

Inclusion of *Adenia firingalavensis* in Appendix II

Proponent: Madagascar

Summary: *Adenia firingalavensis* is a succulent plant from Madagascar. It is one of 100 or so members of *Adenia*, a genus widespread in Madagascar and Africa, and is reportedly widespread in the western part of Madagascar from the far north to the south, growing in shade in dry forest, scrub and rocky areas at altitudes of 0–500 m. It produces a bottle-shaped trunk up to two metres tall and 30 cm in diameter, from which grow vine-like branches up to 3.5 m in length. It is reportedly slow-growing and at least locally shows poor regeneration rates. It can be locally common and occurs in a number of protected areas. It is in some demand internationally as a horticultural plant, grown chiefly by specialist collectors of succulents. The CITES Management Authority of Madagascar records the export of some 550 specimens in the period 2003–2006, most of these (around 360) in 2004. Only 10 were recorded in trade in 2006. It may be assumed that most or all of these were wild-collected plants. The species can be propagated by both seeds and cuttings.

The species resembles *A. olaboensis*, which is proposed for inclusion in Appendix II (see Prop. 35), and a number of other Malagasy *Adenia* species, which are not proposed for inclusion in the Appendices, some of which are very rare and some of which may be exported under its name.

Analysis: *Adenia firingalavensis* is a widespread and apparently at least locally common species in Madagascar. The species is in apparently limited trade for horticulture. There is no evidence of extensive or intensive harvest for domestic use. Given its widespread distribution, its presence in a number of protected areas and the limited recorded amount of export trade, it seems very unlikely that harvest for trade is reducing the species to a level at which it might become eligible for inclusion in Appendix I in the near future, or that such regulation is needed to ensure that harvest from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

Supporting Statement (SS)	Additional information
<p>Madagascar</p>	<p style="text-align: center;"><u>Taxonomy</u></p> <p style="text-align: center;"> </p> <p style="text-align: center;"><u>Range</u></p> <p style="text-align: center;"> </p> <p style="text-align: center;"><u>IUCN Global Category</u></p> <p style="text-align: center;"> </p> <p style="text-align: center;"><i>Not currently listed</i></p>

Supporting Statement (SS)	Additional information
Biological and trade criteria for inclusion in Appendix II (<i>Resolution Conf. 9.24 (Rev. CoP14) Annex 2 a</i>)	
<u>A) Trade regulation needed to prevent future inclusion in Appendix I</u>	
<p>Reported from the Mikea and Andoharano forests north of Toliara and in the Ankarana and Analamerana Special Reserves and Montagne d'Ambre National Park in Antsiranana Province. One population of 150 specimens is known from north of Toliara. The species grows slowly and appears to show poor regeneration.</p> <p>Following field studies in 2006, the species was regarded as meeting the criteria for vulnerable under the IUCN Red List categories and criteria.</p> <p>Reported exports: 18 in 2003; 358 in 2004; 168 in 2005; 10 in 2006.</p> <p>Populations have been reduced in areas where the species is collected for export; because there is no control, collectors tend to take all the specimens they come across and it is difficult to distinguish between young specimens and mature ones in the field.</p>	<p><i>Occurs to 500 m (Eggli, 2002). Hearn (2009) reports the species to be locally common and more widespread than is indicated in the supporting statement.</i></p>
<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>	
<p>The population is not significantly exploited locally. The bark, which is toxic, is used to treat scabies.</p>	
Inclusion in Appendix II to improve control of other listed species	
<u>A) Specimens in trade resemble those of species listed in Appendix II under <i>Resolution Conf. 9.24 (Rev. CoP14) Annex 2 a</i> or listed in Appendix I</u>	
<u>B) Compelling other reasons to ensure that effective control of trade in currently listed species is achieved</u>	

Other information

Supporting Statement (SS)	Additional information
<u>Threats</u>	
<p><i>A. firingalavensis</i> is a shade-loving species, therefore it is more sensitive to habitat disturbance than others.</p>	
<u>Conservation, management and legislation</u>	
<p>Reported from protected areas of Montagne d'Ambre, Ankarana and Analamerana in the far north.</p>	<p>Also reported from the Tsingy de Bemaraha and Tsingy de Namoroka, both of which are protected areas (website www.madagaskar.com)</p>
<u>Captive Breeding/Artificial Propagation</u>	
	<p>Can be propagated from cuttings and seed (Bihmann, nd).</p>
<u>Other comments</u>	
	<p>Offered for sale in the USA at USD30–60 retail, a comparatively low price compared with other <i>Adenia</i> species offered by the same supplier. Specimens were also observed for sale at EUR89.</p> <p>Currently around 18 species of <i>Adenia</i> native to Madagascar are recognized, all endemic (efloras website).</p> <p>Hearn (2006) reports that morphological and molecular evidence suggest that the form often known as <i>Adenia firingalavensis</i> var. <i>stylosa</i> is in fact a separate species, <i>A. stylosa</i>.</p> <p>Hearn (2009) notes that there are Malagasy <i>Adenia</i> species (<i>A. epigea</i>, <i>A. litoralis</i>, <i>A. stylosa</i>, <i>A. boivinii</i>, <i>A. lapiazicola</i>, and <i>A. metamorpha</i>) resembling <i>A. firingalavensis</i> and <i>A. olaboensis</i> that are exceptionally rare and/or locally endemic. Based on his observations of the succulent trade, many very rare <i>Adenia</i> are imported as <i>Adenia</i> sp. or <i>Adenia firingalavensis</i></p>

Reviewers:

TRAFFIC East/Southern Africa.

References:

Eggl, E. (2002). Illustrated Handbook of Succulent Plants: Dicotyledons. Springer, Berlin, Germany.

Hearn, D.J. (2009). *Adenia* (Passifloraceae) and its adaptive radiation: phylogeny and growth form diversification. *Systematic Botany* 31: 805–821.

Viewed December 16 2009

<http://www.bihrmann.com/caudiciforms/subs/ade-fir-sub.asp>

http://www.efloras.org/florataxon.aspx?flora_id=12&taxon_id=100532