

Miscellanea Herpetologica Gabonica III

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ABSTRACT.– *Dasypeltis confusa* (Colubridae) is reported for the first time from Gabon. *Bitis arietans* (Viperidae) is confirmed for Gabon. *Natriciteres variegata* (Natricidae) is withdrawn from the Gabon reptile list. New localities and/or ecological data are provided for *Hemidactylus angulatus* and *H. richardsonii* (Gekkonidae), *Crotaphopeltis hotamboeia*, *Philothamnus dorsalis*, *Thrasops flavigularis* (Colubridae), *Naja melanoleuca* (Elapidae), *Aparallactus modestus*, *Atractaspis reticulata*, *Hormonotus modestus*, *Mehelya capensis* (Lamprophiidae) and *Bitis gabonica* (Viperidae). Six species are newly recorded from Haut-Ogooué Province.

KEYWORDS.– Reptilia, Gekkonidae, Colubridae, Elapidae, Lamprophiidae, Natricidae, Viperidae, Haut-Ogooué, Gabon.

Introduction

Due to the scarcity of data on the distribution and ecology of the herpetofauna of Gabon, we decided to make relevant new observations available through a series of publications entitled *Miscellanea Herpetologica Gabonica* (see Pauwels and David, 2008a–b), of which the present article is the third part. One of the main objectives of the series is to evaluate literature and museum records to help establish a documented list of the reptiles of the country.

Material and methods

Within squamate suborders and families, taxa are presented in alphabetical order in the Results. Specimens were collected by BS (Franceville), Didier Lanteri (Port-Gentil) and OSGP (other localities). New locality records are marked with an asterisk (*), new department (district) records by two asterisks (**), and new province records by three asterisks (***). Body measurements were made to the nearest millimeter. Paired meristic characters are given in left/

right order. Snake ventral scales were counted according to Dowling's (1951) method. The terminal tail scute is not included in the subcaudal count. The numbers of dorsal scale rows are given respectively 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. Numbers of supralabials are followed between brackets by the indication of which among them border the eye. Numbers of infralabials are followed between brackets by the number among them bordering the first pair of sublinguals. The sex of snakes was determined by tail dissection.

Abbreviations: Institutions: CECBG: Centre d'Etude et de Conservation de la Biodiversité de l'Institution Smithsonian, Vembo, Gamba; CIRMF: Centre International de Recherches Médicales, Franceville; MNHN: Muséum National d'Histoire naturelle, Paris; USNM: National Museum of Natural History, Washington D.C. Morphology: DSR: dorsal scale row(s); IL: infralabial scale(s); Lor: loreal scale(s); PoO: postocular scale(s); PreO: preocular scale(s);

PV: preventral scale(s); SC: subcaudal scale(s); SL: supralabial scale(s); SVL: snout-vent length; TaL: tail length; Tem: temporal scale(s); TL: total length; VEN: ventral scale(s). Others: Dept.: Department; Prov.: Province.

Results

Gekkonidae

Hemidactylus angulatus Hallowell, 1852

An adult female (USNM 565130; SVL 67mm; partly regenerated tail 67 mm) was caught by day on 21 May 2007 on a building wall at Terminal*, Gamba*, Ndougou Dpt.**, Ogooué-Maritime Prov. It has unwebbed fingers and toes, numerous dorsal tubercles separated by a distance comparable to their own diameter, widened median SC, and an uninterrupted series of 29 poreless, enlarged preano-femoral scales. Two other specimens, an adult and a subadult, were caught at the same locality in 2006 and 2007, living in syntopy with large numbers of *Hemidactylus mabouia*. *Hemidactylus angulatus* was described from Gabon, without further details of the collecting locality (Hallowell, 1852). The 19th century definition of Gabon, however, was quite different from that of today. The only precise locality that was so far known from Gabon, Port-Gentil, also in Ogooué-Maritime Prov., was provided by Pasteur et al. (1978, under *H. brooki* [sic]). Gamba is, like Port-Gentil, a locality with intense air and sea traffic, and it is not yet sure if the species is indigenous to Gabon.

Hemidactylus richardsonii (Gray, 1845)

An adult individual (USNM 565131; SVL 76 mm; TaL 75 mm) was caught in July 2005 in the Vera Plains*, near Gamba, Ndougou Dpt., Ogooué-Maritime Prov. This specimen was caught by day under the bark of an isolated, burnt, dead tree in a savanna. It was ca. 1.5 m above the ground. It shows a longitudinal skin fold along the base of the flanks, a flattened tail with lateral spines, widened median SC, 46 enlarged preano-femoral scales, and webbed fingers and toes. This species is known in Gabon from only a few specimens, all caught in primary or dense secondary forest, as is typical for the species (see a.o. Spawls et al., 2002). Its

presence in both savanna and forest suggests that it may have a much wider distribution in the country.

Colubridae

Crotaphopeltis hotamboeia (Laurenti, 1768)

An adult male specimen (USNM 565132; SVL 464 mm, TaL 75 mm) was caught in the CIRMF compounds, Franceville*, Passa Dpt.**, Haut-Ogooué Prov.***, on 27 August 2003. It has a vertical pupil, 8(3–5)/8(3–5) SL, 10(5)/9(4) IL, 1/1 Lor, 1/1 PreO, 2/2 poO, 1+2/1+2 Tem. Additional meristic characters are shown in Table 1.

Dasypeltis confusa Trape and Mané, 2006

A subadult female (USNM 565133; SVL 369 mm; TaL 58 mm) was collected in 2005 in Port-Gentil*, Bendjé Dpt.**, Ogooué-Maritime Prov.*** It has keeled DSR; 7(3–4)/7(3–4) SL, 7(3)/7(2) IL, 0/0 Lor, 1/1 PreO, 2/2 PoO, 2+4/2+4 Tem (see also Table 1). Fifty-seven roundish mediadorsal spots follow the nuchal band; nearly all of them are connected to lateral vertical bands to form the pattern typical of *D. confusa* (see Trape and Mané, 2006). A subadult male (USNM 565134; SVL 356mm; TaL 72mm) was caught at CIRMF*, Franceville*, Passa Dpt.**, Haut-Ogooué Prov.***, on 20 April 2007. It shows 0/0 Lor, 1/1 PreO, 1/1 PoO (the superior postocular is fused with the supraocular), 2+4/2+4 Tem. It has 61 mediadorsal spots and shows the same pattern as the previous specimen. Both have a vertical pupil and all dorsal scales keeled. The report by Gans (1959:154, 233) of *Dasypeltis scabra* (Linnaeus, 1758) from “Achouka, Bas Ogooué” based on MNHN 94–177 is referable to *D. confusa* (D. G. Broadley, pers. comm., May 07). All former records of *Dasypeltis scabra* from Gabon are probably assignable to *D. confusa*.

Philothamnus dorsalis (Barboza du Bocage, 1866)

An adult female (USNM 565135; SVL 462 mm; TaL 230 mm) was collected in 2005 in Port-Gentil*, Bendjé Dpt.**, Ogooué-Maritime Prov. It has smooth DSR, laterally keeled VEN and SC; a round pupil; 9(4–6)/9(4–6) SL; 10(5)/10(5) IL, 2 pairs of sublinguals; 1/1 Lor,

1/1 PreO, 2/2 PoO, 1+1+1/1+1+1 Tem. It has two post-parietals in contact behind a small median scale. In alcohol, its back is bronze-grey with a dark brown vertebral band. For other characters, see Table 1.

Thrasops flavigularis (Hallowell, 1852)

An adult male (CECBG no nr; SVL 1102 mm; TaL 481 mm) was collected in 2003 in the CIRMF compounds*, Franceville*, Passa Dpt.**, Haut-Ogooué Prov.*** It has 1/1 Lor, 1/2 PreO, 3/3 PoO, 8(4–5)/8(4–5) SL, 11/12 IL, 1+1/1+1 Tem, and a round pupil; see also Table 1. Each of the IL of the first pair is divided into two scales, an anterior and a posterior one, thus forming an additional pair of sublinguals (and hence a total of three pairs). All DSR are slightly keeled. VEN are laterally slightly keeled; SC are unkeeled laterally.

Elapidae

Naja melanoleuca Hallowell, 1857

An adult specimen was killed in 2006 in the compounds of the CIRMF, and only the head was preserved (USNM 565136). It shows no Lor, 7(3–4)/7(3–4) SL, 8(4)/8(4) IL, 2 pairs of sublinguals, 1/1 PreO, 3/3 PoO, 1/1 anterior temporal, 2 PV and a round pupil. Its dorsals are slightly keeled on the posterior body part. The species was recently recorded from the same locality and for the first time from Haut-Ogooué Prov. (Pauwels et al., 2007), but was vouchered only by a photograph.

Lamprophiidae

Aparallactus modestus (Günther, 1859)

A subadult male (USNM 565137; SVL 241 mm; TaL 57 mm) was killed at CIRMF*, Franceville*, Passa Dpt.**, Haut-Ogooué Prov.***, on 3 March 2007. It has 7(3–4)/7(3–4) SL, 7(4)/7(4) IL, 0/0 Lor, 1/1 PreO, 2/2 PoO, 0+1/0+1 Tem. To the VEN number shown in Table 1, a half-VEN must be added, situated on the left side between the last VEN and the anal. The pupil is round. DSR, VEN and SC are unkeeled.

Atractaspis reticulata Sjöstedt, 1896

We collected an adult male specimen (USNM 565138; SVL 730 mm; TaL 45 mm) while it

was crossing a road at 10 p.m. in a swampy secondary forest on 5 February 2007 in Yenzi*, Gamba*, Ndougou Dpt.**, Ogooué-Maritime Prov.*** This locality is situated a few hundred meters from the sea, and a few meters above sea level. This specimen and its biotope were illustrated by Dobiey and Vogel (2007:29). The snake was not aggressive when caught. Its characteristics are as follows: eye mall (about same size as PoO); rostral visible from above; 2 internasals, in median contact; 2 prefrontals, in median contact; frontal large, about as wide as long; 1/1 supraocular; 5/5 SL, 3rd and 4th contact the eye, 4th the largest; 3rd SL widely in contact with prefrontal on each side; eye in contact with the supraocular, the prefrontal, the 3rd and 4th SL and the PoO; 1+2/1+2 Tem; 5/5 IL; first pair of IL in contact behind the small mental; 2nd pair of IL in contact (or can also be interpreted as a fusion between the 2nd IL and the first and only a pair of sublinguals on each side); 3rd IL very elongated; DSR smooth; vertebral row not enlarged; VEN and SC laterally unkeeled. Other meristic characters are given in Table 1. Fangs are long and erectile. Hemipenes partly everted. The whole animal is black, except the mental shield which is whitish. This specimen represents the second record of this rare species for Gabon. It has been recorded from Makokou, Ogooué-Ivindo Prov., northeastern Gabon (Knoepffler, 1966:20, as *Atractaspis reticulata heterochilus*). The latter locality is situated at ca. 500 m asl. Given their meristic characters, both Knoepffler's and our specimens should be identified as *A. reticulata heterochilus* Boulenger, 1901 using the key provided by Perret (1960), but there is no current consensus on the validity of this subspecies.

Hormonotus modestus (Duméril, Bibron and Duméril, 1854)

A subadult male (USNM 565139; SVL 476 mm; TaL 136 mm) was caught by day at CIRMF*, Franceville*, Passa Dpt.**, Haut-Ogooué Prov.*** on 11 January 2007. It shows 8(3–5)/8(3–5) SL, 8(4)/9(5) IL, 1/1 Lor, 1/1 PreO, 3/3 PoO, 2+3/2+3+3 Tem. VEN are laterally keeled. DSR are smooth; the vertebral row is enlarged. The pupil is vertically elliptical. Other characters are given in Table 1.

Table 1. Meristic characters for some Gabon snakes. Taxa are arranged by alphabetical order.

Species	Collection number	Sex	DSR	PV+VEN	An	SC
<i>Aparallactus modestus</i>	USNM 565137	M	15–15–15	1 + 133	Single	44, undiv.
<i>Atractaspis reticulata</i>	USNM 565138	M	19–23–19	4 + 318	Divided	2 div. + 1 undiv. + 26 div.
<i>Bitis arietans</i>	USNM 565141	M	?–30–20	ca. 4 + 144	Single	28, div.
<i>Bitis gabonica</i>	USNM 565142	F	?–40–29	3 + 135	Single	22, div.
<i>Crotaphopeltis hotamboeia</i>	USNM 565132	M	17–19–15	1 + 175	Single	44, div.
<i>Dasypeltis confusa</i>	USNM 565133	F	26–25–21	1 + 210	Single	55, div.
	USNM 565134	M	23–22–19	1 + 197	Single	64, div.
<i>Hormonotus modestus</i>	USNM 565139	M	15–15–13	2 + 232	Single	96, div.
<i>Philothamnus dorsalis</i>	USNM 565135	F	15–15–11	1 + 178	Divided	119, div.
<i>Thrasops flavigularis</i>	CECBG no nr	M	17–15–12	2 + 201	Divided	142, div.

Mehelya capensis (Smith, 1847)

An adult individual (USNM 565140) was killed by machete at the CIRMF*, Franceville*, Passa Dpt.**, Haut-Ogooué Prov., on 13 April 2007 and only the head and fore neck were preserved. It shows a vertical pupil, 7(3–4)/7(3–4) SL, 8(4)/8(5) IL, 2 pairs of sublinguals, 1/1 Lor, 2/2 PreO, 3/3 PoO and 1+2+3/1+2+3 Tem. Its dorsals are strongly keeled, showing well-developed secondary keels. The keels are also present on the temporals. Each scale of the vertebral row has a pair of longitudinal parallel keels. The head scalation and keeling are similar to those of the illustration of the type of *Mehelya savognani* by Mocquard (1887:pl. 2). The status of the latter taxon, especially its distinctiveness from *Mehelya capensis*, is unclear. It was treated by Chippaux (2006) as a subspecies of *M. capensis*, but showing a wide sympatry with the nominal subspecies. The three differences between both subspecies presented by Chippaux (2006) concern the number of VEN and SC, with important overlaps, and a subtle difference in the colouration of the vertebral row scales, with a light spot situated on a basal position on each scale in the subspecies *savognani* and a median position in the subspecies *capensis*. Chippaux (2006) also mentioned the existence of two colour morphs in the subspecies *savognani*: one without light spots on the vertebral row scales, another with light spots on the extremity of the dorsals. Until a revision is undertaken resulting in clear characters separating these forms, we prefer to regard *M. capensis* and *M. savognani* as synonyms.

Natricidae

Natriciteres variegata (Peters, 1861)

Frétey and Blanc (no date) listed *N. variegata* from Gabon based on the record by Waardenburgh and Guicherit (1991:table 1) (T. Frétey, pers. comm.) from Ofoubou (also known as Moufoubou), Ndolou Dept., Ngounié Prov. Waardenburgh and Guicherit (1991:41) wrote that it was locally the most common snake and they vouchered their record with a colour picture showing the left side of the head and forebody of what is obviously a *N. fuliginoides*, indeed the most common sylvicolous snake species in southwestern Gabon. The picture shows a.o. a divided nasal scale, 8(4–5) black-edged SL, 1 Lor, 1 PreO, 3 PoO, 1 anterior Tem, a round black pupil, an orange iris and a yellow throat. *Natriciteres variegata* can thus be at least provisionally deleted from the Gabon reptile list. On his distribution map for this species, Chippaux (2006) put a question mark on Gabon.

Viperidae

Bitis arietans (Merrem, 1820)

A juvenile specimen (USNM 565141; SVL 364 mm; TaL 39 mm) was collected in 2006 at the CIRMF*, Franceville*, Passa Dpt.**, Haut-Ogooué Prov. It was killed with a machete, and a few of the throat VEN are missing. Its DSR are strongly keeled. It has a vertical pupil, dorsally-oriented nostrils, 12/13 SL, not in contact with the eyes, 15(4)/15(4) IL, a pair of sublinguals, and 8 scales between the eyes. Additional

meristic characters are shown in Table 1. This species was not listed for Gabon by Frétey and Blanc (no date). Pauwels et al. (2006), however, listed it for Gabon based on unvouchered records made by two naturalists (J. Maran and P. Christy) in Haut-Ogooué Prov. (Djouori-Agnili Dpt.) and in Moukalaba-Doudou National Park. The species is thus presently confirmed for the country.

Bitis gabonica (Duméril, Bibron and Duméril, 1854)

A juvenile female (USNM 565142; SVL 342 mm; TaL 26 mm) was found at the CIRMF*, Franceville*, Passa Dpt.**, Haut-Ogooué Prov.***, on 12 June 2003. It was killed by a machete and some neck scales are missing. It shows 15(0)/15(0) SL, 18(5)/19(6) IL and a vertical pupil. The eyes are surrounded by 15/16 small scales and are dorsally separated by 13 scales. All its DSR are keeled. Additional characters are presented in Table 1. It thus occurs at the CIRMF syntopically with *Bitis arietans*.

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