Phelsuma v-nigra Boettger, 1913

FAMILY: Gekkonidae

COMMON NAMES: Boettger's Day Gecko (English); Gecko diurne de Boettger, Phelsume de Boettger (French)

GLOBAL CONSERVATION STATUS: Not yet assessed by IUCN.

SIGNIFICANT TRADE REVIEW FOR: Comoros; French Polynesia, Wallis & Futuna, Mayotte (France).

Range States selected for review

Range State	Exports* (1993-2004)	Urgent, possible or least concern	Comments
Comoros	9,875	Least concern	Locally common. High reproductive rate. No systematic population monitoring in place to determine non-detriment.
France (French Polynesia, Wallis & Futuna, Mayotte).	0	Least concern	No trade reported; species does not occur in French Polynesia or Wallis and Futuna.

*Excluding re-exports

SUMMARY

Phelsuma v-nigra is one of 30-40 species of day gecko in the genus *Phelsuma*. It is found in the Republic of the Comoros and the island of Mayotte, a territory of France in the Comoro group. It occurs throughout the group and is reportedly common in places, although has a somewhat restricted distribution at least on Mayotte. It is found in a range of vegetation types and is often reported associated with human dwellings.

Day geckos in general are popular as exotic pets and among specialist collectors. Captive-bred individuals now also supply a considerable proportion of the market in consumer countries. Significant recorded exports from the Comoros of *P. v-nigra* began in 2000, initially to Madagascar, evidently for re-export to consumer nations, and latterly largely to the USA. Around 10,000 have been recorded as exported in total during the period 1994-2003. There is no known local use of the species. *Phelsuma v-nigra* appears to command an average or slightly higher than average price for day geckos in the retail market.

The overall size of the population is not known and no published population density estimates for this species have been located. Because, like many other *Phelsuma* species, it can apparently adapt well to human disturbance and is at least locally common, it is unlikely to be currently threatened with extinction, despite its relatively small global range. Given the potential reproductive rate of the species and the absence of local use, it is very unlikely that currently levels of export will have a significant impact on the wild population, even if there is substantial mortality between collection and export. International trade in this species is therefore of least concern. The situation should be re-reviewed if any significant changes in trade are noted. Nevertheless it appears that the wild population is not monitored, no quotas are set and no information has been found on whether non-detriment findings have been established and, if so, on what basis.

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

SPECIES CHARACTERISTICS

Phelsuma v-nigra is one of 30-40 species of day-gecko in the genus *Phelsuma*. *Phelsuma v-nigra* is one of the smallest members, reaching around 10 cm in length, occurring in the Comoros and the French island of Mayotte in the western Indian Ocean (Anonymous, undated; Baars, undated).

Found in a range of vegetation types, although apparently favours somewhat more humid areas than *P. dubia*. Often reported associated with human dwellings. On Grand Comoro is generally found at lower altitudes than *P. comorensis,* although the ranges of the two species overlap at least in places (Edwards, 2001). Largely insectivorous although also takes nectar, pollen and plant exudates. Females lay clutches of two eggs that hatch after an incubation period of 33-45 days. Most *Phelsuma* species can lay multiple clutches following a single mating, and may reach maturity in a year or less (Anonymous, undated).

The global conservation status of *Phelsuma v-nigra* has yet to be assessed by IUCN's Global Reptile Assessment. Because, like many other *Phelsuma* species, it can apparently adapt well to human disturbance and is at least locally common, it is unlikely to be currently threatened with extinction, despite its relatively small global range. The overall size of the population is not known and no published population density estimates for this (or indeed any other) *Phelsuma* species have been located. However, ecologically similar species of *Anolis* in the Neotropics have been shown regularly to reach densities of many hundreds to several thousand individuals per hectare (Rodda *et al.*, 2001; Stamps *et al,* 1997). Observation indicates that the more adaptable *Phelsuma* species may achieve similar population levels, at least locally (author's observations). *Phelsuma v-nigra* occurs on all three islands of the Comoros and on Mayotte, the four islands having a total combined area of just over 2000 km^2, although it is known to be patchily distributed on Mayotte at least (Baars, undated). However, even if it occurs in reasonable numbers in only a small part of the total area of these islands, the population is likely to be at minimum several hundred thousand animals and quite possibly several million.

INTERNATIONAL TRADE

Day geckos in general are popular as exotic pets and among specialist collectors in Europe, North America and, to some extent, Asia, particularly Japan. The genus *Phelsuma* itself occurs in the Indian Ocean region, with a centre of diversity in Madagascar (20-30 species) and a few species occurring on the other island groups in the region including the Comoros, Seychelles and Mascarenes (Anonymous, undated; Glaw and Vences, 1994). The entire genus was included in Appendix II of CITES in 1977. Historically, Madagascar has been the source of most of the day geckos in international trade, with exports of tens of thousands annually reported in the late 1980s and early 1990s (Jenkins and Rakotomanampison, 1994). However, since 1994 the CITES Standing Committee has recommended that importing countries do not accept commercial imports from Madagascar of any *Phelsuma* species except for *P. laticauda, P. lineata, P. madagascariensis* and *P. quadriocellata*, for each of which annual quotas of 2,000 specimens a year have been maintained. This has probably led to increased demand for *Phelsuma* species from other countries. Captive-bred individuals now also supply a considerable proportion of the market in consumer countries.

Table 1: Exports* excluding re-exports of live wild *Phelsuma v-nigra*, 1994-2003

Export Country	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Comoros	0	0	0	0	0	0	3476	5749	650	0	**9875**

(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.

Comoros

Status:

Recorded on all three main Comoro islands: Grand Comoro (Ngazidja), Mohel (Mwali) and Anjouan (Nzwani). On Grand Comoro the species occurs at generally lower altitudes than *P. comorensis* although the ranges of the two overlap in places (Edwards, 2001). Widespread and at least locally abundant on Grand Comoro, for example in the vicinity of Moroni, the capital city (Edwards, 2001, Edwards *in litt.,* 2006).

Management and trade:

Almost 10,000 specimens have been recorded in trade in the period 1994-2003, all since 2000. The US is the primary importer, with Germany importing approximately 16% of the total over the period. Specimens were also imported to Madagascar and re-exported.

Specimens for export of this species, along with *Phelsuma dubia* and *Furcifer cephalolepis* (q.v.), are reportedly collected around the town of Maweni in the north of Grand Comoro (Edwards, 2001). It is not known whether specimens are also collected from other islands in the Comoros. The form offered for sale by dealers is *P. v-nigra v-nigra,* which occurs on Grand Comoro and Moheli. 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, the biological characteristics of the species, the level of offtake for recorded international trade is unlikely to have a significant impact on the wild population. The situation should be reviewed if any significant change in trade volumes is noted.

France (Mayotte)

Status:

Occurs on the island of Mayotte in the Comoro group in the western Indian Ocean. Does not occur in French Polynesia or Wallis and Futuna in the Pacific Ocean. On Mayotte the species is reportedly localized but can be common where it is found (Baars, undated).

Management and trade:

No international trade from Mayotte has been reported in the period 1994-2003. It is conceivable that there is domestic trade in specimens between Mayotte and metropolitan France, and thence into other EU countries. Such trade would not be reported under CITES. However, France itself is not known to be an important market for live reptiles and the form of *P. v-nigra* that occurs on Mayotte (*P. v.-nigra pasteuri*) is not currently known to be offered by dealers in Europe.

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