Miscellanea Herpetologica Gabonica XI

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Abstract

We present new Gabonese locality records, ecological and morphological data or unpublished museum material for Mecistops cataphractus (Crocodylidae), Chamaeleo cristatus and C. oweni (Chamaeleonidae), Hemidactylus fasciatus and H. muriceus (Gekkonidae), Feylinia currori, Trachylepis albilibris (Scincidae), Calabaria reinhardtii (Boidae), Grayia ornata, Hapidothyrs smaragdinus, Rhamnophis aethiopissa aethiopissa (Colubridae), Lycophidion laterale (Lamprophiidae), Hydraethiops melanogaster, Natriciteres fuliginoides (Natricidae), Bitis gabonica and B. nasicornis (Viperidae). We document a predation case of Lycophidion laterale on Feylinia currori. Four reptile species are newly recorded from Arboretum Raponda Walker and two snake species are newly listed for Estuaire Province. We refute a recent record of Natriciteres variegata (Natricidae) from Gabon.

Keywords

Biodiversity, herpetofauna, Crocodylia, Squamata, conservation, protected areas, Gabon, Democratic Republic of Congo, Equatorial Africa.

Introduction

We pursue our series of miscellaneous contributions to improve the knowledge of the natural history and the geographic distribution of the reptiles of Gabon (see the tenth volume of the Miscellanea Herpetologica Gabonica by Pauwels, Albert et al., 2017), progressively completing the herpetological synthesis published by Pauwels and Vande weghe in 2008. The current volume includes new voucher material from the Arboretum Raponda Walker in Estuaire Province and from Ivindo National Park in Ogooué-Ivindo Province gathered by the herpetological team of the Natural History Museum of Salento. It includes also various observations opportunistically made in the course of field studies on soil dynamics in the Ogooué basin by the French Institut de Recherche pour le Développement (IRD), and during ecotourist expeditions. We also provide the inventory of a previously unpublished small collection of reptiles sent at the beginning of the 20th century from Gabon to the Musée cantonal de Zoologie in Lausanne, Switzerland.

Material and Methods

New photographic and voucher material was identified using the keys and morphological information provided by Pauwels and Vande weghe (2008). Newly collected specimens were injected with 90% ethanol, then preserved in 70% ethanol. Snake ventral scales were counted according to the method of Dowling (1951). Snake dorsal scale rows were counted at one head length behind head, at midbody (above the ventral corresponding to half of the total number of ventrals), and at one head length before vent; subcaudal counts exclude the terminal pointed scale. Abbreviations: Dept = Department; MSNS = Museo di Storia naturale del Salento, Calimera, Italy; MZL = Museum of Zoology, Lausanne, Switzerland; NP = National Park; Prov. = Province; RBINS = Royal Belgian Institute of Natural Sciences, Brussels, Belgium; RMCA = Royal Museum for Central Africa, Tervuren, Belgium.

Results

Crocodylia

Crocodylidae

Mecistops cataphractus (Cuvier, 1824)

On 16 August 2017 at 12.25 one of us (SM) observed an individual near Akaka (ca. 2°14’0” S, 9°40’0” E) in Loango NP, Ogooué-Maritime Prov. It was basking in a grassy area along the water, then descended into the water when disturbed. It was missing a large part of its snout, including the whole nasal area. The upper jaw was however healed and the crocodile even seemed in good health at the time it was photographed (Figure 1). It measured about 2 m in total length. The local Gabonese guides informed SM that they have seen this crocodile for several years, but they do not know what caused this injury.
Figure 1. Live Mecistops cataphractus photographed in Loango NP, Ogooué-Maritime Prov., southwestern Gabon. Note the large missing part of the snout. Photograph by S. Morelle.

Figure 2. Stuffed adult Chamaeleo cristatus from Gabon exhibited in the Museum of Zoology in Lausanne, Switzerland. Photograph by M. Krafft.

Figure 3. Stuffed adult male Chamaeleo owenii from Gabon exhibited in the Museum of Zoology in Lausanne, Switzerland. Photograph by M. Krafft.

Figure 4. Live adult male Hemidactylus fasciatus (MSNS 260) in Arboretum Raponda Walker, Estuaire Prov., northwestern Gabon. Photograph by L. Chirio.

Squamata
Chamaeleonidae
Chamaeleo cristatus Stutchbury, 1837
MZL 1198 (whole stuffed adult specimen): “Gabon, Mission L. Pelot.” See Discussion below and Figure 2.

Chamaeleo owenii Gray, 1831
MZL 1196 (whole stuffed adult male specimen): “Gabon, Mission L. Pelot.” It shows three well-developed horns. See Discussion and Figure 3.

Gekkonidae
Hemidactylus fasciatus Gray, 1831
MSNS 260: Arboretum Raponda Walker (ca. 0°35′41.2″N, 9°20′01.1″E), Komo-Mondah Dept, Estuaire Prov., 17 April 2017. Adult male (Figure 4). Snout–vent length (SVL) 73 mm; tail length 90 mm (tail original). Pupil vertical. Rostral divided from above for two-thirds of its height by a vertical suture; rostral surrounded on each side by 1st supralabial, nostril, the two enlarged internasals and three small scales separating the internasals. Differentiated supralabials 12/11; differentiated supralabials from rostral until mid-orbital position 9/9. Infra-labials 11/11. Eighteen tubercle rows on dorsum across mid-body. On each side a row of enlarged femoral scales, in continuity with a patch of enlarged precloacal scales; on the left leg 16 pored, enlarged femoral scales + two poreless, enlarged femoral scales + one pored, enlarged femoral scale; on the right a continuous series of 19 pored, enlarged femoral scales; the left and right series of pored, enlarged femoral scales separated by a diastema of five poreless, enlarged precloacal scales. Subcaudals strongly widened. Hands and feet with basal webbing. Found at 20:00 under tree bark on the ground in a forest. New record for the Arboretum (Pauwels, 2016).

Hemidactylus muriceus Peters, 1870
MSNS 262: Arboretum Raponda Walker (ca. 0°35′41.2″N, 9°20′01.1″E), Komo-Mondah Dept, Estuaire Prov., 15 April 2017. Adult male. SVL 52 mm, tail length 45 mm (only first 15 mm original). Pupil vertical. A vertical suture, beginning above, dividing the rostral for two-thirds of its height. Rostral surrounded laterally by 1st supralabial and nasals, and dorsally by two internasals and a scale between the internasals. Differentiated supralabials 11/12; differentiated supralabials from rostral till mid-orbital position 10/10. Infra-labials 10/10. Twelve tubercle rows across dorsum between ventrolateral skin folds; the folds poorly marked and showing scattered pointed tubercles. Some pointed scales on the sides of the original part of the tail. Precloacal scales enlarged, including a series of four pored scales on the left side separated by a single poreless scale from a series of four pored scales on the right side; no femoral pores. Scales under original part of tail larger than supracaudals but not...
forming transverse plates. Digits unwebbed. Found active at 21:00 on a leaf 80 cm above the ground in forest. Bit repeatedly when caught. New record for the Arboretum (Pauwels, 2016).

Scincidae

*Feylinia currori* Gray, 1845

MSNS 259: Ipassa (ca. 0°30′44.14″N, 12°48′12.59″E), Ivindo NP, Ogooué-Ivindo Prov., 20 June 2016. See below under *Lycophidion laterale* and Figure 10.

*Trachylepis albilabris* (Hallowell, 1857)  
MSNS 261: Arboretum Raponda Walker (ca. 0°35′41.2″N, 9°20′10.1″E), Komo-Mondah Dept, Estuaire Prov., 15 April 2017. Adult female (Figure 5). SVL 72 mm, tail length 115 mm (last 100 mm regenerated). Lower eyelid with transparent disk; dorsal scales with 3 keels; 30 scale rows around midbody; supranasals separated; prefrontals in wide contact; a single scale separating posterior supraocular and anterior supratemporal scale. Caught at 22.00 on the ground under wood debris. Dissection revealed two eggs at an early development stage. New record for the Arboretum (Pauwels, 2016).

Boidae

*Calabaria reinhardtii* (Schlegel, 1851)

On 11 June 2016 one of us (AB) encountered by day an adult specimen near Ndenguilila (ca. 2°39′20.8″S, 11°10′46.4″E) on the N.6 Road between Tchibanga and Ndendé, Doutsila Dept, Nyanga Prov. (Figure 6). New dept record (Pauwels and Vande weghe, 2008; Pauwels, Carlino et al., 2017; Pauwels, Chirio et al., 2017).

Colubridae

*Grayia ornata* (Barboza du Bocage, 1866)  
MZL 29944 (whole stuffed adult specimen): “Couleuvre de Smyth, *Grayia smythi* [sic, see nomenclatural remark by Pauwels, Lenglet et al., 2000], Gabon, Mission L. Pelot.” Although entered in the MZL collections under *G. smithii*, its brown dorsum with furcated black bars leave no doubt about its identity as *G. ornata*. See Discussion and Figure 7.

*Rhamnophis aethiopissa aethiopissa* Günther, 1862  
In September 2017, one of us (JJB) photographed an adult individual crossing a laterite road in secondary forest in Mela (ca. 0°36′48.9″N, 10°15′39.6″E), on the N.5 Road to Medouneu, Noya Dept, Estuaire Prov. (Figure 9). New prov. record (Pauwels and Vande weghe, 2008; Pauwels, Carlino et al., 2016; Pauwels, Le Garff et al., 2016; Pauwels, Chirio et al., 2017). Within the Monts de Cristal, the species had already been recorded further north along the same road, in Nzogbour, Haut-Komo Dept, Woleu-Ntem Prov., by Pauwels et al. (2002).

Lamprophiidae

*Lycophidion laterale* Hallowell, 1857  
The young individual MSNS 258 was caught in Ipassa (ca. 0°30′44.14″N, 12°48′12.59″E), Ivindo NP, Ogooué-Ivindo Prov., on 20 June 2016. It shows a SVL of 165 mm, a tail length of 20 mm; 1/1 loreal, 1/1 preocular, 2/2 postoculars, 1/1 anterior temporal; on each side 8 supralabials whose 4th and 5th contact the orbit, and 8 infralabials whose 5 first contact the anterior sublingual; 17-17-17 smooth dorsal scale rows, each dorsal bearing up to six apical pits; the vertebral row not widened; 2 preventrals + 190 unkeeled ventrals, a single anal, and 34 di-
vided subcaudals. Dissection of its stomach revealed a small legless skink (MSNS 259; Figure 10). The skink’s SVL is difficult to determine, as the body is broken into two parts behind the neck, the sum of both parts being approximately 56 mm (but possibly a small body fraction is missing); its tail length is 17 mm; it has two supranasals and 22 smooth dorsal scale rows around midbody; its ocular scale is in contact with the 3rd supralabial. Both *Lycophidion laterale* and *Feylinia currori* were already recorded from Ipassa (Carlino and Pauwels, 2015), but this skink represents a new prey record for this snake.

At about 9:30 on 23 August 2017, along an abandoned logging road, one of us (LR) photographed an adult individual between the *Chutes de la Djidji* (Djidji Falls, ca. 0°01’46.4”N, 12°26’40.2”E) and Massouna 2000 (ca. 0°08’45.4”N, 12°31’27.4”E), in the western part of Ivindo NP, in the Lopé Dept of Ogooué-Ivindo Prov. (Figure 11). It was crossing the laterite road in secondary forest. It showed the characteristic stout body with a depressed head and a short tail, light lateral stripes on the head, uniformly brown body (dorsally and ventrally) with paravertebral lines of black dots, 17 smooth dorsal scale rows at midbody, a single anal scale and divided subcaudals. New dept record (Pauwels and Vandeweghe, 2008).

**Natricidae**

*Hydraethiops melanogaster* Günther, 1872

On 15 November 2012 LC photographed a young individual in Arboretum Raponda Walker (ca. 0°36’49.1”N, 9°19’10.7”E; alt. 15 masl), Komo-Mondah Dept, Estuaire Prov. (Figure 12). New record for the Arboretum and new prov. record (Pauwels and Vandeweghe, 2008; Pauwels, 2016).

*Natriciteres fuliginoides* (Günther, 1858)

Pauwels and Sallé (2009) analyzed the existing records of *Natriciteres variegata* (Peters, 1861) from Gabon. Since no voucher specimens undoubtedly originating from Gabon could be traced, they concluded that there was not enough evidence to include this snake in the country’s herpetofaunal list. Hughes...
(2017) claimed to have discovered a specimen (RMCA R.28316) in the collections of the Royal Museum for Central Africa, and hence confirmed the presence of this species in the country. The individual was collected in 1966 by J. Collot in “Oyem (01°35’N, 11°33’E, c. 600 m),” thus in Woleu Dept, Woleu-Ntem Prov., and identified by Patrick Derleyen as *N. variegata*. This locality is about 100 km SW of the southernmost locality on the dotted map showing *N. variegata*’s distribution in Cameroon provided by Chirio and LeBreton (2007). Neither morphological data nor a photograph for this Gabonese specimen were provided by Hughes (2017). One of us (DM) re-examined this specimen. This male shows a whitish neck band (Figure 13), partly everted hemipenes, a SVL of 264 mm, a tail length of 99 mm (tail incomplete, healed), a round pupil, 2 internasals, 2 prefrontals, 8/8 supralabials of which the 4th and 5th contact the orbit, 9/9 infralabials, 1/1 loreal, 2/2 preoculars, 3/3 postoculars, 0/0 subocular, 1/1 supralabial, 1+2 / 1+2 temporals, 3 preventrals + 130 ventrals, a divided anal scale, > 22 divided subcaudals, and 17-17-15 smooth dorsal scale rows with a non-enlarged vertebral row. Its single anal scale combined with 17 dorsal scale rows at midbody prevents identifying it as *N. olivacea* or *N. variegata*. All its characters are typical of *N. fuliginoides* to which we hence refer this specimen, and we consequently refute the listing of *N. variegata* from Gabon until evidence is available. *Natriciteres fuliginoides* had already been recorded from Oyem by Knoepffler (1966).

For comparison, OSGP examined another specimen men-

Viperidae

*Bitis gabonica* (Duméril, Bibron & Duméril, 1854) MZL 1340 (whole stuffed specimen): “Gabon.” This individual was given in 1964 to the MZL by the former director of the *Vivarium de Lausanne* (Lausanne Vivarium). Unfortunately no precise locality is available. It was repainted based on its colors in life (Figure 14), and the two black suborbital triangles which allow to easily distinguish *B. gabonica* from the West African *Bitis rhinoceros* (Schlegel, 1855). are well visible.
Discussion

Louis Pelot (1868-1939) was an artisan assisting the protestant missionary Ernest Haug (1871–1915) at the Scierie de N’Gômo (Ngomo sawmill) that Haug, based in Gabon since 1895, created in 1912 (Zorn, 2005: 423). Pelot sent an important ichthyological material to the Museum of Zoology in Lausanne, that he collected between 1909 to 1914 during his stay at Ngomo (Blanc, 1915), where he lived from 1900 to 1926. Haug himself collected much herpetological material at this locality and its surroundings in Moyen-Ogooué Prov. and sent it to the Paris Museum of Natural History (Mocquard, 1897a-b; Pauwels, 2017). Although no mention is made by Blanc (1915) of a herpetological collection, Pelot’s reptile specimens were sent to the MZL in 1914, probably along his ichthyological material, and most probably collected in the same area, i.e., in Ngomo (Ogooué & Lacs Dept, Moyen-Ogooué Prov.) and possibly other nearby localities along the lower Ogooué River. As an interesting anecdote, Albert Schweitzer, then based in Lambaréné, mentioned that he paid a visit in Ngomo to Pelot’s ailing wife in September 1915 (Schweitzer, 2005:115). Schweitzer himself constituted a modest collection of local snakes, housed at the nearby Lambaréné Hospital Museum (Pauwels, Albert et al., 2017).

Including our new present records, the Arboretum Raponda Walker and its buffer zone are currently known to house 18 reptile species. No systematic herpetological inventory of this site has been undertaken so far, but it is expected that it includes a much higher herpetodiversity. For instance, Mondah forest is the only site in Gabon where Lygodactylus conraui was recorded (Pauwels, Carlino et al., 2016).

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Literature Cited


