

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Remove *Lewisia maguirei* from CITES Appendix II.

B. Proponent

The United States of America.

C. Supporting statement1. Taxonomy

1.1 Class: Dicotyledoneae

1.2 Order: Caryophyllales

1.3 Family: Portulacaceae

1.4 Species: *Lewisia maguirei* (Holmgren, 1954)

1.5 Scientific synonyms:

1.6 Common names: English: Maguire's bitter-root
French:
Spanish:

1.7 Code numbers:

2. Biological parameters

The genus *Lewisia* consists of 18 species and 10 infraspecific taxa; all are native to western North America (Kartesz, 1999). *Lewisia maguirei* is a succulent, perennial herb with linear-lanceolate flat-bladed leaves. The flowers are borne in short cymes of two to three whitish to pinkish blossoms, with seven to nine large sepals (Davidson, 2000).

2.1 Distribution

Lewisia maguirei is endemic to the state of Nevada, United States of America. The species is found on limestone slopes of the Quinn Canyon Range and Grant Range, Nevada (Davidson, 2000). All documented populations of *L. maguirei* occur on U.S. Forest Service (USFS) lands (Nevada Natural Heritage Program, 2001).

2.2 Habitat availability

This species grows at elevations of 7,500 to 8,500 feet (2,285 to 2,590 meters) (Davidson, 2000). It is found in open areas on gravelly slopes with shallow soils of dolomitic bedrock (NatureServe, 2002). In addition to the known locations in the Quinn Canyon and Grant Ranges, potential habitat for the species exists in other similar locations in Nye County, Nevada (Davidson, 2000).

2.3 Population status

L. maguirei is known only from 8 sites, all within an 8 km radius in eastern Nye County, Nevada (NatureServe, 2002). The total number of individuals is estimated to be more than 4,500 (Nevada Natural Heritage Program, 2001).

L. maguirei is ranked as Critically Imperiled on a global, national, and state level by NatureServe (<http://www.natureserve.org>). The species is also listed as Endangered by the IUCN-World Conservation Union (Walter and Gillett, 1998).

2.4 Population trends

Although the population trend is unknown (Nevada Natural Heritage Program, 2001), *L. maguirei* populations are believed to be in a stable condition (Davidson, 2000).

2.5 Geographic trends

It is unlikely that *L. maguirei* was ever widespread in distribution and abundance. It is believed by some to have been restricted from the outset to the type locality of Cherry Creek Summit of Quinn Canyon Range (Davidson, 2000). Over the years, it has been found occasionally in some of the surrounding areas of Sawmill Canyon and Grant Range (Davidson, 2000).

2.6 Role of the species in its ecosystem

L. maguirei is a long-lived perennial herb that forms small rosettes of succulent leaves and grows to approximately 3 cm in height (Nevada Natural Heritage Program, 2001). The species is deciduous in summer with growth commencing in autumn and inflorescences following in the spring; mature blossoms and capsules cast off intact with abscission in summer (Davidson, 2000). The exposed limestone slopes where *L. maguirei* grows appear devoid of small understory plants except in very early spring (Davidson, 2000). On cooler north slopes, *L. maguirei* grows under a continuous but light conifer cover in gravelly clearings (Davidson, 2000). The species is found within the piñon-juniper zone; associated species are *Frasera albomarginata*, *Astragalus calycosus*, *Hymenoxys acaulis*, *Allium nevadense*, and *Petradoria pumila* (Nevada Natural Heritage Program, 2001).

2.7 Threats

L. maguirei is protected from most threats except potential mineral exploration and development by its high elevation (NatureServe, 2002).

3. Utilization and trade

3.1 National utilization

Maguire's bitterroot is a very attractive species undoubtedly of interest to plant enthusiasts, but probably not traded (Mathew, 1994). Nursery-grown stock of *L. maguirei* was once offered for sale locally [in the United States] in the 1980s (Davidson, 2000).

3.2 Legal international trade

The U.S. CITES Annual Report data show no exports of *L. maguirei* from 1994 to 2000 (U.S. Fish and Wildlife Service, 2002).

3.3 Illegal trade

There is no evidence of illegal international trade in wild-collected specimens from the United States of America.

3.4 Actual or potential trade impacts

International trade does not seem to be a significant threat to this species at this time (Vaught, 2002). The species is known to be difficult to cultivate (Baulk, 2000 as cited in TRAFFIC, 2001), which may reduce the desirability of the species to collectors. There is no evidence that this species is, or may be, affected by international trade in wild-collected specimens, although *Lewisia* species are in cultivation, so it may be conceivable that it may enter trade (TRAFFIC, 2001). There seems to be very little likelihood of any significant future international demand for wild-collected specimens of this species (TRAFFIC, 2001).

3.5 Artificial propagation for commercial purposes (outside country of origin)

L. maguirei is not easy to cultivate (Davidson, 2000) and has a very short flowering period (Baulk, 2000 as cited in TRAFFIC, 2001). Therefore, this species is believed not to be in cultivation (Mostul, 2000 as cited in TRAFFIC, 2001).

4. Conservation and Management

4.1 Legal status

4.1.1 National

All documented populations of *L. maguirei* occur on U.S. Forest Service lands. The species is listed on the Regional Forester's Sensitive Species List for National Forests in Nevada (www.fs.fed.us/R4/TES/TES.htm). According to Forest Service regulations, collection of "sensitive" plants may be permitted only for scientific or educational purposes, or for conservation or propagation of the species, and must be authorized by a Forest Service permit (Forest Service Manual 2673.2(2)).

4.1.2 International

L. maguirei has been listed in Appendix II of CITES since 1983.

4.2 Species management

4.2.1 Population monitoring

Partial surveys for the species have been conducted, but additional potential habitat remains unexamined (Nevada Natural Heritage Program, 2001).

4.2.2 Habitat conservation

A few populations of *L. maguirei* are located in a Designated Wilderness Area within the Humboldt-Toiyabe National Forest, Nevada. The collection of plants from the wild is prohibited in Designated Wilderness Areas.

4.2.3 Management measures

L. maguirei grows on land managed by the U.S. Forest Service, which is therefore responsible for law enforcement and protection of this species.

4.3 Control measures

4.3.1 International trade

This species has been subject to the trade controls of CITES Appendix II since 1983. Thus, all exports require the issuance of an export permit by the country of origin, and re-exports require the issuance of re-export certificates by the country of re-export. However, international trade does not appear to be a factor affecting the status of the species at this time. There have been no applications for export of wild-collected specimens of this species in the last five years.

4.3.2 Domestic measures

L. maguirei is found in the Humboldt-Toiyabe National Forest and is protected from collection, although enforcement in remote areas is difficult.

This species is also protected by the U.S. Lacey Act, which makes it unlawful to possess any wild plant (including roots, seeds, and other parts) that is indigenous to any State and which is either listed in an appendix to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, or listed pursuant to any State law that provides for the conservation of species threatened with extinction. According to the Act it is unlawful to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any wild plant (including roots, seeds, and other parts) taken, possessed, transported, or sold in violation of any State law or regulation. It is also unlawful to import, export, transport, sell, receive, acquire, or purchase any wild plant (including roots, seeds, and other parts) taken or possessed in violation of any U.S. law, treaty, or regulation or in violation of Indian tribal law.

5. Information on Similar Species

The only other *Lewisia* found in the general area where *L. maguirei* is located is *L. rediviva*. However, *L. rediviva* can be readily distinguished from *L. Maguirei* (Davidson, 2000). This species could also be confused with *L. tweedyi*, which was removed from CITES Appendix II in 1997.

6. Other Comments

L. maguirei was proposed for removal from Appendix II by Switzerland as the Depositary Government for CITES at COP11 in 2000. At that time, the proposal was withdrawn as a result of discussions with the U.S. delegation, which requested additional time to review the status of the species.

The Plants Committee believes that this species does not qualify for inclusion in Appendix II, in particular because international trade appears not to exist. The main threats are local and do not appear to be related to collection from the wild or trade.

The Scientific Authority of the United States of America solicited public comments via a public notice (U.S. *Federal Register* Vol. 66, No. 113, 2001). Consultation letters were also sent to appropriate State and Federal agencies in the state of Nevada, where this species occurs. As a result the U.S. Forest Service supports this proposal (Vaught, 2002).

7. Additional Remarks

8. References

- Baulk. 2000. *In litt.* to IUCN SSC Wildlife Trade Programme.
- Davidson, B. 2000. *Lewisias*. Timber Press, Portland, Oregon. pp. 45, 105-109, 201.
- Kartesz, J.T. 1999. A Synonymized Checklist and Atlas with Biological Attributes for the Vascular Flora of the United States, Canada, and Greenland. First Edition. In: Kartesz, J.T., and C.A. Meacham. Synthesis of the North American Flora, Version 1.0. North Carolina Botanical Garden, Chapel Hill, NC.
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