

Miscellanea Herpetologica Gabonica XII

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Abstract

We present new Gabonese locality records, ecological and morphological data on unpublished material for *Pelusios gabonensis* (Pelomedusidae), *Kinixys erosa* (Testudinidae), *Cycloderma aubryi* (Trionychidae), *Osteolaemus tetraspis* (Crocodylidae), *Hemidactylus richardsonii* (Gekkonidae), *Trachylepis affinis* and *T. maculilabris* (Scincidae), *Varanus ornatus* (Varanidae), *Dasypeltis confusa*, *Grayia ornata* (Colubridae), *Naja annulata annulata* and *N. melanoleuca* (Elapidae), *Boaedon virgatus*, *Gonionotophis guirali*, *Psammophis* cf. *phillipsii* (Lamprophiidae), *Python sebae* (Pythonidae), *Afrotyphlops congestus* (Typhlopidae) and *Atheris squamigera* (Viperidae). Three reptile species are newly recorded from each of Estuaire and Nyanga provinces. Two species are added to the list for Pongara National Park. We document a case of predation by *Psammophis* cf. *phillipsii* on *Trachylepis affinis*.

Keywords

Biodiversity, herpetofauna, reptiles, Crocodylia, Squamata, Testudines, conservation, protected areas, Gabon, Equatorial Africa.

Introduction

We pursue our series of miscellaneous contributions to the herpetology of Gabon (see Pauwels, Braun et al., 2017), in order to complete the gaps in the knowledge on natural history and geographical distribution of local reptiles, gathering observations made in the field. In the present volume, some new records by LC were made in the frame of environmental surveys for a Maboumine company project to exploit a polymetallic deposit in Moyen-Ogooué Province. Other new records by JFG were made in the course of a pilot project to help improve sustainable forest logging management in Gabon (Gillet, 2002).

Material and Methods

New photographic and voucher material was identified using the keys and morphological information provided by Pauwels and Vande weghe (2008). Examined voucher specimens are preserved in 70% ethanol. Paired meristic characters are given left/right. Abbreviations: Dept = Department; IUCN = International Union for Conservation of Nature, Gland; MNHN; Muséum National d'Histoire Naturelle, Paris, France; NP = National Park; Prov. = Province; RBINS = Royal Belgian Institute of Natural Sciences, Brussels, Belgium; RMCA = Royal Museum for Central Africa, Tervuren, Belgium.

Results

Testudines

Pelomedusidae

Pelusios gabonensis (Duméril, 1856)

The label of a young individual RMCA 87-37-R-2 collected on

15 February 1987 by J. Borny mentions, in Dutch, “*kleine stuwmeertjes op bronnen achter de hutten v/ Loa-Loa, nabij Makokou* [small reservoirs at springs behind the huts of Loa-Loa, near Makokou], Gabon, 0°27'N - 12°48'E” (field nr MKU 45). Its brown, flat carapace shows a maximum width of 55.2 mm, a maximum length of 64.4 mm and a contrasting black vertebral band; the anterior lobe of the plastron is longer than twice the length of the abdominal scales; the three central vertebral scales are wider than long; the upper surface of the head shows a Y-shaped black mark. The species had previously been cited from Loa-Loa by Knoepffler (1974). Figure 1 shows an adult individual photographed by JFG in Nké forest river (0°08.4'N, 11°54.9'N) near Biliba, Mvoundou Dept, Ogooué-Ivindo Prov. Its three central vertebral scales are wider than long. Another photograph, not presented here, shows the typical



Figure 1. Adult *Pelusios gabonensis* along Nké forest river near Biliba, Ogooué-Ivindo Prov., central Gabon. Photograph by J.-F. Gillet.

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Figure 2. Adult *Kinixys erosa* in a logging concession in Mougoutsi Dept, Nyanga Prov., southwestern Gabon. Photograph by J.-F. Gillet.

Y-shaped mark on the dorsal surface of its head. New locality record within the dept (Maran and Pauwels, 2005).

Testudinidae

Kinixys erosa (Schweigger, 1812)

In July 2002 JFG photographed an adult individual in evergreen dense submontane forest in the UFA (= *Unité Forestière d'Aménagement* [Forestry Management Unit]) Mayumba (formerly of CBG [= *Compagnie des Bois du Gabon*]) logging concession (3° 15'39.6"S, 11° 06'21.6"E), Mougoutsi Dept, Nyanga Prov. (Figure 2). New locality record within the dept (Maran and Pauwels, 2005).

Trionychidae

Cycloderma aubryi (Duméril, 1856)

On 4 August 2006, one of us (YGOS) photographed an adult individual on the beach at Pointe Denis, Komo-Océan Dept, Estuaire Prov. (Figure 3). The species had never been recorded from Pongara NP (Pauwels, 2016). The listing of this turtle species from an additional protected area is especially important since the recent evaluation of the species as Vulnerable by the IUCN (Chirio et al., 2017). Within the dept the closest locality from where the species was so far recorded was Nyonié (Pauwels, Albert et al., 2017). On 30 December 2017 LC observed a juvenile individual in a slow-flowing and muddy stream (0° 18'11.5"N, 10° 15'52.8"E; alt. 3 m asl), tributary of



Figure 4. Live juvenile *Osteolaemus tetraspis* caught by fishermen in Nké River near Biliba, Ogooué-Ivindo Prov., central Gabon. Photograph by J.-F. Gillet.



Figure 3. Live adult *Cycloderma aubryi* on the beach at Pointe Denis, Estuaire Prov., northwestern Gabon. Photograph by Y. G. Ongonwou Sonnet.

the Komo River and close to their confluence, Komo Dept, Estuaire Prov. New locality record. Within the dept, the species had already been recorded from the Komo River in Kango (Maran and Pauwels, 2005). This new locality lies about 10 km S-SW from Andok Foula and the southwesternmost limit of the Mbé Sector of Crystal Mounts NP from where this turtle species has not been recorded so far (Pauwels, 2016).

Crocodylia

Crocodylidae

Osteolaemus tetraspis Cope, 1861

Figure 4 shows a juvenile individual caught by fishermen in July 2001 in Nké River (0° 35.4'N, 11° 57.7'E), a small forest river near Biliba, Mvounge Dept, Ogooué-Ivindo Prov. Figure 5 depicts four live adult individuals in the back of a pick-up vehicle; they were hunted for food in the same surroundings. New dept record (Pauwels and Vande weghe, 2008). During the night of 26 December 2017, LC observed 27 individuals in a slow-flowing, shallow stream (0° 29'45.4"N, 10° 37'47.7"E; alt. 430 m asl) in Komo Dept, Estuaire Prov.; one of them is shown on Figure 6. New locality record within the dept and the Crystal Mounts (Pauwels, Chirio et al., 2017). We follow Eaton et al. (2009) in treating *Osteolaemus tetraspis* as a species distinct from *O. osborni* (Schmidt, 1919).



Figure 5. Four live adult *Osteolaemus tetraspis*, hunted and captured for food near Biliba, Ogooué-Ivindo Prov., central Gabon. Photograph by J.-F. Gillet. Note the artisanal strings used to tie the limbs.



Figure 6. Live adult *Osteolaemus tetraspis* in the Crystal Mounts, Estuaire Prov., northwestern Gabon. Photograph by L. Chirio.

Squamata

Gekkonidae

Hemidactylus richardsonii (Gray, 1845)

Figure 7 illustrates an adult individual photographed by JFG in August 2000 along a house window in UFA Mboumi (formerly a SHM [*Société de la Haute Mondah*] concession) logging camp, Mboumi (0°23.7'S, 10°49.0'E), Abanga-Bigné Dept, Moyen-Ogooué Prov. New dept record. This uncommon gecko has been recorded only in a few localities in Gabon (Pauwels and Vande weghe, 2008; Pauwels, 2017).

Scincidae

Trachylepis affinis (Gray, 1839)

See below under *Psammophis* cf. *phillipsii* (Lamprophiidae).

Trachylepis maculilabris (Gray, 1845)

Ceríaco et al. (2016:313) listed voucher specimens housed in the MNHN from “Makokou,” “Denis” and “Majumba.” For “Denis” they gave the geographical coordinates “N: 0.31694, E: 9.36694, WGS-84”, which corresponds to Pointe Denis (0°19'01.0"N 9°22'01.0"E), in Pongara NP, Komo-Océan Dept, Estuaire Prov. This skink had never been recorded from this park nor from this province (Pauwels, 2016). Their record from “Majumba” (Mayumba, in Haute-Banio Dept) represents an addition for Nyanga Prov. (Pauwels, Carlino et al., 2017). This skink is thus currently recorded from Estuaire, Haut-Ogooué, Ogooué-Ivindo, Ogooué-Maritime, Nyanga and Woleu-Ntem provinces; it should also be found in the savanna areas of Ngounié Prov.

Varanidae

Varanus ornatus (Daudin, 1803)

McKinnon et al. (2016: 267) published a color photo of a subadult ‘varan’ (‘monitor’) being cut as bushmeat in the market of Gamba, Ndougou Dept, Ogooué-Maritime Prov. The dead individual shows five transversal rows of yellow ocellae between limb insertions and a yellowish tongue, and can thus be identified as a *Varanus ornatus*. The species is already well known from Gamba (Pauwels, Burger et al., 2006; Pauwels, 2007).

Colubridae

Dasypeltis confusa Trape & Mané, 2006

Chirio (2017:52) presented a photograph of an adult individual



Figure 7. Live adult *Hemidactylus richardsonii* on a house in Mboumi, Moyen-Ogooué Prov., central Gabon. Photograph by J.-F. Gillet.

swallowing an egg in a henhouse, without specifying the locality. It was actually encountered in the Siat Nyanga Ranch (ca. 3°19'37.9"S, 11°42'42.5"E; alt. 90 m asl), Mougoutsi Dept, Nyanga Prov. (Chirio, unpubl. data). New prov. record for the genus (Pauwels and Vande weghe, 2008). From this ranch we had earlier reported predation cases by pythons on calves (Pauwels, Chirio et al., 2017).

Grayia ornata (Barboza du Bocage, 1866)

In July 2001 JFG photographed an adult individual which had been caught by net by villagers in the Nké River (0°08.4'N, 11°54.9'E) a small forest river near Biliba, Mvounde Dept, Ogooué-Ivindo Prov. (Figure 8). New dept record (Pauwels and Vande weghe, 2008). The photograph of an adult individual was published by Chirio (2017:50) without locality; it was in fact found in Mabounié, 40 km ESE of Lambaréné, Ogooué & Lacs Dept, Moyen-Ogooué Prov. (Chirio, unpubl. data). New locality record (Pauwels, 2017; Pauwels, Albert et al., 2017; Pauwels, Braun et al., 2017).

Elapidae

Naja annulata annulata Buchholz & Peters in Peters, 1876

Only the head of the adult individual RMCA 11-090-R-0003, killed by fishermen in July or August 2001 in “Environs de Mboumi [neighborhood of Mboumi], Gabon,” could be preserved. Mboumi (0°23.7'S, 10°49.0'E) is located in Abanga-Bigné Dept, Moyen-Ogooué Prov. The head shows a maximum



Figure 8. Adult *Grayia ornata* drowned in a fishing net in Nké forest river near Biliba, Ogooué-Ivindo Prov., central Gabon. Photograph by J.-F. Gillet.



Figure 9. Freshly dead adult *Naja annulata annulata* along Toho forest river, Ogooué-Ivindo Prov., central Gabon. Photograph by J.-F. Gillet.

width of 39 mm; round pupils; 7/7 supralabials, of which the 3rd and 4th contact the orbit; 8/8 infralabials, of which the first four are in contact with the anterior pair of sublinguals on each side; 0/0 loreal scales; 1/1 preoculars; 2/2 postoculars and 1/1 anterior temporals. New locality record (Pauwels, 2017; Pauwels, Albert et al., 2017). Figure 9 shows an adult individual photographed in July 2001 by JFG in Toho forest river (0°28.2'N, 12°05.5'E), Mvounge Dept, Ogooué-Ivindo Prov., which had been found drowned in a fishing net. New dept record (Pauwels and Vande weghe, 2008).

Naja melanoleuca Hallowell, 1857

Figure 10 illustrates an adult individual encountered on 29 December 2017 by LC in Ngoulmendjim (0°19'39.0"N, 10°16'55.5"E; alt. 84 m asl), Komo Dept, Estuaire Prov. New locality record (Pauwels and Vande weghe, 2008; Pauwels, Biyogho Bi Essono II et al., 2017).

Lamprophiidae

Boaedon virgatus (Hallowell, 1856)

The photograph of an adult individual was presented by Chirio (2017:52) without locality. This specimen was in fact photographed in Ayémé Maritime (0°18'47.8"N, 9°40'33.1"E; alt. 18 m asl), Komo-Mondah Dept, Estuaire Prov. (Chirio, unpubl. data). This represents a new prov. record for this poorly known snake which has been encountered only a few times in Gabon (Pauwels and Vande weghe, 2008).

Gonionotophis guirali (Mocquard, 1887)

The photograph of an adult individual was shown in Chirio (2017:51) without locality. It was actually taken in Mabounié, 40 km ESE of Lambaréné, Ogooué & Lacs Dept, Moyen-Ogooué Prov. (Chirio, unpubl. data). New locality record (Pauwels and Vande weghe, 2008 [under *Mehelya guirali*]; Pauwels, 2017).

Psammodon cf. phillipsii (Hallowell, 1844)

On 9 June 2005 ecoguards of Mayumba NP photographed by day an adult individual just above the beach (3°34'00.4"S, 10°48'48.5"E) between the Atlantic Ocean and Banio Lagoon, Haute-Banio Dept, Nyanga Prov. It was eating an adult *Trachylepis affinis* (Figure 11). This prey record confirms once again the dietary eclecticism of this snake, whose documented prey items in the wild in Gabon include species as diverse as the frogs *Hyperolius phantasticus* (Hyperoliidae) and *Phrynobatrachus auritus* (Phrynobatrachidae), the lizards *Agama*



Figure 10. Live adult *Naja melanoleuca* in Ngoulmendjim, Estuaire Prov., northwestern Gabon. Photograph by L. Chirio.

picticauda (Agamidae), *Gerrhosaurus nigrolineatus* (Gerrhosauridae) and *Hemidactylus mabouia* (Gekkonidae) and the bird *Merops breweri* (Meropidae) (Pauwels, Branch et al., 2004; Schmidt and Branch, 2005; Pauwels and David, 2008a; Pauwels and Vande weghe, 2008; Pauwels, Le Garff et al., 2016; Pauwels, Biyogho Bi Essono II et al., 2017). In addition, a captive newborn specimen caught in Gamba, Ogooué-Maritime Prov., accepted *Hyperolius adspersus* collected in the same locality (Pauwels and David, 2008b, citing *H. adspersus* under *H. nasutus*). In Gabon, this snake is found in savannas as well as on coastal grasslands; it was recently recorded from the beach area in Nyonié in Estuaire Prov. (Pauwels, Albert et al., 2017).

Pythonidae

Python sebae (Gmelin, 1789)

On 28 June 2017 JFG photographed from a bridge (0°44'48.1"S, 12°59'58.2"E) on R19 Road an adult individual swimming by day in shallow water (less than 20 cm depth) in Moumbea River, Mouloundou Dept, Ogooué-Lolo Prov. New dept record (Pauwels and Vande weghe, 2008; Pauwels, Le Garff et al., 2016; Pauwels, Carlino et al., 2017).

Typhlopidae

Afrotyphlops congestus (Duméril & Bibron, 1844)

RBINS 16623: Ndouanieng (= Douaniang) (0°18'08"N, 10°01'31"E; alt. 26 m asl), on N1 Road, Komo Dept, Estuaire



Figure 11. Live adult *Psammodon cf. phillipsii* preying upon an adult *Trachylepis affinis* in Mayumba NP, Nyanga Prov., southwestern Gabon. Photographer unknown.



Figure 12. Live adult *Atheris squamigera* in a logging concession in Mougoutsi Dept, Nyanga Prov., southwestern Gabon. Photograph by J.-F. Gillet.

Prov., 15 November 2001. Snout–vent length 492 mm; tail length 14 mm; 31 scale rows around body at one head length behind head, 27 rows at midbody, and 22 rows at one head length before vent; all scales smooth and glossy. Observed by OSGP when it was intentionally killed by a car while it was attempting to cross the road through secondary forest at 4.15 P.M. Adult male, preserved with everted hemipenes. New prov.

record (Pauwels and Vande weghe, 2008; Pauwels, 2016, 2017; Pauwels, Carlino et al., 2016).

Viperidae

Atheris squamigera (Hallowell, 1856)

An adult individual was found by JFG on a shrub in dense evergreen submontane forest (3°08'31.2"S, 10°58'12.0"E) in the *UFA Mayumba* logging concession, Mougoutsi Dept, Nyanga Prov. It was then brought to the ground and photographed (Figure 12). New prov. record (Pauwels, Le Garff et al., 2016; Pauwels, Carlino et al., 2017; Pauwels, Chirio et al., 2017). Nyanga was the last Gabonese province from which this common, arboreal viper had not yet been recorded.

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