

## First documented record of *Thrasops jacksonii* Günther, 1895 (Squamata: Colubridae) in Gabon

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**Abstract.** The presence of the arboreal colubrid *Thrasops jacksonii* in Gabon is confirmed based on a juvenile specimen collected in Ivindo National Park. Morphological and biological data are provided for the Gabonese specimen. This new record brings to 71 the number of snake species currently inventoried from Gabon.

**Keywords:** Reptilia, Colubridae, *Thrasops jacksonii*, Ogooué-Ivindo, Ivindo National Park, Gabon.

Based on the documented geographical records of *Thrasops jacksonii* which shows a wide distribution from Cameroon to Kenya, Chippaux (2001) elaborated a map extrapolating its distribution to include all southern Cameroon, Equatorial Guinea and Gabon. Based on this map (Frétey, pers. comm., 2012), Frétey & Blanc (2004) listed *Thrasops jacksonii* as part of the herpetofauna of Gabon. While the species was indeed later confirmed from several localities in southern Cameroun (Chirio & LeBreton 2007), it was excluded from a book on the reptiles of Gabon (Pauwels & Vandeweghe 2008) because no actual specimen had been found so far in the country.

While conducting herpetological research in February 2011 in Ivindo National Park, Ogooué-Ivindo Province, in northwestern Gabon, one of us (CP) caught a colubrid snake unambiguously attributable to *Thrasops jacksonii*, that we describe below.

The specimen was preserved in 70° ethanol and is housed at the Natural History Museum of Salento (MSNS), Salento, Italy, under the collection number MSNS-Gab013. Ventral scales were counted according to Dowling's (1951) method. 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. The sex was determined by dissection of the base of the tail and subsequent extraction of hemipenis.

The Gabonese specimen of *Thrasops jacksonii* was found in the evening at 19:30, while it was on rocks bordering a small tributary stream of the Ivindo river (0°30'46.12" N, 12°47'57.68" E), in dense primary rainforest, at an altitude of 549 m above sea level, at about 1.5 km from Ipassa base camp and at about 11 km West of the town of Makokou. It was caught with difficulty because of its speed; when handled, it repeatedly tried to

bite, and was dorso-ventrally inflating the anterior part of its body in a threatening attitude.

Its habitus is very elongate (Figs 1–2). The snout-vent length is 440 mm long, the tail length 190 mm and the total length 630 mm. The head length is 18 mm and its width 10 mm. The rostral is clearly visible from above. The internasals are as long as the prefrontals, but narrower. The eyes are large (Fig. 3), their horizontal diameter being subequal to the distance between the eye and the snout tip. There are 1/1 preocular scales, 3/3 postocular scales, the lower one being the largest and in contact with two supralabials, the middle postocular being the smallest; 1/1 squarish loreal scales; 1/1 supraocular scales, slightly narrower than the frontal; 8/8 labial scales, the fourth and fifth of which in contact with the eye on each side; 11/11 infralabial scales, the first six of which in contact with the anterior pair of sublingual scales; anterior pair of sublinguals slightly shorter than posterior one; 1/1 anterior temporal; 1/1 posterior temporal; one preventral scale + 203 ventral scales; pre-anal scale divided; 141 subcaudal scales, divided except for the first five. The vertebral and paravertebral scale rows are slightly keeled, the lower rows are smooth. The vertebral row is not enlarged. The ventral and subcaudal scales are slightly keeled. There are 17-17-15 dorsal scale rows, obliquely arranged.

In life, the round pupil was black and surrounded by light green; the dorsal surface of head was uniformly dark olive green with scales showing a thin black edge; the lower surface of the head was slightly lighter in coloration, transitioning gradually to the color of the ventral scales on the throat. Dorsal ground colour was dark olive green



**Figure 1.** General dorsal view of a preserved juvenile *Thrasops jacksonii* (MSNS Gab-013) from Ivindo National Park, Gabon.



**Figure 2.** General ventral view of a preserved juvenile *Thrasops jacksonii* (MSNS Gab-013) from Ivindo National Park, Gabon.



**Figure 3.** Lateral head view of a preserved juvenile *Thrasops jacksonii* (MSNS Gab-013) from Ivindo National Park, Gabon.

for the anterior tenth of the body, shading gradually into a black ground colour with numerous regularly spaced yellow scales. A row of sky-blue

spots was visible laterally on the lower part of the body on the anterior three-quarters of the total length. The ventral region was light yellow with

checkerboard-arranged black spots, almost absent in the anterior part up to the twenty-first ventral scale. In preservative, the colours became less bold and contrasting and the lateral blue spots were no longer visible.

The morphological characters shown by this specimen are in agreement with those typical of the species, and its colour is typical for juveniles (Spawls et al. 2002, Chippaux 2006, Chirio & LeBreton 2007). Intensive herpetological collections around Makokou (Knoepffler 1966) and in other forested areas of Gabon (Blanc & Frétey 2000, Pauwels et al. 2002a,b) and an extensive analysis of the available literature on Gabon snakes (Pauwels & Vande weghe 2008) did not reveal any voucher for *Thrasops jacksonii*. While the species is still relatively common in Central African Republic (Chirio & Ineich 2006), it is rare in Cameroon, where it is known from only three localities (Chirio & LeBreton 2007) and is probably very localized in Gabon, where it reaches its westernmost distribution limits.

*Thrasops jacksonii* is closely related to the medically-important venomous genera *Dispholidus* Duvernoy, 1832 and *Thelotornis* Smith, 1849 (Zaher et al. 2012). *Thrasops flavigularis* (Hallowell, 1852) is known to have caused serious envenomation (Ineich et al. 2006), and anecdotal reports suggest that *T. jacksonii* itself might be able to cause medically significant bites, but no medical reviews were done so far on bite cases (Weinstein et al. 2011). The present report adds one more snake (maybe medically important) to the Gabonese ophidiofauna, which is now known to include at least 71 species, divided into nine families (Pauwels & Vande weghe 2008). This new record also increases the already very high biodiversity conservation value of Ivindo National Park (Christy et al. 2008, Vande weghe 2009).

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## References

- Blanc, C.P., Frétey, T. (2000): Les reptiles de la Réserve de Faune de La Lopé et de la Forêt des Abeilles (Gabon). Bulletin de la Société Zoologique de France 125(4): 281-292.
- Chippaux, J.P. (2001): Les serpents d'Afrique occidentale et centrale. Editions de l'IRD, Collection Faune et Flore tropicales, 35, Paris.
- Chippaux, J.P. (2006): Les serpents d'Afrique occidentale et centrale. IRD Editions, Collection Faune et Flore tropicales, 35, Paris.
- Chirio, L., LeBreton, M. (2006): Biogeography of the reptiles of the Central African Republic. African Journal of Herpetology 55(1): 23-59.
- Chirio, L., LeBreton, M. (2007): Atlas des reptiles du Cameroun. Muséum national d'Histoire naturelle, IRD, Patrimoines naturels, 67, Paris.
- Christy, P., Lahm, S.A., Pauwels, O.S.G., Vande weghe, J.P. (2008): Check-list des amphibiens, reptiles, oiseaux et mammifères des parcs nationaux du Gabon. Checklist of the amphibians, reptiles, birds and mammals of the national parks of Gabon. Smithsonian Institution.
- Dowling, H.G. (1951): A proposed standard system of counting ventrals in snakes. British Journal of Herpetology 1: 97-99.
- Frétey, T., Blanc, C.P. (2004): Liste des reptiles d'Afrique Centrale. Les dossiers de l'ADIE. Série Biodiversité N° 2 [sic], Libreville.
- Ineich, I., Goyffon, M., Dang, V. (2006): Qu'est-ce qu'un serpent dangereux pour l'homme? Un cas d'envenimation par un Colubridae aglyphe opisthotonote du Cameroun, *Thrasops flavigularis* (Hallowell, 1852). Bulletin de la Société Zoologique de France 131(2): 135-145.
- Knoepffler, L.P. (1966): Faune du Gabon (Amphibiens et Reptiles). I. Ophidiens de l'Ogooué-Ivindo et du Woleu Ntem. Biologia Gabonica 2(1): 1-23.
- Pauwels, O.S.G., Vande weghe, J.P. (2008): Reptiles du Gabon. Smithsonian Institution.
- Pauwels, O.S.G., Kamdem Toham, A., Chimsunchart, C. (2002a): Recherches sur l'herpétofaune du Massif du Chaillu, Gabon. Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Biologie 72: 47-57.
- Pauwels, O.S.G., Kamdem Toham, A., Chimsunchart, C. (2002b): Recherches sur l'herpétofaune des Monts de Cristal, Gabon. Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Biologie 72: 59-66.
- Spawls, S., Howell, K., Drewes, R., Ashe, J. (2002): A field guide to the reptiles of East Africa. Academic Press, Natural World.
- Vande weghe, J.P. (2009): Ivindo and Mwagna. Black waters, virgin forests and bais. Wildlife Conservation Society, Libreville.
- Weinstein, S.A., Warrell, D.A., White, J., Keyler, D.E. (2011): "Venomous" bites from non-venomous snakes. A critical analysis of risk and management of "colubrid" snake bites. Elsevier, London and Waltham.
- Zaher, H., Grazziotin, F.G., Graboski, R., Fuentes, R.G., Montingelli, G.G., Zhang, Y.-P., Murphy, R.W. (2012): Phylogenetic relationships of the genus *Sibynophis* (Serpentes: Colubroidea). Papéis Avulsos de Zoologia 52 (12): 141-149.