

## Deletion of Marsh Rose *Orothamnus zeyheri* from Appendix II

### Proponent: The Republic of South Africa

**Summary:** Marsh Rose *Orothamnus zeyheri* is a rare and localized plant that occupies around 23 km<sup>2</sup> in two small areas in the southwestern Cape, South Africa. It is an erect shrub, up to five metres tall, and has attractive pink flowers that last well when cut. During the first half of the 20<sup>th</sup> century, large-scale and indiscriminate cutting of flowers for the domestic market killed off most of the plants. Harvesting was prohibited in 1938 but, evidently because of inappropriate fire management, the population did not recover and, by 1967, the species was thought to be on the brink of extinction. Protection and improved management measures have subsequently been put in place which appear to have been successful. Currently, *O. zeyheri* is protected by the *Cape Nature and Environmental Conservation Ordinance 19 of 1974*. Public access to the Kogelberg, where the main population occurs, is strictly controlled to ensure that no wild-harvesting for the cut-flower market or other human disturbance takes place. Fire frequency is restricted to a 15–20 year period, favoured by the species, and any invasive plants are removed. Currently a fungal root pathogen *Phytophthora cinnamomi* is the most serious known threat to the species. Cape Nature monitors the population annually and has found no evidence of decline in known populations. The geographic range has not changed in the last 150 years. The taxon is listed in the African Proteaceae Red Data List (in prep.) as “vulnerable”, assessed according to the IUCN Categories and Criteria. This assessment will be submitted for inclusion in *The IUCN Red List of Threatened Species*. It is not listed in the Threatened and Protected Species List of South Africa’s *National Environment Management: Biodiversity Act* and is not specifically protected under this legislation.

*Orothamnus zeyheri* was listed in Appendix I in 1975 because of an initial misunderstanding by the South African Management Authorities regarding the purpose of CITES. The transfer to Appendix II in 1997 was a precautionary measure as specified in Annex 4 (A. 1.) of *Resolution Conf. 9.24 (Rev CoP 14)*. According to the CITES trade database there has been only one record of international trade since 1975 (in 1981). There are domestic protection measures in place to control any trade that might occur as a result of removal from the Appendices. Illegal trade is considered very unlikely to occur. Grafting has been found to be a successful propagation method and it would be feasible to set up a commercial propagation programme to meet any future demands for flowers and plants.

**Analysis:** *Orothamnus zeyheri* has a restricted range. At one time considered to be on the brink of extinction, the population has increased through strict control. There has been almost no recorded trade since the species was listed in Appendix I in 1975. In 1997 the species was moved to Appendix II in accordance with the precautionary measures in *Resolution Conf 9. 24 (rev CoP14)* that specify that, in order to remove a species from Appendix I, it shall first be transferred to Appendix II. Since that time no international trade in wild specimens of this species has been reported. It is unlikely that removal from the CITES Appendices will stimulate trade. Effective domestic protection measures are in place: access to the natural populations is strictly controlled and harvesting from the wild continues to be prohibited. The species therefore no longer appears to meet the criteria for inclusion in Appendix II.

Supporting Statement (SS)	Additional information
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Taxonomy

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Range

South Africa.

Supporting Statement (SS)	Additional information
<b><u>IUCN Global Category</u></b>	
<i>Not assessed</i>	
<b>Biological and trade criteria for retention in Appendix II (<i>Resolution Conf. 9.24 (Rev. CoP14) Annex 2 a</i>)</b>	
<b><u>A) Trade regulation needed to prevent future inclusion in Appendix I</u></b>	
<p><i>Orothamnus zeyheri</i> is known only from two small areas in the southwestern Cape, South Africa: the high peaks of the Kogelberg Mountains (southern portion of the Hottentots Holland range) and a single small population on the Klein River Mountains near Hermanus, some 40 km to the east. It is not certain whether the latter population is natural or the result of a reintroduction. The species occurs within an area of approximately 196 km<sup>2</sup> and occupies an area of 23 km<sup>2</sup>.</p> <p>No regulation is needed to prevent future inclusion in Appendix I. According to the CITES trade database, the only trade record was one shipment of live plants and 60 seeds in 1981. No trade has been recorded since. Illegal trade is very unlikely to occur given the current domestic controls on the species. Potential trade that may occur as a result of delisting should be controlled by the effective domestic protection measures in place. Such trade would be purely of artificially propagated material.</p> <p>In the African Proteaceae Red Data List which is currently in preparation, the proposed IUCN status is Vulnerable B1a(i)b(ii, iv, v)c(iv), B2a(i)b(ii, iv, v)c(iv) and C2a(i)b.</p>	
<b><u>B) Regulation of trade required to ensure that harvest from the wild is not reducing population to level where survival might be threatened by continued harvest or other influences</u></b>	
<p>No trade regulation is needed as strict domestic controls prevent harvest from the wild.</p>	<p><i>Hilton-Taylor (2009) confirms that adequate domestic controls are in place to stop harvesting from the wild. The measures adopted have been very well enforced for many years and he does not consider there to be any reason for the situation to change.</i></p>

**Retention in Appendix II to improve control of other listed species****A) Specimens in trade resemble those of species listed in Appendix II under Res. Conf. 9.24 (Rev. CoP14) Annex 2 a or listed in Appendix I**

No other species could be confused with *Orothamnus zeyheri*.

Supporting Statement (SS)	Additional information
<b><u>B) Compelling other reasons to ensure that effective control of trade in currently listed species is achieved</u></b>	
<p>There are no reasons to continue to include <i>Orothamnus zeyheri</i> in Appendix II as there is no trade in the species and any future trade that may occur would be purely of artificially propagated material.</p>	

**Other information**

The most serious current threat is from *Phytophthora cinnamomi*, a fungal root pathogen which has been found in a number of populations. During the first half of the 20<sup>th</sup> century, the attractive flowers and their exceptional lasting qualities in a vase led to indiscriminate picking and peddling of *Orothamnus zeyheri*, which killed the plants. Trampling and disturbance around the plants causes root damage and soil compaction leading to the death of plants. Picking and peddling were largely stopped by the 1938 Cape Provincial Wild Flower Protection Ordinance No. 15. Around the same time, the Department of Forestry enforced a policy of strict fire protection in Fynbos, with the object of protecting the Cape flora. Populations of *O. zeyheri* continued to decline alarmingly. In the late 1960s it was realized that fires were necessary at suitable intervals (during hot summers once every 15 years is the optimum) to ensure regeneration and good recruitment. The marsh rat *Otomys saundersiae* was responsible for the destruction of more than half of the plants in one population, although later some re-sprouted.

**Threats**

*Potential visitor pressure as the species is highly charismatic. Seasonal fire and predation of the seed bank by baboons are given as additional threats by Rebelo et al. (2009). Boucher (1997) and Brits (1997) observed that occasional illegal picking of single blooms takes place for private purposes. As the exact localities of the populations are confidential and access is restricted, the likelihood of illegal collection is low (Brits, 1997).*

**Conservation, management and legislation**

Both populations occur within conservation areas: the Kogelberg Biosphere Reserve and the Maanskynekop Nature Reserve which are managed by Cape Nature.

Strict controls imposed in 1938 by the Department of Forestry and now maintained by Cape Nature ensure that no harvesting from the wild takes place.

In 1967 when the species was thought to be on the brink of extinction, the Kogelberg reserve was closed to the public for five years and the known sites were fenced off. Regular patrols were implemented to safeguard the surviving plants and a series of controlled block burns were started. Hoeing of the fenced area resulted in the appearance of seedlings, and bee hives were introduced into the area to enhance pollination. In 1971, the closure was extended indefinitely, except by permit for research purposes. Access to the Kogelberg has since increased, but the plants are still strictly protected. All these measures have been successful. At present, fire frequency is restricted to 15–20 year intervals, wildfires are controlled, invasive alien plants are cleared from the area and access is still strictly controlled.

*Orothamnus zeyheri was listed as Rare in the Red Data List of Southern African Plants (Hilton-Taylor, 1996), and also listed in the Red List of South African Plants 2009 (Raimondo et al. in press; Foden, 2009).*

*Newton (2009) points out that Orothamnus zeyheri is not listed in the Threatened and Protected Species List of South Africa's National Environment Management: Biodiversity Act and so is not protected by this legislation.*

*The exact localities of the populations are confidential, in addition to access being restricted (Brits, 1997).*

Supporting Statement (SS)	Additional information
<p><i>Orothamnus zeyheri</i> was protected from international trade by its listing on CITES. Appendix I from 1975 to 1997 and on CITES Appendix II from 1997 onwards.</p> <p>The species is listed as 'Endangered Flora' in terms of the 1974 <i>Cape Nature and Environmental Conservation Ordinance 19</i>. This means no person without a permit may possess, sell, donate, receive as a donation, pick, or import into, export from, or transport through the province the species.</p> <p>Protection programmes have been so successful that the conservation status of the species was changed from Endangered to Rare in the 1996 Red Data List of southern African plants. The proposed status for the latest Red Data list is Vulnerable.</p> <p>The Kogelberg populations are now annually monitored by Cape Nature.</p>	
<b><u>Captive Breeding/Artificial Propagation</u></b>	
<p>Much research has been carried out on <i>Orothamnus</i> propagation, including grafting onto other members of the Proteaceae e.g. <i>Leucospermum conocarpodendron</i> and <i>L. cordifolium</i>, which are less susceptible to trampling and fungal attack. Many hundreds of grafted plants were produced and distributed by the then Cape Nature Conservation Department's nursery in the late 1970s, to interested commercial growers. Grafted plants do not live more than a few years, but as regrafting is a relatively straightforward procedure, a continuous supply can be maintained. It would be quite feasible to set up a commercial propagation programme to meet demands for flowers and plants. Grafted plants are in cultivation at Kirstenbosch National Botanical Garden and the Agricultural Research Council at Elsenburg.</p>	<p><i>At the present time there appears to be no demand for wildflowers or grafted flowers.</i></p> <p><i>Hilton-Taylor (2009) notes that flowers of cultivated Orothamnus zeyheri are equally as attractive and colourful as wild flowers.</i></p>
<b><u>Other comments</u></b>	
<p>It is unlikely that removal from CITES will stimulate trade because access to the natural populations is strictly controlled and there is adequate domestic legislation to protect this species. As such, CITES listing is not necessary.</p>	<p><i>Given the limitations on public access to the areas where this species grows, the largely inaccessible nature of these areas, plus the domestic legislative measures in place which are well enforced, Hilton-Taylor (2009) believes it is highly improbable that the removal of the species from CITES will stimulate any trade in this species.</i></p>

**Reviewers:**

Craig Hilton-Taylor, TRAFFIC East/Southern Africa.

**References:**

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