New data on *Trachylepis makolowodei* from Central Africa

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Herpetological surveys undertaken in the Central African Republic between 1990 and 1996 revealed the presence of 62 reptile taxa never reported before from this country (Chirio and Ineich, 2006). Among the high number of skink specimens of the genus *Trachylepis* Fitzinger, 1843 (Scincidae), 20 specimens from nine localities could not be identified on species level and differed in sculation, colouration, and morphometric and molecular characters (*Trachylepis* sp. 2 in Chirio and Ineich, 2006; Chirio and LeBreton, 2007). Together with other four specimens from southern Cameroon, it was later described as a new species, *Trachylepis makolowodei* Chirio, Ineich, Schmitz, and LeBreton, 2008. This species is characterized by its large size (SVL up to 121 mm), long and transversely compressed tail, and arboreal lifestyle with rupicolous tendencies. The species occurs in riparian or swampy habitats in rainforests, which may be the reason why it had been overlooked for such a long time as these habitats are often difficult to access. A high number of keels on dorsal scales in adults [7 in males, 9 in females, (3 in juveniles)] and the colouration belong to other important characters. Dorsal surface is light brown to coppery brown with numerous white latero-dorsal spots often found at the apical part of some scales on flanks.

On adult males, a pale green diffuse colouration zone is distinguished, extending laterally from snout end to tail, and it separates the brown dorsal colouration from the (lemon) yellowish green ventral colouration. On adult females, the brown dorsal colouration with blackish transversal markings is interrupted at the middle flanks, and the inferior part of the flanks and the ventrum is whitish green (Chirio et al., 2008).

*Trachylepis makolowodei* has been reported from the southern and south-western Central African Republic, and southern Cameroon (Chirio and LeBreton, 2007; Chirio et al., 2008; Allen et al., 2017). A possible record from “Nganchon” (probably N’Gantchou in the Pool Department, south-eastern Republic of the Congo) based on a large specimen collected already in 1886, later (mis-)identified as *T. polytropis* (Boulenger, 1903) and deposited in the National Museum of Natural History in Paris (MNHN) was discussed by Chirio et al. (2008). Recently, the species was listed in the lizard fauna overview of the Maringa-Lopori-Wamba landscape in the north-central Democratic Republic of the Congo (Lotana Lokasola et al., 2017).

Here, we present new data on the geographic distribution and morphology of *T. makolowodei*. We confirm its presence in the Republic of the Congo, and provide an additional record of the species from the Democratic Republic of the Congo (DRC) (Fig. 1). In 2015, VG and AGZB collected two specimens of *T. makolowodei* in the Republic of the Congo, Pool Department, Ngabé District, in forest and farmbush habitats near a stream in the vicinity of Talangai village [adult male, NMP6V 75600, 3.2956°S 16.1545°E, 340 m a.s.l., 11.III.2015; and juvenile, NMP6V 75601, 3.2923°S 16.1623°E, 310 m a.s.l., 13.III.2015], and VG and GBB collected one adult female [NMP6V 75602; contained 7 well-formed eggs (3 + 4)] in the northern DRC, Mongala Province, in a forest swamp near the Mokabi River, ca. 50 km WNW of Lisala town [2.3046°N, 21.0928°E, 360 m a.s.l., 21.XI.2015]. Basic morphological data, including a new maximum
Figure 1. *Trachylepis makolowodei* newly recorded in the Republic of the Congo (CG) and Democratic Republic of the Congo (DRC): A, C) adult male from the Ngabé region, CG; B, D) adult female from the Lisala region, DRC; note characteristic ventral colouration and scales on plantar and palmar surfaces of feet; E) subadult specimen from the Odzala-Kokoua National Park, CG. F) Map showing new records corresponding to the specimens from photos A/C, B/D, E (red circles), and older museum or literature-based records (white circles) from the Ituri Forest, DRC (I; Schmidt, 1919); Gamba, Gabon (G; Pauwels and Vandeweghe, 2008); and Maringa-Lopori-Wamba, DRC (M; Lotana Lokasola et al., 2017). Hatched area shows the previously known distribution range (Chirio and LeBreton, 2007; Chirio et al., 2008) and white star denotes the type locality.
body size for the species/males (SVL = 125 mm), are given in Table 1. The adult colour patterns conform to the original species description (Chirio et al., 2008) and are displayed on Fig. 1A-D. The colour of the juvenile specimen resembles that of an adult female with a brownish dorsal colouration and the whitish-green venter. The two specimens from the Ngabé region, Republic of the Congo, were found in the same region as the specimen collected in the 19th century and discussed by Chirio et al. (2008), which confirms the presence of this species in this area. Furthermore, in 2017, MD and VG observed one subadult specimen on a tree trunk (at ca. 5 m height) in a forest patch near a swamp in the Republic of the Congo inside the Odzala-Kokoua National Park, Cuvette-Ouest Department, Mbomo District, Lango camp (0.6008°N 14.9311°E, 380 m a.s.l., 24.II.2017) – Fig. 1E.

In addition to our own observations, the photograph of “T. albilabris” from Gamba, Ogooué-Maritime Province, Gabon published by Pauwels and Vande weghe (2008) probably represents T. makolowodei as indicated by a presence of two scales between last supraocular and anterior supratemporal (one scale in T. albilabris; Chirio et al., 2008; Allen et al., 2017), and the characteristic colour pattern and a general body robustness. Similarly, and as already noted by Chirio et al. (2008), there are indications that at least some specimens of “T. polytropis” from the Ituri Forest in the north-eastern DRC (collected during the American Museum Congo Expedition between 1909 and 1914) represent in fact T. makolowodei [specimen figured in Schmidt (1919), Plate XXIV – Fig. 1 (AMNH R-10895) corresponds to T. makolowodei, e.g., see the long and laterally compressed tail (uncompressed in T. polytropis); VG examined and identified AMNH R-10893, 10895, 10899, 10901–10903 as T. makolowodei on 20 November 2017]. This fits also to the recent findings from the Maringa-Lopori-Wamba landscape (Lotana Lokasola et al., 2017).

In conclusion, T. makolowodei possesses a much wider geographic range than it was previously known. The species is distributed at least in the western and northern parts of the Congo Basin, and in the Atlantic Equatorial coastal forests. However, the distribution range might be even wider within rainforests of the whole Congo Basin. The species is now confirmed from Cameroon, Central African Republic, Gabon, Republic of the Congo, and Democratic Republic of the Congo.

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References


Table 1. Morphological data for the newly collected specimens, measurements in mm. Abbreviations: SVL = snout-vent length; TL = tail length; HL = head length, snout to anterior tympanum margin; AEL = anterior extremity length (measured on right side); PEL = posterior extremity length (measured on right side); DE = distance between extremities; DSK = number of keels on dorsal scales; NMP6V = National Museum in Prague, Department of Zoology.

<table>
<thead>
<tr>
<th>Museum No.</th>
<th>Sex / Age</th>
<th>SVL</th>
<th>TL</th>
<th>HL</th>
<th>AEL</th>
<th>PEL</th>
<th>DE</th>
<th>DSK</th>
</tr>
</thead>
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<tr>
<td>NMP6V 75600</td>
<td>male / adult</td>
<td>125.0*</td>
<td>172.0**</td>
<td>25.1</td>
<td>34.0</td>
<td>46.0</td>
<td>64.0</td>
<td>8</td>
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<tr>
<td>NMP6V 75602</td>
<td>female / adult</td>
<td>117.0</td>
<td>215.0</td>
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<td>34.0</td>
<td>47.0</td>
<td>62.0</td>
<td>8</td>
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<tr>
<td>NMP6V 75601</td>
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<td>42.0</td>
<td>71.0</td>
<td>10.5</td>
<td>13.0</td>
<td>18.0</td>
<td>22.0</td>
<td>3</td>
</tr>
</tbody>
</table>

* new maximum for T. makolowodei/males
** regenerated tail