

First record of *Pelusios castanoides intergularis* and rediscovery of *Pelusios subniger parietalis* on Cousin Island, Seychelles

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The Seychelles islands support three species of freshwater turtles that belong to the Pelomedusidae family. These comprise two endemic subspecies of African mud turtle, *Pelusios subniger parietalis* (Bour, 1983) and *Pelusios castanoides intergularis* (Bour, 1983), as well as a most probably extinct endemic species, *Pelusios seychellensis* (Siebenrock, 1906). Both the subspecies *P. s. parietalis* and *P. c. intergularis* are listed as critically endangered on the IUCN red-list with approximate population estimates of 660 and 120 adults respectively (Gerlach, 2008a,b). The subspecies are representatives of southeastern African and Madagascan species (Bour, 1983) and may be of relatively recent origin, possibly dispersing from Africa to the Seychelles during periods of lowered sea levels during glaciations some 100,000 years ago (Gerlach, 2008c). The species are biogeographically important as being the only Pelomedusidae found naturally on oceanic islands (Gerlach, 2008c).

Pelusios castanoides intergularis Bour 1983

The specimen (Fig 1A) was found on the 24th of June 2009 at 15.00 by Krijn Buitelaar on Cousin Island walking in the direction of the only freshwater marsh (<0.1ha) of Cousin Island (-4° 19' 52" N, 55° 39' 48 E).

Pelusios subniger parietalis Bour 1983

The specimen (Fig 1B) was found on the 5th of June 2009 by Krijn Buitelaar on Cousin Island inside the

freshwater marsh (-4° 19' 52 N, 55° 39' 48 E).

In the 1940's, approximately thirty individuals of *Pelusios* sp. were introduced in Cousin from a population on La Digue Island by the at that time owner F. Jumeau (Bour, 1984). It is not known whether there where any Pelomedusidae on the island before the introduction. Although once every couple of years, generally after heavy rainfall, a terrapin is observed on Cousin Island by local staff (Blais and Simeon, pers. comm), and the species was reported to breed there (Gerlach and Canning, 2001), no data on the encountered specimens was ever collected. Terrapins found on Cousin Island have been assigned to *Pelusios subniger* (Bour, 1983; Gerlach, 2008c; Gerlach and Canning, 2001) and no records on the presence of *P. c. intergularis* have been reported. Considered as locally extinct by Gerlach (2008c), here we provide the first evidence on the presence of both *P. c. intergularis* and *P. s. parietalis* in the only freshwater marsh on Cousin Island. The presence of *P. c. intergularis* is especially surprising because this species is typically associated with river habitat and therefore might not be able to survive on the island. The sudden discovery of both species might be a result of a very recent introduction (Bour and Gerlach, pers. comm.) and because of the very low population sizes and small habitat, the freshwater marsh of Cousin Island should not be considered significant for *Pelusios* conservation (Bour and Gerlach, pers. comm.). Silva et al. (2010) used molecular data (cyt b) to examine population diversity and genetic structure across the Seychelles archipelago and found a complete lack of variation at the mtDNA level, possibly resulting from a very recent human introduction. Moreover, Silva et al. (2010) report low levels of genetic differentiation between Seychellois and Malagasy *P. castanoides* and question the validity of *P. c. intergularis* pending further research. The use of higher variable markers such as microsatellites is recommended as a top conservation management plan priority (Silva et al. 2010) and should likewise be very helpful in identifying the origin of the reported specimens from Cousin Island.

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Figure 1. Ventral (plastron) and head views of the adult *Pelusios castanoides intergularis* (A) and *Pelusios subniger parietalis* (B) specimens found on Cousin Island, Seychelles. Photos: K. Buijelaar.

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