia cotyledon var. heckneri). This taxon is found in international trade, but it is also fairly widely grown, and most L. cotyledon plants and seeds for sale come from cultivated sources.

Lewisia maguirei has a very limited range and is considered Endangered by the IUCN. However, it is protected from most threats, including collection pressures, by its remote habitat. L. maguirei is considered of interest to alpine plant enthusiasts, so potential international demand exists for this species, though it is very rarely cultivated and not known to be in trade at this time.

Lewisia serrata is considered Very Rare and Endangered throughout its range by the California Native Plant Society and Vulnerable by the IUCN. Though monitoring indicates that some populations are currently stable, the USDA Forest Service reports that horticultural collection is a potential threat, and that at least one population is suspected to have been extirpated by illegal collection for this purpose. In addition, due to its rarity, the USDA Forest Service Interim Management Guide for Lewisia cantelovii and Lewisia serrata cites poaching of L. serrata, in particular, by private or commercial collectors, as a potential threat to its existence. L. serrata is likely to be cultivated to a limited extent and traded internationally on a small scale, though data indicate that there have been no exports in recent years.

Due to the potential for international trade in specimens collected from the wild, we consider Appendix II to offer these species valuable protection, even though no legal trade in wild-collected individuals of these species has been recorded in recent years.

7. Additional Remarks

Because all trade in L. cotyledon is in artificially propagated specimens only, and because the other two species are not traded at all, the Plants Committee recommends, under its obligations to regularly review the Appendices, that these species be deleted from Appendix II.

8. References

California Department of Fish and Game. 1998b. Personal communication Susan Cochrane to USA Scientific Authority.
