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Miscellanea Herpetologica Gabonica IX

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Abstract

We present new Gabonese locality records for *Gerrhosaurus nigrolineatus* (Gerrhosauridae), *Trachylepis maculilabris* (Scincidae), *Varanus ornatus* (Varanidae), *Calabaria reinhardtii* (Boidae), *Dipsadoboa viridis*, *Toxicodryas blandingii* (Colubridae), *Naja melanoleuca* and *N. nigricollis* (Elapidae), *Python sebae* (Pythonidae), *Atheris squamigera* (orange morph), *Bitis arietans*, *B. gabonica* and *B. nasicornis* (Viperidae). We add two, one, two and one species to Moyen-Ogooué, Ngounié, Nyanga and Woleu-Ntem provinces' reptile lists, respectively. We newly record two, one and one snake species for Mwagna National Park, Waka National Park and Bas Ogooué Ramsar Site, respectively. We report predation cases by a *Naja melanoleuca* on a *Toxicodryas blandingii* and by a Seba's python on a domestic dog (Mammalia: Canidae: *Canis lupus familiaris*), respectively.

Keywords

Biodiversity, herpetofauna, herpetology, Squamata, viper, cobra, dog, cave, protected areas, conservation, Ramsar, Gabon, Equatorial Africa

Introduction

Initiated in 2008, the series *Miscellanea Herpetologica Gabonica* is a forum created in order to gather various new data on the zoogeography and the natural history of the reptiles of Gabon (Pauwels and David, 2008; Pauwels, Chirio et al., 2017), to complete the information presented in the synthesis published by Pauwels and Vandeweghe (2008). The current volume includes data collected during field work performed by the teams of Gabon's National Parks Agency (ANPN), the oil company Shell Gabon, and in the course of environmental surveys for the agro-industrial company SIAT Gabon and the mining company COMILOG.

Material and Methods

New photographic material was identified based on the keys provided by Pauwels and Vandeweghe (2008). Abbreviations:

Dept = Department; NP = National Park; Prov. = Province.

Results

Squamata

Gerrhosauridae

Gerrhosaurus nigrolineatus Hallowell, 1857

On 11 Oct. 2013 one of us (LC) observed an individual in Angondjé (0.53384 N, 9.39834 E), Libreville, Estuaire Prov. (Figure 1). It was in a cultivated field along a highly degraded secondary forest. New locality record. On 13 Feb. 2016 one of us (QM) photographed an adult individual in Nyonié, Komo-Océan Dept, Estuaire Prov. (Figure 2). The species is locally very common in Nyonié (J. P. Vandeweghe, pers. comm. to OSGP, Feb. 2017). New locality record. Within the same dept, the Gabon plated lizard was already known from Pongara NP (Pauwels and Vandeweghe, 2008: Fig. 102). On 26 Feb. 2017 LC observed a dead-on-road individual on the "colline de Tchad" (Tchad hill;



Figure 1. Live adult *Gerrhosaurus nigrolineatus* in Angondjé, Estuaire Prov., Gabon. Photograph by L. Chirio..



Figure 2. Live adult *Gerrhosaurus nigrolineatus* in Nyonié, Estuaire Prov., Gabon. Photograph by Q. Meunier.

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Figure 3. Adult *Trachylepis maculilabris* in Bitam, Woleu-Ntem Prov., northern Gabon. Photograph by L. Chirio.

0.96988°S, 10.48519°E), where the N1 road crosses a secondary forest, Tsamba-Magotsi Dept, Ngounié Prov. Secondary forest is an unusual place to find this savanna-dwelling species, but it is possible that, like *Agama picticauda*, it utilizes roads to colonize new areas (Pauwels and Vande weghe, 2011). New prov. record (Pauwels and Vande weghe, 2008).

Scincidae

Trachylepis maculilabris (Gray, 1845)

One of us (LC) observed the species in the SIAT camp of Bitam, Ntem Dept, on 21 July 2013 (Figure 3) and in the SIAT camp of Mitzi, Okano Dept, on 21 Feb. 2014 (Figure 4), Woleu-Ntem Prov. The photographs illustrate the possession of five to seven keels on most dorsal scales. New prov. record. In Gabon this species had previously been recorded only from Haut-Ogooué, Ogooué-Ivindo and Ogooué-Maritime provinces (Pauwels and Vande weghe, 2008; Pauwels, Le Garff et al., 2016). It is expected to occur also in the savanna areas of Nyanga Prov., where the savanna-dwellers *Naja nigricollis* and *Bitis arietans* were recorded (see their respective accounts below).

Varanidae

Varanus ornatus (Daudin, 1803)

See the account for *Python sebae* below and Figure 8, mentioning the use of the fat of the ornate monitor in Mbouda, Nyanga Prov., for traditional Punu medicine. The latter locality represents a new dept record (Pauwels and Vande weghe, 2008). Dewynter et al. (2017) reported (under *V. niloticus*) an individual killed for food consumption in Bikourou village, thus in



Figure 5. Adult *Dipsadoboa viridis* in the buffer zone of Mwagna National Park, showing the typical spiral-shaped defensive display of the species. Photograph by C. Orbell.



Figure 4. Adult *Trachylepis maculilabris* in Mitzi, Woleu-Ntem Prov., northern Gabon. Photograph by L. Chirio.

Tsamba-Magotsi Dept, Ngounié Prov.

Boidae

Calabaria reinhardtii (Schlegel, 1851)

On 24 Nov. 2012 at 16:30 one of us (PC) encountered an adult individual under a log in dense forest near Boussimbi, Offoué-Onoy Dept, Ogooué-Lolo Prov. New locality record. The closest locality, Makandé, was mentioned by Blanc and Frétey (2000), and is located about 50 km to the north.

Colubridae

Dipsadoboa viridis (Peters, 1869)

On 28 Aug. 2015 at 12:21 in a forested floodplain (0°24'27.1"N, 13°39'05.8"E) in the buffer zone of Mwagna NP, one of us (CO) observed an individual exhibiting the typical defensive display for the species (Pauwels and Vande weghe, 2008), i.e., forming a spiral with the body and staying immobile like a small green vine (Figure 5 and cover). The photograph shows the uniform green color with small sky-blue apical spots on dorsal scales and the 17 smooth dorsal scale rows. New record for the NP (Christy et al., 2008; Vande weghe et al., 2016).

Toxicodryas blandingii (Hallowell, 1844)

See under *Naja melanoleuca*.

Elapidae

Naja melanoleuca Hallowell, 1857

On 20 March 2017 in a house garden in Yenzi, Gamba, Ogooué-Maritime Prov., an adult individual was disturbed by one of us



Figure 6. Adult *Naja melanoleuca* with a dead adult female *Toxicodryas blandingii* it regurgitated near Gamba, Ogooué-Maritime Prov., southwestern Gabon. Photograph by D. Rousseaux.



Figure 7. Head of a *Python sebae* kept for traditional use in Mbouda, Nyanga Prov., southwestern Gabon. Photograph by O. S. G. Pauwels.

(DR) while it had already swallowed 90% of an adult female *Toxicodryas blandingii*. The prey, of a length comparable to that of its predator (see Figure 6), was regurgitated by the cobra. This represents a new prey record for the black and white cobra, known to have a very eclectic diet (Pauwels and Vande weghe, 2008).

Naja nigricollis Reinhardt, 1843

In July 2016 one of us (LC) observed an adult individual crossing the L. 116 road at the level of Douki River, about 50 km SE of Tchibanga, Mougoutsi Dept, Nyanga Prov. Although it could not be caught, its typical *Naja* habitus, totally black head and neck, and dark gray back leave no doubt about its identification. New prov. record (Pauwels and Vande weghe, 2008). The presence of this savanna species in Nyanga savannas was expected, as was the presence of *Bitis arietans*, confirmed in 2012 (see below).

Pythonidae

Python sebae (Gmelin, 1789)

In an environmental report on Moulili River below Moanda in Lébombi-Léyou Dept, Haut-Ogooué Prov., made for the mining company COMILOG, Nguéma Nguéma et al. (2014) presented a photograph of a snake identified as a python caught by a fishing net in Moulili River between “pont SETRAG” (SETRAG bridge) and the point where it flows into Ogooué River. Although the photograph of the snake entangled in the net is taken from a distance, the stout habitus and the head and dorsal color pattern are typical of a young *Python sebae*. The species had not been previously reported from this dept. The same report by Nguéma Nguéma et al. (2014: 20) listed *Python regius* (Shaw, 1802) from the same locality, but without any supporting evidence; this record is certainly erroneous and the royal python is not present in Gabon (Auliya, 2008). Dewynter et al. (2017)



Figure 9. Adult *Python sebae* crossing a road in Ivindo National Park, central Gabon. Photograph by C. Orbell.



Figure 8. Jars containing fat of *Python sebae* and *Varanus ornatus* used for traditional medicine in Mbouda, Nyanga Prov., southwestern Gabon. Photograph by O. S. G. Pauwels.

provided photographs of a young individual found in a ditch along a path near a lake in forest, between Bikourou and Bemboudié. This observation thus took place in Tsamba-Magotsi Dept, Ngounié Prov. In August 2008 one of us (OSGP) photographed the head of an adult individual kept for traditional use in Mbouda (= Bouda), Basse-Banio Dept, Nyanga Prov. (Figure 7). In the same locality in July 2009, OSGP examined glass jars containing fat of python and *Varanus ornatus* used for traditional medicine by members of the Punu ethnic group (Figure 8). According to Mbouda’s village chief, these adult pythons were killed in the direct surroundings of the village along Cachimba lake. New dept record. Within Nyanga Prov., the species had been recorded previously only from Haute-Banio and Mougoutsi Depts (Pauwels, Chirio et al., 2017). Python fat and snake heads are commonly used in Gabon for traditional medicine and magic (Pauwels et al., 2002b; Bonhomme, 2006: 88). Consumption of pythons in Gabon is a very ancient habit, as remains dating back from the Early Iron Age, c. 1,700 B.P., have been reported from a site in Oveng, at 12 km NE of Libreville (Van Neer and Clist, 1991, a reference overlooked by Pauwels and Vande weghe, 2008). On 19 Sept. 2014 one of us (CO) encountered an adult individual basking on a lateritic road in a secondary forest (0°12'30.1"S, 12°26'58.8"E) in Lopé Dept, Ogooué-Ivindo Prov., in the southwestern extremity of Ivindo NP (Figure 9). This new locality represents the southernmost record of the species within the park, in a poorly explored area (Carlino and Pauwels, 2015). In March 2011, one



Figure 10. An orange *Atheris squamigera* in southern Ivindo National Park. Photograph by J. V. Okouyi Okouyi.



Figure 11. *Bitis arietans* in a savanna near Mabanda in Nyanga Prov., southwestern Gabon. Note the efficient camouflage. Photograph by C. Orbell.

of us (DR) was called at night to assist P. Ngalamou, gardener in Yenzi, Gamba, Ogooué-Maritime Prov., whose dog (Mammalia: Canidae: *Canis lupus familiaris* Linnaeus, 1758) had been killed and eaten by a large python in his vegetable plantation. The adult dog was chained when it was attacked, and the python, after having swallowed it, was stuck because the dog's metallic chain was still attached to a wooden pole. When disturbed, the python regurgitated the dead dog. Schweitzer (1950) reported predation cases by pythons on a dog, goats and chickens in Lambaréné, Moyen-Ogooué Prov.

Viperidae

Atheris squamigera (Hallowell, 1856)

In June 2012 one of us (JVOO) photographed a uniformly orange individual in Langoué (00°10.029'S, 12°30.139'E), in the southern part of Ivindo NP, Lopé Dept, Ogooué-Ivindo Prov. (Figure 10). In March 2013 JVOO observed another orange individual near Ipassa in Ivindo Dept, Ogooué-Ivindo Prov., in the northern part of Ivindo NP. The orange morph of this viper was recorded for the first time in Gabon by Pauwels, Le Garff et al. (2016) based on an individual from Mondah Forest in Estuaire Prov. Prior to the current report only the green morph had been recorded from Ivindo NP, where it is common (Carlino and Pauwels, 2015; Vande weghe et al., 2016: Fig. 944). Orange morphs probably exist throughout the country, but are obviously much rarer than the green morph.

Bitis arietans (Merrem, 1820)

On 3 Dec. 2016 one of us (CO), while cutting grass in a savanna between Mabanda and the Congolese border to give more visi-



Figure 13. Adult *Bitis gabonica* in Waka National Park, Ngounié Prov., Gabon. Photograph by C. Orbell.



Figure 12. Live *Bitis gabonica* in Mbera cave, Ogooué-Lolo Prov., Gabon. Photograph by O. Testa.

bility to a camera trap designed to photograph wildlife, accidentally injured a Puff Adder with a machete (Figure 11). This locality is situated in Doutsila Dept, Nyanga Prov. New dept record. This savanna species is localized in Gabon, and had been recorded to date only near Moukalaba-Doudou NP in the villages of Mourindi and Loango, Nyanga Prov. (Pauwels et al., 2012) and in Djouori-Agnili and Passa Depts in Haut-Ogooué Prov. (Pauwels and Sallé, 2009).

Bitis gabonica (Duméril, Bibron & Duméril, 1854)

One of us (Testa, 2015) reported an unvouchered observation in mid-2015 of a dead individual in Gouffre de Limbenga (Limbenga chasm), alt. 407 m asl, Mouloundou Dept, Ogooué-Lolo Prov. In the same dept, OT also photographed (Figure 12) a live individual in Mbera cave (Grotte de Mbera; 0°54'49.3"S, 12°50'21.2"E, see Oslisly and Testa, 2016). First dept records (Pauwels et al., 2002a; Pauwels and Vande weghe, 2008). On 11 Aug. 2014, i.e. in the dry season, at 15:02, CO encountered an adult individual along an abandoned logging road (1°08'07.7"S, 11°07'50.6"E) in Waka NP (Figure 13). The presence of the viper had been betrayed by the alarm call of birds, motivating the search for the snake. CO photographed another adult further south in the park (1°09'11.9"S, 11°07'14.1"E), on an abandoned logging road. First records for the park. Including this new record, only two reptile and two amphibian species are currently recorded from Waka NP (Pauwels, Le Garff et al., 2016; Pauwels, De Bakker et al., 2017; Vande weghe et al., 2016). On the morning of 15 May 2012, one of us (LC) observed one individual crossing the road near Mabounié, 40 km ESE of Lambaréné, Ogooué & Lacs Dept, Moyen-Ogooué Prov. New prov. record and new record for the Bas Ogooué Ramsar Site (Pauwels and Vande weghe, 2008; Vande weghe et al., 2016). LC examined a dead individual kept for food consumption in a freezer in Bitam, Ntem Dept, Woleu-Ntem Prov. It had been killed on 21 July 2013 in the nearby SIAT hevea plantation.



Figure 14. Young *Bitis gabonica* near Makabana, Nyanga Prov., southwestern Gabon. Photograph by L. Chirio.



Figure 15. Adult *Bitis nasicornis* crossing a road near Mbomo, Ogooué-Ivindo Prov., northeastern Gabon. Photograph by C. Orbell.

New dept record (Pauwels and Vande weghe, 2008). On 1 April 2014, during a rainy early afternoon, LC photographed a young individual crossing the road between Makabana and Penioundou, Mougoutsi Dept, Nyanga Prov. (Figure 14). New prov. record (Pauwels and Vande weghe, 2008). LC examined three individuals killed for food consumption in Tchad 2, about 40 km ESE of Lambaréné, Ogooué & Lacs Dept, Moyen-Ogooué Prov., on 6 April, 13 May and 12 August 2012, respectively. New prov. record. With the two present new prov. records, the species is currently known from all provinces of Gabon (Pauwels and Vande weghe, 2008). Two individuals were illustrated by Le Garff (2015: 25) under the name *B. gabonica*. The photograph on the left was taken in Franceville, Haut-Ogooué Prov., the one on the right shows a captive individual in the “Terrarium & Vivarium de Kerdanet” in Plouagat, France (Le Garff, pers. comm. to OSGP, 2016). The individual illustrated on the latter photograph shows a single black triangle on the head side posterior to the eye, and is actually a *B. rhinoceros* (Schlegel, 1855), a West African species absent from Gabon.

Bitis nasicornis (Shaw, 1802)

Although not listed by Pauwels and Vande weghe (2008), the accounts on “horned vipers” in Lambaréné, Moyen-Ogooué Prov., based on personal observations by Schweitzer (1950), are undoubtedly referable to this species. On 7 Aug. 2015 one of us (CO) photographed at 15:55 an adult individual crossing a lateritic road in secondary forest (0°31'01.2"N, 12°58'53.4"E) near Mbomo, about 15 km E-SE of Makokou, Ivindo Dept, Ogooué-Ivindo Prov. (Figure 15). It loudly hissed when approached. New locality record (Pauwels and Vande weghe, 2008). On 9 Nov. 2015 CO also photographed an adult individ-

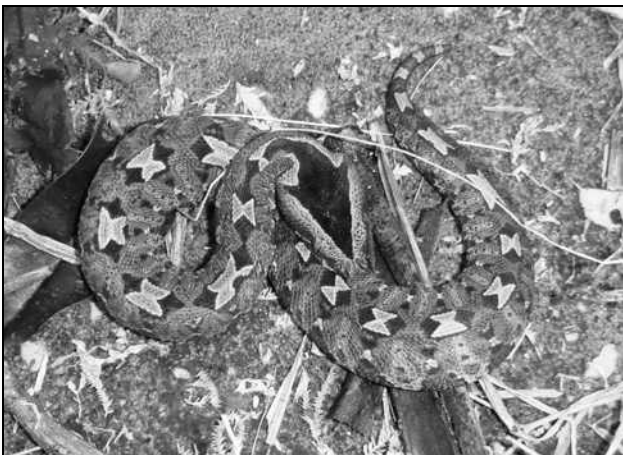


Figure 17. Juvenile *Bitis nasicornis* in Ayémé, Estuaire Prov., northwestern Gabon. Photograph by L. Chirio.



Figure 16. Adult *Bitis nasicornis* in the southern buffer zone of Mwagna National Park, Ogooué-Ivindo Prov., northeastern Gabon. Photograph by C. Orbell.

ual in the southern buffer zone (0°15'50.4"N, 13°47'16.6"E) of Mwagna NP in Ogooué-Ivindo Prov. (Figure 16). New record for the NP. With *Dipsadoboa viridis* (see above), this is only the second reptile species recorded from Mwagna NP, which was never herpetologically investigated (Vande weghe et al., 2016) but which probably houses a rich herpetofauna. On 24 July 2013 LC examined an adult individual killed by a villager along Ngou River (2.27555°N, 11.51451°E), Ntem Dept, Woleu-Ntem Prov. New dept record (Pauwels and Vande weghe, 2008). On 23 Dec. 2015 at around 11 A.M. a juvenile individual (Figure 17) was found by LC in Ayémé (0.31366°N, 9.66248°E), Komo-Mondah Dept, Estuaire Prov. It was hidden under a piece of dead wood in highly degraded secondary forest. New locality record (Pauwels and Vande weghe, 2008). During a heavy rain on 5 March 2016 at noon, LC photographed an adult individual near Lac Ngélié (Ngélié Lake; 0.67228°S, 9.42395°E) in Wonga-Wongué Presidential Reserve (Figure 18). New locality record (Pauwels, 2016; Pauwels and Vande weghe, 2008).

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Figure 18. Adult *Bitis nasicornis* near Ngélié Lake, Wonga-Wongué Presidential Reserve, northwestern Gabon. Photograph by L. Chirio.

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