

Furcifer cephalolepis Günther, 1880

FAMILY: Chamaeleonidae

COMMON NAMES: Comoro Islands Chameleon (English); Caméléon des Comores (French)

GLOBAL CONSERVATION STATUS: Not yet assessed by IUCN.

SIGNIFICANT TRADE REVIEW FOR: Comoros

Range State selected for review

Range State	Exports* (1994-2003)	Urgent, possible or least concern	Comments
Comoros	7,150	Least concern	Locally abundant. No trade recorded since 1993, when only 300 exported. No known monitoring or evidence of non-detriment findings.

*Excluding re-exports

SUMMARY

Furcifer cephalolepis is a relatively small chameleon endemic to the island of Grand Comoro (Ngazidja) in the Comoros, where it occurs at altitudes of between 300 m and 650 m, and has an area of occupancy of between 300 km² and 400 km². It occurs in disturbed and secondary vegetation, including in towns, and can reportedly be locally abundant, although no quantitative measures of population size are available. Plausible estimates indicate that populations may be in the range of tens of thousands to hundreds of thousands.

The species is exported as a live animal for the pet trade. Recorded exports from the Comoros began in 2000 and, between then and 2003, some 7,000 animals were recorded as exported, latterly almost all to the USA. Only 300 were recorded in trade in 2003, and none in 2004 (or, to date, in 2005), despite the fact that exports of other Comorean reptiles, which dropped to a low or zero level in 2003, began again in 2004. Captive breeding has taken place, in the USA at least.

The species is not known to be covered by any national legislation. Current export levels (since 2002) are negligible and are very unlikely to pose any threat to the species in the wild. Earlier export levels (2000-2002) are also unlikely to have posed a threat, although could conceivably have led to some local depletion in the area where the species was collected for export.

Given the wide distribution of *F. cephalolepis* and the probable wild population, the level of offtake for recorded international trade is very unlikely to have a significant impact overall on the species in the wild. International trade in this species is therefore of least concern. Nevertheless it appears that the population is not monitored, no export quotas are set and no information has been found on whether non-detriment findings have been established and, if so, on what basis.

SPECIES CHARACTERISTICS

Furcifer cephalolepis is one of 19 or so species of chameleon in the genus *Furcifer*, all but two of which are endemic to Madagascar, the exceptions being this and the Mayotte Chameleon *F. petteri* (Glaw and Vences, 1994; Jenkins and Rakotomanampison, 1994). It is a relatively small species, measuring up to 17 cm in total length (James and Pollak, undated).

The species is endemic to Grand Comoro Island in the Comoros, where it is chiefly reported at altitudes of from 300 m to 650 m (Edwards, 2001). The area of land on Grand Comoro within this altitudinal belt covers between 300 km² and 400 km². Within its range *F. cephalolepis* is regularly found in disturbed and secondary vegetation, including in towns, occurring on a wide range of introduced and native bushes

and small trees, including *Eucalyptus*, mango *Mangifera* and *Lantana*. It generally keeps to the shade during the hotter parts of the day (Edwards, 2001; Edwards *in litt.*, 2006). Like all chameleons it is predatory, feeding on a range of insects and other small invertebrates (James and Pollak, undated).

From studies in captivity, gestation period is up to 60 days, following which a single clutch of four to nine eggs is produced. The eggs hatch after an incubation period of from 250 to 400 days depending on conditions. Females may lay three to five clutches a year, and young can reach maturity in as little as three months (James and Pollak, undated).

Although no quantitative population density estimates have been located, the species has been described as locally abundant. In 2001, Edwards reported finding 80 specimens in two hours within an area of approximately 1 km² near the town of Maweni at 630 m in the northern part of the island (Edwards, 2001). Brady *et al.* (1999) in their surveys of various Malagasy chameleons arrived at population density estimates ranging from a few individuals to, exceptionally, over 100 individuals per hectare, equivalent to a few hundred to a few thousand individuals per km². On this basis, the wild population might plausibly range from a few tens of thousands to several hundred thousand.

INTERNATIONAL TRADE

The sole reason for commercial international trade is to supply the pet or hobbyist market. The species has fetched slightly higher than average prices for a small chameleon (ca. USD 40 compared with USD 20-35 for a number of other species), probably reflecting its relatively recent appearance in the market. Newly imported animals are reportedly generally heavily infested with parasites and are therefore recommended for experienced keepers only. Captive breeding has taken place although the species appears not yet to be widely available commercially as captive bred.

Table 1: Exports* excluding re-exports of live wild *Furcifer cephalolepis*, 1994-2003

Export Country	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Comoros							~ 1100	~ 3500	2250	300	7150

(Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP World Conservation Monitoring Centre, Cambridge, UK)

*Based on a review of comparative tabulations, which showed significant double counting within gross export data, reported imports were used as the basis for trade analysis.

COUNTRY ACCOUNT

Comoros

Status:

Endemic to Grand Comoro Island in the Comoros, where it is chiefly reported at altitudes of from 300 m to 650 m. No quantitative population density estimates have been located; the species has been described as locally abundant. In 2001 Edwards reported finding 80 specimens in two hours within an area of approximately one km² near the town of Maweni at 630 m in the northern part of the island (Edwards, 2001).

Management and trade:

Just over 7,000 animals were reported as exports from the Comoros in the period 1994-2003, all since 2000. In that year just over 1,100 were reported as imports, chiefly by Madagascar (900) and Germany (175), with small numbers to France, Canada and Belgium. The following year just over 3,500 were recorded in trade, nearly all to the USA, with a further 2,250 in 2002, again nearly all to the USA. In 2003 total recorded trade was 300 imported by the USA. None has been recorded in trade in 2004 and 2005, despite the fact that substantial exports from the Comoros of live *Phelsuma* species took place at least in 2004 (Edwards *in litt.*, 2006). It is likely in some cases that numbers declared on permits were somewhat greater than the number actually exported.

Specimens for export are, or were, reportedly collected around the town of Maweni in the north of Comoros (Edwards, 2001). There is no reported local use of the species.

The species is not known to be covered by any national legislation. No export quotas are known to have been set, nor are any non-detriment findings known to have been made.

Given the probable wild population and the biological characteristics of the species, the level of offtake for recorded international trade is unlikely to have a significant impact overall on the species in the wild. The situation should be reviewed if any significant change in trade volumes is noted.

REFERENCES

Brady, L.D. and Griffiths, R.A. (1999). *Status Assessment of Chameleons in Madagascar*. IUCN Species Survival Commission, IUCN, Gland, Switzerland and Cambridge U.K.

Edwards, E.J. (2001). Comoros. <http://www.adcham.com/html/ecology/comoros-edwards.html>. Viewed Jan 30th 2006.

Edwards, E.J. (2006) *In litt.* to IUCN Wildlife Trade Programme, February 15th 2006.

Glaw, F. and Vences, M. (1994). *A Field Guide to the Amphibians and Reptiles of Madagascar*. 2nd edition. Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn.

James, S. and Pollak, E. (undated). *Furcifer cephalolepis*. <http://www.adcham.com/html/taxonomy/species/fcephalolepis.html>. Viewed 29th February 2006.

Jenkins, M.D. and Rakotomanampison, A. (1994). L'exportation des plantes et des animaux sauvages à Madagascar : les conséquences pour les suivies des espèces. Study presented to ANGAP and USAID by Tropical Research and Development, Inc. (TR&D).