

Pelusios seychellensis (Siebenrock 1906) – Seychelles Mud Turtle

ROGER BOUR¹ AND JUSTIN GERLACH²

¹Laboratoire des Reptiles et Amphibiens, Muséum National d'Histoire Naturelle,
25 rue Cuvier, 75005 Paris, France [bour@mnhn.fr];

²133 Cherry Hinton Road, Cambridge CB1 7BX, United Kingdom [jstgerlach@aol.com]

SUMMARY. – *Pelusios seychellensis* (Family Pelomedusidae) is a small species similar to *P. castaneus*, distinguishable from other Seychelles mud turtles by its black carapace and plastron. It is known from only three specimens collected in the Seychelles on Mahé Island at the end of the 19th century, probably in an inland highland marsh. The species is currently classified by the IUCN Red List as Extinct, though one or a few specimens could conceivably still persist.

DISTRIBUTION. – Seychelles. Distribution restricted to Mahé Island, now probably extinct.

SYNONYMY. – *Sternothaerus nigricans seychellensis* Siebenrock 1906, *Pelusios subniger seychellensis*, *Sternothaerus castaneus seychellensis*, *Pelusios castaneus seychellensis*, *Pelusios seychellensis*.

STATUS. – IUCN 2007 Red List: Extinct (EX) (assessed 2003); CITES: Not Listed.

Taxonomy. – Siebenrock (1906) described this taxon as *Sternothaerus nigricans seychellensis*, the trinomial expressing his belief that it was very close to the East African forms formerly included within the species *Pelusios subniger*. Two females and one male had been brought from the granitic Seychelles by August Brauer in August 1895 and deposited in the Hamburg Museum, where they were registered in 1901. One of the females, ultimately declared to be the lectotype, was donated to the Naturhistorisches Museum (Wien). Siebenrock made enquiries as to the precise origin of the specimen, and Brauer replied that it had been collected on the island of Mahé (Siebenrock 1909). With the authority

of Siebenrock himself (1916), the species was placed in the synonymy of *Sternothaerus nigricans* (Donndorf) (= *Pelusios subniger* [Lacépède] sensu lato). Rendhal (1939) identified it implicitly as a Seychelles subspecies of *P. castanooides* Hewitt. *Pelusios seychellensis* was not raised to the status of a distinct and valid species until the reexamination of the three known specimens by Bour (1983).

Description. – The female lectotype has a carapace length (CL) of 127 mm, the other female has a CL of 132 mm, and the male (clearly an old individual) has a CL of 165 mm. The carapace in the females (both young adults) has a smoothly oval outline, just slightly wider posteriorly

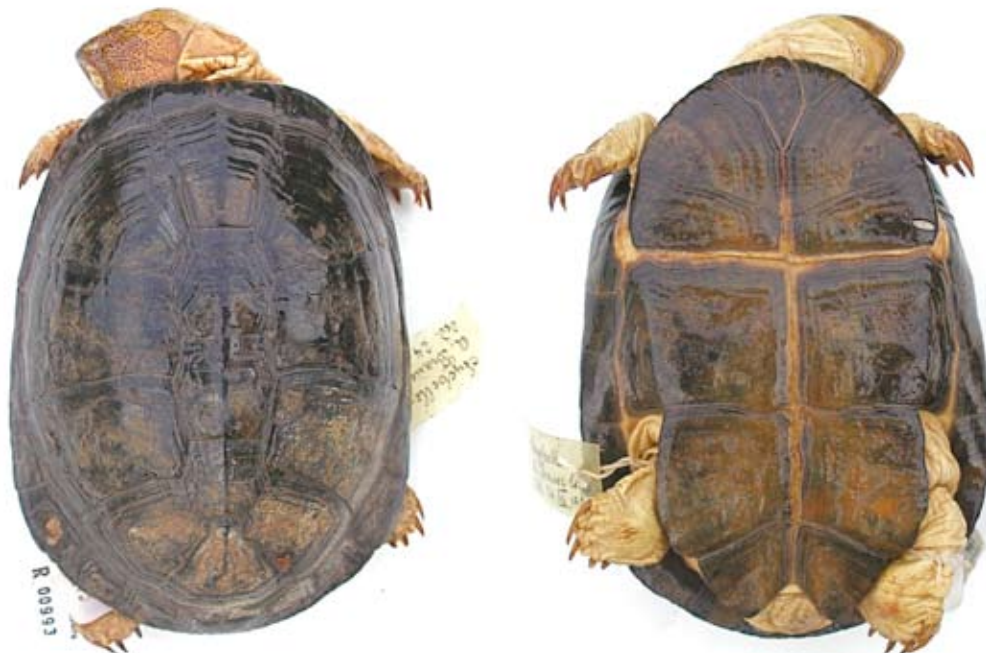


Figure 1. Female *Pelusios seychellensis*, one of three known specimens, collected 1895 on Mahé, Seychelles. Photos by Roger Bour.



Figure 2. Female *Pelusios seychellensis*, one of three known specimens, collected 1895 on Mahé, Seychelles. Photos by Roger Bour.

than anteriorly, and the carapace of the male is relatively narrower. A keel is evident on vertebrals 2–4, but is low and discontinuous. The lateral borders of the first vertebrals are sinuous or serrated; the anterior borders are slightly wider than the two anterior marginals.

The anterior lobe of the plastron is about 1.5 times the length of the abdominal scutes, and the interpectoral seam is about 50% of the length of the interhumeral seam. The intergular is pentagonal, with anterolateral borders converging slightly towards the front margin of the plastron. The femorals are only moderately constricted at the base of the posterior lobe. The anal notch forms a right angle.

On the head, the parietal scales are enlarged (about five large elements) but restricted to the area behind the large fronto-interparietal; a supralabial (between the postocular and the masseteric) is present; and the mental scales (anterior to the barbels) form a narrow band without distinct seams. The anterior face of the forelimb is partially covered with 8–10 barely enlarged falciform (i.e., sickle-shaped) scales.

The neural bones form a complete series anteriorly (i.e., neural 1 is present), but posteriorly neurals 7 and 8 are reduced to small, isolated elements—especially small in the male. The posterior border of the mesoplastra is oblique; their median suture is about one-third the length of the suture between the hyoplastra. The skull, especially as regards features of the otic region (auditory meatus, precolumellar fossa) is similar

that of *Pelusios castaneus*, and quite distinct from the same area of *P. castanoides*.

The carapace and plastron are both intensely pigmented with black, with only a narrow light band along the midline of the plastron in the male. This black coloration must not be confused with the superficial dark tinge that covers more or less extensively the scutes of a number of individuals in other species. The upper surface of the soft parts is yellow-brown, and the underside pale yellow, contrasting sharply with the black shell. The dorsal surface of the head is decorated with a pattern of dark brown, sinuous vermiculations arranged upon a light background, and extending ventrally as far as the maxillary rhamphotheca.

Distribution. — This species was considered to be endemic to the granitic Seychelles in the original description, and was subsequently restricted to the principal island, Mahé, where it was collected by Brauer, most probably in an inland highland marsh, possibly near Morne Seychellois (see below). The species has never been found again. Further investigations should be directed preferentially towards the upland marshes that still persist on Mahé (Bour 1984), although searches of this habitat have so far failed to find any evidence of the survival of freshwater turtles. Loveridge (1941) erred in citing “Gloriosa Island” (= Grande Glorieuse) as the type locality, and this error was repeated by other authors.

Habitat and Ecology. — The biology of this species remains unknown. If it was really collected in the highlands of Mahé, the habitat corresponds to a swampy area within humid tropical forest. In August 1895, Brauer also collected a new skink and a new amphibian species, *Scelotes braueri* Boettger 1896 (= *Pamelaescincus braueri*), and *Arthroleptis seychellensis* Boettger 1898 (= *Sooglossus seychellensis*) in this habitat, and he personally studied the ecology of the latter in the field on Mahé (Brauer 1898). In the original description of these two species, Boettger (1896) described the habitat as “in alten Waldern”, and Brauer (1898) added, for the amphibian species, “in einem Walde auf Mahé am Fuss des Morne Seychellois in etwa 500 m Höhe” (“In a forest on Mahé at the foot of Morne Seychellois, at about 500 m altitude”). However, Brauer also collected insects widely in both high forest and lowland sites of Mahé and Silhouette islands, so the precise locality where he collected the three specimens of *Pelusios seychellensis* remains unknown.

Population Status. — This species is, at the very least, exceedingly rare; quite probably it is extinct. It may be an ancient component of the fauna that has been progressively excluded from coastal swamps by more recently arriving congeneric taxa (*P. castanoides intergularis* and *P. subniger parietalis*), and then eliminated from aquatic habitats by human intervention, particularly if it was associated with the very restricted and limited highland marsh habitat.

Threats to Survival. — If this species still persists, the future of the last survivors would be threatened by ongoing draining of marsh areas. The last boggy areas in the highlands of the granitic Seychelles are protected and may not be at

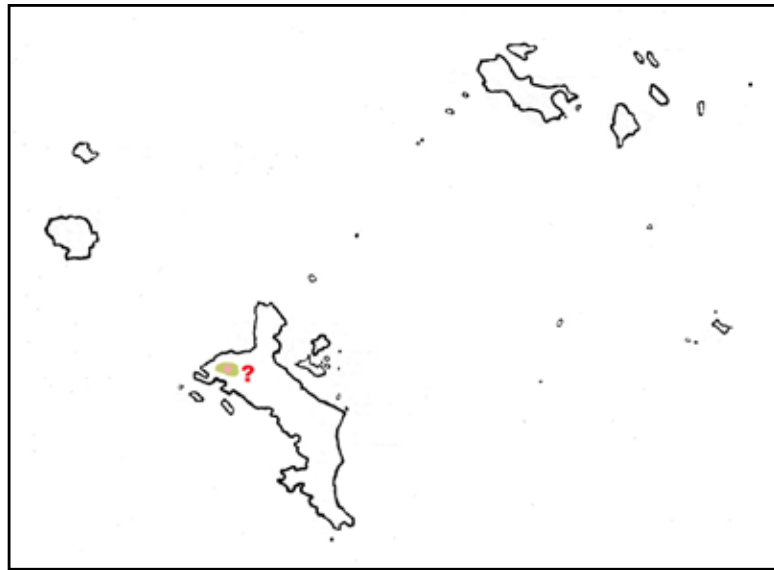


Figure 3. Distribution of *Pelusios seychellensis* in the Seychelles islands, east of Africa in the Indian Ocean. Pink point = probable location of extirpated population; olive shading = probable area of extirpated distribution.

risk from deliberate drainage but are vulnerable to changes in rainfall patterns.

Conservation Measures Taken. — The status of *P. seychellensis* remains indeterminate, though it was recently classified as Extinct by the IUCN Red List (Gerlach and Canning 2001; Gerlach 2003). Extensive searches on Mahé, Cerf, Silhouette, Praslin, La Digue, and Fregate islands have failed to find any evidence of its survival (Gerlach and Canning 2001; Gerlach 2002, 2008). Individuals with some characteristics of *P. seychellensis* have all been identifiable as *P. castanoides intergularis*. However, it is possible that a relict population may survive in an overlooked locality or at extremely low population densities. Searches for the species continue as part of the monitoring of other Seychelles *Pelusios* species. All remaining wetland areas in Seychelles urgently need legal and effective protection.

Conservation Measures Proposed. — Protection of the few remaining highland marshes and continued searches for the possible persistence of the species.

Captive Husbandry. — No data.

Current Research. — The Nature Protection Trust of Seychelles is continuing searches for this species in marsh habitats throughout the Seychelles.

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