

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES  
OF WILD FAUNA AND FLORA

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INFORMATION SUPPORTING AMENDMENT PROPOSAL COP17 PROP. 13, TO TRANSFER *MACACA SYLVANUS* FROM APPENDIX II TO APPENDIX I, AS SUBMITTED BY THE EUROPEAN UNION AND MOROCCO

This document has been submitted by the European Union\*

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Information supporting amendment proposal CoP17 Prop. 13, to transfer *Macaca sylvanus* from Appendix II to Appendix I, as submitted by the European Union and Morocco

## Introduction

This document has been compiled to supplement the information provided in amendment proposal CoP17 Prop. 13 to transfer *Macaca sylvanus* from Appendix II to Appendix I, as submitted by the European Union and Morocco.

The document highlights a number of key points:

- *Macaca sylvanus* has a limited range;
- There is evidence of a marked decline in the population size in the wild;
- The species meets the criteria in Res. Conf. 9.24 (Rev. CoP16) for inclusion in Appendix I in accordance with Annex 1, paragraph C) i): a marked decline in the population size in the wild, which has been observed as ongoing or as having occurred in the past (but with the potential to resume).

### Limited species range: habitat fragmentation and isolation of subpopulations

The overall range of *M. sylvanus* is not extensive. The remaining subpopulations of *M. sylvanus* in Morocco and Algeria were reported to be highly fragmented (see Figure 1 of CoP17 Prop.13) and to occur in low numbers (Mittermeier *et al.*, 2013). Garcia (*in litt.* to UNEP-WCMC, July 2016) noted that the already small total population of *M. sylvanus* is highly fragmented, not only between the Middle and High Atlas and Rif in Morocco and the Grand and Petite Kabylie and Chiffa gorges in Algeria, but also within these sites. A genetic study of *M. sylvanus* in Morocco and Algeria found evidence of persistent geographical isolation across its range, with the remaining subpopulations completely isolated in forest fragments, preventing natural genetic exchange (Modolo *et al.*, 2005).

The stronghold for the species in the Middle Atlas was reported to be highly subdivided due to forest clearings and desertification (Garcia *in litt.* to UNEP-WCMC, 2016). Surveys conducted in forest fragments in the Middle Atlas in 2007-2008 found no evidence of patch connectivity effects, suggesting a lack of functional connectivity between habitat fragments and fragments too far apart to allow movement between them (Menard *et al.*, 2014). The species' social organisation (e.g. total philopatry of females and their strong, stable residence in home ranges) as well as its habitat requirements were thought to further compound this issue by limiting the potential for movement between areas and predisposing the species to local extinctions (Menard *et al.*, 2014). Results from a study of genetic variability in four isolated subpopulations in Algeria suggested that the species ability to disperse is limited even between social groups within an isolate (Segresser *et al.*, 1999). In a number of habitat fragments where the densities of groups were close to zero, local extinctions were anticipated in the near future, and it was thought that the low dispersal abilities of *M. sylvanus* and the low connectivity of the landscape would prevent recolonization of these areas (Menard *et al.*, 2014).

### Evidence of a marked decline in the wild population, in line with the criteria in Annex 1, paragraph C) i) of Res. Conf. 9.24 (Rev. CoP16).

The population trend was reported to be declining across the species range (Butynski *et al.*, 2008). The total population size is unknown but is considered to be likely between 6500 – 9100 individuals according to recent estimates (van Lavieren. pers. comm., June 2015; Garcia *in litt.* to UNEP-WCMC, July 2016). In addition to an observed decline in the overall population size from 14,000-23,000 in the 1980's (as outlined in section 4.4. of CoP17 Prop. 13), the average population density was considered to have declined by up to 80% over 30 years (Taub, 1977; Camperio Ciani *et al.*, 2003; Ménard *et al.*, 2014; Garcia *in litt.* to UNEP-WCMC, July 2016). The IUCN Red List categorised the species as Endangered in 2008, on the basis of a population decline exceeding 50% over three generations (estimated at 24 years), with this decline expected to continue in the future (Butynski *et al.*, 2008).

## Conclusion

CoP17 Prop. 13 recommends the transfer of *M. sylvanus* from Appendix II to Appendix I on the basis of an ongoing population decline in accordance with Annex 1, paragraph C) i), a marked decline in the population size in the wild. Annex 5 of Res. Conf. 9.24 (Rev. CoP16) provides a general guideline for a 'marked recent rate of decline' of 50% or more in the last 10 years or three generations (whichever is

longer). On the basis of the 2008 IUCN assessment, indicating that “[o]verall, the population of this species is estimated to have declined at a rate exceeding 50% over the last 3 generations (24 years)” (Butynski *et al.*, 2008), the species meets the guidelines for the marked decline criteria as outlined in Annex 5. In addition, it states in Annex 5 of the Resolution that the 50% decline figures are “presented only as examples, since it is impossible to give numerical values that are applicable to all taxa because of differences in their biology”, indicating that the rates of historical and recent declines need to be considered in conjunction with species biology and productivity. In the case of *M. sylvanus*, the species’ biological characteristics (including a low reproductive rate and limited dispersal ability) make it highly vulnerable to overexploitation through international trade (Garcia *in litt.* to UNEP-WCMC, July 2016).

The preambular text of Res. Conf. 9.24 (Rev. CoP16) states that “in case of uncertainty regarding the status of a species or the impact of trade on the conservation of a species, the Parties shall act in the best interest of the conservation of the species concerned”. Applying the precautionary approach, the European Union considers that, taking into account the recent documented decline together with the biological characteristics of this species outlined in CoP17 Prop. 13, *M. sylvanus* meets the criteria for inclusion in Appendix I in accordance with Annex 1, paragraph C) i) a marked decline in the population size in the wild, which has been observed as ongoing or as having occurred in the past (but with the potential to resume).

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