

AArk Taxon Management Plan – *Mantella aurantiaca*

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BACKGROUND

Species (common/scientific names):

Golden mantella *Mantella aurantiaca*

Distribution:

Eastern Madagascar

Conservation status (IUCN, CITES other):

Critically Endangered
CITES II

Threats:

Fragmented distribution; (illegal) over-collection of sub-populations.

Proposed *ex situ* roles (Ark; Rescue; Supplementation; Research; Education):

Rescue; Education

Husbandry guidelines (Y/N, if yes give details and/or hyperlink):

Yes – on AArk website: www.amphibianark.org

Co-ordinator and contact details:

Fabio Mattioli - TBC

Programme Goal:

- Establish and maintain genetically viable 'natural' – therefore reintroducible – population (in two sub-populations) as a safe-guard against extinction in the wild.
- Maintain educational exhibits of this species worldwide to draw attention to the plight of amphibians generally and Madagascar fauna especially.
- Use this most common captive species to develop *ex situ* husbandry and management techniques applicable and transferable to other related taxa and for training/capacity building in range state.

ACTION PLAN

***Ex situ* population management**

Current population (no. of individuals and/or institutions):

- Rescue role - zero
- Education role – c.1000 in >50 institutions

Target population (no. of individuals and/or institutions):

- Rescue role - 100.100 divided between two or more institutions
- Education role – no target

Objectives (clearly defined and measurable):

- Genetically viable Rescue population (as indicated above) established and breeding (self-sustaining) in 2-3 AARK participating collections by 2010.
- Taxon coordinator making annual recommendations for the management of the species to all participating collections – including breeding/culling/surplusing instructions.

- In country facility established with parallel Rescue population managed by trained staff.
- Multiple additional collections worldwide holding small non-programme populations for Educational, Research (training) and fund-raising roles.

Actions necessary to achieve *Ex situ* objectives (including time frame):

- Identify partner EAZA institutions with proven track record in managing this species and suitable bio-secure facilities. **2007**
- Import 30 founder frogs annually for two years - total 60 founders – and distribute these frogs equally between the institutions. **2008/2009**
- Taxon coordinator to seek advice/training as necessary on group management with respect to genetic viability and implement annual management recommendations. **2009 onwards.**
- Identify Malagasy partner institution. **2008**
- Assist in establishment of facilities and training of personnel. **2008/2009**
- Transfer surplus c.40 individuals from EAZA-based Rescue population to Malagasy partner facility. **2009**
- Pending results of former action, transfer a further c.40 individuals. **2010**
- Identify other collections wishing to develop educational or fundraising exhibits of this species and/or develop Mantella husbandry expertise for future AArk programmes. **2008**
- Transfer surplus frogs from Rescue population to these institutions. **2009 onwards.**

Ex situ Research

Current research objectives and expected time frames:

None.

Proposed research objectives and expected time frames:

None confirmed at this time.

Possibilities include:

- Investigate sustainable 'farming' to support the commercial exotic animal trade in this species may be considered.
- Invite pharmaceutical industry to sample skin secretions (if not already done so) in order to identify any useful compounds which may indirectly support the conservation of the species through awareness and/or finance.

Actions necessary to meet Research objectives (including time frame):

TBD

Ex situ Education

Educational message:

The golden mantella and its close relatives are among the most colourful frogs in the world. Unfortunately this makes them also some of the most sought after frogs by collectors.

Controlling the trade in these species and protecting their rapidly dwindling forest habitat is crucial to the maintenance of Madagascar's unique and diverse frog fauna.

Educational objectives:

- Visitors to zoos/aquariums viewing these frogs understand they are unique to Madagascar.
- Visitors made aware of international trade in amphibians.
- Visitors understand that habitat loss and chytrid fungus are the two greatest threats to the worlds 6000+ amphibian species
- Visitors care about amphibians and know what they can do to help.

NB – many of these resources may be useful in implementing *in situ* education and awareness programmes also – as detailed below.

Actions necessary to meet Educational objectives (including time frame):

- Taxon coordinator or delegate to provide holding institutions with summary statement on diversity and status of Malagasy endemic amphibians. **2008**
- Taxon coordinator or delegate to solicit recent relevant trade data from WCMC/TRAFFIC. **2008**
- Taxon coordinator or delegate to compile a collection of photographs representative of Malagasy amphibian fauna with rights to their use in zoo/aquarium interpretation. **2008**
- Develop an action list – ‘what you can do to help’. **2008**

Any other information:

In-country/field initiatives

Current activities:

RAMSAR site includes ~ 50% of population.
Listed on CITES II - annual quota set by Tana Univ (zero).

Objectives (clearly defined and measurable):

- Thorough understanding of species conservation biology.
- Adequate, continuous, protected habitat capable of sustaining a long-term viable population.
- Carefully monitored and sustainable trade.
- Enhanced local knowledge and understanding that promotes a pride/value in the species.

Actions necessary to meet Field conservation objectives (including time frame):

- Conduct thorough field surveys to complete distribution data.
- Invite experts and perform P(H)VA for species.
- Implement P(H)VA recommended actions.
- Petition for extension of protected areas.
- Implement re-forestation programme to reverse fragmentation (see below*)
- Rending P(H)VA, adjust/maintain, enforce and monitor export quotas.
- Design and implement a local education and awareness programme.
- Promote alternative livelihoods – e.g. ecotourism, re-forestation?*

Long term goal (exit strategy):

If all of the above *in-situ* objectives can be met, and a large enough and continuous forest block protected and the trade carefully managed and proved to be sustainable, the AArk Rescue programme can be disbanded. Frogs can be incorporated into Education/Research role populations and the bio-secure facilities made available to other more needy amphibian species.

References

Publications/reports:

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