THE *TRACHYLEPIS* (SQUAMATA: SCINCIDAE) OF ANGOLA: AN INTEGRATIVE TAXONOMIC REVIEW WITH THE DESCRIPTION OF SEVEN NEW SPECIES

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ABSTRACT

The genus *Trachylepis* is currently represented by 21 species in Angola, most of them part of nomenclaturally and taxonomically challenging species complexes. In this study we present an integrative taxonomic revision of the genus in Angola and describe seven new species: *Trachylepis attenboroughi*, sp. nov., *Trachylepis bouri*, sp. nov., *Trachylepis hilariae*, sp. nov., *Trachylepis ovahelelo*, sp. nov., *Trachylepis suzanae*, sp. nov., *Trachylepis vunongue*, sp. nov., and *Trachylepis wilsoni*, sp. nov. As result of our taxonomic revisions, 25 valid *Trachylepis* species are now confirmed from Angola. A phylogenetic analysis using a combination of mitochondrial (16S, ND2) and nuclear (RAG1) markers, as well as morphological data, supports the recognition of the new species. In addition, data support the revalidation of *Trachylepis albopunctata* (Bocage, 1867), *Trachylepis notabilis* (Peters, 1879), and *Trachylepis ansorgii* (Boulenger, 1907). We also provide a redefinition of *Euprepes anchietae* Bocage, 1866, which we synonymize with *Trachylepis maculilabris* (Gray, 1845). Given that the type material for *Trachylepis albopunctata*, *T. angolensis*, and *T. anchietae* has been lost or destroyed, we designate neotypes for the purpose of nomenclatural stability. The description of the new species and the revision and revalidation of previously described Angolan species contribute to a better understanding of the taxonomy and biogeography of the genus, as well as to the general biogeographic patterns and evolution of the Angolan fauna.

INTRODUCTION

Trachylepis Fitzinger, 1843, is one of the most diverse and species-rich genera in the family Scincidae, currently comprising 87 recognized species (Uetz et al., 2024) distributed throughout the African continent, Madagascar, Arabia, and one species occurring on Fernando de Noronha Island, eastern Brazil. The genus belongs to the Mabuyinae group (Weinell et al., 2019) and its members are the dominant and most conspicuous surface active (e.g., terrestrial, arboreal, and rupiculous) skinks throughout most of its range. In the last decade, numerous species have been described: *Trachylepis adamastor* Ceríaco, 2015, *Trachylepis principensis* Ceríaco et al., 2016, *Trachylepis thomensis* Ceríaco et al., 2016, *Trachylepis gonwouoi* Allen et al., 2017, and *Trachylepis raymondlaurenti* Marques et al., 2019. Recently this genus was the subject of a comprehensive species-level phylogeny by Weinell et al. (2019).

Angola hosts an extraordinary diversity of *Trachylepis* species, with almost one fourth of all known African species occurring in the country (Marques et al., 2018, 2019a). The most recent checklists regarding the reptile fauna of the country note the existence of 21 species in Angola (Marques et al., 2018, 2019a; Branch et al., 2019). As they are among the most abundant animals in the territory, nearly every researcher who has worked in Angolan herpetofauna since the 19th century has examined species of the genus. Eight species have been described based on Angolan material, including *Trachylepis albopunctata* (Bocage, 1867a), *Trachylepis bayonii* (Bocage, 1872), *Trachylepis binotata* (Bocage, 1867b), *Trachylepis bocagii* (Boulenger, 1887), *Trachylepis chimbana* (Boulenger, 1887), *Trachylepis laevis* (Boulenger, 1907), *Trachylepis punctulata* (Bocage, 1872), and *Trachylepis raymondlaurenti*. Many of these are widespread species, while others belong to problematic species complexes. Other taxa of dubious taxonomic validity, such as *Euprepes notabilis* Peters, 1879, *Mabuya bayonii huilensis* Laurent, 1964, and *Trachylepis monardi* Marques et al., 2018 (nomen novum for *Mabuia striata angolensis* Monard, 1937), have also been described based on Angolan material, but their taxonomic identity has never been adequately assessed.

Despite the considerable number of authors who have dealt with Angolan *Trachylepis*, to date there are no comprehensive reviews or identification keys for the Angolan species as exist, for example, for southeast Africa (Broadley, 2000), Cameroon and the central African countries (Allen et al., 2017), and Ethiopia (Spawls et al., 2023). As part of ongoing research on the herpetofauna of Angola, we present a comprehensive review of the

Trachylepis of Angola. We provide a phylogeny of the genus including all species purported to occur in Angola, present updated taxonomic accounts and new diagnoses for all the Angolan taxa, designate neotypes for *T. albopunctata*, *T. angolensis*, and *T. anchietae*, and describe seven new species.

MATERIALS AND METHODS

Specimen Collection and Sampling

Specimens collected for this study were fixed in the field with 10% buffered formalin and transferred to 70% ethanol for long-term preservation. Liver tissue was removed before formalin fixation and preserved in 96%–100% ethanol or in RNALater and subsequently transferred to 95% ethanol for storage. A total of 774 specimens were consulted for this study (appendix SA1 in the online appendix: https://doi.org/10.5531/sd.sp.65). For mensural and meristic comparisons, we examined 377 specimens of *Trachylepys* species (including type specimens of *T. bayonii* [ZMB 6477], *T. binotata* [ZMB 7794], *E. petersii* [ZMB 6479], *T. notabilis* [ZMB 9204], and *T. punctulata* [ZMB 6478]) deposited in the following collections: **AMNH,** American Museum of Natural History, New York, NY; **ANSP,** Academy of Natural Sciences of Drexel University, Philadelphia, PA; **BMNH,** Natural History Museum, London; **CAS,** California Academy of Sciences, San Francisco, CA; **CM,** Carnegie Museum of Natural History, Pittsburgh, PA; **FMNH,** Field Museum of Natural History, Chicago, IL; **IICT,** Instituto de Investigação Científica Tropical, Lisbon; **INBAC,** Instituto Nacional da Biodiversidade e Áreas de Conservação, Kilamba, Angola **MCZ,** Museum of Comparative Zoology, Harvard University, Cambridge, MA; **MD,** Museu Regional do Dundo, Dundo, Angola; **MHNC-UP,** Museu de História Natural e da Ciência da Universidade do Porto, Porto, Portugal; **MHNC,** Musée d'Histoire Naturelle de La Chaux-de-Fonds, La Chaux-de-Fonds, Switzerland; **MHNG,** Muséum d'Histoire Naturelle, Geneva; **MHNN**, Museum d'Histoire Naturelle de Neuchâtel, Neuchâtel, Switzerland; **MNHNL,** Museu Nacional de História Natural, Luanda, Angola; **MNHN-RA**, Muséum national d'Histoire naturelle, Paris; **MTD,** Museum für Tierkunde, Senckenberg Natural History Collections Dresden, Dresden; **MUHNAC,** Museu Nacional de História Natural e da Ciência da Universidade de Lisboa, Lisbon; **NHMW,** Naturhistorisches Museum, Vienna; **NMZB,** Natural History Museum of Zimbabwe, Bulawayo, Zimbabwe; **PEM,** the Port Elizabeth Museum, Bayworld, Gqeberha (Port Elizabeth), South Africa; **SMF,** Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt am Main; **TM,** Ditsong National Museum of Natural History, Pretoria; **UF,** Natural History Museum of the University of Florida, Gainesville, FL; **USNM,** National Museum of Natural History, Smithsonian Institution, Washington, DC; **ZMB,** Museum für Naturkunde, Berlin; **ZMH,** Zoologisches Museum Hamburg, Hamburg; and **ZSM,** Zoologische Staatssammlung München, Munich (for a detailed list see respective taxonomic accounts and appendix SA1 in the online supplement). Specimen listed with the acronym AMB belong to Aaron M. Bauer field series will be accessioned in CAS. Additional specimens were also examined but only to confirm specific identity. Information on morphological characters of species and/or type material that could not be examined, as well as supplemental data for all *Trachylepis*, was obtained from the relevant literature (e.g., Bocage, 1867a, 1867b, 1872, 1895; Boulenger, 1887, 1907; Schmidt, 1919; Laurent, 1947, 1954, 1964; Broadley, 1974a, 1974b, 2000; Hoogmoed, 1974; Branch, 1998; Ceríaco et al., 2016a; Allen et al., 2017; Weinell and Bauer, 2018; Pietersen et al., 2021).

DNA Sequences

We generated novel DNA sequence data for previously unsampled Angolan *Trachylepis* species, from tissues collected over multiple field expeditions to Angola since 2012. In addition to new data, we included sequences from the Weinell et al. (2019) dataset for 76 *Trachylepis* and 13 outgroup species. Outgroup taxa included species from the mabuyine genera *Chioninia*, *Copeoglossum*, *Dasia*, *Eumecia*, *Eutropis*, *Heremites*,

Lubuya, and *Toenayar*, and from the eugongyline genera *Caledoniscincus* and *Cryptoblepharus*.

We extracted genomic DNA using a salt-extraction protocol (Aljanabi and Martinez, 1997). Next, polymerase chain reactions (PCR) were performed to amplify portions of two mitochondrial loci and one nuclear locus commonly used in systematic studies. Mitochondrial loci included 16S ribosomal RNA (16S) and a locus containing the protein-coding gene NADH dehydrogenase subunit 2 (ND2) and transfer RNA genes tRNA (Ala), tRNA (Asx), tRNA (Cys), and tRNA (Tyr); the nuclear locus was recombination activation protein 1 (RAG1). Thermocycler profiles (PCR) and primers (PCR and sequencing) were the same as described in Weinell et al. (2019). Products of PCR amplification were confirmed using gel electrophoresis and cleaned using a magnetic bead solution (Rohland and Reich, 2012) before cycle sequencing using Big-Dye V3.1 chemistry. An additional magnetic bead clean up was performed before analyzing cycle sequencing on an ABI 3730xl sequencer at Villanova University.

We used Geneious v11.0.2 to assemble and edit novel sequences, MAFFT v7.310 (Katoh and Standley, 2013) to separately align sequences for each locus, and SeqKit v2 (Shen et al., 2016) to translate protein-coding regions to check for early stop codons and to trim and concatenate single-locus alignments. We calculated genetic distances between each pair of individuals at each locus (ignoring sites with ambiguous or missing data) using function 'stringDist' in R package Biostrings (Pagès et al., 2021), from which we calculated mean genetic distance at each locus for each pair of species. We filtered tRNA genes and other noncoding sites before calculating genetic distances for ND2.

Phylogenetic Relationships

To estimate phylogenetic relationships under maximum likelihood (ML), we used the program IQTREE v1.6.10 (Nguyen et al., 2015), with sites partitioned by locus and separately for protein-coding and noncoding regions of the locus containing ND2 and tRNAs. Best-fit substitution models were selected automatically for each partition by using the '-m TEST' option in IQTREE, which implements the program ModelFinder (Kalyaanamoorthy et al., 2017). Clade support values were estimated from 10000 ultrafast bootstraps (UFBoot), and we considered UFBoot ≥95 to be strong support for the monophyly of lineages (Minh et al., 2013; Hoang et al., 2018).

Morphological Methods

Specimens were measured with a digital caliper (0.1 mm), while lepidosis was observed with the help of a stereomicroscope. Scale nomenclature, scales counts, and measurements used in the descriptions follow Broadley (2000), Ceríaco (2015), Ceríaco et al. (2016a), and Marques et al. (2019a). We measured the following 21 characters: **SVL,** snout–vent length, from snout tip to vent; **TL,** tail length, from cloaca to tip of tail, measured only in specimens with complete, original tails; **HH,** head height, from base of maxilla to top of head; **HL,** head length, from tip of snout to anterior tympanum border; **HW,** head width, from lateral edge of left parietal to lateral edge of right parietal, above eyes; **EN,** eye-nostril distance, from anterior edge of eye to nostril; **ES,** eye-snout distance, from anterior edge of eye to tip of snout; **IN,** internostril distance, minimum distance between nostrils; **MSR,** number of scale rows at midbody; **SAD,** number of scales dorsally, from nuchal (excluded from count) to base of tail (above anal plate); **SAV,** number of scales ventrally, from mental (excluded from count) to anal plate (excluded from count); **LUFF,** number of subdigital lamellae under Finger-IV; **LUFT,** number of subdigital lamellae under Toe-IV; **SC,** number of supraciliaries; **SL,** number of supralabials, with those widened in subocular position indicated between parentheses; **CP,** type of contact between parietals; **CFP,** contact between frontoparietals; **CSN,** contact between supranasals; **CPF,** contact between prefrontals; **KDS,** number of keels on dorsal scales; and **PS,** type of plantar scales. Coloration pattern was reported and high-resolution photographs of preserved specimens were taken.

TABLE 1

Minimum Mean Pairwise Genetic Distance and Corresponding Species per Locus for *Trachylepis* Species Described Herein

See appendix SA2 for all pairwise genetic distances (https://doi.org/10.5531/sd.sp.TK).

Taxon	16S	ND2	RAG1
T. attenboroughi, sp. nov.	*T. spilogaster* (2.14%)	*T. wahlbergii* (12.03%)	*T. striata* (0.78%)
T. bouri, sp. nov.	*T. bocagii* (3.15%)	*T. bocagii* (11.91%)	*T. bocagii* (1.14%)
T. hilariae, sp. nov.	*T.* cf. *triebneri* (0.69%)	—	*T. variegata* (0.74%)
T. ovahelelo, sp. nov.	*T. vunongue*, sp. nov. (2.59%)	*T. vunongue*, sp. nov. (8.15%)	*T. ansorgii* (0.80%)
T. suzanae, sp. nov.	*T. wilsoni*, sp. nov. (1.90%)	*T. wilsoni*, sp. nov. (6.80%)	*T. wilsoni*, sp. nov. (0.90%)
Trachylepis vunongue, sp. nov.	*Trachylepis ovahelelo*, sp. nov. (2.59%)	*Trachylepis ovahelelo*, sp. nov. (8.15%)	*T. variegata* (0.38%)
T. wilsoni, sp. nov.	*T. suzanae*, sp. nov. (1.90%)	*T. suzanae*, sp. nov. (6.80%)	*T. suzanae*, sp. nov. (0.90%)

Specimens that were measured and scale counted are noted in Material Examined sections in the respective taxonomic accounts. Specimens that were physically examined (but not measured or scale counted) either directly by the authors, through photos, or by colleagues and whose taxonomic identification was unambiguous are listed under Additional Material sections in the same taxonomic accounts.

Additional Data

Locality data are reported in the form of decimal degrees and use the WGS 84 map datum. Older (non-GPS) records are derived mostly from Marques et al. (2018) and have been georeferenced using the GEOLocate web application (https://www.geo-locate.org). Elevations are all reported as meters above sea level. At the beginning of each account a list of name usages referring specifically to Angolan records of the given taxa, i.e., a "regional" chresonymy, is presented.

RESULTS

DNA Sequences

We generated new DNA sequences for 51 individuals from 20 species, including 51, 48, and 45 sequences at 16S, ND2, and RAG1 loci, respectively. After inclusion of previously published genetic data, the number of individuals sampled was 221 at the 16S locus, 97 at ND2, and 142 at RAG1 (see appendix SA2 in the online supplement: https://doi.org/10.5531/sd.sp.65). Our alignment with loci concatenated, which was used for phylogenetic analyses, included 221 individuals (208 individuals from 69 species and 1 nonnominate subspecies of *Trachylepis* and 13 individuals from outgroup lineages) and 3235 sites (550 sites from 16S; 1496 sites from locus containing ND2 and tRNA genes; and 1189 sites from RAG1). Percent of missing or ambiguous data in our alignment was 54.1% (in total), 12.82% (16S), 66.50% (ND2 and tRNAs), and 57.58% (RAG1). Among *Trachylepis* species, mean pairwise genetic distances ranged from 0%–11.18% for 16S, 6.67%–25.78% for ND2, and 0.24%–6.46% for RAG1 (table 1; appendix SA2 available online: https://doi.org/10.5531/sd.sp.65).

Phylogenetic Relationships

The set of best-fit substitution models included TIM3 (16S), TPM2 (ND2 protein-coding region), TPM3 (ND2 tRNA genes), and TN (RAG1), with nucleotide frequencies estimated, and with the invariable site plus discrete Gamma model (Gu et al., 1995) to account for rate heterogeneity across sites.

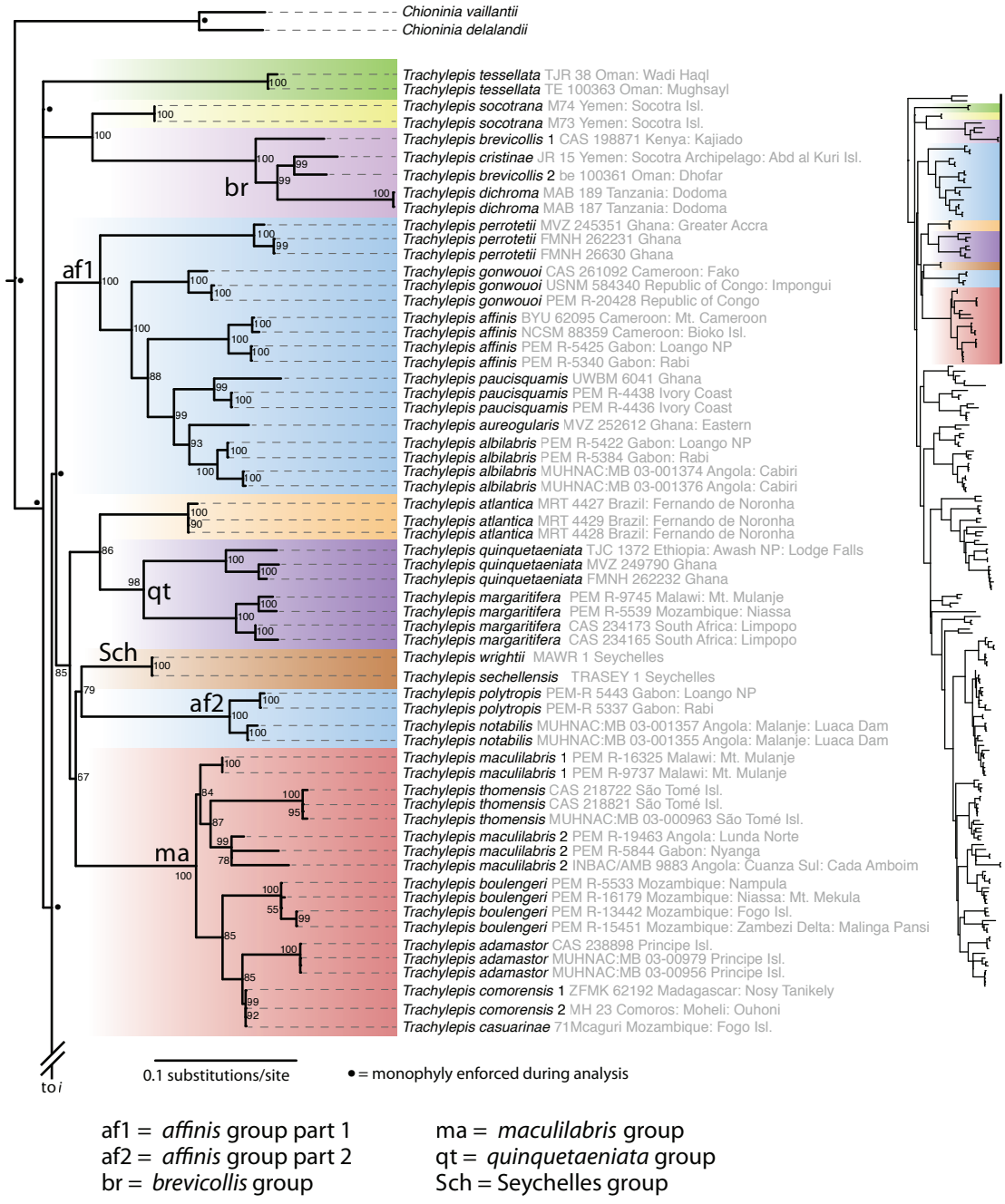
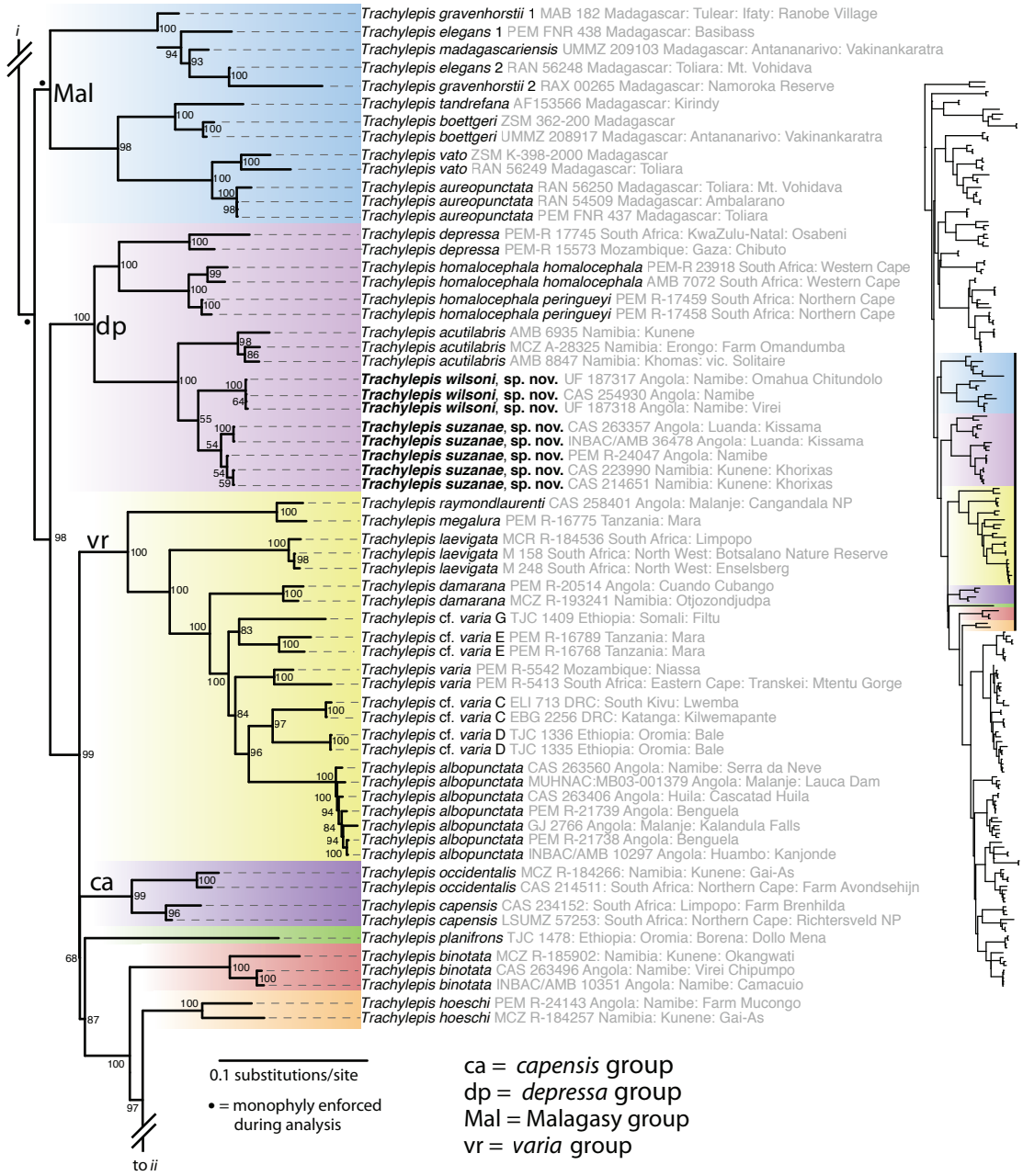
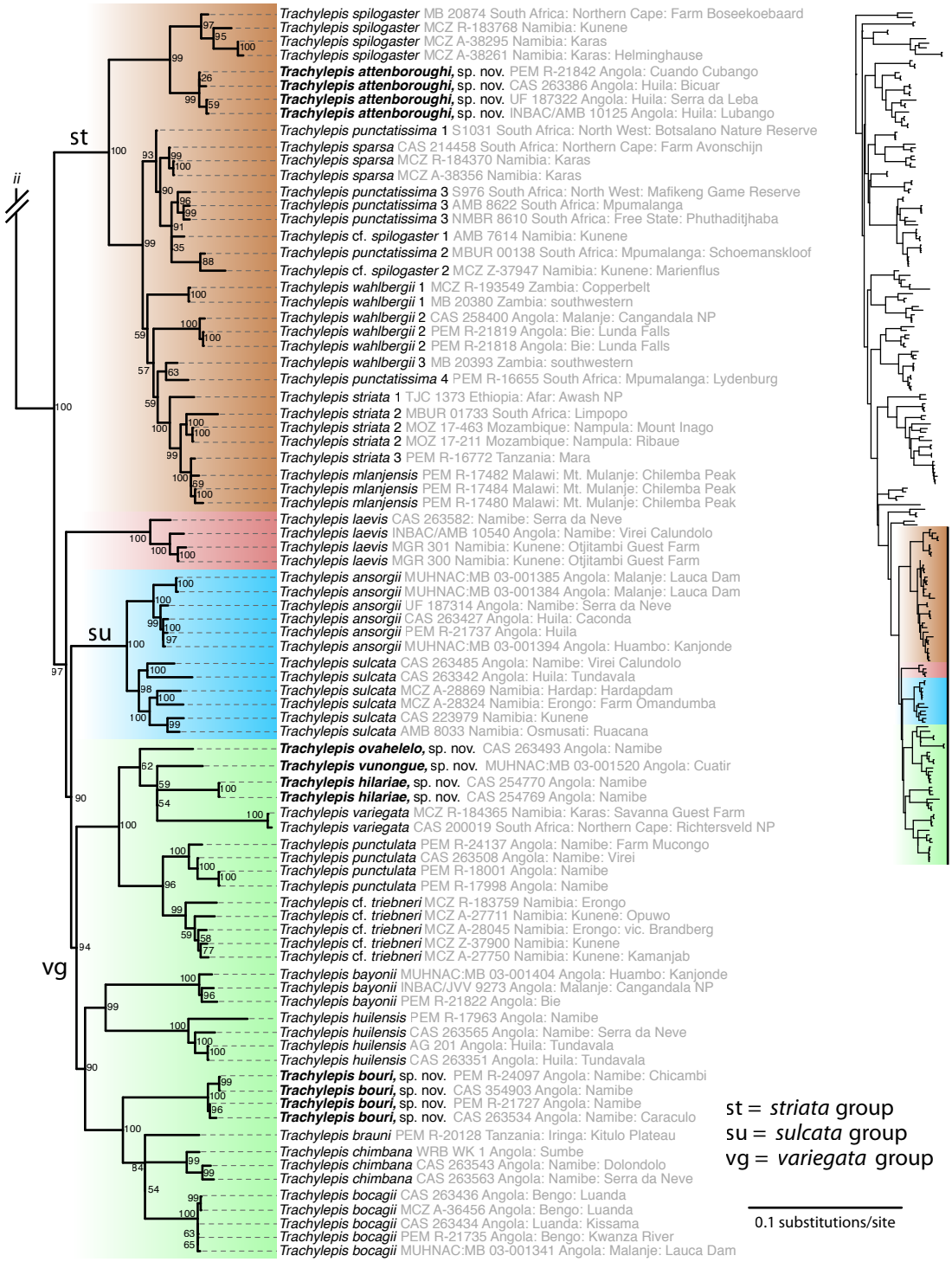


FIGURE 1. Bayesian inference phylogenetic tree (above and on next two pages; inset shows location on tree of enlarged section). Tip labels highlighted in green correspond to species described herein. Color and width of horizontal bars at internal nodes indicate clade support.





In our ML phylogeny (fig. 1), most lineages were strongly supported and most species were recovered as monophyletic. However, nine traditionally recognized species were recovered as paraphyletic, including *Trachylepis brevicollis*, *T. comorensis*, *T. elegans*, *T. gravenhorstii*, *T. maculilabris*, *T. punctatissima*, *T. spilogaster*, *T. striata*, and *T. wahlbergii*. With respect to new species that we describe in the Taxonomic Accounts section, phylogenetic analyses strongly supported *Trachylepis attenboroughi*, sp. nov., as sister to *T. spilogaster* (in part.). *Trachylepis wilsoni*, sp. nov., was recovered sister to *Trachylepis suzanae*, sp. nov., with strong support, and these two species were together recovered as the sister lineage to *T. acutilabris*. *Trachylepis bouri*, sp. nov., was strongly supported and recovered as the sister lineage to the lineage comprising *T. bocagii*, *T. brauni*, and *T. chimbana*. *Trachylepis ovahelelo*, sp. nov., *Trachylepis vunongue*, sp. nov., and *Trachylepis hilariae*, sp. nov., are monophyletic groups, closely related to *T. variegata*, and the group composed by these four taxa is sister to the group composed by *T. punctulata* and *T.* cf. *triebneri*. Some relationships depicted in figure 1 should be treated with skepticism. We did not examine the specimens associated with *T. wrightii* and *T. seychellensis* or the Madagascan members of the genus, so the identity of the sequenced individuals is in question. Finally, relationships within the *T. striata* group should not be considered definitive, and a separate revision of this difficult group is in preparation (Portik et al., in prep.).

Morphology

Mensural and meristic data for the studied species are presented in table 2. The 25 *Trachylepis* species occurring in Angola differ from each other and from other congeners in several consistent morphological characters. Detailed diagnoses for each species are provided in the taxonomic accounts below. Diagnoses are based only on the Angolan populations.

Species Concept

Combining the morphological and molecular evidence presented above, we adopt the general lineage species concept (de Queiroz, 1999) and recognize the 25 species of *Trachylepis* occurring in Angola.

TAXONOMIC ACCOUNTS

Trachylepis albilabris (Hallowell, 1857)—Guinea Skink

Figures 2, 3, plate 1

Euprepes albilabris Hallowell, 1857: 51. Holotype: ANSP (specimen number unknown, lost fide Uetz et al., 2022) collected by Ford. Type locality: "Gaboon."
Euprepes Blandingii: Bocage (1866a: 44); Peters (1877: 614).
Mabuia Raddonii: Bocage (1895: 40).
Mabuia raddonii: Boulenger (1887: 165).
Mabuya radoni: Ferreira (1903: 14); Parker (1936: 138); Hellmich (1957b: 55).
Trachylepis affinis: Marques et al. (2018: 253); Branch et al. (2019a: 318).
Trachylepis cf. *affinis*: Ernst et al. (2020: 242).

Previous records of this species in Angola have been attributed to "*Euprepes blandingii*," "*Mabuya raddonii*," or *Trachylepis affinis* (see chresonymy above). This is illustrative of the difficulties surrounding the taxonomy of the *Trachylepis affinis* species complex (which includes the synonyms *T. raddonii* and *T. blandingii*) and its resembling regional congeners, which have already been highlighted by several authors, including Hoogmoed (1974) and Allen et al. (2017, 2019). The confusion between *T. albilabris* and *T. affinis* dates back to the 19th century, but the debate about the species identity continued into the mid-20th century, with authors such as Boulenger (1887), Schmidt (1919), Chabanaud (1921), Loveridge (1936), and Manaças (1951) considering *T. albilabris* as a synonym of *T. affinis* (or of its current synonyms). Hoogmoed

TABLE 2

Morphological and Meristic Comparisons between Angolan *Trachylepis*

Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages (data presented as [Min.–Max.]). Type of contact between head shields coded as follows: in contact (C), in contact at a single point (SPC), separated (S), fused (F)

	Trachylepis albilabris (*N* = 13)	*Trachylepis albopunctata* (*N* = 41)	*Trachylepis ansorgii* (*N* = 26)	*Trachylepis attenboroughi*, sp. nov. (*N* = 24)	*Trachylepis bayonii* (*N* = 10)	*Trachylepis binotata* (*N* = 11)	*Trachylepis bocagii* (*N* = 12)
SVL	56.2–75.8	31.2–62.5	41.7–98.9	51.4–79.4	50.2–83.0	56.5–134.3	35.7–76.3
TL	78.0–131.8	61.4–111.4	70.2–159.1	64.2–111.9	79.1–131.3	65.0–123.0	52.7–92.1
HW	7.5–10.6	5.3–8.3	6.4–15.0	8.0–12.1	7.4–11.3	9.0–25.3	5.6–9.9
HH	6.2–8.2	3.2–6.2	3.9–10.6	4.8–8.6	5.8–8.3	6.7–17.9	3.7–7.4
HL	12.0–15.4	8.0–13.2	10.6–20.3	13.1–19.4	10.4–15.6	13.5–31.3	9.9–14.9
IN	1.8–3.0	0.8–2.4	1.4–4.3	1.8–2.6	1.5–2.5	2.0–4.5	1.3–2.3
EN	3.0–5.0	1.8–4.3	3.3–7.6	2.8–5.8	2.6–4.6	5.0–10.7	2.2–4.8
ES	4.2–5.8	3.3–5.6	4.0–9.6	4.5–7.3	4.0–6.5	5.8–14.2	3.2–6.1
TL/SVL	105–215	106–204	102–178	94–162	123–193	87–138	109–154
HL/SVL	19–22	17–26	18–25	18–27	14–25	21–26	17–28
ES/HL	30–41	49–70	35–52	30–46	32–54	35–48	32–45
HW/HL	63–72	57–80	48–85	58–81	60–96	59–82	57–77
LUFT	13–15	17–26	18–24	17–22	15–16	17–22	21–27
LUFF	9–13	13–18	13–18	13–18	12–13	14–17	13–20
MSR	31–36	31–38	38–45	34–40	28–35	34–42	36–41
SAD	46–48	41–49	50–55	52–57	50–56	51–60	55–61
SAV	47–54	50–59	54–64	53–61	58–61	59–72	58–67
KDS	3–4	3–4	3–6	3–4	3–7	3–5	3–5
SC	6–7	5–6	5	5	4–5	5–6	4–6
SL	7	7–8	7–8	8 (rarely 7)	8 (rarely 9)	8 (rarely 7)	8 (rarely 9)
PS	Smooth	Spinose	Spinose	Spinose	Smooth	Smooth	Spinose

TABLE 2 *continued*

	Trachylepis albilabris (*N* = 13)	*Trachylepis albopunctata* (*N* = 41)	*Trachylepis ansorgii* (*N* = 26)	*Trachylepis attenboroughi*, sp. nov. (*N* = 24)	*Trachylepis bayonii* (*N* = 10)	*Trachylepis binotata* (*N* = 11)	*Trachylepis bocagii* (*N* = 12)
CP	Usually S (*N* = 9) or SPC (*N* = 3), rarely C (*N* = 1)	Usually C (*N* = 29) or SPC (*N* = 2), sometimes S (*N* = 8)	Usually S (*N* = 9) or SPC (*N* = 16), rarely C (*N* = 1)	Usually C (*N* = 18) or SPC (*N* = 3), rarely S (*N* = 3)	Usually S (*N* = 8), rarely C (*N* = 1) or SPC (*N* = 1)	Usually S (*N* = 8), rarely SPC (*N* = 2)	Usually C (*N* = 11), rarely SPC (*N* = 1)
CFP	Always C	Always C	Always C	Always C, rarely SPC (*N* = 1)	Always F	Always C	Always C
CSN	Usually S (*N* = 12), rarely SPC (*N* = 1)	Usually C (*N* = 24) or SPC (*N* = 4), sometimes S (*N* = 10)	Usually C (*N* = 25) or SPC (*N* = 1)	Always C, rarely SPC (*N* = 1)	Always C	Always C	Always C
CPF	Always C	Usually S (*N* = 35) rarely C (*N* = 1) or SPC (*N* = 2)	Usually S (*N* = 20) or SPC (*N* = 3), sometimes C (*N* = 3)	Usually S (*N* = 17) or SPC (*N* = 4), sometimes C (*N* = 3)	Usually S (*N* = 8), rarely C (*N* = 2)	Usually C (*N* = 10), rarely S (*N* = 1)	Usually S (*N* = 9), SPC (*N* = 3)

TABLE 2 (continued)

	Trachylepis bouri, sp. nov. (*N* = 6)	*Trachylepis chimbana* (*N* = 16)	*Treachylepis damarana* (*N* = 12)	*Trachylepis hilariae*, sp. nov. (*N* = 4)	*Trachylepis hoeschi* (*N* = 3)	*Trachylepis huilensis* (*N* = 10)	*Trachylepis laevis* (*N* = 7)
SVL	40.5–56.3	34.5–56.0	45.6–56.2	32.8–43.1	59.1–76.5	42.0–60.4	40.6–63.0
TL	40.5–54.0	44.1–80.1	72.1–93.0	47.0–55.3	105.9–114.0	65.0–89.0	65.6–100.0
HW	5.6–8.5	5.2–8.1	6.3–8.2	4.7–5.9	10.6–13.5	6.2–8.6	5.7–9.7
HH	4.1–6.4	3.5–6.1	4.2–5.7	3.3–4.1	7.0–8.6	4.6–6.3	2.9–4.2
HL	9.2–13.7	8.3–13.3	9.3–11.5	7.9–8.9	14.4–18.4	9.4–12.9	9.9–15.2
IN	1.2–1.9	1.2–1.8	1.5–1.8	1.0–1.2	1.8–2.3	1.4–1.8	0.8–2.2
EN	3.5–4.6	2.4–3.7	3.4–6.8	2.4–2.7	4.9–5.6	2.5–3.9	2.4–3.9
ES	4.1–6.8	3.2–5.6	4.8–5.7	3.3–3.6	6.0–7.4	4.1–5.2	4.1–5.8
TL/SVL	132–176	102–173	150–184	109–162	145–179	112–172	119–202
HL/SVL	22–26	18–25	20–22	21–25	24–25	20–25	21–25
ES/HL	40–50	33–50	47–55	40–43	37–42	35–45	35–45
HW/HL	59–66	61–76	62–71	58–66	69–74	60–73	58–66

TABLE 2 *continued*

	Trachylepis bouri, sp. nov. (*N* = 6)	*Trachylepis chimbana* (*N* = 16)	*Treachylepis damarana* (*N* = 12)	*Trachylepis hilariae*, sp. nov. (*N* = 4)	*Trachylepis hoeschi* (*N* = 3)	*Trachylepis huilensis* (*N* = 10)	*Trachylepis laevis* (*N* = 7)
LUFT	21–23	18–24	14–17	21–22	18–19	16–18	19–22
LUFF	15–17	15–17	19–24	15–16	13–15	12–14	15–16
MSR	36–38	33–39	31–34	29–30	33	34–39	30–33
SAD	50–54	49–56	40–43	46–48	43–48	51–56	49–53
SAV	54–60	55–63	50–55	58	55–62	55–66	56–57
KDS	5	4–5	3–4	5	3	3–5	Smooth
SCL	5	5	4–5	5	5–6	3–4	4–5
SL	8–9	8 (rarely 9)	7	8	10	8	9 (rarely 8)
PS	Spinose	Spinose	Spinose	Spinose	Smooth	Smooth	Smooth
CP	Always C	Usually C (*N* = 12) or SPC (*N* = 3), rarely S (*N* = 1)	Always SPC	Always C	Always S	Usually C (*N* = 7), sometimes SPC (*N* = 3)	Always C
CFP	Always C	Always C	Always C	Always C	Always C	Always C	Always C
CSN	Always C	Always C	Usually C (*N* = 10) or SPC (*N* = 2),	Always C	C (*N* = 2) or SPC (*N* = 1)	Always C	Always S
CPF	Usually S (*N* = 5), rarely C (*N* = 1)	Always S	Usually SPC (*N* = 9) or C (*N* = 1), rarely S (*N* = 2)	Always S	Always S	Always S	Always S

TABLE 2
(continued)

	Trachylepis maculilabris (*N* = 20)	*Trachylepis notabilis* (*N* = 6)	*Trachylepis occidentalis* (*N* = 5)	*Trachylepis ovahelelo*, sp. nov. (*N* = 1)	*Trachylepis punctulata* (*N* = 20)	*Trachylepis raymondlaurenti* (*N* = 17)[a]	*Trachylepis sulcata* (*N* = 41)
SVL	44.2–91.9	45.1–97.9	44.4–110.7	37.3	35.7–48.5	46.9–80.0	39.5–87.9
TL	89.9–201.3	91.0–189.2	57.2–185.0	70.9	50.0–78.0	126.1–215.8	51.2–150.0
HW	6.1–15.0	7.6–16.3	7.7–17.7	5.8	4.5–7.0	5.9–8.6	6.6–14.7
HH	4.4–10.6	5.3–11.4	4.9–12.0	3.3	3.2–5.1	4.8–7.0	3.9–10.1
HL	9.0–21.3	11.2–22.4	11.7–25.9	8.0	8.8–12.2	9.2–13.1	9.7–20.2
IN	1.6–3.0	2.3–3.7	1.6–3.4	0.9	1.0–2.0	1.8–2.6	1.4–3.5
EN	2.3–5.2	3.0–6.5	3.6–6.2	2.5	2.5–3.4	2.5–3.7	2.6–6.1

TABLE 2 *continued*

	Trachylepis maculilabris (*N* = 20)	*Trachylepis notabilis* (*N* = 6)	*Trachylepis occidentalis* (*N* = 5)	*Trachylepis ovahelelo*, sp. nov. (*N* = 1)	*Trachylepis punctulata* (*N* = 20)	*Trachylepis raymondlaurenti* (*N* = 17)[a]	*Trachylepis sulcata* (*N* = 41)
ES	3.4–7.6	4.4–10.1	5.0–9.6	3.2	3.2–4.8	4.1–5.7	3.6–8.9
TL/SVL	135–249	109–195	77–183	190	128–184	192–331	99–193
HL/SVL	16–25	20–25	22–26	21	21–27	16–20	19–28
ES/HL	28–47	35–50	33–44	40	34–47	19–32	25–39
HW/HL	56–82	64–81	66–74	73	51–75	62–69	55–92
LUFT	12–19	13–18	18–24	18	21–24	15–17	20–27
LUFF	10–15	11–15	13–16	14	12–18	10–13	16–21
MSR	32–40	31–38	30–34	34	28–35	24–28	33–42
SAD	47–62	49–59	45–50	43	42–50	48–53	48–58
SAV	50–66	50–60	56–58	53	46–60	50–58	57–68
KDS	3–6	4–5	3	5	3–5	Smooth	3–7 (usually 5)
SCL	4–7	5–6	5	5	4–6	5	4–6
SL	7	7 (rarely 8)	7 (rarely 10)	7	8 (rarely 7)	7–8	6–9
PS	Smooth	Smooth	Smooth	Spinose	Spinose	Smooth	Spinose
CP	Usually C (*N* = 16) or SPC (*N* = 3), rarely S (*N* = 1)	Usually S (*N* = 4), rarely C (*N* = 2)	S (*N* = 3) or SPC (*N* = 2)	C	Usually C (*N* = 17) or SPC (*N* = 3)	Usually S (*N* = 15), rarely C (*N* = 1) or SPC (*N* = 1)	Usually C (*N* = 15) or SPC (*N* = 16), sometimes S (*N* = 9)
CFP	Always C	Always C	Always C	C	Always C	Always C	Always C
CSN	Usually C (*N* = 7) or SPC (*N* = 9), rarely S (*N* = 4)	Usually C (*N* = 4) or SPC (*N* = 2)	Always C	C	Always C	Usually S (*N* = 16), rarely C (*N* = 1)	Usually C, rarely S (*N* = 4)
CPF	Usually C (*N* = 13) or SPC (*N* = 3), rarely S (*N* = 4)	Always C	Usually S (*N* = 4), rarely C (*N* = 1)	S	Always S	Usually S (*N* = 12[b]), sometimes C (*N* = 5)	Usually S, rarely C (*N* = 6)

[a]Data from Marques et al. (2019).
[b]Separated by additional median scale in two specimens.

TABLE 2 *continued*

TABLE 2
(continued)

	Trachylepis suzanae, sp. nov. (*N* = 16)	*Trachylepis vunongue*, sp. nov. (*N* = 10)[c]	*Trachylepis wahlbergii* (*N* = 20)	*Trachylepis wilsoni*, sp. nov. (*N* = 26)
SVL	41.6–62.25	max. 46.0	31.6–85.8	38.6–57.3
TL	60.8–110.3	max 63.0	47.5–113.7	60.3–91.1
HW	6.2–9.8	5.4–6.2	5.6–13.0	6.0–8.7
HH	4.5–7.4	3.9–5.0	3.7–9.5	4.3–6.1
HL	10.6–15.1	8.1–9.4	8.3–19.0	8.2–12.6
IN	1.5–2.4	0.8–1.5	1.3–3.0	1.2–2.5
EN	3.5–4.8	2.0–3.0	2.4–5.7	2.2–4.8
ES	4.6–6.7	3.4–3.9	3.2–7.6	3.5–5.3
TL/SVL	146–167	111–152	117–155	109–197
HL/SVL	25–27	20–24	19–27	21–25
ES/HL	39–43	37–43	34–49	38–49
HW/HL	58–70	63–70	56–78	58–76
LUFT	19–26	15–22	15–18	22–26
LUFF	12–15	9–14	12–15	15–17
MSR	28–31	30–35	35–40	29–33
SAD	43–49	40–52	46–55	48–52
SAV	48–57	45–55	53–63	52–57
KDS	3–4	5	3–4	2–4
SCL	4–7	4–6	4–7	5
SL	7 (rarely 6)	7–8 (rarely 9)	8 (rarely 7 or 9)	8
PS	Spinose	Spinose	Spinose	Spinose
CP	Usually C	C or SPC	Usually S (*N* = 14), rarely C (*N* = 1) or SPC (*N* = 1)	Usually C (*N* = 21), rarely S (*N* = 1)
CFP	C	C	Always C	Always C
CSN	Usually C	C	Always C	Always C
CPF	Usually S	S	Usually S (*N* = 11) or SPC (*N* = 4), rarely C (*N* = 1)	Always S

[c]Data from Conradie et al. (2022) and the type series, including non-Angolan material.

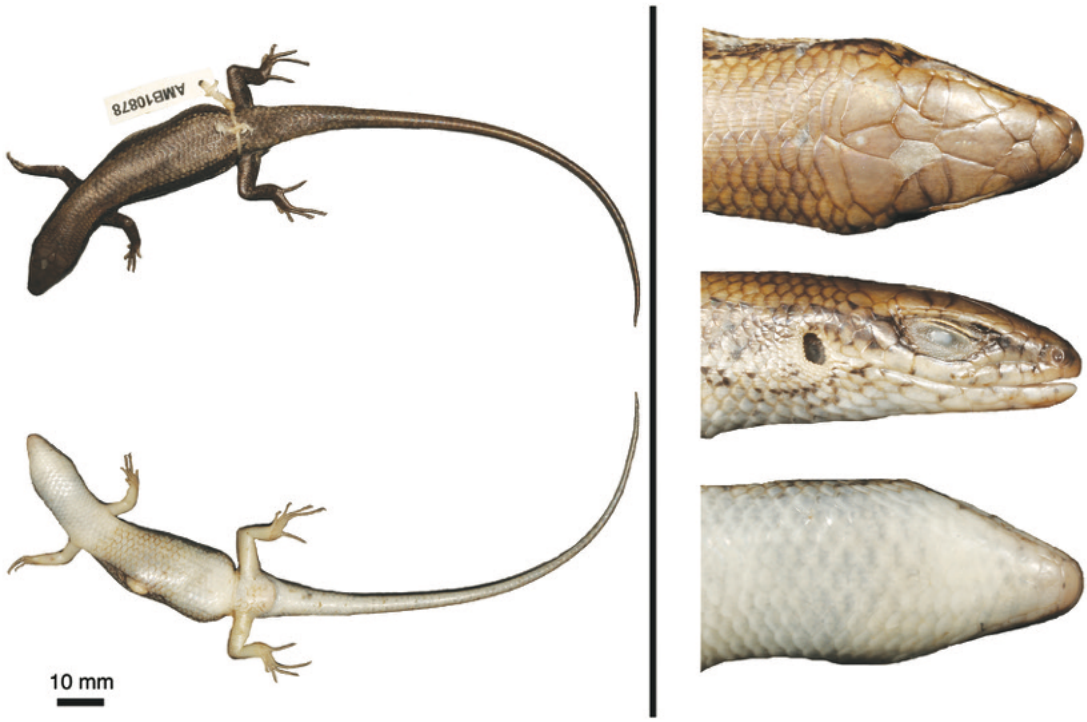


FIGURE 2. Specimen of *Trachylepis albilabris* from Cabiri, Bengo Province (MUHNAC/MB03 1374). Photos by L.M.P.C.

(1974) was the first to consider *T. albilabris* as a valid species, different from the *T. affinis* species complex. This was recently confirmed by Allen et al. (2017) and Weinell et al. (2019) through molecular data. *Trachylepis albilabris* was originally described from "Gaboon" (Hallowell, 1857), and its distribution ranges from Guinea eastward to Uganda and southward to Angola (Hoogmooed, 1974; Kingdon and Spawls, 2010; Allen et al., 2017, 2019; this paper). Our molecular and morphological data allow us to correct the historical misidentification of this species in Angola. *Trachylepis albilabris* is a representative of the central/western African clade of the genus (Weinell et al., 2019), historically recorded in the northwestern areas of the country by several authors (Peters, 1877; Bocage, 1895; Ferreira, 1903; Parker, 1936; Hellmich, 1957b) and recently collected in Bengo (this paper) and Uíge provinces (Ernst et al., 2020; this paper), where the habitat presents a southern continuation of the Congolese habitats and biomes.

Diagnosis: A medium-sized skink (max. SVL 75.8 mm, MUHNAC/MB03-001371), with fully developed, pentadactyl limbs (figs. 2, 3); dorsal scales tricarinate to quadricarinate; ventral scales smooth; 47–54 SAV; 46–48 SAD [43–49 in extralimital populations; see Hoogmoed, 1974]; 31–36 MSR [27–32 in extralimital populations; see Allen et al., 2019]; lamellae beneath fingers and toes smooth; plantar scales smooth; 13–15 LUFT [up to 18 in extralimital populations; see Hoogmoed, 1974], 9–13 LUFF [up to 15 in extralimital populations; see Hoogmoed, 1974]; supranasals usually separated; parietals usually separated; prefrontals always in contact; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear open-

FIGURE 3. Life photo of *Trachylepis albilabris* from Serra Pingano, Uíge Province (MUHNAC/MB03-001369). Photo by L.M.P.C.

ing vertically ovoid and smaller than the eye; lacking subtriangular auricular scales on the anterior margin of the ear opening. Seven SL, the fifth subocular; six to seven supracilliaries, the third usually longest; nostril oriented laterally. Dorsum olive-brown with dark flecks; a dark brown lateral band running from the snout to the hind limb insertion, bordered below by a white stripe, followed by brownish coloration on the lower flank. Top of head uniform brown; labials white to grayish, sometimes brownish on the upper margin of supralabials. Scales of the venter yellowish or white, without markings. Some specimens present dark speckling on the chin and gular area. There is often a yellowish to orange patch near the forelimb insertion.

Material Examined: **Bengo Province:** dirt road to Cabiri, in a small, forested area on the left side of the road [-8.8710°, 13.6057°, 13.5 m] (MUNHAC/MB03-001373–001376). **Uíge Province:** Ponte village, roads through farms [-7.6729°, 14.9339°, 631 m] (MUHNAC/MB03-001365–1370, 001521); Camp site near water pump, E of Ponte village [-7.6829°, 14.9340°, 774 m] (MUHNAC/MB03-001371, 001372).

Additional Material: **Kwanza Sul Province:** Roça Canzele, 30 km W of Camabatela [-8.1830°, 15.0940°, 718 m] (FMNH 74303, 74304, 74306, 74307, 74309, 74311; MCZ R-110306); 30 km S of Gabela [-11.0982°, 14.3342°, 1022 m] (FMNH 74310); Congulu [-10.8667°, 14.2833°, 639 m] (MCZ R-112221; BMNH 1936.8.1.601–611). **Malanje Province:** 16 km W of Lucala [-8.9116°, 15.8044°, 1167 m] (TM 45495). **Uíge Province:** University Campus, Kimpa Vita [-7.6176°, 15.0654°, 835 m] (MTD 48611, 48928, 48931, 49784).

Historical Localities (no extant specimens): **Cabinda Province:** "Chinchoxo" (côte d'Loango) [-5.1000°, 12.1000°, 45 m] (Peters, 1877; Bocage, 1895). **Huíla Province:** Caconda [-13.3333°, 15.0667°, 1644 m]

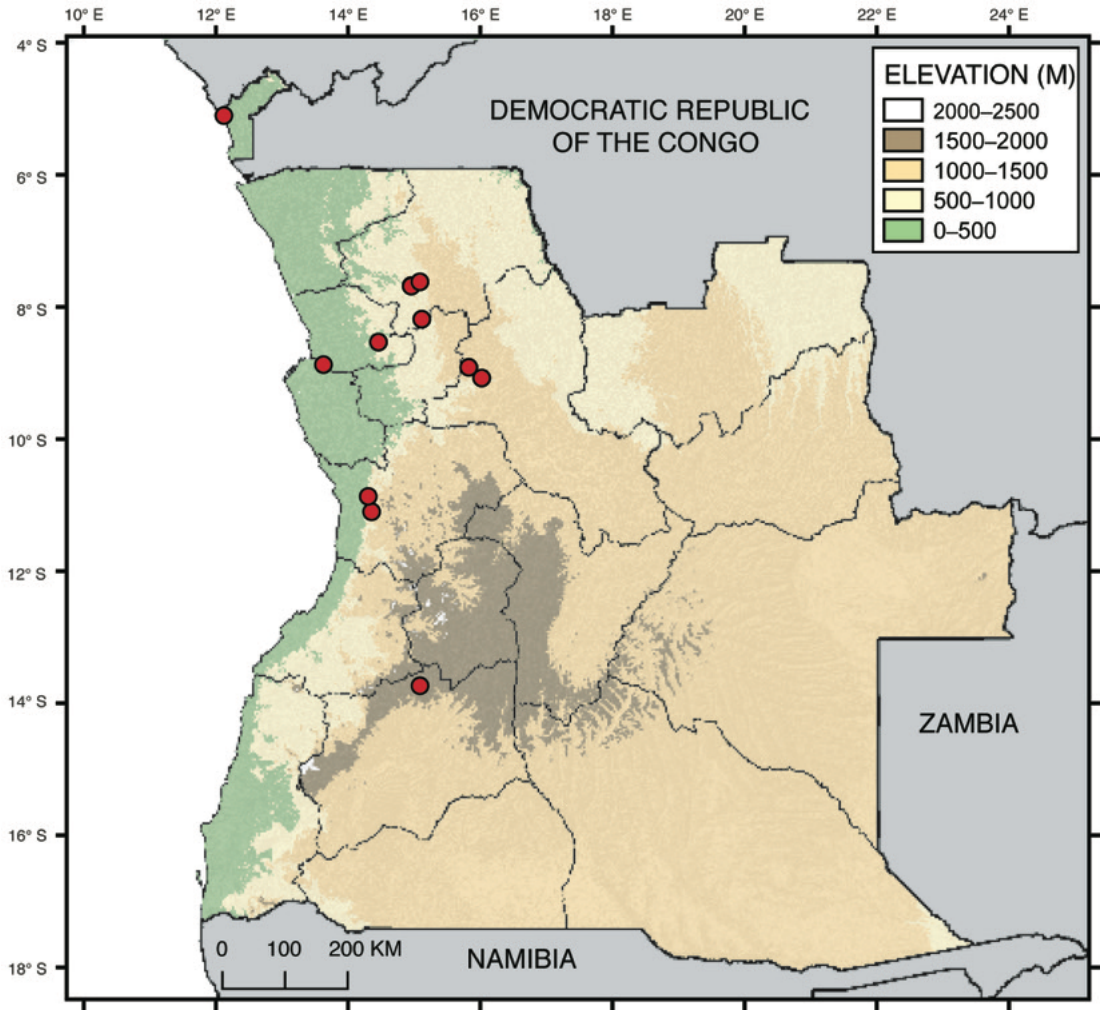


FIGURE 4. Distribution of *Trachylepis albilabris* in Angola.

(Bocage, 1895). **Kwanza Norte Province:** "Piri-Dembos" [-8.5299°, 14.4377°, 712 m] (Hellmich, 1957b). **Malanje Province:** Duque de Bragança [-9.0740°, 15.9999°, 1065 m] (Ferreira, 1903).

Distribution in Angola: The species is distributed in the northwestern regions of Angola, from the Cabinda enclave southward to Huíla Province, along the more forested areas and escarpment regions (fig. 4).

Global Distribution: A central African species, occurring from Gabon southward to Angola.

Habitat and Natural History Notes: The species is found in humid habitats, with mosaics of forest and savannah (Grandvaux-Barbosa, 1970; fig. 5). Ernst et al. (2020) reported that the species was frequently associated with degraded forest or forest-edge habitats in Serra Pingano, Uíge Province. This observation is in line with our own recent observations of the species in Cabiri and Serra Pingano. The species is usually sympatric with *T. maculilabris*. It is quite active during the day, sometimes seen basking on tree trunks and shrubby vegetation. In the localities where it exists, it is very common and abundant.

FIGURE 5. Typical habitat of *Trachylepis albilabris* in Serra Pingano, Uíge Province. Photo by L.M.P.C.

Trachylepis albopunctata (Bocage, 1867)—Angolan Variable Skink

Figures 6, 7, plate 1

Euprepes Oliveiri var. *albo-punctatus* Bocage 1867a: 223. Neotype [here designated]: An unsexed adult (CAS 258379, field number JVV 9180), collected by Luis M.P. Ceríaco, Mariana P. Marques, Suzana A. Bandeira, Jens V. Vindum, and Edward L. Stanley on 14 September 2016. Type locality: Cangandala National Park, Malanje Province, central Angola [-9.8546°, 16.7100°, 1104 m].

Euprepes angolensis Bocage 1872: 78. Neotype [here designated]: The same specimen as the neotype for *Euprepes Oliveiri* var. *albo-punctatus*. Type locality: Cangandala National Park, Malanje Province, central Angola [-9.8546°, 16.7100°, 1104 m].

Mabuia varia: Boulenger (1887: 202; 1905: 111); Bocage (1895: 43, 1896: 111).

Mabuya acutilabris [part]: Schmidt (1919: 551).

Mabuya varia [part]: Schmidt (1933: 12); Monard (1937: 87); Mertens (1938: 437); Parker (1936: 128); Laurent (1964: 72); Branch (1998: 157).

Mabuya varia varia: Hellmich (1957a: 66, 1957b: 57); Loveridge (1957: 212).

Trachylepis varia: Ceríaco et al. (2016b: 31; 2016c: 67); Conradie et al. (2016: 26).

Trachylepis varia Clade B: Weinell and Bauer (2018: 107).

Trachylepis cf. *albopunctata*: Marques et al. (2018: 254); Branch et al. (2019a: 319).

Trachylepis albopunctata: Butler et al. (2019: 233); Baptista et al. (2019: 109); Santos et al. (2021: 23); Conradie et al. (2022: 201).
Trachylepis varia complex: Ceríaco et al. (2020a: 403).

Trachylepis albopunctata is probably one of the most widely distributed species of the genus in the country (Marques et al., 2018) but, at the same time, one of the species for which taxonomic and nomenclatural history is most complex. Long considered part of the *Trachylepis varia* species complex, with which it was synonymized by the majority of authors who historically dealt with it in Angola, the species was only recently reinstated to full species level by Weinell and Bauer (2018). The species was originally described by Bocage (1867a) as a variety of *Euprepes olivieri* (currently *Heremites vittatus* (Olivier, 1804)), based on "several specimens from Benguella and Catumbella" (currently Benguela and Catumbela towns, respectively), Benguela Province. The author provided a detailed (by mid-19th century standards) description of the species, focusing especially on coloration pattern (Bocage, 1867a). A few years later, Bocage (1872) described *Euprepes angolensis* based on two specimens from "Biballa" and three specimens from "Dondo," currently Bibala and Dondo in Namibe and Kwanza Norte provinces, respectively. This description was considerably more detailed than the former, but, in general its characters agreed entirely with his own *E. o.* var. *albo-punctatus* and, in Bocage's own words, was similar to "*E. damaranus*" (currently *Trachylepis damarana*). In his major revision of Angolan herpetofauna, Bocage (1895) opted to synonymize both *albo-punctatus* and *angolensis* with *Mabuia* (currently *Trachylepis*) *varia*. For more than 120 years, all subsequent authors that have dealt with this species in Angola (Bocage, 1896; Schmidt, 1933; Parker, 1936; Monard, 1937; Mertens, 1938; Hellmich, 1957a, 1957b; Loveridge, 1957; Laurent, 1964; Branch, 1998; Ceríaco et al., 2016a, 2016b; Conradie et al., 2016) followed the decision of Bocage (1895) in identifying the species as *varia*. Schmidt (1919), however, confounded some specimens of this species from northern Angola with *Mabuya acutilabris* (now *T. suzanae*; see account below). Only recently, based on a phylogenetic revision of the *T. varia* species complex, Weinell and Bauer (2018) showed evidence that the Angolan populations likely constitute a distinct taxon, suggesting that the names *albopunctata* and/or *angolensis* would possibly be available for the Angolan lineage. This led subsequent authors to adopt the oldest nomen, *albopunctata*, as the applicable name for the Angolan representatives of the *T. varia* complex (Marques et al., 2018; Baptista et al., 2019; Branch et al., 2019a; Butler et al., 2019). However, as noted by Weinell and Bauer (2018) and Marques et al. (2018), the situation is nomenclaturally unstable primarily because of the loss of the type material of both Bocage's *albopunctata* and *angolensis*, and the secondary homonymy of *Mabuia angolensis*, erected by Monard (1937) to describe a putative new species within the *T. striata*/*wahlbergii* species complex (see account of *T. monardi*, comb. nov., in Marques et al., 2018, and that of *T. wahlbergii* in this paper for further details). The only sensible solution to stabilize the nomenclature of the group is to designate neotypes for both nomina—*albopunctata* and *angolensis*. Following the original opinion of Bocage (1895) and considering that the distribution of our samples across Angola largely corresponds to the type localities of both nomina, we opt to designate the same neotype for both *albopunctata* and *angolensis*, rendering the latter an objective junior synonym of the former.

Diagnosis: A medium-sized skink (max. SVL 62.5 mm, CAS 258389; max. SVL of extralimital populations 65 mm, see Weinell and Bauer, 2018), with fully developed, pentadactyl limbs (figs. 6, 7); dorsal scales tricarinate or quadricarinate; ventral scales smooth; 50–59 SAV; 41–49 SAD; 31–38 MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 17–26 LUFT, 13–18 LUFF; supranasals usually in contact, but sometimes separated; parietals usually in contact,

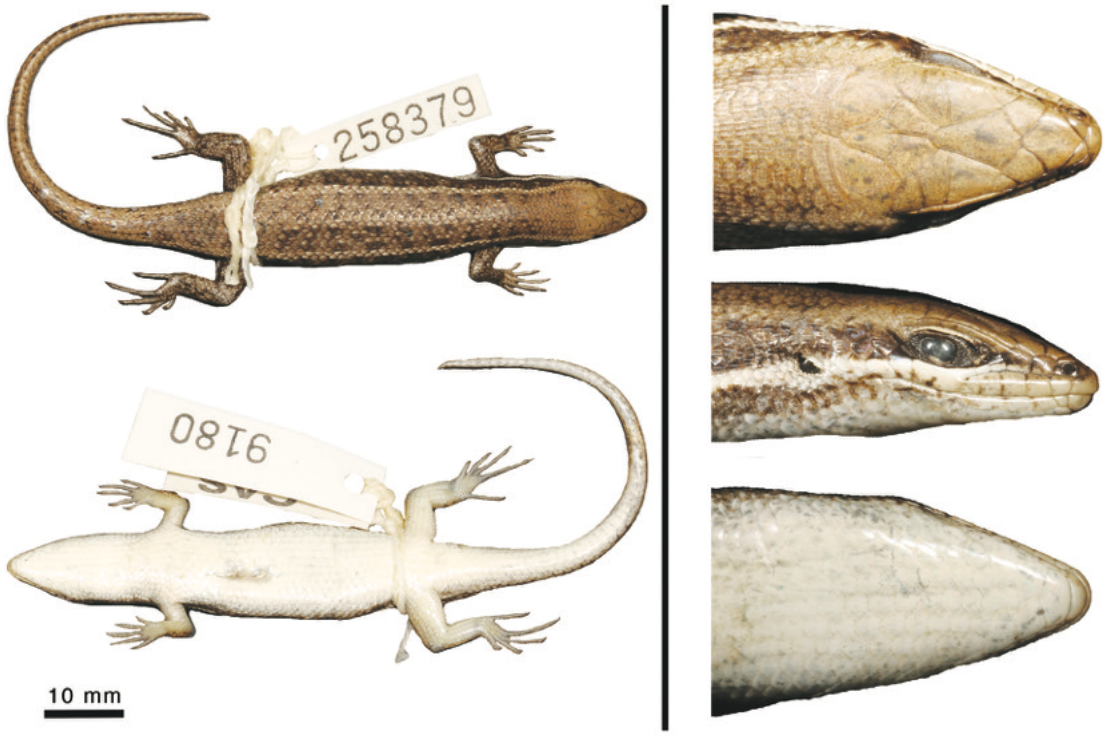


FIGURE 6. Neotype of *Trachylepis albopunctata* from Cangandala National Park, Malanje Province (CAS 258379). Photos by L.M.P.C.

but sometimes separated; prefrontals usually separated, rarely in contact; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; 2–4 subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually eight (rarely seven), the sixth being subocular; usually five supracilliaries, the second notably longer; nostril oriented laterally. Dorsum olive brown, with a pair of faint pale dorsolateral stripes; between the stripes there is usually heavy white and black speckling, the latter with tendency to form transverse bars starting behind the neck and extending through the tail; there may also be an indistinct pale vertebral stripe. A bright white lateral stripe, usually bordered with black, starts at the subocular and extends through the flank to the hind limb insertion; a black stripe starts at the nostril and usually becomes more reticulated posteriorly, often forming irregular blotches or vertical bars on the upper flanks. Limbs variegated above, with irregular dark and pale speckles. Top of head uniform brown or with diffuse dark stippling; labials white, sometimes with dark vertical bars on the posterior margin. Venter white to bluish without markings.

Neotype [for both *Euprepes Oliveiri* var. *albo-punctatus* Bocage, 1867, and *Euprepes angolensis* Bocage, 1872]: An unsexed adult (CAS 258379, field number JVV 9180; fig. 6) collected at Cangandala National Park, Malanje Province, central Angola [-9.8546°, 16.7100°, 1104 m], by Luis M.P. Ceríaco, Mariana P. Marques, Suzana A. Bandeira, Jens V. Vindum, and Edward L. Stanley on 14 September 2016.

Description of the Neotype: Well-preserved, unsexed adult. Body cylindrical and robust with a poorly defined neck and well-

FIGURE 7. Life photo of *Trachylepis albopunctata* from Bicuar National Park, Huíla Province (CAS 263387). Photo by L.M.P.C.

developed pentadactyl limbs; tail long and robust, its length slightly larger than SVL, smoothly tapered. Fore- and hind limbs overlap when adpressed against the body. SVL 60.5 mm, TL 65.7 mm, HL 12.7 mm. Additional measurements are presented in table 3. Ear opening small, with three anterior subtriangular auricular scales. Rostral visible from above. Nostrils set posteriorly, so that postnasal effectively borders nostril. Supranasals in contact. Frontonasal broader than long, in contact with loreal scale. Prefrontals pentagonal, separated from one another, each in contact with the following head shields: frontonasal, loreal, first and second supraocular, first supraciliary and frontal. Two loreals. Frontal longer than the distance between anterior tip of frontal and tip of snout. Frontal in contact with three supraoculars on each side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars, parietal and interparietal. Frontoparietal plus interparietal length greater than frontal length. Interparietal twice as long as broad, with a visible parietal foramen. Parietals larger than frontoparietals. Parietals in contact with each other. Five supraciliaries, second largest. Eight supralabials, sixth subocular. Eight infralabials. Postmental bordering seven scales (mental, two infralabials on each side and two primary chin shields). Transparent scale present in lower eyelid, as is usual for *Trachylepis*. Tympanum visible, at same level as mouth. Dorsal scales each with three smooth keels. Ventral scales smooth. MSR 35, SAD 49, SAV 54. Limbs with five digits; scales on palms soles spinose. Relative length of fingers IV > III > V > II > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 17, Toe-IV lamellae 20.

Coloration in Ethanol: Background color of flanks and upper side of head, neck, dorsum, and

TABLE 3

Mensural and Meristic Data for the Examined *Trachylepis* Neotypes and Syntypes
Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages

	Trachylepis albopunctata [*Euprepes angolensis*]	*Trachylepis bayonii*	*Trachylepis bocagii*	*Trachylepis maculilabris* [*Euprepes anchietae*]	*Trachylepis notabilis*
	CAS 258379 Neotype	ZMB 6477 Syntype	ZMB 6479 Syntype	MUHNAC/MB03-1390 Neotype	ZMB 9204 Lectotype
Sex	unsexed	unsexed	unsexed	unsexed	unsexed
SVL	60.5	65.6	68.8	79.9	84.4
TL	65.7	88.7	–	185	165
TL/SVL	110	140	–	230	190
HL	12.7	12.7	13.5	17.8	18.2
HL/SVL	20	20	20	20	20
SVL/HL	480	520	510	450	460
HW	8.2	8.8	9.4	11.2	12.2
HW/HL	60	70	70	60	70
HH	5.5	6.9	7.4	8.9	10.9
IN	1.8	1.6	1.5	3	2.6
EN	3.7	4.4	4.4	4.5	5.8
ES	5.6	5.2	6.1	6.3	8
MSR	35	35	36	32	32
SAD	49	55	57	57	59
SAV	55	61	62	57	60
LUFF	17	12	17	14	15
LUFT	20	15	24	16	18
SC	5	4	4	5	6
SL (SO)	8 (6)	8	7	7 (3)	7 (5)
CP	C	S	C	C	S
CFP	C	F	C	C	C
CSN	C	C	C	S	C
CPF	S	S	S	C	C
KDS	3	3–4	3–4	5	5
Plantar scales	spinose	smooth	keeled	smooth	smooth

tail olive brown, with scattered black and white speckles forming series of transverse bars starting behind the nape and extending to the tip of the tail; limbs variegated above. There is a pair of faint pale dorsolateral stripes; a black stripe on the snout crosses the eye and becomes fainter and reticulated posteriorly; labials cream white; a bright white stripe starts at the subocular and extends to the hind limb insertion. Venter white with some grayish speckling, especially near the flanks.

Material Examined: **Bié Province:** Chitau [-11.4333°, 17.1500°, 1510 m] (CM 5750); Cassumbi, camp established near Cassumbi village, 14 km dirt road, rocky area [-11.0764°, 16.6628°, 1244 m] (CAS 266020; MUNHAC/MB03-001380); 14 km ENE from Mumbue village, disturbed miombo, walk margin of the river bed [-13.8653°, 17.4255°, 1543 m] (CAS 266038; MUHNAC/MB03-001466). **Huambo Province:** Kajonde village, Mt. Moco [-12.4294°, 15.1545°, 1890 m] (MUNHAC/MB03-001381, 001382). **Huíla Province:** Bicuar National Park, on a dam wall [-15.1271°, 14.7715°, 1246 m] (CAS 263398, 263399); Bicuar National Park, camp headquarters [-15.1016°, 14.8399°, 1224 m] (CAS 263387, 263388, 263389, 263390, 263391; UF 187324); Bicuar National Park, E of camp [-15.1028°, 14.8477°, 1243 m] (UF 187325); Bicuar National Park, on the rd to Nongalafa, ca 8 km W of camp headquarters [-15.1274°, 14.7714°, 1225 m] (CAS 263392); Lubango, Nossa Senhora do Monte [-14.9434°, 13.4644°, 1983 m] (CAS 263408, 263409; UF 187326, 187327); Lubango, Cristo Rei [-14.9401°, 13.5117°, 2200 m] (CAS 263410); Huíla waterfall [-15.0549°, 13.5349°, 1658 m] (CAS 263406). **Malanje Province:** Pungo Andongo near footprints of the Queen [-9.6755°, 15.5836°, 1107 m] (UF 185744); Kalandula Falls, road down to the corn field from the hotel [-9.0755°, 16.0112°, 1063 m] (UF 185747); Kalandula Falls, road outside the hotel [-9.0825°, 16.0121°, 1049 m] (UF 185746); Pungo Andongo near town grounds [-9.6673°, 15.5909°, 1155 m] (UF 185745); Cangandala National Park [-9.8276°, 16.6699°, 1097 m] (CAS 258379, 258389); Laúca Dam, flooded area [-9.7627°, 15.1438°, 750 m] (MUNHAC/MB03-001242–001243; 001346–001348); Gauca [-11.1833°, 17.4500°, 1163] (CM 5950, 5952, 5953). **Namibe Province:** Serra da Neve [-13.7864°, 13.2575°, 1596 m] (CAS 263560); dirt road to Quilenges [-13.8159°, 13.3264°, 587 m] (MUNHAC/MB03-001383); Serra da Neve, 2016 base camp [-13.7770°, 13.2591°, 1488 m] (MUNHAC/MB03-001384); Serra da Neve, Catchi surroundings [-13.7620°, 13.2569°, 1585 m] (MUNHAC/MB03-001468, 001469, 001486–001498, 001500–001502, 001504–001508); Serra da Neve base, 2km N of Maylowe [-13.8280°, 13.2625°, 818 m] (MUHNAC/MB03-001509); Serra da Neve, rocky area near base camp [-13.7653°, 13.2571°, 1645 m] (MUNHAC/MB03-001499, 001503). **Zaire Province:** Noqui [-5.8750°, 13.4322°, 38 m] (AMNH R11095–96).

Additional Material: **Bengo Province:** Ambriz [-7.8612°, 13.1182°, 26 m] (BMNH 18511.1.19.3–6). **Bié Province:** Bihe (= Bié) [-12.3833°, 16.9500°, 1660 m] (FMNH 18511–18517); Chitau [-11.4333°, 17.1500°, 1510 m] (AMNH 49012; CM 5671, 5883; NMB 13228, 13229); 10 km west of Cuemba village [-12.0348°, 18.0487°, 1437 m] (PEM R23344–5); Stop 2: road to Cuito River source [-12.2823°, 18.6291°, 1487 m] (PEM R23355); EN140 North of Menongue [-13.8470°, 17.2531°, 1503 m] (PEM R23543). **Cuando Cubango Province:** south of Menongue en route to Cuebe River [-14.9628°, 17.6909°, 1300 m] (PEM R23256–8); Cuchi River gorge [-14.5900°, 16.9076°, 1350 m] (PEM R23265, INBAC no number fide Conradie et al., 2022). **Cunene Province:** Kuvelai (= Cuvelai) [-15.6500°, 15.8000°, 1217 m] (MHNG 1545.013, 1545.014). **Huambo Province:** Mt. Moco [-12.4167°, 15.1833°, 2393 m] (BMNH 1936.8.1.592); Cubango River campsite 2 near mission [-13.3289°, 16.4117°, 1520 m] (PEM R23389; INBAC/WC-5207); Cubango River, campsite 1 below rapids, west of Fundo village [-13.0448°, 16.3750°, 1557 m] (PEM R23390). **Huíla Province:** 15 km N Quilengues [-13.9526°, 14.0470°, 939 m] (MD 1970.1); Capelonga (=Capelongo) [-14.9167°, 15.0833°, 1220 m] (AMNH 49013–49018); Kuwanga (currently Kuvango) [-14.4667°, 16.3000°, 1453 m] (MHNG 856.006); Caconda [-13.7333°, 15.0667°, 1674] (BMNH 1906.8.24.61; MNHN 1907.201; NHMW 16208); Humpata [-15.0251°, 13.3761°, 1872 m] (MD 1840.2) Stone bridge over Albul stream, 12 km North of Humpata South West Angola [-14.9271°, 13.3359°, 2057 m] (PEM R17940); Christo Rei, Sada Bandeira (= Cristo Rei, Sá da Bandeira (currently Lubango)) [-14.6667°, 13.5137° 1365 m] (TM 40833); Hungueria [-15.3167°, 13.5333°, 1297 m] (TM 40940); Sá da Bandeira (currently Luabango), Toco 16 km NE [-14.9167°, 13.5000°, 1751 m] (TM 45184); Leba Pass, between river and highway [-15.0703°, 13.2438°, 1670 m] (CAS 254874, 254884); Entre Rios [-13.0167°, 14.6333°, 1267 m] (ZSM a102/1953); Cubal [-13.0333°, 14.2500°, 921 m] (SMF 25404/15); Kuvango River hydro plant site [-14.3877°, 16.2937°, 1429 m] (PEM R23379). **Kwanza Sul Prov-**

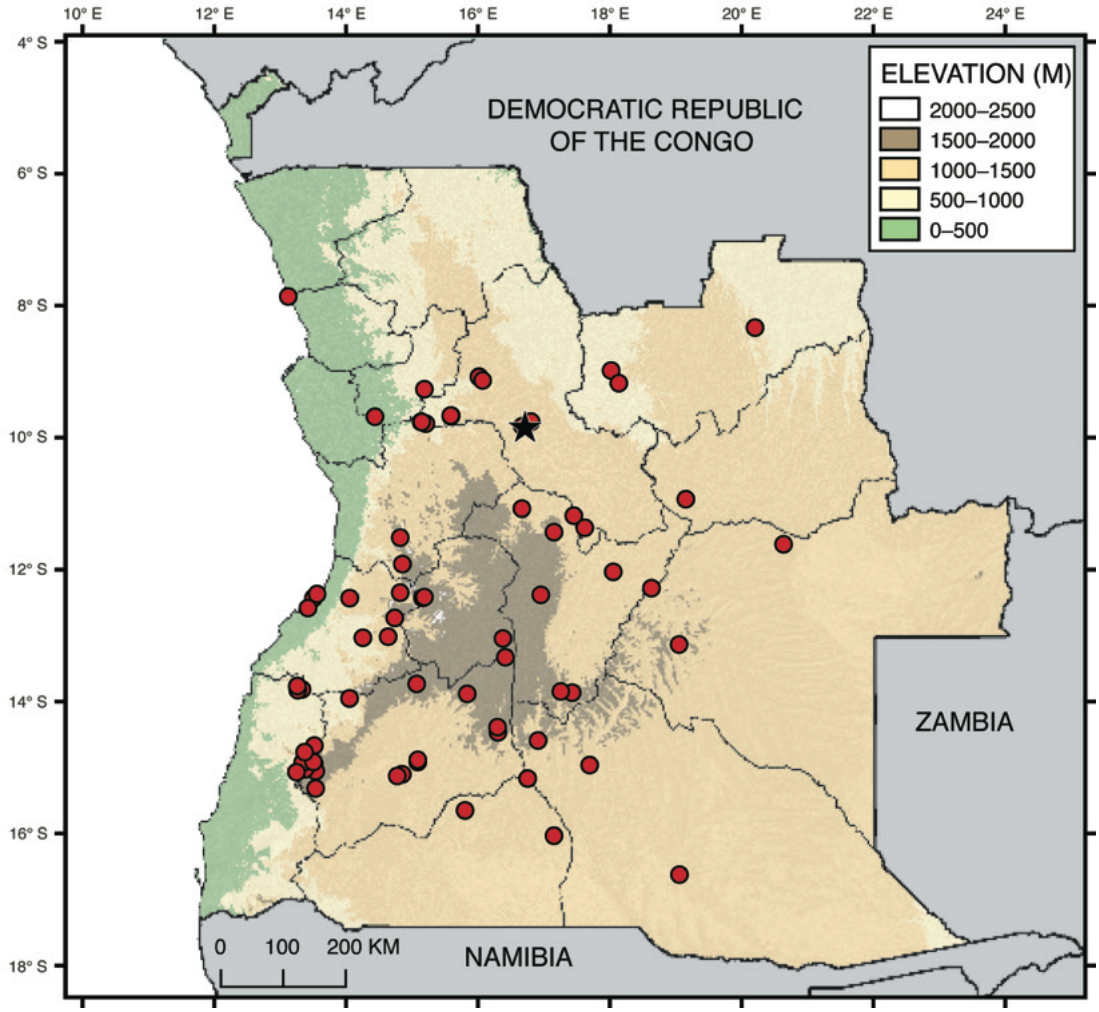


FIGURE 8. Distribution of *Trachylepis albopunctata* in Angola. Black star denotes the newly designated neotype locality.

ince: Namba [-11.9167°, 14.8500°, 1783 m] (TM 46643). **Lunda Norte Province:** Capaia (Capaceira) [-8.3333°, 20.2000°, 1010 m] (NHMW 766). **Lunda Sul Province:** Alto Chicapa, Lunda [-10.9333°, 19.1500°, 1373 m] (MCZ R-74118; MD 5466); Main track at turning to Luanda, Mussuco diversion, Cuango river [-8.9833°, 18.0167°, 786 m] (PEM R13480); Ridge 18 km North of Tarjua Falls, Cuango River [-9.1750°, 18.1333°, 996 m] (PEM R13486). **Malanje Province:** Pavalange [-11.3667°, 17.6167°, 1176 m] (ANSP 32191, 32193–3219); Duque de Bragança Falls (currently Kalandula Falls) [-9.1333°, 16.0667°, 1010 m] (TM 45464, 45467, 45480, 45481); Cangandala National Park [-9.7588°, 16.8023°, 1134 m] (CAS 258376–258378, 258380–258387, 258390–258393); Pungo-Andongo [-9.6667°, 15.5833°, 1220 m] (BMNH 1904.5.2.38–40); Gauca, 20 mi E of Dando (on Quanza River) [-11.1833°, 17.4500°, 1163 m] (CM 5730–5743, 5746–5749–5764, 5941, 5942, 5944–5949, 5951, 5954–5960, 5962, 5963). **Moxico Province:** Sandando, 85 km east from Luso [-11.6167°, 20.6333°, 1177 m] (MD 5718); Quembo River source trap 4 [-13.1359°, 19.0471°, 1369 m] (PEM R23479). **Namibe Province:** Serra da Neve camp [-13.7770°, 13.2591°, 1488 m] (MUHNAC/MB03-001516; INBAC/LMPC 1265); dirt road to Quilenges [-13.8159°, 13.3264°, 587 m] (CAS 266148); 8.5 km North of Rito [-16.6232°, 19.0535°, 1128 m] (PEM R20508, 20509). **Undetermined locality:** Angola (MHNC 91.0449).

FIGURE 9. Typical habitat of *Trachylepis albopunctata* in Cangandala National Park, Malanje Province. Photo by L.M.P.C.

Historical Localities (no extant specimens): **Benguela Province:** Cahata [-12.3500°, 14.8167°, 1202 m] (Bocage, 1895); Catumbela [-12.4333°, 13.5000°, 7 m] (Bocage, 1867a; Loveridge 1957); Quissange [-12.4333°, 14.0500°, 870 m] (Bocage, 1895); Benguela [-12.5833°, 13.4167°, 15 m] (Bocage, 1867a; Loveridge 1957); Hanha [-13.4941°, 14.5276°, 1669 m] (Bocage, 1896); Sangevé [-13.8833°, 15.8333°, 1634 m] (Monard, 1937); Ebanga [-12.7333°, 14.7333°, 1334 m] (Monard, 1937); Lobito [-12.3709°, 13.5542°, 3 m a.s.l] (Parker, 1936). **Cunene Province:** Kuvelai (= Cuvelai) [-15.6500°, 15.8000°, 1217 m] (Monard, 1937); "Fleuve Mbalé" [-15.1667°, 16.7500°, 1245 m] (Monard, 1937); Chimporo [-16.0333°, 17.1500°, 1206 m] (Monard, 1937). **Huíla Province:** Caconda [-13.7333°, 15.0667°, 1674 m] (Bocage, 1895); Kuvangu (= Kuvango) [-14.4667°, 16.3000°, 1453 m] (Monard, 1937); "Kapelongo" [-14.8833°, 15.0833°, 1192 m] (Monard, 1937). **Kwanza Norte Province:** Ambaca [-9.2667°, 15.1833°, 738 m] (Bocage, 1895); Dondo [-9.6833°, 14.4333°, 33 m] (Bocage, 1872, 1895). **Namibe Province:** Biballa [-14.7667°, 13.3667°, 955 m] (Bocage, 1872, Ceríaco et al., 2016b). **Undetermined locality:** Between Benguela and Bihé (Boulenger, 1905).

Distribution in Angola: The species is widely distributed in the country, ranging from the southwestern Namibe Province to Lunda Norte Province (fig. 8). The species appears to be absent from the southeastern region of Cuando Cubango, where it is replaced by *Trachylepis damarana* (see respective account).

Global Distribution: The species occurs from Angola to western Zambia (Weinell and Bauer, 2018; Pietersen et al., 2021).

Habitat and Natural History Notes: The species is usually found in miombo habitats (fig. 9), but can also be located in more disturbed

areas, like plantations and human settlements (Grandvaux-Barbosa, 1970). Butler et al. (2019) noted that the species is a habitat generalist and can be found on rock walls and manmade structures in addition to natural rocky outcrops and downed logs.

Trachylepis ansorgii (Boulenger, 1907)—Ansorge's Skink

Figures 10–12, plate 1

Mabuia ansorgii Boulenger, 1907: 213. Holotype: BMNH 1946.8.3.33 (formerly BMNH 1906.8.24.62), collected by W.J. Ansorge. Type locality: "Caconda, Benguella" [= Caconda, Huíla Province], Angola.
Euprepes olivaceus [part] [?]: Bocage (1870: 68).
Mabuia sulcata [part]: Bocage (1895: 41; 1896: 111).
Mabuia ansorgii: Monard (1937: 90).
Mabuia bocagei ansorgei: (Laurent (1947: 8).
Mabuya sulcata ansorgii [part]: Hellmich (1957a: 64); Branch (1998: 157).
Trachylepis sulcata [part]: Marques et al. (2018: 269).
Trachylepis sulcata ansorgii [part]: Portik et al. (2010: 147, 2011: 1745); Masterson et al. (2014b: 267); Baptista et al. (2019: 109); Branch et al. (2019a: 319); Butler et al. (2019: 235); Conradie et al. (2022: 204).

Boulenger (1907) described *Mabuia Ansorgii* based on a "single, somewhat damaged specimen from Caconda, Benguella" [currently Caconda, Huíla Province]. According to the author, the new taxon was "closely allied to *M. Bocagii*" [= *Trachyelpis bocagii* Boulenger, 1887], but no comparisons were provided against other species of the genus. The description noted a few diagnostic characters of the newly described species (Boulenger, 1907), but it was sufficiently vague to cause further confusions. Monard (1937) was the first author to directly deal with the form after its original description, considering it as a valid full species. According to Monard and based on three specimens from "Sangevé (Galangue)," Huíla Province, *ansorgii* was closely related to *T. sulcata* (instead of *T. bocagii* as originally noted by Boulenger, 1907). Subsequent records of *ansorgii* are to be treated with caution. According to the molecular results of Butler et al. (in review), *T. ansorgii* occurs only in the highlands of Angola, from northern Namibe and Huíla provinces northward to Malanje Province, with scattered records following the escarpment and with an isolated record at Epupa Falls on the Namibian side of the Cunene River, while *T. sulcata* is more widely distributed in the southern regions of Namibe and Huíla provinces (and widely distributed in Namibia and western South Africa). As there are no clearcut diagnostic features that one could discern from most published accounts, the allocation of historical specimens to either taxon is based mostly on the distribution range and should be considered provisory until molecular sampling from the same area offers insight into the given population's taxonomic identity. All Angolan *T. ansorgii* records subsequent to those of Boulenger (1907) and Monard (1937) most likely refer to nominotypical *sulcata* based on distribution ranges. These include the records from Otschinjau, Cunene Province by Hellmich (1957b), from "Munhino, 50 km à l'ouest de Sá da Bandeira, district de Mocâmedes, 1000 m" [= "Munhino," 50 km west of Lubango, Namibe Provice; georeferenced to -14.96667, 12.96667 by Marques et al., 2018] by Laurent (1964), and from "11 km south of Chibemba," Huíla Province by Haacke in Baptista et al. (2019). Besides the most recently collected specimens (Butler et al., 2019, this paper, and another in review), the only historical specimens (excluding the type material and those recorded by Monard, 1937) that can be safely allocated to *T. ansorgii* are those recorded from Entre Rios, Benguela Province, and Nova Lisboa [currently Huambo], Huambo Province, by Hellmich (1957a).

Diagnosis: A large-sized skink (max. SVL 98.9 mm, MUHNAC/MB03-001340) with fully developed, pentadactyl limbs (figs. 10–12); dorsal scales usually pentacarinate, but sometimes

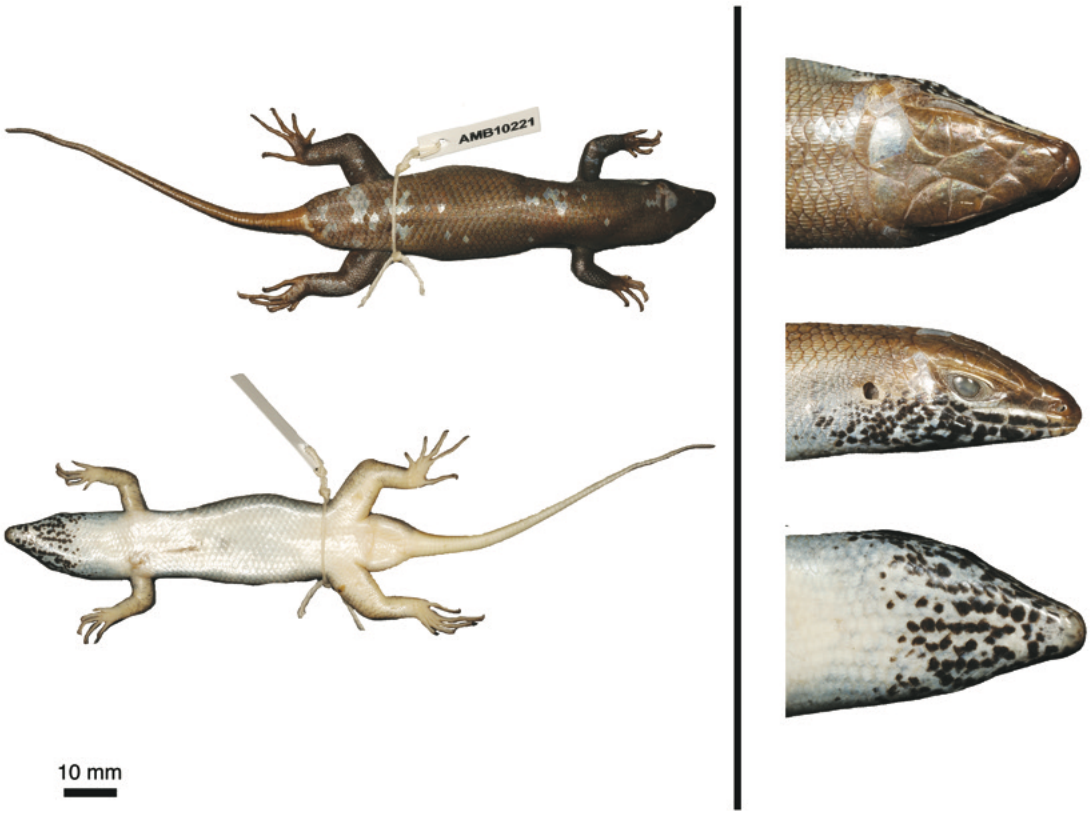


FIGURE 10. Male specimen of *Trachylepis ansorgii* from Serra da Neve, Namibe Province (UF 187314). Photos by L.M.P.C.

tricarinate, quadricarinate, or hexacarinate; ventral scales smooth; 54–64 SAV; 50–55 SAD; 38–45 MSR; lamellae beneath fingers and toes spinose; plantar scales spinose; 18–24 LUFT; 13–18 LUFF; supranasals usually in contact; parietals usually separated or touching at a single point, rarely in broad contact; prefrontals usually separated, rarely touching at a single point; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye, lacking subtriangular auricular scales on the anterior margin of the ear opening. Supralabials usually eight (sometimes seven), the sixth being subocular; five supraciliaries, the second longest; nostril oriented laterally. Color pattern exhibits pronounced sexual and ontogenetic dimorphism. Adult females and juveniles are pale to golden brown above, with six dark longitudinal stripes (a pair of paravertebral stripes, a pair of dorsolateral stripes, and another pair on the flanks) that are usually prolonged on the tail as irregular lines or series of spots; lower flanks whitish, sometimes with an irregular dark line or series of spots. In adult females, the paravertebral and dorsolateral stripes usually start at the frontoparietals and supraoculars, respectively, and there is often a dark spot on the frontal. Dorsum uniform golden brown to dark brown in adult males; flanks and limbs light grayish; tail often with remnants of dark stripes. Ventral parts bluish white; labials, throat and chin sometimes yellowish to orange in live specimens, usually with heavy black speckling, in some cases restricted to the labials and in others extending to the sides and top of the head.

FIGURE 11. Life photo of a gravid female *Trachylepis ansorgii* from Caconda, Huíla Province (CAS 263427). Photo by L.M.P.C.

Material Examined: **Benguela Province:** Dembi, on the road from Cubal to Caimbambo [-13.0592°, 14.1279°, 906 m] (MUHNAC/MB03-001391). **Huambo Province:** rocky outcrops near Kanjonde village, base of Mt Moco [-12.4294°, 15.1545°, 1890 m] (MUHNAC/MB03-001392–001395). **Huíla Province:** Caconda, rock outcrops [-13.7548°, 15.0422°, 1620 m] (CAS 263425, 263426, 263427, 263428, 263429). **Malanje Province:** Laúca Dam, flooded area [-9.7627°, 15.1438°, 750 m] (MUHNAC/MB03-001340, 001342–001345, 001363). **Namibe Province:** base of Serra da Neve, Maylowe village [-13.8357°, 13.2763°, 800 m] (MUHNAC/MB03-001396, 001397); Serra da Neve base camp [-13.7770°, 13.2591°, 1488 m] (CAS 263567; UF 187313); Serra da Neve [-13.7865°, 13.2572°, 1594 m] (UF 187314); vic Dolondolo [-13.8104°, 13.1361°, 713 m] (CAS 263545); Serra da Neve, rocky area near base camp [-13.7653, 13.2571, 1645 m] (MUNHAC/MB03-001472, 001475, 001477, 001478, 001482); Serra da Neve, Catchi surroundings [-13.7620°, 13.2569°, 1585 m] (MUNHAC/MB03-001473, 001474, 001479–001481, 001485); Serra da Neve base, 2km *N* of Maylowe [-13.8280°, 13.2625°, 818 m] (MUHNAC/MB03-001476); Serra da Neve, Lutala crater surroundings [-13.7630°, 13.2514°, 1598 m] (MUHNAC/MB03-1484).

Additional Material (* denotes type material): **Benguela Province:** Entre Rios [-13.0167°, 14.6333°, 1267 m] (ZSM 103/1953). **Cuando Cubango Province:** en route to Cuito, east of Huambo [-12.7362°, 15.9744°, 1777 m] (PEM R23368). **Huambo Province:** Huambo [-12.7667°, 15.7333°, 1671 m] (ZSM 104/1953). **Huíla Province:** Sangevé [-13.8833°, 15.8333°, 1634 m] (MHNC 91.0494, 91.0495); Caconda [-13.3333°, 15.0667°, 1644 m] (BMNH 1946.8.3.33*); Caconda, rock outcrops [-13.7548°, 15.0422°, 1620 m] (INBAC/AMB 10925, 10826).

Historical Localities (no extant specimens): **Benguela Province:** Hanha [-13.4941°, 14.5276°, 1669 m] (Bocage, 1896). **Huíla Province:** Rio Cuce, près de Caconda (Bocage, 1895).

FIGURE 12. Life photo of a male *Trachylepis ansorgii* from Caconda, Huíla Province (CAS 263427). Photo by L.M.P.C.

Distribution in Angola: Endemic to central/western areas of the country, from northern Namibe and Huíla provinces to southern Malanje Province (fig. 13).

Global Distribution: Endemic to Angola.

Habitat and Natural History Notes: This is a rock-dwelling species, commonly found in rocky outcrops among miombo woodlands in high elevation (above 700 m) areas (Grandvaux-Barbosa, 1970; fig. 14). It tends to be absent from human-dominated landscapes and was never found in human-made habitats such as houses or on walls.

***Trachylepis attenboroughi*,** sp. nov.—Attenborough's Skink

Figures 15, 16, plate 2

Mabuya chimbana: Schmidt (1933: 12).
Mabuya striata spilogaster: Laurent (1964: 71).
Mabuya spilogaster [part]: Branch (1998: 156); Broadley (2000: 105).
Trachylepis cf. *spilogaster*: Conradie et al. (2016: 25).
Trachylepis spilogaster: Marques et al. (2018: 268); Baptista et al. (2019: 116); Branch et al. (2019a: 319); Butler et al. (2019: 315); Ceríaco et al. (2020a: 402); Conradie et al. (2022: 204).

The first record attributable to this new species is from the Pulitzer Angola Expedition in Humbe, Cunene Province, and reported by Schmidt (1933) as "*Mabuya chimbana*" (accession number CM 5655). A second specimen was reported by Laurent (1964) from Mount Moco, in Huambo Province (specimen still extant at the collections of the Museu Regional do Dundo, Angola—accession number MD 1832—see Ceríaco et al., 2020a). A recent survey of the Mount Moco region has

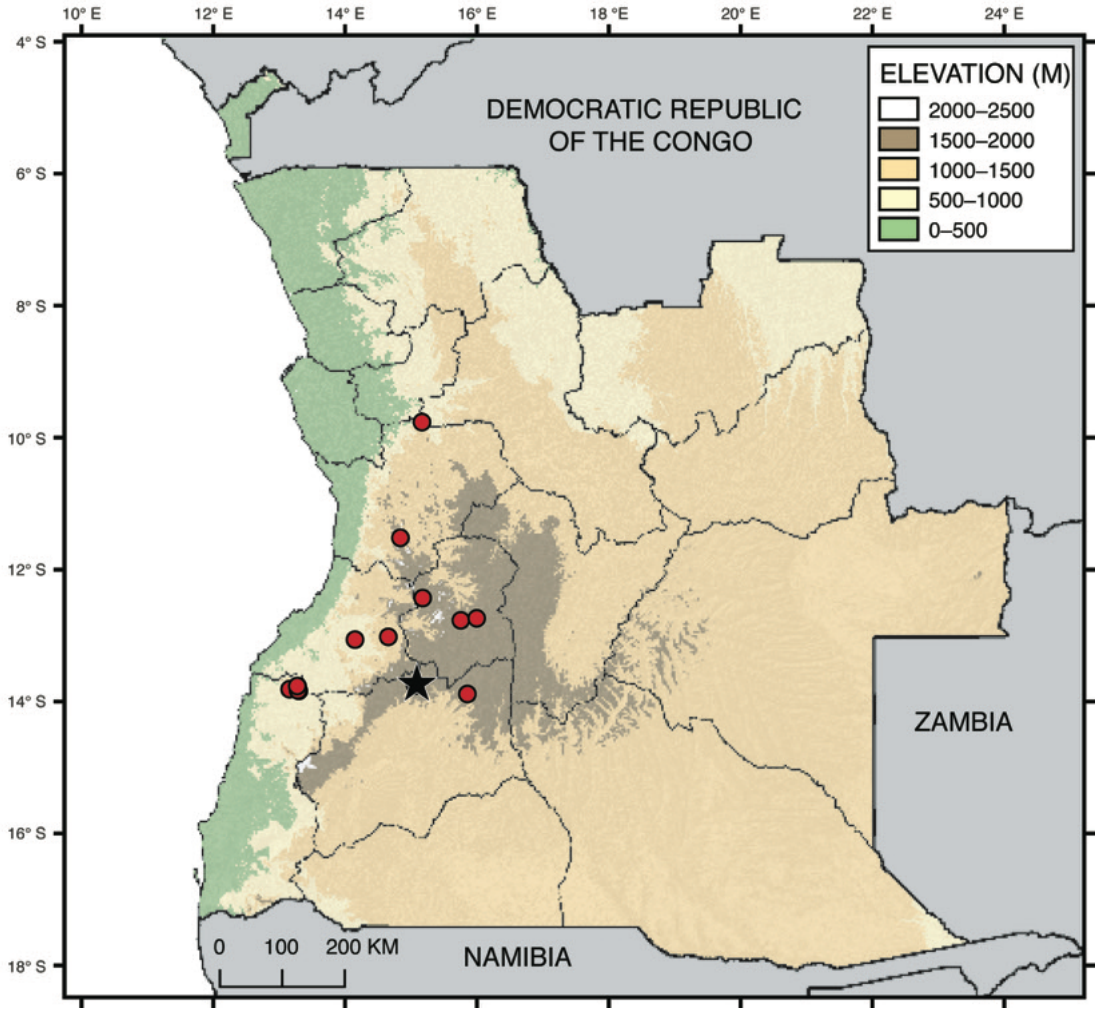


FIGURE 13. Distribution of *Trachylepis ansorgii* in Angola. Black star denotes the type locality.

failed to collect more specimens in the region (L.M.P.C., personal obs.). Conradie et al. (2016) collected a considerable number of specimens in both Bié and Cuando Cubango provinces and attributed them to *Trachylepis* cf. *spilogaster*, noting however some ecological differences between the Angolan populations and those from Namibia and the rest of the species distribution. Marques et al. (2018) also noted that it was "highly unlikely that these [Angolan] records refer to the same lineage as true *T. spilogaster*." Butler et al. (2019) provided the first records of the species for Huíla Province, and some months later Baptista et al. (2019) provided additional records for the same province. According to our molecular data (fig. 1) the central and southern Angolan populations constitute a distinct taxon, sister to *T. spilogaster* sensu stricto, and morphological data also allow us to separate these two taxa.

Holotype: An adult male (CAS 263386, field number AMB 10669; fig. 15) collected at Bicuar National Park, camp headquarters, Huíla Province [-15.1016°, 14.8399°, 1224 m], collected by Mariana P. Marques, Luis M.P. Ceríaco, Suzana A. Bandeira, Brett O. Butler, Matthew P. Heinicke and Timóteo Júlio, on 28 July 2017.

FIGURE 14. Typical habitat of *Trachylepis ansorgii* in Caconda, Huíla Province. Photo by L.M.P.C.

Paratypes: All 15 specimens from Angola: an adult male (CM 5655), collected at Humbe, Cunene Province [-16.6872°, 14.9065°, 1106 m] by Rudyerd W. Boulton and Laura T. Boulton on 13 November 1930; four adult females (CAS 263384, 263385, field numbers AMB 10168, 10666; UF 187320, 187321, field numbers AMB 10153, 10166), same data as holotype with exception of the collecting dates, 27 and 28 July 2017 (respectively); two adult females (CAS 263415, field number AMB 10130; UF 187319, field number 10139) and one adult male (CAS 263416, field number AMB 10138), collected at Kimbo do Soba, Lubango, Huíla Province [-14.9342°, 13.4693°, 1866 m] by Mariana P. Marques, Luis M.P. Ceríaco, Suzana A. Bandeira, Brett O. Butler, Matthew P. Heinicke and Timóteo Júlio, on 21 and 22 July 2017; an adult female (CAS 263403, field number AMB 10737) and an unsexed adult (UF 187322, field number AMB 10739) collected at Serra da Leba overlook, Huíla Province [-15.0770°, 13.2329°, 1680 m] by Mariana P. Marques, Luis M.P. Ceríaco, Suzana A. Bandeira, Brett O. Butler, Matthew P. Heinicke and Timóteo Júlio, on 4 August 2017; an adult female (CAS 263424, field number 10791), collected at Instituto Superior de Ciências da Educação (ISCED), Lubango, Huíla Province [-14.9182°, 13.4849°, 1867 m] by Mariana P. Marques, Luis M.P. Ceríaco, Suzana A. Bandeira, Brett O. Butler, and Matthew P. Heinicke, on 6 August 2017; an unsexed adult (CAS 263397, field number AMB 10811), collected at Chibia, near children's park, Huíla Province [-15.1894°, 13.6905°, 1486 m] by Mariana P. Marques, Luis M.P. Ceríaco, Suzana A. Bandeira, Brett O. Butler, and Matthew P. Heinicke, on 7 August 2017; three unsexed adults (MUNHAC/MB03-001398–001400, field numbers AMB 10991, 10992, 11021), collected at Bicuar National Park, Matunto Ranger Station, Huíla Province [-15.3694°, 15.2751°, 1159 m] by Mariana P. Marques, Luis M.P. Ceríaco, and Hilária Valério, on 10 March 2018.

Material Examined: **Huambo Province:** Serra do Moco, Luimbale [-12.5333°, 15.1833°, 1748 m] (MD 1832). **Huíla Province:** Bicuar National Park, Matunto Ranger

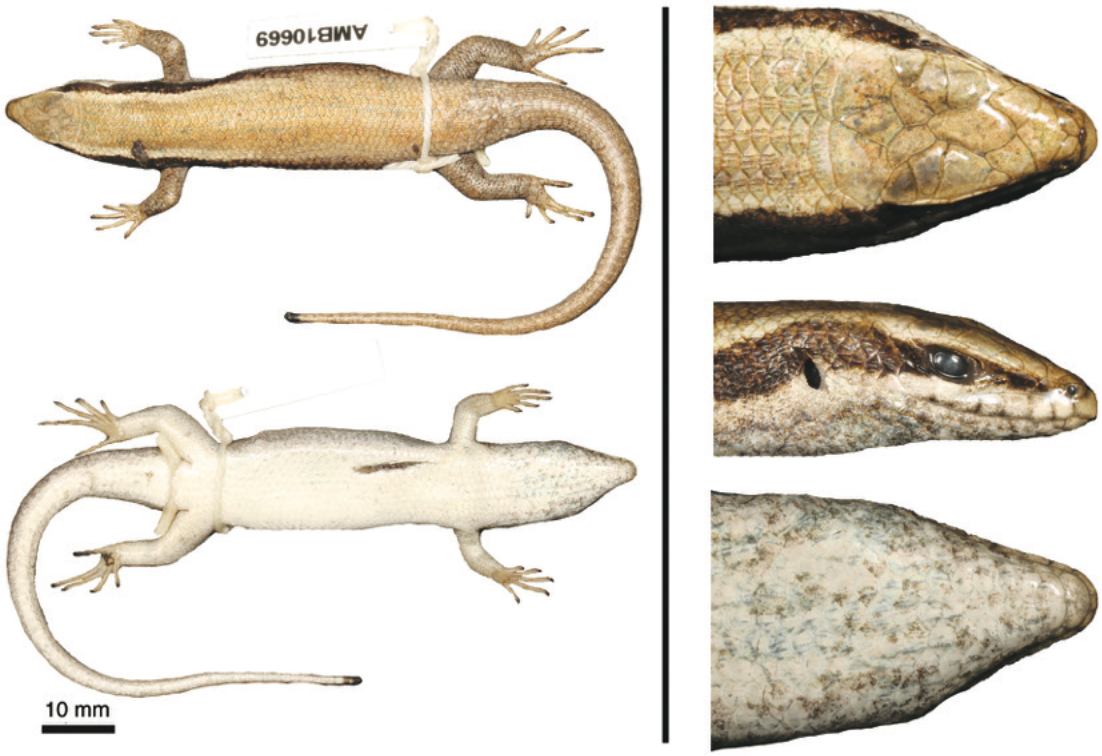


FIGURE 15. Holotype of *Trachylepis attenboroughi*, sp. nov., from Bicuar National Park, Huíla Province (CAS 263386). Photos by L.M.P.C.

Station [-15.3694°, 15.2751°, 1159 m] (MUNHAC/MB03-001377–001379, 001423–001427, 001456–001462).

Additional Material: **Bié Province:** Cubango basin (12b) [-13.5964°, 16.8772°, 1517 m] (PEM R20019). **Cuando Cubango Province:** Cubango basin (6a) [-14.6716°, 17.7353°, 1391 m] (PEM R21842); Cubango basin (20) [-14.6718°, 17.1533°, 1355 m] (PEM R20007); Cuito basin (30a) [-16.9098°, 19.3077°, 1106] (PEM R20517); Cuito basin (35) [-16.6232°, 19.0535°], 1128 m (PEM R20518); Cuito basin (32) [-17.0488°, 19.5333°, 1105 m] (PEM R20519); Cubango basin (47) [-14.7021°, 17.3781°, 1392 m] (PEM R21828–21840); Cubango basin (49) [-14.6630°, 17.6655°, 1384 m] (PEM R21483); Cuito basin (57) [-15.4597°, 18.7633°, 1242 m] (PEM R21486–7); Cuito basin (62) [-17.5088°, 20.0661°, 1079 m] (PEM R21498–9); Hotel Mulombe, Menongue [-14.6641°, 17.6926°, 1363 m] (CM 172593-4); Cuatir main camp [-16.4852°, 18.2030°, 1148 m] (CM 172595-8). **Cunene Province:** Otchinjau [-16.5025°, 13.9240°, 363 m] (ZSM 68-1954). **Huíla Province:** Bicuar National Park (6) [-15.1305°, 14.6837°, 1257 m] (NB532 fide Baptista et al., 2019); Bicuar National Park (9) [-15.1267°, 14.6377°, 1281 m] (NB528 fide Baptista et al., 2019); Bicuar National Park (10) [-15.1260°, 14.6012°, 1298 m] (NB527 fide Baptista et al., 2019); Bicuar National Park (13) [-15.1005°, 14.8451°, 1250 m] (NB529 fide Baptista et al., 2019); Bicuar National Park, Main Camp (31) [-15.1007°, 14.8396°, 1244 m] (NB519 fide Baptista et al., 2019). **Moxico Province:** Cuito River source lake [-12.6894°, 18.3601°, 1435 m] (PEM R23334–5); Quembo River source [-13.1069° 19.0179°, 1545 m] (PEM R23528); DOR en route to village [-13.0597°, 18.8324°, 1567 m] (PEM R23358–60); DOR en route between Cuanavale River source and Tempué [-13.3395°, 18.8512°, 1386 m] (PEM R27441); Quembo River, walk back from small waterfall [-13.5298°, 19.2834°, 1242 m] (INBAC/WC-6813).

Diagnosis: A medium-sized skink (max. SVL 79.4 mm, CAS 263424), with fully developed, pentadactyl limbs (figs. 15, 16); dorsal scales tricarinate or quadricarinate; ventral scales smooth;

FIGURE 16. Life photo of the paratype of *Trachylepis attenboroughi* from Bicuar National Park, Huíla Province (UF 187321). Photo by L.M.P.C.

53–61 SAV; 52–57 SAD; 34–40 MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 17–22 LUFT; 13–18 LUFF; supranasals always in contact; parietals usually in contact, but sometimes separated or touching at a single point; prefrontals usually separated, sometimes touching at a single point; frontoparietals always in contact, rarely touching at a single point; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye, lacking subtriangular auricular scales on the anterior margin of the ear opening. Supralabials eight (rarely seven), the sixth subocular; five supraciliaries, the second longest; nostril oriented laterally. Dorsum grayish to reddish brown, with a pair of pale dorsolateral stripes with tendency to become broader and fainter posteriorly; upper flanks with a black band that starts at the snout and extends to the tail base, becoming fainter posteriorly; limbs grayish brown above, speckled with white or light gray. There may be scattered black and/or white speckles on the flanks and dorsal surfaces. Labials cream white, often darker at the sutures and sometimes with irregular dark speckling. Lower flanks grayish; venter surfaces white with grayish speckling, especially laterally and on the chin and throat area.

Description of the Holotype: A well-preserved adult male. Body cylindrical and robust with a poorly defined neck and well-developed pentadactyl limbs; tail long and robust, its length greater than the SVL, smoothly tapering. Fore- and hind limbs overlap when adpressed against the body. SVL 71.4 mm, TL 98.3 mm. HL 17.8 mm, with relatively long and prominent snout. Additional measurements are presented in table 4. Ear opening medium, lacking anterior subtriangular auricular scales. Rostral visible from above. Nostrils oriented laterally

TABLE 4

Mensural and Meristic Data for the Type Series of *Trachylepis attenboroughi*, sp. nov.

Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages

	CAS 263386	CM 5655	CAS 263384	CAS 263385	CAS 263415	CAS 263416	CAS 263403	CAS 263424	CAS 263397	UF 187320	UF 187321	UF 187319	UF 187322	MUHNAC/ MB03-1398	MUHNAC/ MB03-1399	MUHNAC/ MB03-1400
	Holo-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Paratype	Para-type	Para-type	Para-type	Paratype	Paratype	Paratype	Paratype
Sex	♂	♂	♀	♀	♀	♂	♀	♀	unsexed	♀	♀	♀	unsexed	unsexed	unsexed	unsexed
SVL	71.4	62	77	66	69	69.7	77.5	79.4	51.4	56.3	75	67.7	59.7	68.4	69.8	62.4
TL	98.3	–	–	74	–	90	–	74.3	77.7	87.1	101.6	–	74.9	110.6	111.9	–
TL/ SVL	280	–	–	110	–	130	–	90	150	150	140	–	130	160	160	–
HL	17.8	14.4	16.8	15.5	17	16.9	18.2	19.4	13.7	13.1	17.6	16.2	14.9	13.3	15.7	12.4
HL/ SVL	20	20	20	20	20	20	20	20	30	20	20	20	20	20	20	20
SVL/ HL	400	430	460	420	410	410	430	410	370	430	430	420	400	510	440	500
HW	11	9.4	11.2	9.4	10.1	10.4	11.9	12.1	8	8.4	10.7	9.6	8.8	10.8	10.8	8
HW/ HL	60	70	60	60	60	60	70	60	60	60	60	60	60	80	70	60
HH	2.5	6.6	7.6	6.9	7.5	7.6	4.8	8.6	6.1	5.7	7.7	7.2	6.6	6.9	7.3	6.6
IN	2.4	2.5	2.1	2.1	2.3	2.4	2.2	2	2	2	2	2.1	1.8	2.4	2.5	2.3
EN	5.3	3.6	4.5	4.4	4.6	4.6	5.8	4.8	3.7	3.9	4.6	4.8	4.2	3.8	3.7	3.7
ES	7	6.3	6.5	6.4	6.9	7	7.3	7.1	5.5	5.6	6.5	6.8	6	5.2	5.8	5
MSR	35	35	36	36	35	37	34	35	38	38	37	37	37	39	37	39
SAD	57	54	56	54	57	53	54	56	54	54	54	57	54	54	54	53
SAV	61	60	59	58	59	59	58	59	61	58	58	61	60	55	58	56
LUFF	19	17	16	16	17	18	16	17	16	16	16	17	17	15	15	14
LUFT	16	22	21	20	22	22	20	20	22	20	19	22	20	19	20	20
SC	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
SL (SO)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)
CP	C	C	C	SPC	C	SPC	C	C	C	S	SPC	C	S	C	C	C
CFP	C	C	C	C	C	C	C	C	C	C	C	C	C	SPC	C	C
CSN	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	SPC
CPF	SPC	S	S	SPC	SPC	S	C	S	SPC	C	S	S	S	S	S	S
KDS	3	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4
Plantar scales	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose

and set posteriorly, so that postnasal effectively borders nostril. Supranasals in contact. Frontonasal broader than long, in contact with loreal scale. Prefrontals irregularly pentagonal, separated from one another, each in contact with the following head shields: frontonasal, loreal, first and second supraocular and frontal. Two loreals. Frontal longer than the distance between anterior tip of frontal and tip of snout. Frontal in contact with three supraoculars on each side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars, parietal, and interparietal. Frontoparietal plus interparietal length equal to frontal length. Interparietal twice as long as broad, with a visible parietal foramen. Parietals of greater length than frontoparietals. Parietals in contact with each other. Five supraciliaries, second largest. Eight supralabials, sixth being subocular. Eight infralabials. Postmental bordering seven scales (mental, two infralabials on each side, and two primary chin shields). Transparent scale present in lower eyelid, as is usual for *Trachylepis*. Tympanum visible, at same level as mouth. Dorsal scales each with three smooth keels. Ventral scales smooth. MSR 35, SAD 57, SAV 61. Limbs with five digits; scales on palms and soles keeled and spinose. Relative length of fingers IV > III > II > V > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 16, Toe-IV lamellae 19.

Coloration in Ethanol: Dorsum reddish brown with a pair of pale dorsolateral stripes that progressively start fading around midbody; top of head, limbs, and tail grayish brown; upper flanks with a black stripe that starts at the loreals and extends to the tail, gradually becoming fainter posteriorly from midbody on; labials cream white with dark speckling, especially near the posterior edge. Venter white, with extensive gray speckling near the flanks and on the chin and throat area.

Variation: Variation in scalation and measurements among the type series is reported in table 4.

Comparison with Other Angolan and Southwestern African *Trachylepis*: *T. attenboroughi* differs from all the other species of *Trachylepis* known to occur in Angola, with the exception of *T. wahlbergii*, by having a combination of keeled plantar scales and absence of auricular scales on the anterior margin of the ear opening. It differs from *T. wahlbergii* (and from *T. striata*) in having a dorsum brownish, with conspicuous black or white speckles (vs. dorsum homogeneous brownish, without black or white speckles in *T. wahlbergii* and *T. striata*). Regarding the other southwest African congeners of the *striata* subgroup sensu Weinell et al. (2019), *T. attenboroughi* differs from *T. punctatissima* by having three to four rows of scales above window in eyelid (vs. two rows in *T. punctatissima*), from *T. sparsa* by having a clear pattern of lateral stripes and a nonmelanistic dorsum (vs. a black dorsum with small scattered light speckling in *T. sparsa*) and before the entire ventrum heavily speckled with black (vs. ventrum uniform in *T. sparsa*), and finally from its sister taxon, *T. spilogaster*, by having 52–57 SAD (vs. 48–52 in *T. spilogaster*).

Distribution in Angola: The species occurs in the southern Angolan Plateau (Huíla, Cunene, Bié, and Cuando Cubango provinces), being absent from the coastal and lower elevation areas of Namibe Province (fig. 17).

Global Distribution: The bulk of the distribution of this species is in Angola, but it extends into neighboring northern Namibia both in the Kunene Region and the Kavango Region and probably in intervening areas (Bauer et al., unpubl. data).

Habitat and Natural History Notes: The species is mostly associated with sparse miombo woodlands at high elevation areas (Grandvaux-Barbosa, 1970; fig. 18). Most of the specimens collected were found in either sparsely vegetated areas, or sometimes near rocky outcrops. Conradie et al. (2016) note that the species is more commonly found on the ground, in rock piles, and on village houses. Baptista et al. (2019) note that it "was the most frequently observed reptile species" in the Bicuar National Park, and

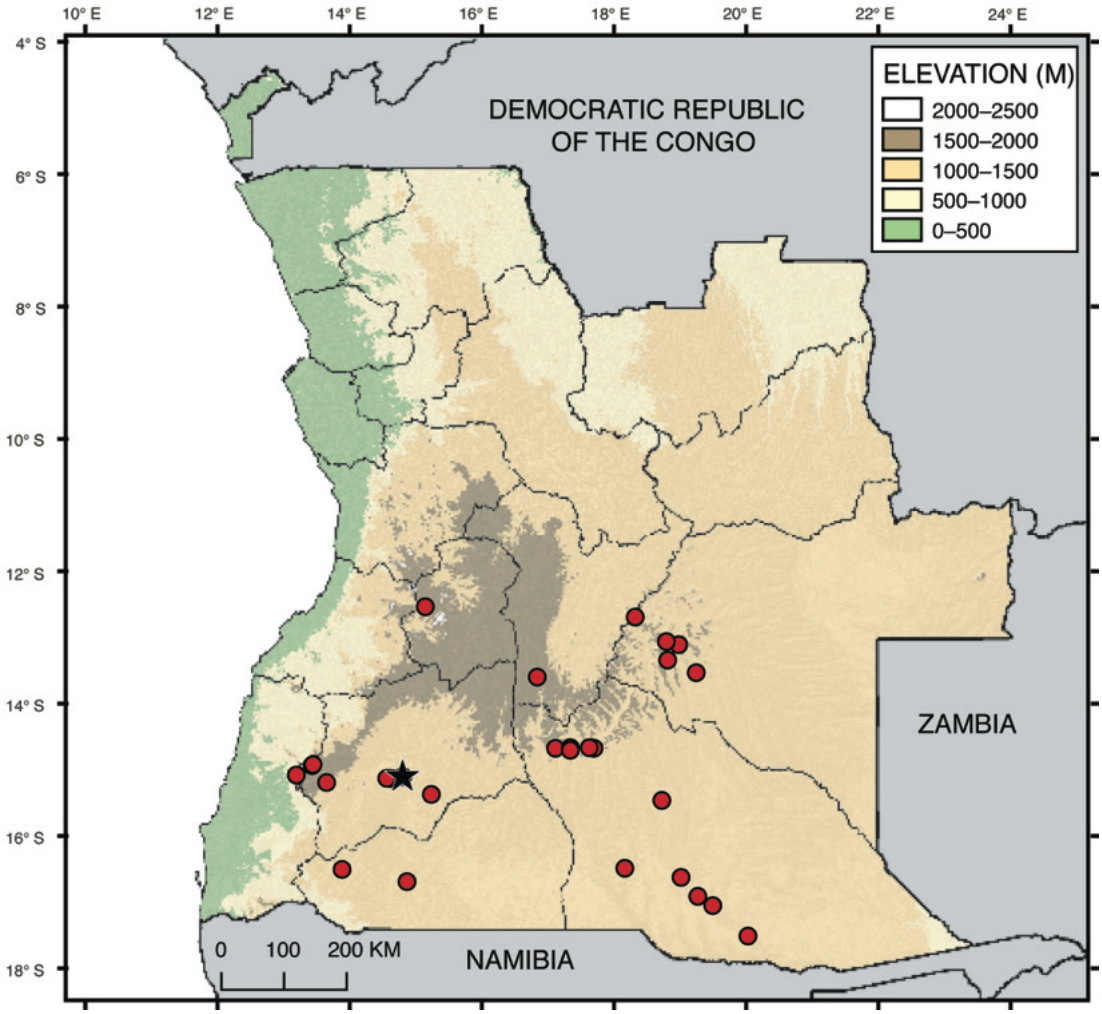


FIGURE 17. Distribution of *Trachylepis attenboroughi* in Angola. Black star denotes the type locality.

"together with *Pachydactylus punctatus*, was one of only two species to be found in the park's woodlands after recent fires."

Etymology: The specific epithet "*attenboroughi*" is formed in the genitive singular and is masculine. It is given in honor of David F. Attenborough (1926–), British naturalist and science communicator in recognition of his inspiring works promoting the study of natural history and biodiversity conservation. We suggest "Attenborough's Skink" and "Lagartixa do Attenborough" as the English and Portuguese common names, respectively, for this species.

Trachylepis bayonii (Bocage, 1872)—Bayão's Skink

Figures 19–22, plate 2

Euprepes Bayonii var. A Bocage, 1872: 75. Syntypes: MBL (specimen numbers unknown, destroyed by fire on March 18, 1978), BMNH 1946.8.19.13 (formerly MBL, BMNH 66.6.11.8), ZMB 6477, collected by F.A.P. Bayão. Type locality: "Duque de Bragança, dans l'intérieur d'Angola" [= Calandula, Malanje Province], Angola.

FIGURE 18. Typical habitat of *Trachylepis attenboroughi* in Bicuar National Park, Huíla Province. Photo by L.M.P.C.

Euprepes Gravenhorstii: Bocage (1866a: 44).
Euprepes Bayonii: Bocage (1870: 68; 1872: 75; 1879b: 95; 1887: 179); Bauer et al. (2003: 270).
Mabuia bayonii: Boulenger (1887: 201; 1905: 111); Bocage (1895: 38; 1897a: 195); Monard (1937: 87).
Mabuya bayonii: Schmidt (1933: 11); Hellmich (1957b: 54); Manaças (1963: 234); Bauer et al. (2003: 270).
Mabuya bayoni bayoni: Laurent (1964: 67).
Trachylepis bayonii [part]: Ceríaco et al. (2016b: 57; 2018: 423; 2020a: 402); Marques et al. (2018: 256); Ceríaco et al. (2021: 115); Santos et al. (2021: 24).
Trachylepis bayonii bayonii: Branch et al. (2019: 318); Conradie et al. (2022: 202).

Trachylepis bayonii is an Angolan endemic, easily distinguished from all of its congeners by fused frontoparietal scales, a diagnostic character that is absent in all other Angolan species and particularly rare amongst other *Trachylepis*. The species was originally described by Bocage (1872) based on specimens from Duque de Brangança (currently Calandula), Malanje Province, and Huíla, Huíla Province. According to Bocage (1872), the species contained two varieties: "var. A," originating from Duque de Bragança, and "var. B," originating from Huíla (subsequently recognized as *T. huilensis*, see account below). The main differences between these two varieties were in their coloration patterns. Bocage's (1870) reference to "*Eupr. Bayonii*. nov. sp." represents a nomen nudum, as no description accompanied the new nomen. Bocage (1895) emphasized the difference between the two varieties and provided an illustration of the species (fig. 19).

Bauer et al. (2003) noted that two of the syntypes, both from Duque de Bragança, were still extant in the collections of the ZMB and BMNH (accession numbers ZMB 6477 and BMNH 1946.8.19.13, respectively), while the remaining specimens that were housed in the Lisbon Museum were lost during the fire that destroyed the museum in 1978. The species has been noted in the country by several authors since the original description (Boulenger, 1887, 1905;

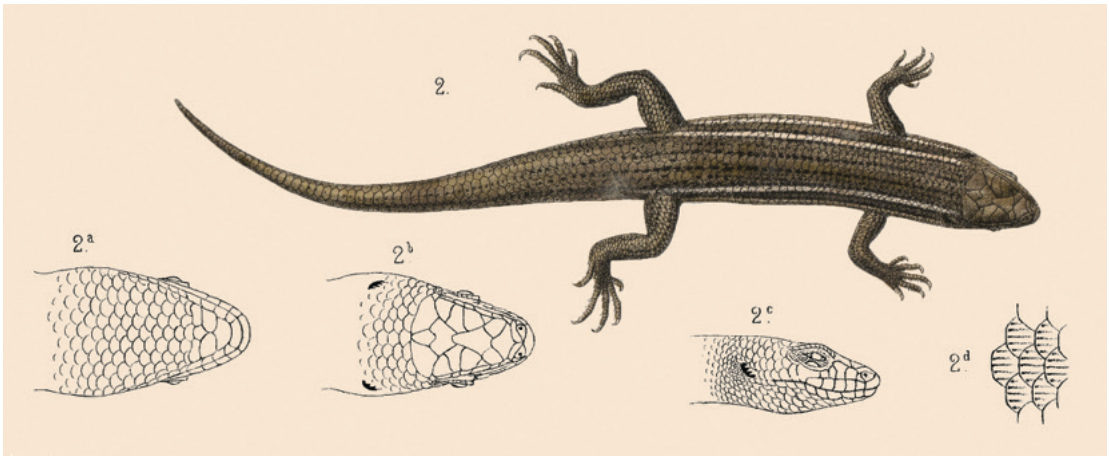


FIGURE 19. Fragment of plate III of Bocage's (1895) "Herpétologie d'Angola et du Congo" (color edition), depicting *Trachylepis bayonii*.

Schmidt, 1933; Monard, 1937; Hellmich, 1957b; Manaças, 1963; Laurent, 1964; Ceríaco et al., 2018a). Marques et al. (2018) noted that the record from "S. Salvador do Congo" (currently M'Banza Kongo), Zaire Province, from Bocage (1895), was out of the expected species range and probably represents a misidentification, but a recent sighting of a road-kill specimen (not collected; fig. 20) near Zulumongo [-7.207669°, 15.094092°, 1184 m], Uíge Province, proves that the species distribution reaches these northern regions of the country. However, as we have no molecular data from these northern specimens, we cannot reject the hypothesis that they represent a different taxon.

Loveridge (1956) described a subspecies of *T. bayonii*, *T. b. keniensis* based on specimens from central Kenya and southern Tanzania. Recent authors (e.g., Spawls et al., 2018) still considered it as a subspecies of *bayonii*, but, based on morphological differentiation between nominotypic *bayonii* and *keniensis* (pentacarinate dorsal scales in *bayonii* versus tricarinate in *keniensis*) and their geographic separation, we consider *keniensis* as a full species.

Diagnosis: A medium-sized skink (max. SVL 83.0 mm, CAS 258387), with fully developed, pentadactyl limbs (figs. 19–22); dorsal scales usually pentacarinate, but may have three to seven keels; ventral scales smooth; 58–61 SAV; 50–56 SAD; 28–35 MSR; lamellae beneath fingers and toes smooth; plantar scales smooth; 15–16 LUFT; 12–13 LUFF; supranasals always in contact; parietals usually separated; prefrontals usually separated; frontoparietals fused; enlarged nuchal scales absent; ear opening vertically ovoid and smaller than the eye; 3–4 subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of ear opening. Supralabials usually eight (rarely nine), the sixth subocular; four supraciliaries, the first notably longer; nostrils oriented dorsally. Dorsum olive to reddish brown, with a pair of faint pale dorsolateral stripes; between these there are usually two series of longitudinally aligned black spots. Top of head uniform brownish; labials cream white; a narrow white stripe extends from the labials to the hind limb insertion, sometimes bordered with black; flanks and lateral side of head and neck usually with extensive black speckling. Venter bluish white, with some grayish speckling near the flanks; subdigital lamellae and plantar scales brown.

Material Examined (* denotes type material): **Bié Province:** Chitau [-11.4333°, 17.1500°, 1510 m] (CM 5866, 5881). **Huambo Province:** Kajonde village, Mt. Moco [-12.4294°, 15.1545°,

FIGURE 20. Specimen of *Trachylepis* cf. *bayonii* found dead on the road near Zulumongo, Uíge Province. Note the fused fronto-parietal scales. Photo by L.M.P.C.

1890 m] (MUNHAC/MB03-001385). **Malanje Province:** Duque de Bragança (currently Kalandula) [-9.0740°, 15.9999°, 1065 m] (ZMB 6477*); Cangandala National Park [-9.8269°, 16.6500°, 1189 m] (CAS 258387); right bank of the Kwanza River [-9.8853°, 16.2872°, 1005 m] (CAS 258388); Gauca, 20 mi E of Dando (on Quanza river) [-11.1833°, 14.4500°, 1163 m] (CM 5736, 5739). **Undetermined locality:** Angola (MHNC-UP/REP 276, 277).

Additional Material: **Bié Province:** Bihe (= Bié) [-12.3833°, 16.9500°, 1660 m] (FMNH 18508, 18509, 18510); Chitau [-11.4333°, 17.1500°, 1510 m] (AMNH 48649; CM 5869, 5890, 5891, 5893, 5902; NMB 13227); Kwanza River Bridge [-11.9935°, 17.6696°, 1273 m] (PEM R23378). **Huambo Province:** Huambo [-12.7667°, 15.7333°, 1671 m] (AMNH 48650, 48651). **Kwanza Norte Province:** Ambaca [-9.2667°, 15.1833°, 738 m] (BMNH 1904.5.2.42); Piri-Dembos [-8.5299°, 14.4377°, 712 m] (ZMH 1086). **Lunda Norte Province:** Luzamba compound [-9.1167°, 18.0500°, 861 m] (PEM R13474, 13488). **Lunda Sul Province:** Alto Cuílo, Lunda [-10.0500°, 19.5170°, 1260 m] (MCZ R-74109, 74110; MD 5306). **Malanje Province:** Ndalla Tando (=N'dalatando) [-9.3000°, 14.9167°, 782 m] (BMHN 1909.10.29.100); Duque de Bragança (currently Kalandula) [-9.0740°, 15.9999°, 1065 m] (BMHN 1904.5.2.41, 1946.8.19.13*); Pavalange [-11.3667°, 17.6167°, 1176 m] (ANSP 32199); Cangandala National Park [-9.82689°, 16.65003°, 1086 m] (CAS 258375); Gauca, 20 mi E of Dando (on Quanza river) [-11.1833°, 14.4500°, 1163 m] (CM 5738, 5935, 5937, 5940, 5943). **Moxico Province:** environs du lac Calundo [-11.8000°, 20.8667°, 1119 m] (MD 5602); Calombe [-11.8333°, 19.9333°, 1355 m] (IICT 243/1959; 246/1959; 254/1959; 255/1959; 258/1959; 268–278/1959; 288/1959; 324/1959, 325/1959; 327–338/1959; 364–373/1959; 376–385A/1959; 421–427/1959); Cuito River source lake [-12.6894°, 18.3601°, 1435 m] (PEM R23336–8); Kulua River source lake, 6 km SE of Cuito River source [-12.7368°, 18.3931°, 1446 m] (PEM R23354); Quembo River trap 2 [-13.1354°, 19.0440°, 1369 m] (PEM R23477); Quembo River source lake [-13.1410°, 19.0543°, 1399 m] (PEM R23501); Cuito River source lake [-12.6886°, 18.3603°, 1426 m] (PEM R23514); Kulua River source [-12.7372°, 18.3934°, 1444 m] (PEM R23516); Quembo River source camp [-13.1410°, 19.0543°, 1371 m] (PEM R23553–5; INBAC/WC-4674); Rio Comba [-12.6244°, 18.6516°, 1299 m] (PEM

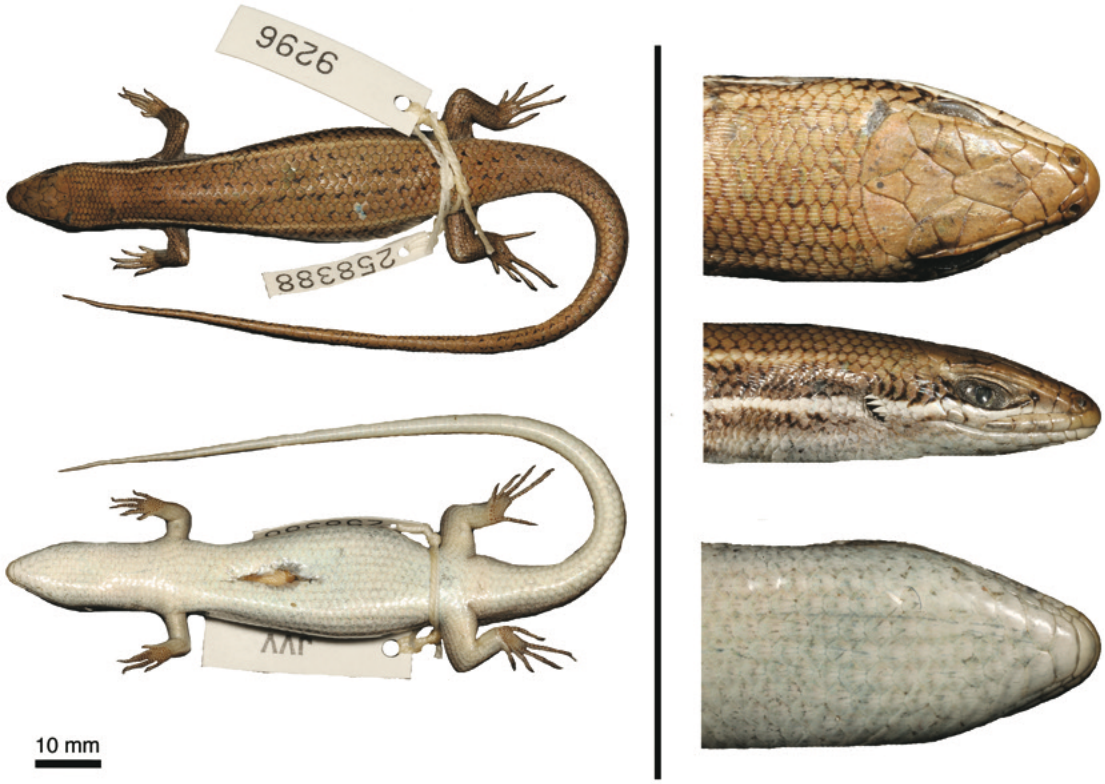


FIGURE 21. Specimen of *Trachylepis bayonii* from Cangandala National Park, Malanje Province (CAS 258388). Photos by L.M.P.C.

R23971); Lungwebungu River trap 1 [-12.5801°, 18.66740°, 1298 m] (PEM R23987); Lungwebungu River camp, at bridge [-12.5839°, 18.6655°, 1295 m] (PEM R27420); Lungwebungu River camp [-12.5844°, 18.6675°, 1297 m] (PEM R27421); Quembo River bridge camp, trap 1 [-13.5280°, 19.2815°, 1236 m] (PEM R27422); Quembo River right side tributary (Micongo River) past village [-13.5187°, 19.2849°, 1248 m] (PEM R27423–4). **Undetermined locality:** Unknown location (AMNH 48652–48661; FMNH 74298, 74299; MNHN 1866.72); Angola (MNCN 5851, 5880; MHNC 91.0538–91.541; USNM 26389); between Benguela and Bihe (BMHN 1905.5.29.19).

Historical Localities (no extant specimens): **Benguela Province:** Cahata [-12.3500°, 14.8167°, 1202 m] (Bocage, 1895). **Huambo Province:** Santo Amaro [-12.7000°, 15.8500°, 1707 m] (Monard, 1937). **Huíla Province:** Caconda [-13.7333°, 15.0667°, 1674 m] (Bocage, 1895); Huilla [-15.0500°, 13.5500°, 1733 m] (Bocage, 1872, 1895); Kalukembé [-13.7833°, 14.683°, 1699 m] (Monard, 1937); Kuvangu (= Kuvango) [-14.4667°, 16.3000°, 1453 m] (Monard, 1937). **Lunda Norte Province:** Cassange [-9.5833°, 17.8667°, 955 m] (Bocage, 1879b, 1895, 1897a). **Malanje Province:** Duque de Bragança [-9.1000°, 15.9500°, 1010 m] (Bocage, 1866a, 1872, 1895, 1897a). **Zaire Province:** S. Salvador do Congo [-6.2667°, 14.2333°, 481 m] (Bocage, 1887).

Other Localities (specimen not vouchered): **Uíge Province:** near Zulumongo [-7.2077°, 15.0941°, 1184 m] (LMPC, personal obs.).

Distribution in Angola: The species occurs on the Angolan Plateau, especially in the central and northern provinces of Huíla, Huambo, Bié, Benguela, Moxico, Kwanza Norte, Kwanza Sul, Bengo, Malanje, Lunda Norte, Lunda Sul, Uíge, and Zaire, and absent from the coastal and lower-

FIGURE 22. Life photo of *Trachylepis bayonii* from Mount Moco, Huambo Province (MUNHAC/MB03-001385). Photo by L.M.P.C.

elevation areas, as well as the southern provinces of Cuando Cubango and Cunene (fig. 23).

Global Distribution: Confirmed records of the species are restricted to Angola, although it possibly extends to adjoining areas of the Democratic Republic of Congo, as some northern records occur in habitats that are continuous between the two countries. In Huila province, where the species is sympatric with *T. huilensis* (see account below), *T. bayonii* is limited to the northern parts of the province.

Habitat and Natural History Notes: The species occurs in a wide range of habitats, from miombo dominated forests to grasslands (Grandvaux-Barbosa, 1970; fig. 24). Manaças (1963) notes that some females collected between September and November had well developed embryos. The same author noted that the Calombe, Luso (Moxico Province) specimens contained a large number of termites, Coleoptera, Orthoptera, arachnids and larvae of other small invertebrates in their stomach contents.

Trachylepis binotata (Bocage, 1867)—Ovambo Tree Skink

Figures 25–27, plate 2

Euprepes binotatus Bocage, 1867b: 230. Syntypes: MBL (specimen numbers unknown, destroyed by fire on March 18, 1978), MNHN 1462 fide Brygoo (1985), BMNH 1946.8.15.32 (formerly BMNH 67.7.23.26) fide Boulenger (1887), ZMB 5830 fide Bauer et al. (2003), collected by J.A. Anchieta. Type locality: "Benguella," Benguela Province, Angola.

Euprepes binotatus: Bocage (1867a: 223; 1879a: 88); Brygoo (1985: 13).

Mabuya quinquetaeniata: Boulenger (1887: 198).

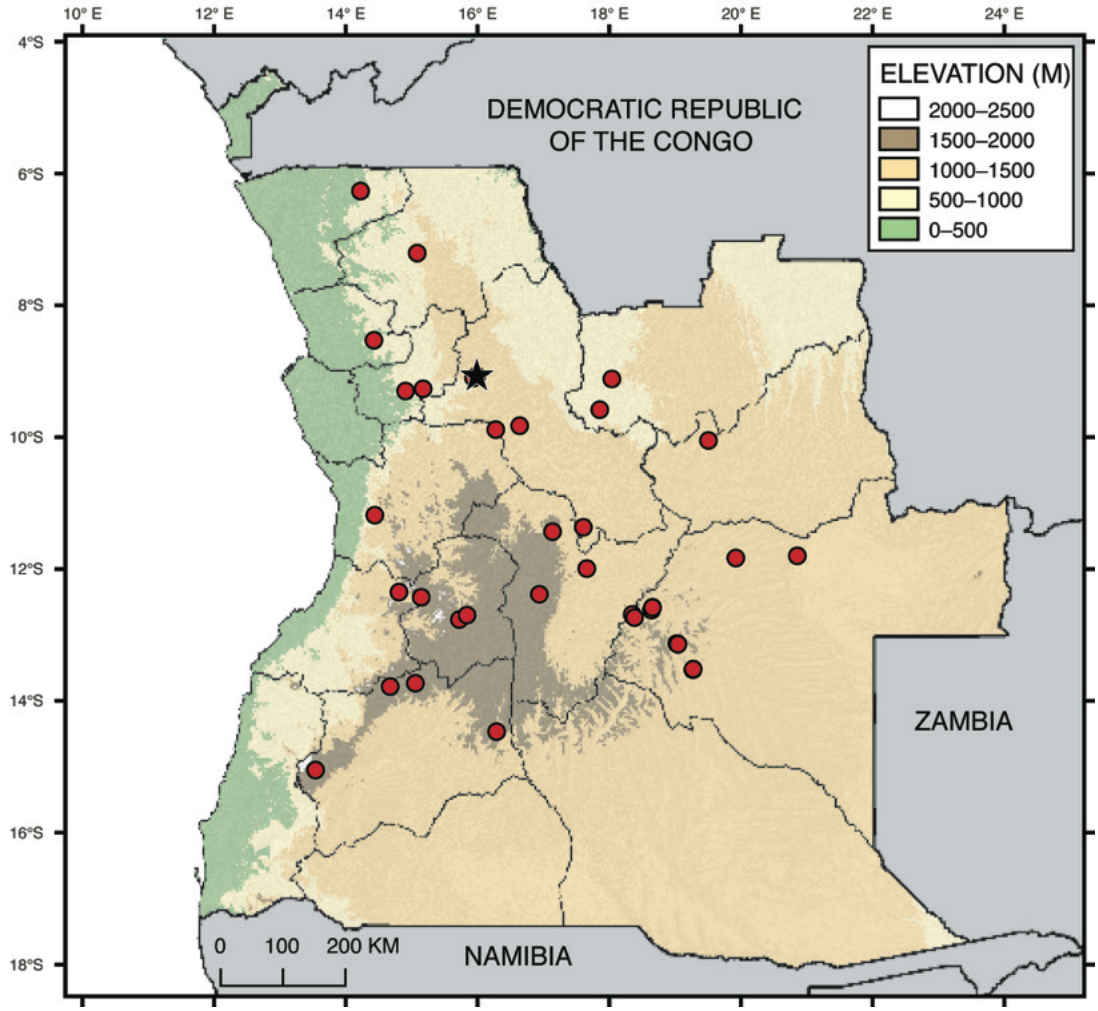


FIGURE 23. Distribution of *Trachylepis bayonii* in Angola. Black star denotes the type locality.

Mabuia binotata: Bocage (1895: 46, 1897a: 196); Monard (1937: 91).

Mabuya binotata: Hellmich (1957a: 59, 1957b: 54); Laurent (1964: 68); Branch (1998: 151); Bauer et al. (2003: 270).

Euprepes binotata: Bauer et al. (2003: 270).

Mabuya quinquetaeniata binotata: Mertens (1926: 152, 1937: 10, 1938: 437).

Trachylepis binotata: Ceríaco et al. (2016b: 57, 2021: 402); Marques et al. (2018: 257); Branch et al. (2019a: 318); Butler et al. (2019: 234); Baptista et al. (2019: 109); Santos et al. (2021: 24); Lobón-Rovira et al. (2022: 309).

Trachylepis binotata is one of the most conspicuous species in the arid regions of southern Angola and Namibia given its considerable size and arboreal habits. The species was described by Bocage based on three specimens from Benguela Province (Bocage, 1867b), and the description was accompanied by an illustration of the species (fig. 25). However, in his previous paper (Bocage, 1867a) published in the same issue as the description (Bocage, 1867b), the author presented "*Euprepes*

FIGURE 24. Typical habitat of *Trachylepis bayonii* in Kajonde, Huambo Province. Photo by L.M.P.C.

binotatus. Nov. sp.," based on several specimens from Benguella, Dombe, and Catumbella collected by José d'Anchieta. This first mention, however, lacked any formal description and diagnosis, and thus is considered here a nomen nudum. It is likely that these specimens are the same as those used in the description (Bocage, 1867b), of which one syntype is still extant in the collections of ZMB (ZMB 5830 fide Bauer et al., 2003), while another is in the collection of the BMNH (BMNH 1946.8.15.32), whence they were sent in the 19th century as duplicates. The latter syntype was erroneously listed by Boulenger (1887) as *Mabuya quinquetaeniata*. Due to its large size and conspicuous eye mask, the species has never posed any taxonomic problems to authors who have worked with it, and its identity has not been disputed.

Diagnosis: A large and robust skink (max. SVL 134.3 mm, MUNHAC/MB03-1386), with fully developed, pentadactyl limbs (figs. 25–27); dorsal scales tricarinate or pentacarinate; ventral scales smooth; 59–72 SAV; 51–60 SAD; 34–42 MSR; lamellae beneath fingers and toes smooth; plantar scales smooth; 17–22 LUFT, 14–17 LUFF; supranasals always in contact; parietals usually separated; prefrontals usually in contact; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; lacking subtriangular auricular scales on the anterior margin of the ear opening. Supralabials usually eight, the sixth subocular; supraciliaries usually five, the second the longest; nostrils oriented laterally. Dorsal surfaces grayish brown, uniform or with scattered black spots that tend to form transverse bars on the back; there may also be scattered pale spots, especially on the flanks and limbs. Labials cream white, sometimes with light grayish stippling; there is a characteristic broad, black band that starts at the eye and ends above the forelimb insertion, often bordered above by a faint pale stripe. Lower flanks and venter white, often with light grayish speckling on the chin

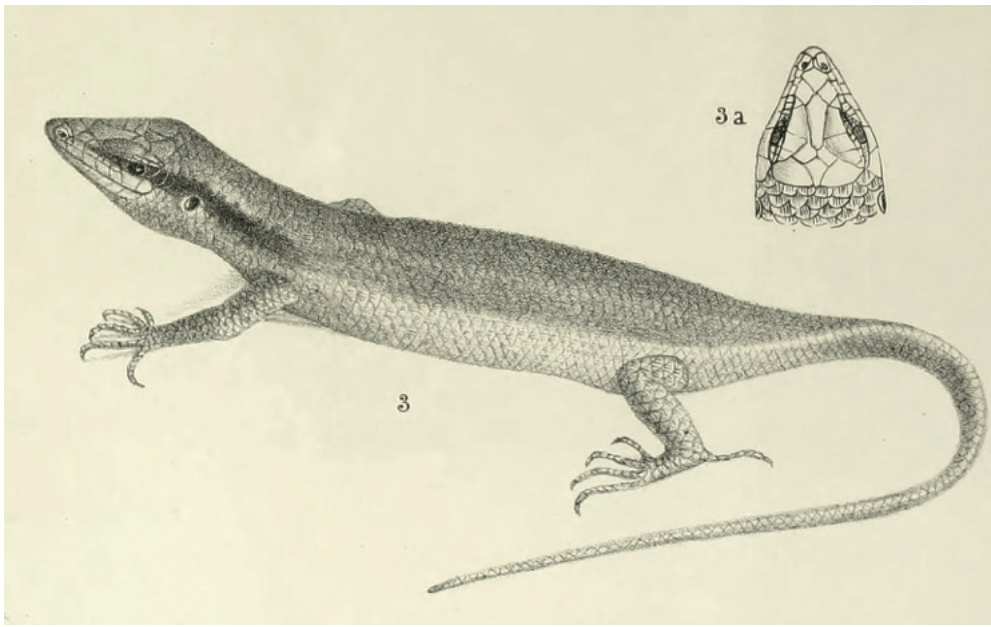


FIGURE 25. Section of the plate of Bocage (1867b) depicting *Trachylepis binotata*.

and throat; subdigital lamellae and plantar scales usually brownish.

Material Examined (* denotes type material): **Benguela Province:** Catumbela [-12.4333°, 13.5500°, 15 m] (ZMB 5830*). **Huíla Province:** Bicuar National Park, Matunto Ranger Station [-15.3694°, 15.2751°, 1159 m] (MHNC-UP/REP 441). **Namibe Province:** Capangombe [-15.0974°, 13.1391°, 542 m] (MUNHAC/MB03-001386, 001452); Maconjo [-15.0167°, 13.2000°, 856 m] (ZMB 7794); Virei-Chipumpo [-16.2442°, 12.9179°, 617 m] (CAS 263496); Virei camp [-16.1196°, 12.8346°, 522 m] (UF 187303); Camucuio [-14.1137°, 13.2432°, 670 m] (CAS 263535); Maungo houses [-14.5380, 12.7448, 365 m] (CAS 264721); base camp, located in a dry river line at Maungo farm [-14.3934°, 12.8289°, 367 m] (CAS 264733); base of Serra da Neve, Maylowe village [-13.8357°, 13.2763°, 800 m] (CAS 266149); Serra da Neve base, 2km *N* of Maylowe [-13.8280°, 13.2625°, 818 m] (MUHNAC/MB03-001453, 001454). **Undetermined locality:** Unknown locality (MHNC-UP/REP 268).

Additional Material: **Benguela Province:** Benguela [-12.58333°, 13.41667°, 15 m] (MNHN 0.1462; BMNH 1946.8.15.32*, 1906.8.24.69, 1906.8.24.70; ZSM 85/1953); Catengue [-13.0333°, 13.7333°, 553 m] (MCZ R-22420, 22421, 28636; NHMW 9677; SMF 21579–21588); Cubal [-13.0333°, 14.2500°, 921 m] (SMF 25393–25403). **Cunene Province:** Mupa [-16.1833°, 15.7500°, 1166 m] (MHNC 91.0497, 91.0498, 91.0499); Kuvelai (= Cuvelai) [-15.6500°, 15.8000°, 1217 m] (NMB 12993); Ruacana Falls [-17.3876°, 14.2118°, 897 m] (TM 38642–38645). **Namibe Province:** Maylowe [-13.8357°, 13.2763°, 800 m] (INBAC/LMPC 1150); Capangombe [-15.0974°, 13.1391°, 542 m] (CAS 266055, MB03-001452, INBAC/AMB 9835); Maungo farm [-14.3934°, 12.8289°, 367 m] (INBAC/AMB 11461); Camacuio [-14.1137°, 13.2432°, 670 m] (AMB 10351); Virei camp [-16.1196°, 12.8346°, 522 m] (UF 187303); 50 km Moçâmedes road to Sá da Bandeira [-15.0136°, 12.5186°, 531 m] (MD 1967); Vila Arriaga [-14.7667°, 13.3667°, 955 m] (TM 22605); 11 km south of Chibemba [-15.8400°, 14.1134°, 1280 m] (TM 40103); Iona National Park [-16.9000°, 12.5833°, 1000 m] (TM 40738); Humbe [-16.6833°, 14.9000°, 1105 m] (TM 45125); Oncocua-Otchinjau 37 km NE of [-16.7213°, 13.1569°, 882 m] (TM 40795); 12 km from Oncocua [no exact location] (TM 40765); 38 km from Oncocua

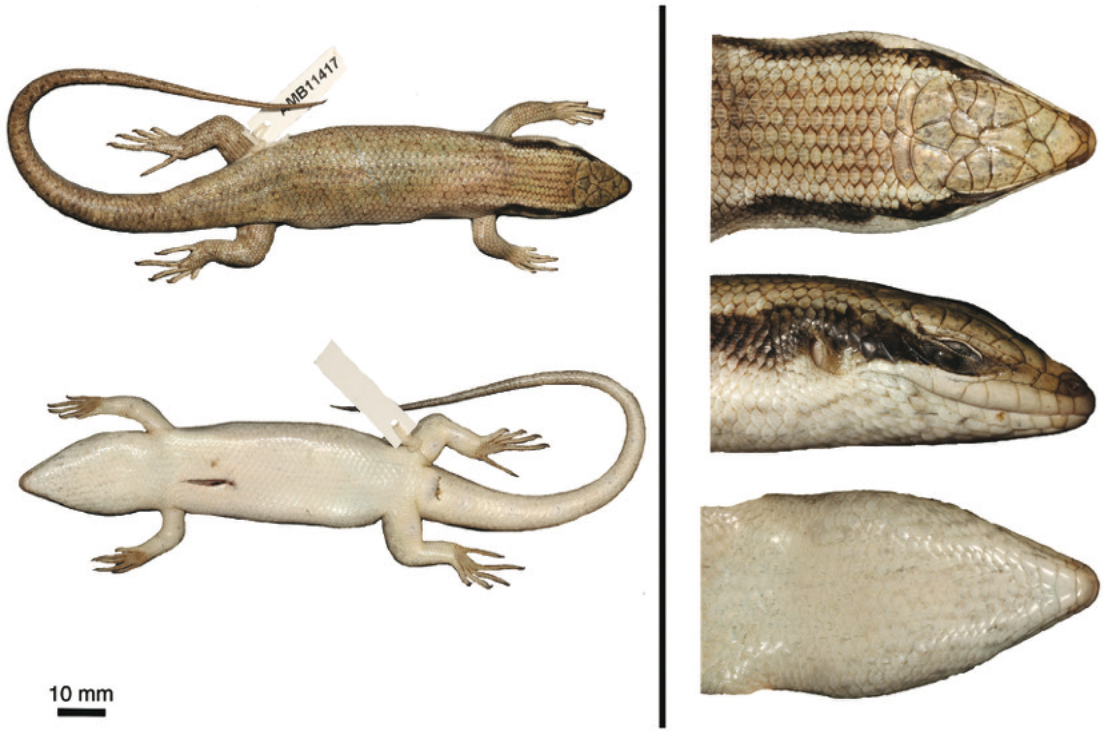


FIGURE 26. Specimen of *Trachylepis binotata* from Maungo Farm, Namibe Province (CAS 264721). Photos by L.M.P.C.

[no exact location] (TM 40770); Otchifengo [-16.6849°, 12.8413°, 584 m] (AMB 13076); Otchifengo to Montenegro road [-16.8712°, 13.1356°, 764 m] (AMB 13174). **Undetermined locality:** Bombome, Moçamedes (BMNH 1907.6.29.33–34); Unknown locality (AMNH 48763–48769).

Historical Localities (no extant specimens): **Benguela Province:** Catumbella [-12.3500°, 14.8167°, 1202 m] (Bocage, 1867a, 1895, 1897a); Benguella [-12.5833°, 13.4167°, 15 m] (Bocage, 1867a, 1867b, 1895, 1897a); Dombe [-12.9500°, 13.1000°, 50 m] (Bocage, 1867a, 1895, 1897a). **Huíla Province:** Caconda [-12.4333°, 13.5500°, 15 m] (Bocage, 1879a). **Namibe Province:** Capangombe [-15.1000°, 13.1500°, 553 m] (Bocage, 1895).

Distribution in Angola: The species is widely distributed in the southwestern parts of the country, from Benguela to southern Bié Province, southward through Huíla, Namibe, and Cunene provinces (fig. 28).

Global Distribution: Endemic to southwestern Angola and northwestern Namibia (Bauer et al., 1993).

Habitat and Natural History Notes: The species is associated with dry habitats, like mopane and miombo forests and savannahs (Grandvaux-Barbosa, 1970; fig. 29). It is usually seen in trees, hence the English common name "Ovambo Tree Skink," although it also frequents boulders and koppies (Bauer et al. 1993). Bocage (1867a) notes that the species "lives close to human populations and dwells in ruins, wall holes or in retreats of small flying mammals."

Trachylepis bocagii (Boulenger, 1887)—
Bocage's Skink

Figures 30, 31, plate 2

Euprepes Petersi Bocage, 1872: 74 [preoccupied by *Euprepes petersi* Steindachner, 1867].

FIGURE 27. Life photo of *Trachylepis binotata* from Maylowe, Namibe Province (CAS 266149). Photo by L.M.P.C.

HOLOTYPE: MBL (specimen catalog number unknown, destroyed by fire on March 18, 1978), collected by F.A.P. Bayão. TYPE LOCALITY: "Duque de Bragança dans l'intérieur d'Angola" [= Calandula, Malanje Province], Angola.

Mabuia bocagii Boulenger, 1887: 203 [replacement name for *Euprepes petersi* Bocage, 1872].

Euprepes quinquetaeniatus [nec]: Bocage (1866a: 44).

Mabuya Petersi: Bocage (1895: 42, 1897a: 197); Ferreira (1900: 49, 1903: 15, 1906:170); Tiedemann and Häupl (1980: 43); Tiedemann et al. (1994: 53).

Mabuya quinquetaeniata: Boulenger (1905: 111).

Mabuya bocagii: Parker (1936: 136); Mertens (1938: 437); Bauer et al. (2003: 275).

Mabuya quinquetaeniata quinquetaeniata: Hellmich (1957b: 54).

Mabuya bocagei: Frade (1963: 252).

Euprepes quinquetaeniata: Brygoo (1985: 90).

Trachylepis bocagii: Marques et al. (2018: 258); Branch et al. (2019: 318).

Trachylepis bocagii has a somewhat convoluted taxonomic and nomenclatural history that can be understood only in the context of the authors at the time of its description. Shortly after Bocage was entrusted with the position of the director of the Zoological Section of the National Museum of Lisbon, he started to receive specimens from the Portuguese overseas territories in Africa (Ceríaco, 2021). As a competent zoologist but still unfamiliar with the herpetofauna of Africa, Bocage trusted in his colleagues from other European museums in order to confirm his identifications and to provide helpful comments, in a kind of peer-review system. In 1865 Bocage received several specimens from Duque de Bragança that were sent by the Por-

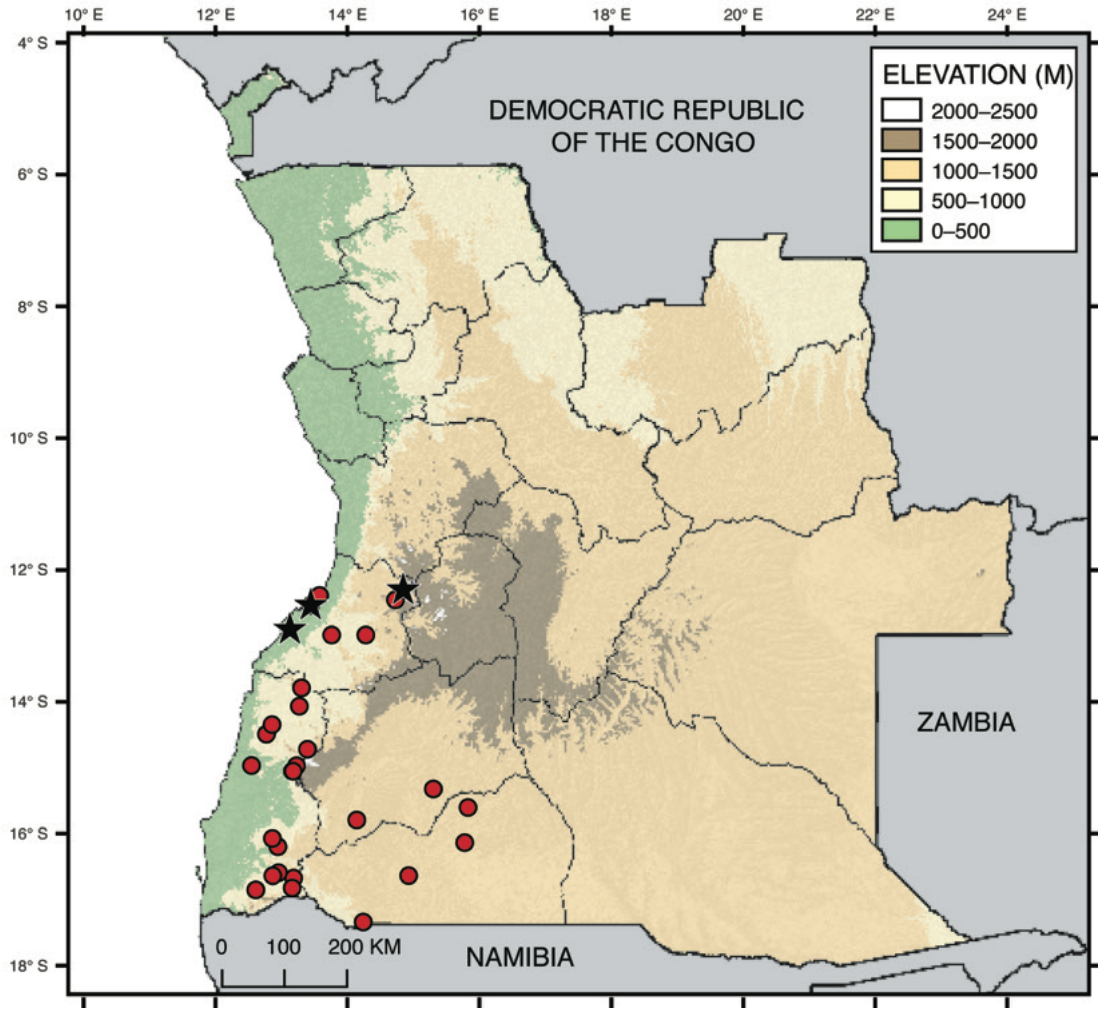


FIGURE 28. Distribution of *Trachylepis binotata* in Angola. Black stars denote the syntype localities.

tuguese colonial officer and amateur naturalist Francisco António Pinheiro Bayão (1833–1883) (Ceríaco, 2021; Ceríaco et al., in prep). Among these specimens, there were a considerable number of specimens of what Bocage (1866a) considered *Euprepes quinquetaeniatus* (currently *Trachylepis quinquetaeniata* (Lichtenstein, 1823)). He sent some of these specimens to Wilhelm Peters (1815–1883) in Berlin, Franz Steindachner (1834–1919) in Vienna, Auguste Duméril (1828–1870) in Paris, and Albert Günther (1830–1914) in London. These shipments are still recorded in the historical archives of Museu Bocage (AHMB) in MUHNAC, Lisbon. In a letter from Peters to Bocage dated July 7, 1869, the German zoologist noted to Bocage that the *E. quinquetaeniatus* specimens were not conspecific with the type of the species (Peters, July 7, 1869, in litt.). As an acknowledgment to Peters, Bocage (1872) decided to describe it as a new species, naming it *Euprepes Petersi*. For this description, Bocage provided the measurements of a single specimen from the original series of "*Euprepes quinquetaeniata*" sent to him by Pinheiro Bayão (Bocage, 1872). However, this name was already preoccupied by *E. petersii* Stein-

FIGURE 29. Typical habitat of *Trachylepis binotata* in Capangombe, Namibe Province. Photo by L.M.P.C.

dachner, 1867 (currently a synonym of *Eutropis dissimilis* (Hallowell, 1857)).

Having recognized this situation, Boulenger (1887) proposed *Mabuia bocagii* as a replacement name. He provided a completely new diagnosis and listed three syntypes—one from Duque de Bragança (the same specimen originally sent by Pinheiro Bayão to Bocage, and subsequently by the latter to Günther) and two others collected by the botanist Friedrich Welwitsch (1806–1872) in "Pungo Andongo" and an unspecified location in Angola. Since then, there have been incongruities about the interpretation of the number of type specimens for this taxon. This can be explained by the different interpretations of what a type series is. We follow a more strict and exclusive interpretation, wherein only such specimens or group of specimens that were explicitly referenced in the text of the original description are regarded as belonging to the type series. On the other hand, Bocage and other authors had a more open and inclusive interpretation of what constituted a type series, which included not only the specimens analyzed by the author of the nomenclatural act at the time of description, but also any other specimens collected on the same occasion and at the same locality.

In the type catalog of the Lisbon Museum, Bocage (1897a) referenced syntypes in the collections for *Euprepes Petersi* from Duque de Bragança and from Dondo, although he had never mentioned specimens from Dondo in his original description. Broadley was able to locate only two "syntypes" from Dondo (MBL 847a, 847b) during his visit to the Museu Bocage in the late 1960s (Broadley, 1968, unpubl. data). Other specimens wrongly labelled as syntypes are listed in the collections of NHMW (16677, from Dondo), BMNH (1946.8.15.27, from Duque de Bragança), MNHN (1286 and 1286a from Duque de Bragança), and ZMB (6479, from Duque de Bragança) and represent those that Bocage offered to the aforementioned naturalists. Bocage's (1872) description of *Euprepes petersii* contained measurements of only one specimen, which would likely have been deposited in the Lisbon Museum and should be considered the

FIGURE 30. Specimen of *Trachylepis bocagii* from Kissama National Park, Luanda Province (CAS 263436). Photos by L.M.P.C

holotype. As Broadley was unable to locate any specimen from Duque de Bragança in his visit to MBL in 1968 (Broadley, 1968, unpubl. data), it is likely that the holotype could have been lost at that stage or was overlooked. In any case, all specimens in MBL were destroyed by the fire of 1978. Several putative syntypes exist, especially considering Bocage's interpretation of type series, in which the holotype was part of a series of "several specimens" collected by Bayão in Duque de Bragança and identified as *Euprepes quinquetaeniatus* years before (Bocage, 1866a). This is the case for BMNH 1946.8.15.27 (formerly MBL, BMNH 66.6.11.7, collected by F.A.P. Bayão), sent by Bocage to London in 1866 as *E. quinquetaeniatus*. Given the fact that this specimen was sent to London six years before the description and identified as *E. quinquetaeniatus*, it is safe to assume that this was not in the hands of Bocage when he wrote the description of *petersii* and, therefore, should not be considered as part of the type series.

Diagnosis: A medium-size skink (max. SVL 76.3 mm, MUNHAC/MB03-001341), with fully developed, pentadactyl limbs (fig. 30, 31); dorsal scales tricarinate to pentacarinate; ventral scales smooth; 67–68 SAV; 55–61 SAD; 36–41 MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 21–27 LUFT; 13–20 LUFF; supranasals always in contact; parietals usually in contact; prefrontals usually separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; 3–4 subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually eight, the sixth subocular; supraciliaries usually 5, the second the longest; nostrils oriented dorsally. Dorsum olive to dark

FIGURE 31. Life photo of *Trachylepis bocagii* from Kissama National Park, Luanda Province (CAS 263439). Photo by John Cavagnaro.

brown with three white to yellowish stripes bordered with black; vertebral stripe extends from the nape to the base of the tail; dorsolateral stripes start behind the eye and continue along the tail; there are usually thick black speckles between dorsal stripes. Flanks usually darker, with a white to yellowish stripe bordered with black, starting below the eye and extending to the hind limb insertion; limbs uniform brownish above, sometimes with pale spots on the thighs. Top of head uniform brownish or with light grayish stippling; labials cream-white, usually with brown to black mottling. Venter whitish, sometimes with dark spots or streaks under the tail.

Material Examined (* denotes type material): **Luanda Province:** Kissama National Park, KAWA camp headquarters [-9.1839°, 13.3722°, 151 m] (CAS 263434–263439; UF 187304, 187305). **Malanje Province:** Duque de Bragança (currently Kalandula) [-9.0740°, 15.9999°, 1065 m] (ZMB 6479*); Laúca Dam, flooded area [-9.7627°, 15.1438°, 750 m] (MUNHAC/MB03-001341); Top area of Kalandula falls [-9.0720°, 16.0016°, 1073 m] (UF 187306); Pungo Andongo near footprints of the Queen [-9.6755°, 15.5836°, 1107 m] (CAS 263592).

Additional Material: **Benguela Province:** Huxe [-12.7167°, 13.2000°, 65 m] (BMNH no number); Cubal [-13.0333°, 14.2500°, 921 m] (SMF 25716/8). **Kwanza Norte Province:** Dondo [-9.6833°, 14.4333°, 33 m] (NHMW 16677); Nova Oeiras [-9.4507°, 14.4160°, 43 m] (ZMB 48887); Piri-Dembos [-8.5299, 14.4377, 712 m] (ZMH no number); Piri-Dembos, Roça Nova Douro [-8.5500°, 14.4333°, 630 m] (ZSM 69/1954). **Kwanza Sul Province:** Congulu, Amboim [-10.8667°, 14.2833°, 640 m] (BMNH 1936.8.1.543–546). **Luanda Province:** Kissama National Park, Bravo 1 [-9.3255°, 13.2183°, 9 m] (AMB 12380); Kissama National Park, KAWA camp headquarters [-9.1839°, 13.3722°, 144 m] (AMB 12367, 12390, 12415, 12450–54, 12474); Kissama National Park, Romeo 1 [-9.1831°, 12.3700°, 62 m] (AMB 12458). **Malanje Province:**

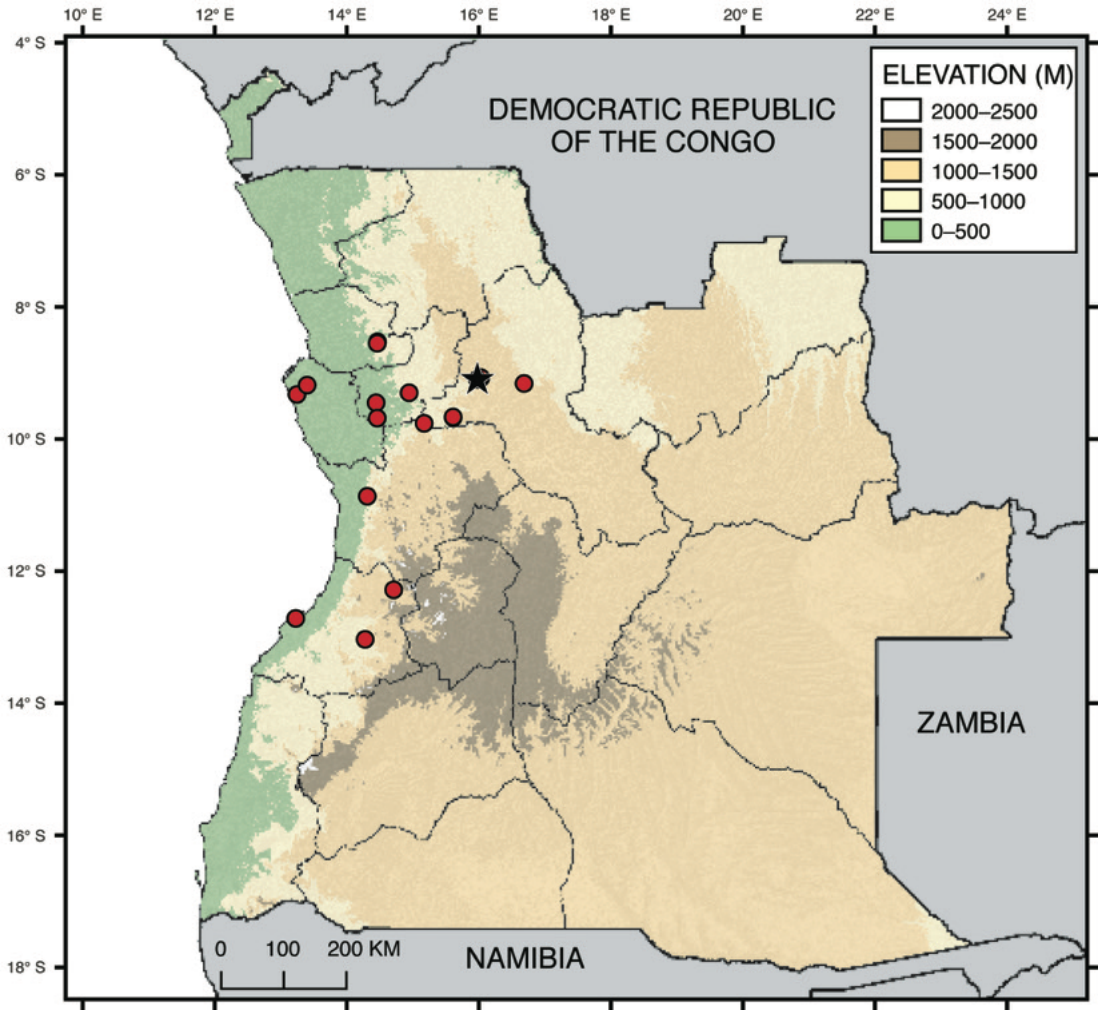


FIGURE 32. Distribution map of *Trachylepis bocagii* in Angola. Black star denotes the type locality.

Duque de Bragança (currently Kalandula) [-9.1000°, 15.9500°, 1010 m] (BMNH 1946.8.15.27; TM 45460, 45461, 45463, 45479, 45492); N'Dalla Tando (= N'dalatando) [-9.3000°, 14.9167°, 782 m] (BMNH 1909.10.29.101); Pungo Andongo [-9.6667°, 15.5833°, 1220 m] (BMNH 1864.7.13.35, 1904.5.2.37; ZMB 9205). **Undetermined locality:** Unknown locality (AMNH 48744–48745; MNHN 1866.71); Angola (BMNH 1946.8.15.30*; MNCN 5788; MNHN 0.1286; ZMH no number).

Historical Localities (no extant specimens): **Benguela Province:** Quibula [-12.2833°, 14.6833°, 1142 m] (Bocage, 1895, 1897a). **Kwanza Norte Province:** Dondo [-9.6833°, 14.4333°, 33 m] (Bocage, 1872, 1895); Cambondo [-9.1596°, 16.6577°, 1145 m] (Ferreira, 1906). **Malanje Provice:** Duque de Bragança [9.1000°, 15.9500°, 1010 m] (Bocage, 1866a, 1872, 1895); Pungo Andongo [-9.6667°, 15.5833°, 1220 m] (Bocage, 1895). **Undetermined locality:** Unknown locality (Ferreira, 1900).

Distribution in Angola: The species is widely distributed in the western parts of the country, from Malanje to Luanda, Kwanza Norte, Kwanza Sul, and Benguela provinces (fig. 32).

Global Distribution: Endemic to Angola.

FIGURE 33. Typical habitat of *Trachylepis bocagii* in Kalandula, Malanje Province. Photo by L.M.P.C.

Habitat and Natural History Notes: This species is usually found in a mosaic of forest and savannah, as well as miombo woodlands (Grandvaux-Barbosa, 1970; fig. 33).

Trachylepis bouri, sp. nov.—
Bour's Skink

Figure 34, 35, plate 3

Mabiua chimbana [part]: Bocage (1895: 45; 1897a: 195).
Trachylepis punctulata [part]: Ceríaco et al. (2016b: 31).

This newly described species was previously misidentified by Ceríaco et al. (2016b) as *T. punctulata*. According to our molecular results, this species is sister to a clade containing both topotypical *T. chimbana* and *T. bocagii* (fig. 1). The species is known only from Namibe Province. Historical records of *Mabuia chimbana* from "Maconjo" and "Capangombe" (Bocage, 1895, 1897a) are provisionally assigned to this newly described species based on overall similarity.

Holotype: An unsexed adult (CAS 263534, field number AMB 10366; fig. 34) collected at Caraculo, Namibe Province [-15.0165°, 12.6425°, 489 m], by Luis M.P. Ceríaco, Suzana A. Bandeira, and Ishan Agarwal on 23 November 2016.

Paratypes: All from Angola. Two specimens: an unsexed adult (CAS 85961, field number 603), collected at 41 mi NE Mossamedes (= Caraculo) [-14.7705°, 12.5942°, 530 m] by R. Leech and E. Ross on 22 May 1958; an unsexed adult (CAS 254903, field number JVV 8594), collected at Namibe-Lubango road, marker 59, 1.8 km W of Caraculo, N side of road, Namibe Province [-15.0153°, 12.6424°, 497 m] by Luis M.P. Ceríaco, Edward L. Stanley, Arianna Kuhn, Jens V. Vindum, Sango de Sá, Suzana A. Bandeira, and Hilária Valério on 6 December 2013.

Material Examined: **Namibe Province:** Shortcut Road to Bibala from Namibe (9.24) [-15.0339°, 12.9858°, 380 m] (MUNHAC/MB03-001510); Serra da Neve, Catchi surroundings [-13.7620°, 13.2569°, 1585 m] (MUNHAC/MB03-001511); Serra da Neve, rocky area near

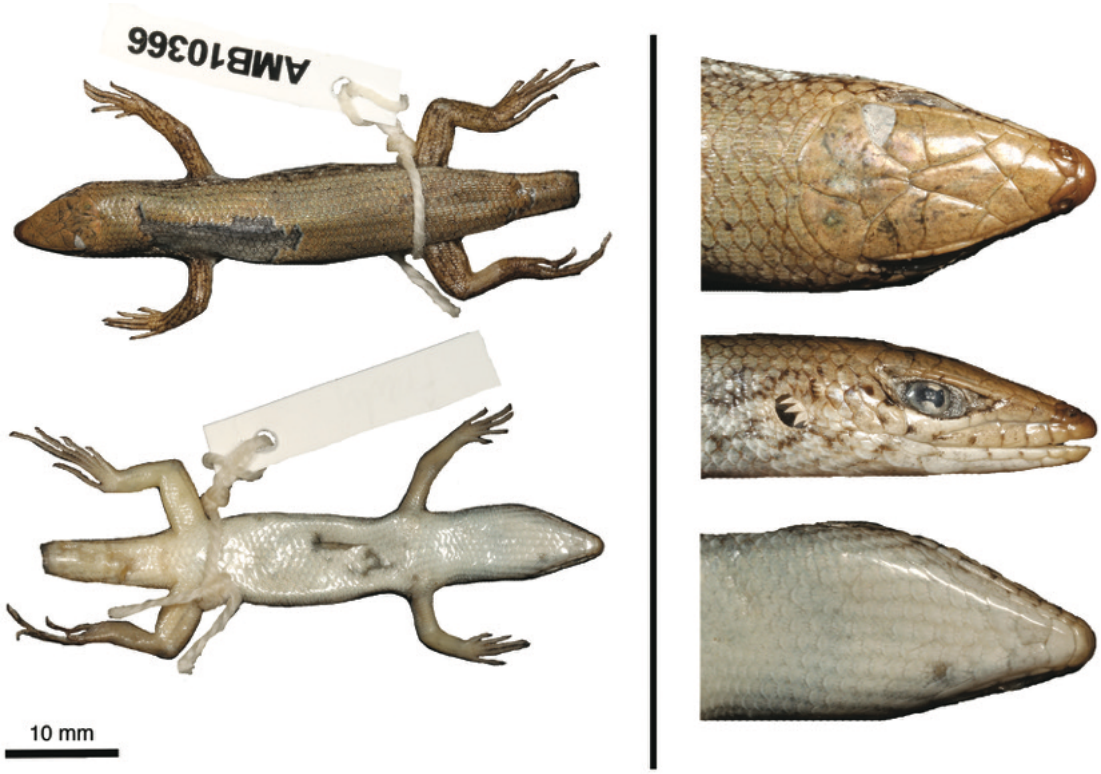


FIGURE 34. Holotype of *Trachylepis bouri*, sp. nov., from Caraculo, Namibe Province (CAS 263534). Photos by L.M.P.C.

base camp [-13.7653°, 13.2571°, 1645 m] (MUNHAC/MB03-001512).

Additional Material: **Namibe Province:** 50 km West of Humpata, by roadside in boulders [-15.0507°, 13.0279°, 464 m] (PEM R17961); along fence leading to Baptista farm (Omauha Lodge) [-15.9968°, 12.4068°, 301 m] (PEM R17962); Assunção [-14.8667°, 13.1000°, 505 m] (TM 40164, 40165); Cainde [-15.4833°, 13.3667°, 631 m] (TM 40956, 40957); Caraculo [-15.0167°, 12.6667°, 463 m] (TM 40191, 40233, 46729, 46730), [-15.0165°, 12.6425°, 464 m] (AMB 13024, 13035); Saiona River 25 km N of Cainde [-15.4000°, 13.2000°, 534 m] (TM 40982); Munhino [-14.9788°, 12.9781°, 415 m] (AMB 13048, 13055, 13056).

Historical Localities (no extant specimens): **Namibe Province:** Maconjo [-15.0167°, 13.2000°, 865 m] (Bocage, 1895, 1897a); Capangombe [-15.1000°, 13.1500°, 553 m] (Bocage, 1895, 1897a).

Diagnosis: A small-sized skink (max. SVL 56.3 mm, MUNHAC/MB03-001511), with fully developed, pentadactyl limbs (figs. 34, 35); dorsal scales pentacarinate; ventral scales smooth; 54–60 SAV; 50–54 SAD; 36–38 MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 21–23 LUFT, 15–17 LUFF; supranasals always in contact; parietals always in contact; prefrontals usually separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; three subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually eight, the sixth being subocular; five supraciliaries, the second notably longer; nostrils oriented dorsally. Dorsum bronze to golden-brown, uniform or with scattered black speckles; flanks mottled with black and white, forming a band that extends

FIGURE 35. Life photo of *Trachylepis bouri* from Namibe Province. Note the flanks mottled with black and white, forming an irregular stripe that extends from the eye to the hind limb insertion, and compare to its sister species, *T. chimbana*, in fig. 39. Photo by L.M.P.C.

from the eye to the hind limb insertion; a pair of weakly defined pale dorsolateral stripes may be present. Labials white, sometimes with black spots or vertical bars; head uniform or with scattered black spots. Venter uniformly white.

Description of the Holotype: A well-preserved, unsexed adult. Body cylindrical and robust with a poorly defined neck and well-developed pentadactyl limbs; tail truncated. Fore- and hind limbs overlap when adpressed against the body. SVL 42.3 mm. HL 11.1 mm, with relatively long and prominent snout. Additional measurements are presented in table 5. Three subtriangular auricular scales extend posteriorly from the anterior margin of the ear opening. Rostral visible from above. Nostrils oriented dorsally and set posteriorly so that postnasal effectively borders nostril. Supranasals in contact. Frontonasal broader than long, in contact with loreal scale. Prefrontals pentagonal, contacting in a single point, each in contact with the following head shields: frontonasal, loreal, first and second supraocular, and frontal. Two loreals. Frontal length similar to the distance between anterior tip of frontal and tip of snout. Frontal in contact with two supraoculars on each side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars, parietal, and interparietal. Frontoparietal plus interparietal length similar to frontal length. Interparietal twice as long as broad, with a visible parietal foramen. Parietals greater than frontoparietals. Parietals in contact with each other. Five supraciliaries, second largest. Eight supralabials, sixth being subocular. Eight infralabials. Postmental bordering seven scales (mental, two infralabials on each side and two primary chin shields). Transparent scale present in lower eye-

TABLE 5

Mensural and Meristic Data for the Type Series of *Trachylepis bouri*, sp. nov.
Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages

	CAS 263534	CAS 254903	CAS 85961
	Holotype	Paratype	Paratype
Sex	Unsexed	unsexed	unsexed
SVL	42.3	53.5	41
TL	–	–	54
TL/SVL	–	–	130
HL	11.1	12.8	9.2
HL/SVL	30	20	20
SVL/HL	380	420	450
HW	6.5	7.7	5.6
HW/HL	60	60	60
HH	4.5	5.6	4.3
IN	1.3	1.7	1.2
EN	3.6	3.6	3.5
ES	4.4	5.1	4.1
MSR	36	36	36
SAD	52	50	50
SAV	54	58	54
LUFF	17	17	17
LUFT	22	23	23
SC	5	5	5
SL (SO)	8 (6)	8 (6)	8 (6)
CP	C	C	C
CFP	C	C	C
CSN	C	C	C
CPF	S	C	S
KDS	5	5	5
Plantar scales	Smooth	smooth	smooth

lid, as is usual for *Trachylepis*. Tympanum visible, at same level as mouth. Dorsal scales each with three smooth keels. Ventral scales smooth. MSR 36, SAD 52, SAV 54. Limbs with five digits; scales on palms and soles keeled. Relative length of fingers IV > III > V > II > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 17, Toe-IV lamellae 22.

Coloration in Ethanol: Background color of flanks and upper side of head, neck, dorsum, legs and tail homogenously brown, with some white speckles running from the labials along the body to the anterior half of the tail. Above the labials the head is uniformly brown. Eyelids dark brown. Ventral surfaces uniformly whitish with some scat-

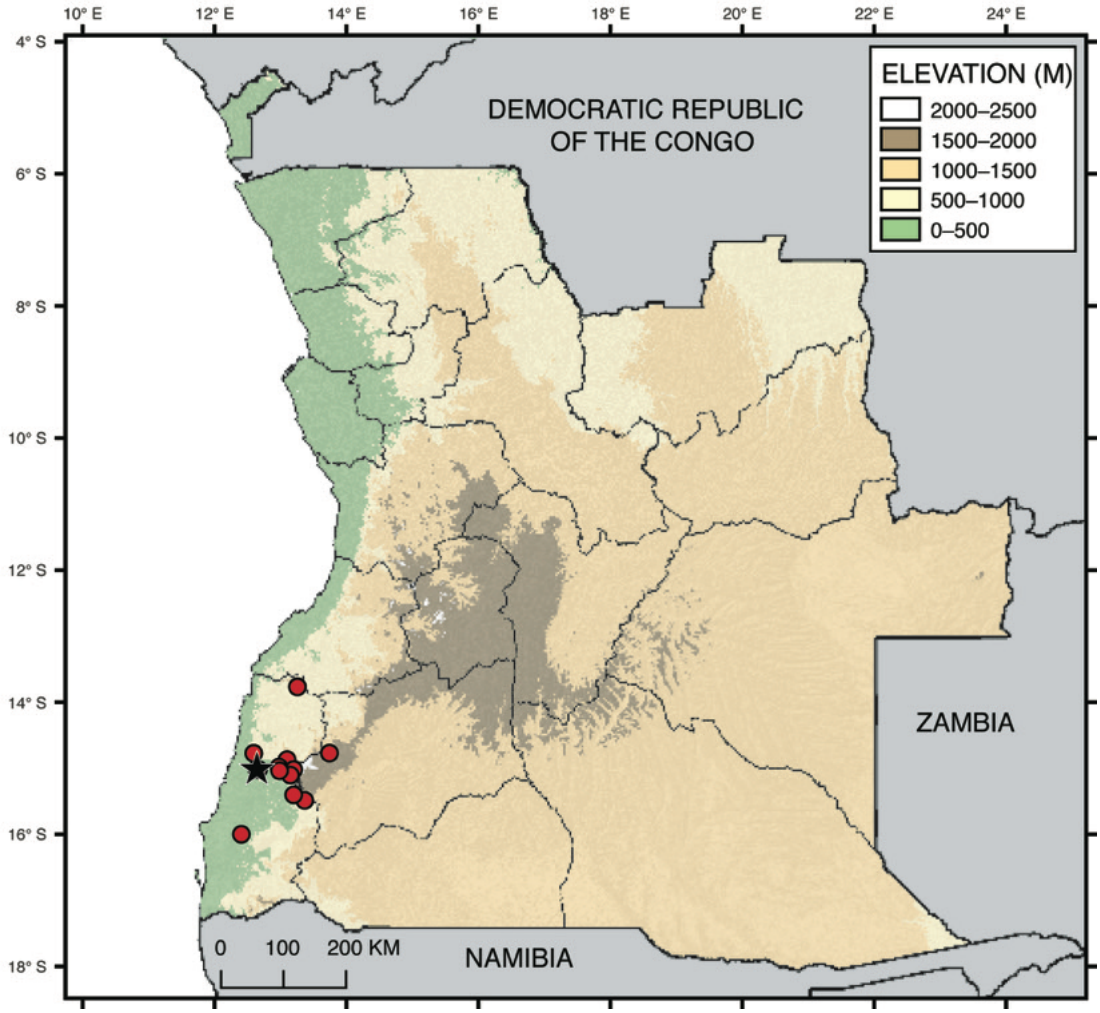


FIGURE 36. Distribution of *Trachylepis bouri* in Angola. Black star denotes the type locality.

tered dark speckles near the flanks and under the tail.

Variation: Variation in scalation and measurements among the type series is reported in table 5. Both paratypes generally agree with the holotype in terms of coloration.

Comparison with Other Angolan and Southwest African *Trachylepis*: *Trachylepis bouri*, sp. nov., differs from all the other species of *Trachylepis* known to occur in Angola, with the exception of *T. wahlbergii*, *T. attenboroughi*, *T. chimbana*, *T. punctulata*, *T. hilariae*, *T. bocagii*, *T. ovahelelo*, *T. suzanae*, *T. vunongue*, *T. wilsoni*, *T. sulcata*, *T. ansorgii*, *T. albopunctata*, and *T. damarana* by having spinose plantar scales. It differs from *T. wahlbergi* and *T. attenboroughi*, by the presence of subtriangular auricular scales on the anterior margin of the ear opening (vs. absent in the latter). *T. bouri* is readily distinguished from *T. suzanae* and *T. wilsoni*, which have wedged-shaped snouts. It differs from *T. hilariae* by having a higher number of MSR (36–38 in *T. bouri* vs. 29–30 in *T. hilariae*), from *T. punctulata* by having 50–54 SAD (vs. 42–50 in the latter) and by having a speckled pattern (vs. mostly uniform dorsum in topotypical *T. punctulata*), and from *T. vunongue*

FIGURE 37. Typical habitat of *Trachylepis bouri* in Caraculo, Namibe Province. Photo by Arianna Kuhn.

by having 36–38 MSR and 15–17 LUFF (vs. 30–35 MSR and 9–14 LUFF in the latter). It differs from *T. bocagii* by absence of dorsal bands and from *T. ovahelelo* by presence of a dark lateral patch. *T. bouri* differs from *T. ansorgii*, *T. sulcata*, *T. albopunctata* and *T. damarana* by having its nostrils situated more dorsally, directed upward (vs. nostrils situated more laterally, directed sideward in the latter). In comparison to its sister taxon *T. chimbana*, *T. bouri* has an extensive lateral patch of black and white speckles extending almost to the hind limb insertion area (vs. a more limited and subtle speckling, not extending past midbody in *T. chimbana*). Regarding the remainder of the southwest African congeners of the *variegata* subgroup sensu Weinell et al. (2019), *T. bouri* is readily differentiated from *T. variegata* by having five keels on dorsal scales (vs. three in *T. variegata*).

Distribution in Angola: The species is known only from central and northern Namibe Province (fig. 36).

Global Distribution: So far only known from Angola. Haacke's (1997) records from northern Namibia may belong to *T. bouri*, but these specimens need to be reviewed.

Habitat and Natural History Notes: This species is associated with the dry habitats of Namibe Province, inhabiting dry mopane woodlands and savannah-steppe mosaic (Grandvaux-Barbosa, 1970; fig. 37).

Etymology: The specific epithet "*bouri*" is formed in the genitive singular and is masculine. It is given in honor of French herpetologist Roger Henri Bour (1947–2020). This recognition is due to the inspiration, friendship, and support for the early herpetologi-

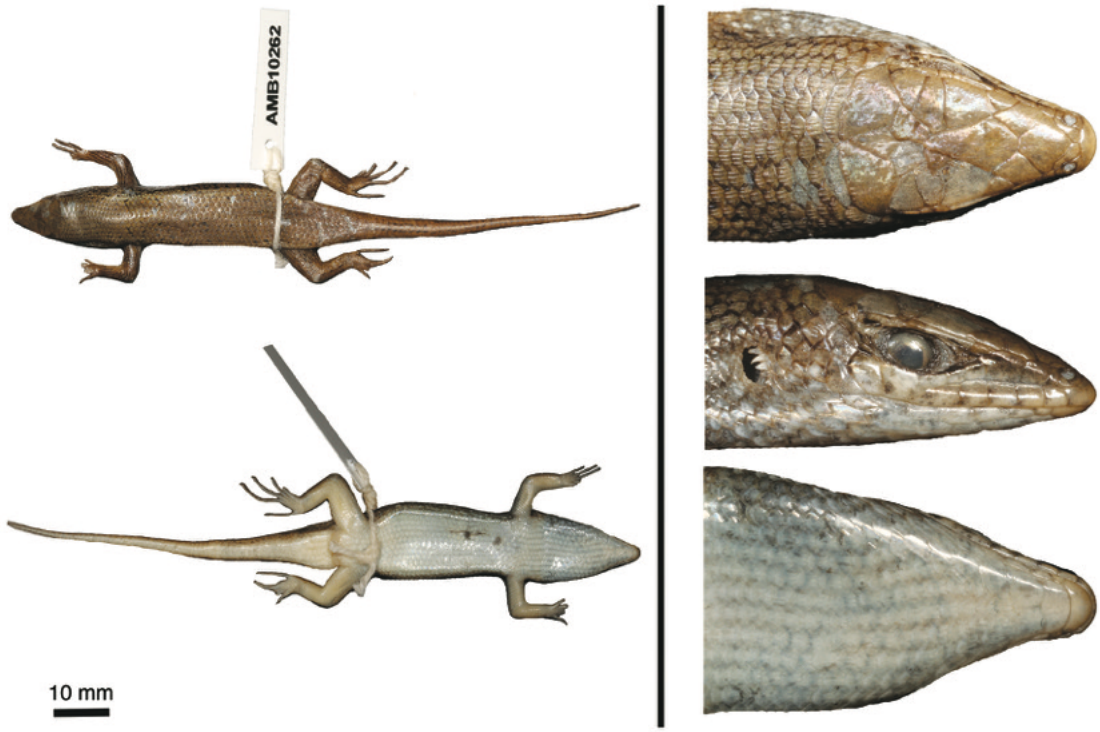


FIGURE 38. Specimen of *Trachylepis chimbana* from N'Dolondolo, Namibe Province (CAS 263542). Photos by L.M.P.C.

cal career of the two first authors. We suggest "Bour's Skink" and "Lagartixa de Bour" as the English and Portuguese common names, respectively, for this species.

Trachylepis chimbana (Boulenger, 1887)—Chimba Skink

Figures 38, 39, plate 3

Euprepes affinis [nec] Bocage, 1872: 77 [preoccupied by *Tiliqua affinis* Gray, 1838]. SYNTYPES: MBL 822 (2 specimens), 824, both destroyed by fire on March 18, 1978. TYPE LOCALITY: "Rio Chimba, dans l'intérieur de Mossamedes" [= Rio Chimba (currently Bentiaba), Namibe Province], Angola.

Mabuia chimbana Boulenger, 1887: 204 [replacement name for *Euprepes affinis* Bocage, 1872].

Mabuia chimbana [part]: Bocage (1895: 45, 1897a: 195); Frade (1963: 252).

Mabuya bocagii bocagii: Hellmich (1957a: 60).

Mabuya striata angolensis: Hellmich (1957b: 56).

Mabuya chimbana: Broadley (1974b: 13); Branch (1998: 153).

Trachylepis chimbana [part]: Portik and Bauer (2012: 128), Ceríaco et al. (2016b: 57, 2020a: 402); Marques et al. (2018: 259); Branch et al. (2019a: 318).

This small-sized Angolan endemic has been among the most taxonomically problematic species. It was originally described by Bocage (1872) as *Euprepes affinis*, based on an unspecified number of specimens (although Bocage provides the maximum size of a single specimen) collected by José d'Anchieta in "Rio Chimba" (currently Bentiaba), in northern part of Namibe province. The name *affinis* was preoccupied by *Tiliqua affinis*

FIGURE 39. Life photo of *Trachylepis chimbana* from N'Dolondolo (CAS 263543). Photo by Ishan Agarwal.

Gray, 1838 (currently *Trachylepis affinis* (Gray, 1838)), which led Boulenger (1887) to provide a replacement name—*Mabuia chimbana*—that has remained in use since then (Bocage, 1895, 1897a; Broadley, 1974b; Branch, 1998; Portik and Bauer, 2012; Ceríaco et al., 2016a, 2021; Marques et al., 2018; Branch et al., 2019a). Other authors who had worked with Angolan skinks, such as Hellmich (1957a), Schmidt (1933) and Laurent (1964), have confounded the taxon with others, such as *Trachylepis bocagii*, *T. wahlbergi*, or *T. attenboroughi* (see respective accounts).

Broadley (1968, personal commun.) examined the then extant syntypes in the collections of Museu Bocage, Lisbon, before fire destroyed the collections in 1978. According to his observations, the type series had 34–38 scale rows around the midbody, 5–7 keels on the dorsal scales, 22–24 lamellae under the fourth toe, 3–4 ear lobules, with a maximum size (SVL + TL) of 57 mm. Broadley (1974b) confirmed the validity of *chimbana* but included among his analysis specimens from southern Namibe province, namely those from Assunção, 10 km E of Caembombo, Cainde, Caraculo, 14 km NE of Caraculo, Coporolo, 12 km W of Humbia, Huke, Maconjo, and Saiona River, NW of Cainde, which belong to its recently recognized sister species *T. bouri* (see account above).

Our morphological and molecular results restrict the distribution of the species to northern Namibe and southern Benguela provinces. Records from the northeastern provinces of Moxico and Lunda Sul provided by Laurent (1964) represent *T. wahlbergii*. The record from Humbe (Schmidt, 1933) represents *T. attenboroughi* and the specimens from Humbia cited by Baptista et al. (2019) likely also represent *T. bouri*. Records from Namibia (Haacke, 1997; Branch, 1998) likely represent a misidentification with *T. bouri* or another small and putatively undescribed

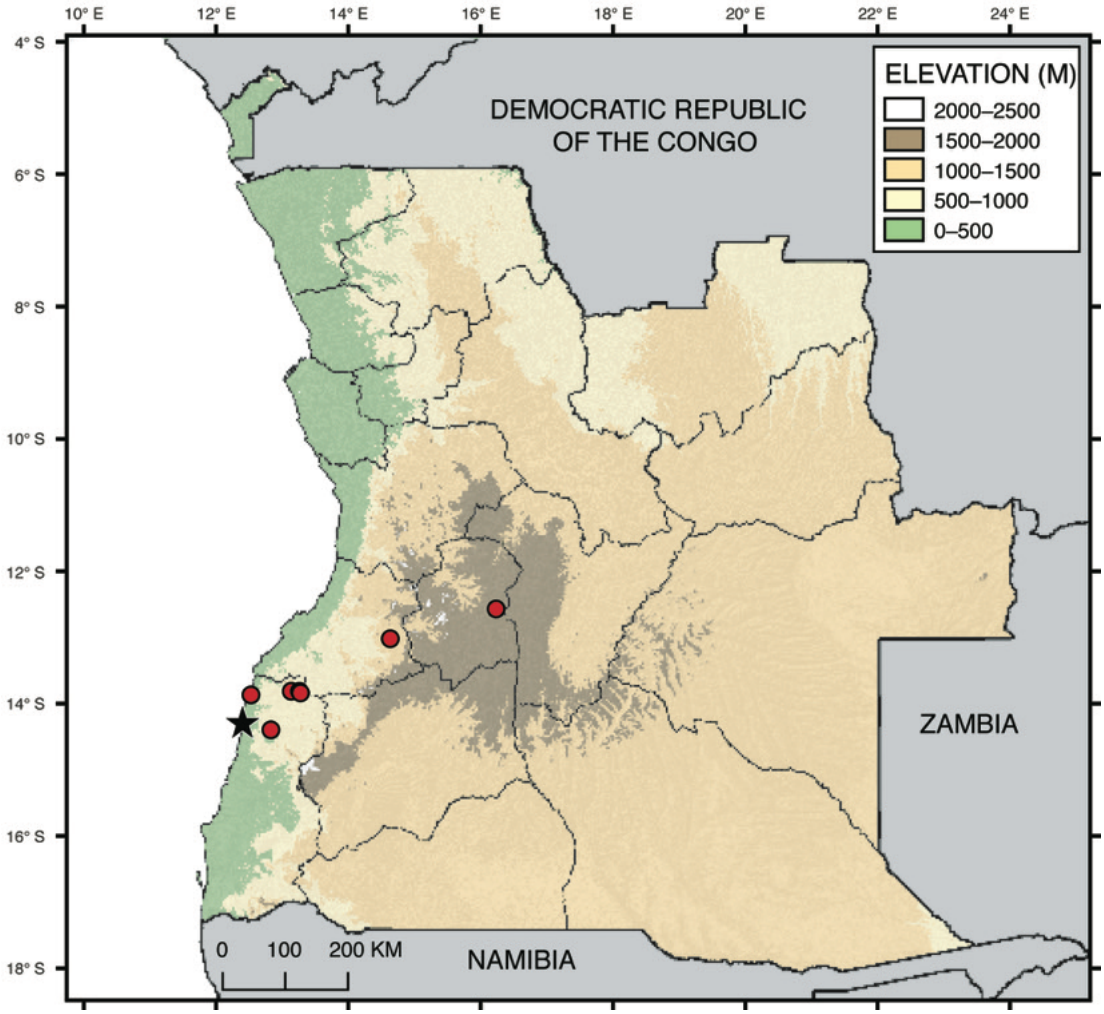


FIGURE 40. Distribution of *Trachylepis chimbana* in Angola. Black star denotes the type locality.

species of *Trachylepis*. These specimens need to be reviewed to establish their identity.

Diagnosis: A small skink (max. SVL 56.0 mm, AMNH 40657), with fully developed pentadactyl limbs (fig. 38, 39); dorsal scales usually pentacarinate; ventral scales smooth; 55–63 SAV; 49–56 SAD; 33–39 MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 18–24 LUFT; 15–17 LUFF; supranasals always in contact; parietals usually in contact; prefrontals always separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; three subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually eight, the sixth being subocular; five supraciliaries, the second longest; nostrils oriented dorsally. Dorsum bronze to grayish brown, uniform or with scattered black speckles; anteriorly flanks usually with mottling of black and white, forming a band that extends from the eye to the forelimb insertion or midbody; a pair of weakly defined pale dorsolateral stripes may be

FIGURE 41. Typical habitat of *Trachylepis chimbana*, south of Bentiaba, Namibe Province. Photo by L.M.P.C.

present. Labials white, sometimes with black spots or vertical bars; head uniformly colored or with scattered black spots. Venter uniformly white.

Material Examined: **Benguela Province:** Hanha [-12.2506°, 13.7116°, 83 m] (AMNH 40656–40662). **Namibe Province:** vic. N'Dolondolo [-13.8105°, 13.1361°, 707 m] (CAS 263542, 263543, 263544); Serra da Neve [-13.8105°, 13.2581°, 1502 m] (CAS 263562, 263563); base of Serra da Neve, Maylowe village [-13.8355°, 13.2755°, 798 m] (MUNHAC/MB03-001387); Serra da Neve base, 2km N of Maylowe [-13.8280º, 13.2625º, 818 m] (MUHNAC/MB03-001518); road from Camucuio to Serra da Neve [-14.0227°, 13.1941°, 665 m] (MUNHAC/MB03-001513); Serra da Neve, Catchi surroundings [-13.7619°, 13.2569°, 1585 m] (MUNHAC/MB03-001514); Serra da Neve, rocky area near base camp [-13.7653°, 13.2571°, 1645 m] (MUNHAC/MB03-001515, 001519).

Additional Material: **Benguela Province:** Entre-Rios [-13.0167°, 14.6333°, 1267 m] (ZSM 101/1953). **Huambo Province:** Sanguengue [-12.5667°, 16.2333°, 1806 m] (ZSM 171/1954). **Namibe Province:** Lucira [-13.8654°, 12.5269°, 6 m] (TM 41187); dirt road to Chingo [-14.3934°, 12.8289°, 620 m] (CAS 264272). **Undetermined locality:** Unknown locality (AMNH 48663–48674).

Historical Localities (no extant specimens): **Benguela Province:** Quindumbo [-12.4667°, 14.9333°, 1462 m] (Bocage, 1895, 1897a). **Namibe Province:** Rio Chimba [-14.3000°, 12.4000°, 204 m] (Bocage, 1872, 1895, 1897a).

Distribution in Angola: The species is known to occur only n Huambo, southern Benguela, and northern Namibe provinces (fig. 40). Extralimital records likely represent misidentifications. The species is replaced in the central and southern parts of Namibe Province by its sister species, *T. bouri*, reflecting a distributional turnover observed in other reptile taxa in the region (e.g., Parrinha, et al. 2021; Marques et al. 2022).

Global Distribution: Endemic to Angola.

Habitat and Natural History Notes: This rupiculous species is usually found on granite outcrops in a variety of habitats, from mopane and miombo woodlands and shrubland to savannah-steppe mosaic (Grandvaux-Barbosa, 1970; Broadley, 1974b; fig. 41).

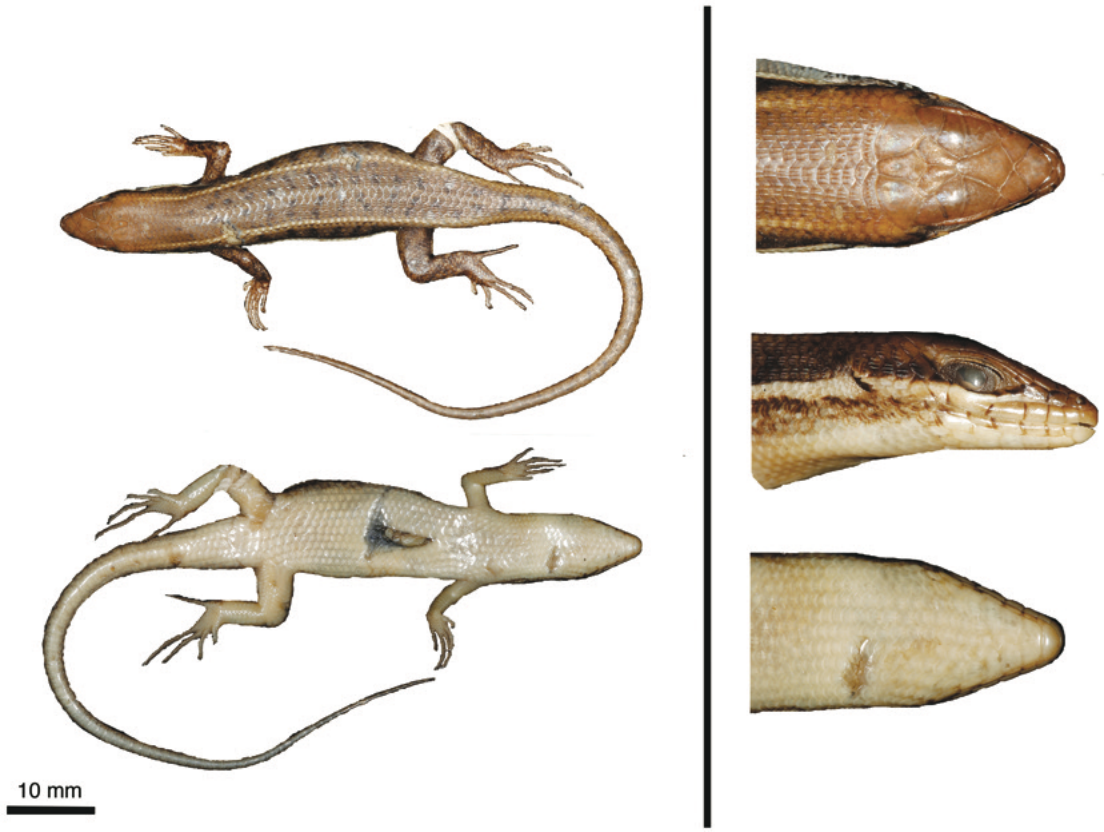


FIGURE 42. Specimen of *Trachylepis damarana* from Munguenga, Cuando Cubango Province (PEM R20507). Photos by Werner Conradie.

Trachylepis damarana (Peters, 1870)—Damaraland Skink

Figures 42, 43, plate 3

Euprepes damaranus Peters, 1870: 20. Lectotype (designated by Weinell and Bauer, 2018): ZMB 6153 (collected by Johan August Wahlberg). Type locality: "Damaraland," Namibia.
Trachylepis varia: Conradie et al. (2016: 26).
Trachylepis damarana: Weinell and Bauer (2018: 215); Marques et al. (2018: 260); Branch et al. (2019: 318); Conradie et al. (2022: 203).

This species has only recently been confirmed in Angola. Conradie et al. (2016) preliminarily identified some specimens from Cuando Cubango province as *T. varia*, but Weinell and Bauer (2018) later confirmed that these represented true *T. damarana*. So far, these are the only confirmed records of the species in the country.

Diagnosis: A medium-sized skink (max. SVL on Angolan specimens 56.2 mm, PEM R20514; max. SVL of extralimital populations 67.6 mm, see Weinell and Bauer, 2018), with fully developed pentadactyl limbs (figs. 42, 43); dorsal scales tricarinate or quadricarinate; ventral scales smooth; 50–55 SAV [40–56 in extralimital populations, see Weinell and Bauer, 2018]; 40–43 SAD; 31–34 MSR [30–36 in extralimital populations, see Pietersen et al., 2021]; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 14–17 LUFT;

FIGURE 43. Life photo of *Trachylepis damarana* from North of Rito, Cuando Cubango Province. Photo by Werner Conradie.

19–24 LUFF [up to 26 in extralimital populations, see Weinell and Bauer, 2018]; supranasals always in contact; parietals always in contact at a single point; prefrontals usually touching at a single point; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; 2–4 subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually seven, the fifth being subocular; five supraciliaries, the second longest; nostril oriented laterally. Dorsum olive brown, with a pair of faint pale dorsolateral stripes; between the stripes there is usually heavy black speckling with tendency to form transverse bars, starting behind the neck and extending extending along the tail. A bright white stripe starts at the subocular and extends through the flanks to the hind-limb insertion, usually bordered with black; a black stripe starts at the nostril and usually becomes more reticulated posteriorly, often forming irregular blotches or vertical bars on the upper flanks. Limbs variegated above, with irregular dark and pale speckles. Top of head uniformly brown or with light dark stippling; labials white, sometimes with dark vertical bars on the posterior margin. Venter white without markings.

Material Examined: **Cuando Cubango Province:** 1st dry pan 13 km from Chetto Angola Border [-17.6783°, 22.6147°, 1021 m] (PEM 20511, 20512); 2nd dry pan 25 km from Chetto Angola Border [-17.5883°, 22.6569°, 1004 m] (PEM R20513); camp site 15 km North of Mavengue [-17.0488°, 19.5344°, 1086 m] (PEM R20510); Camp site 6 km west of Sasha E, Jamba [-17.5733°, 23.2267°, 991 m] (PEM R21489); Camp site 6 km west of Sasha E, Jamba [-17.5733°, 23.2600°, 987 m] (PEM R20516); pan 18 km East of Jamba [-17.4633°, 22.8664°, 995 m] (PEM R20514); Lagoon 6 km SE of Bonavae

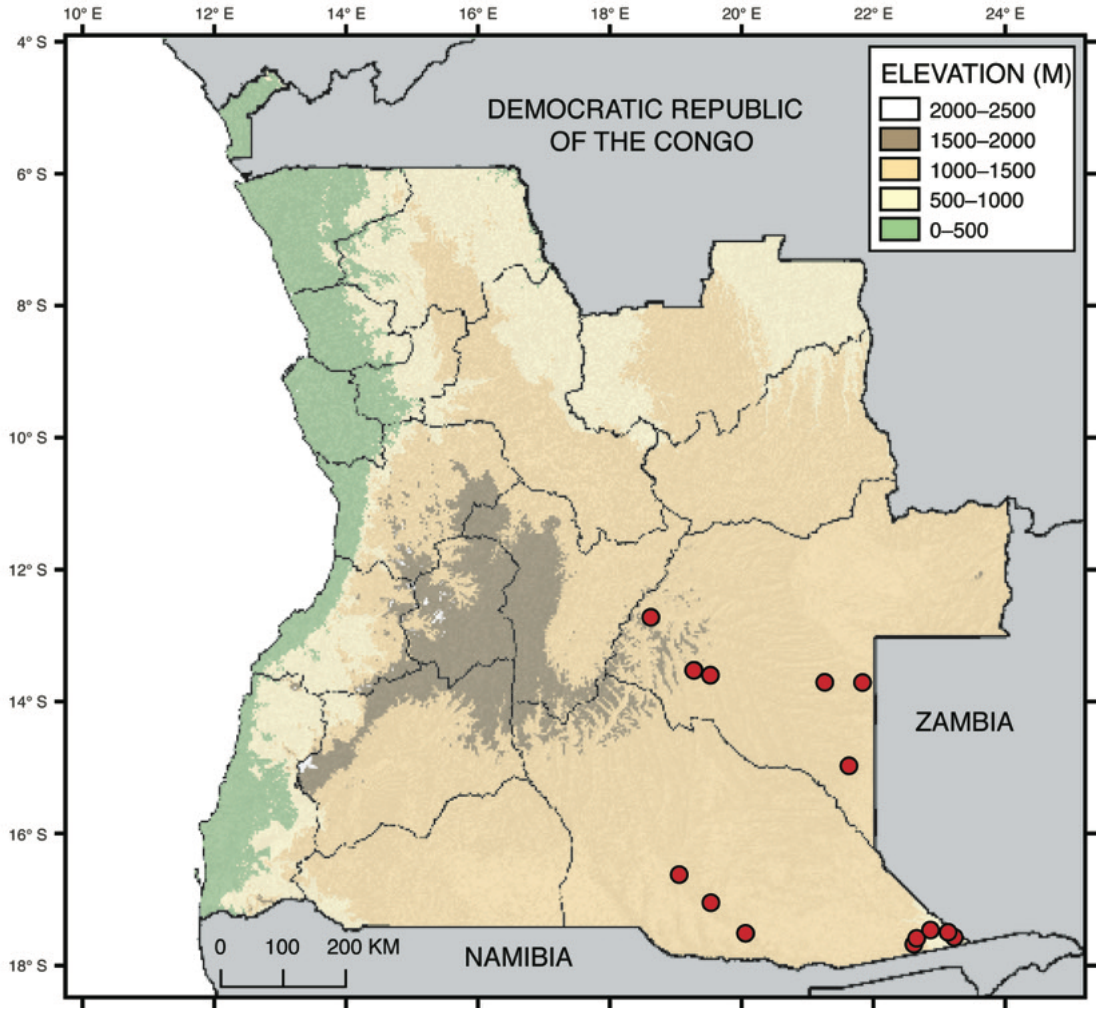


FIGURE 44. Distribution map of *Trachylepis damarana* in Angola.

(Jamba) [-17.4961°, 23.1344°, 980 m] (PEM R20515); Trap array near flooded rocky drossy to Mpupa falls (Munguenga) [-17.5122°, 20.0602°, 1079 m] (PEM R20507); 8.5 km North of Rito (Rito) [-16.6232°, 19.0535°, 1155 m] (PEM R20508, 20509). **Moxico Province:** en route to Cuanavale River Source [-12.7237°, 18.6228°, 1355 m] (PEM R23266).

Additional Material: **Moxico Province:** camp at side tributary (Luandai River) of the Luanguinga River [-13.7089°, 21.2623°, 1116 m] (PEMR27425–6, 27430); Lake Hundo [-14.9743°, 21.6297°, 1100 m] (PEM R27427, 27431); Quembo River bridge camp [-13.5275°, 19.2806°, 1241 m] (PEM R27428–9, 27432–3; INBAC/WC-6769); Quembo River bridge camp, trap 3 [-13.5278°, 19.2745°, 1256 m] (PEM R27434, 27436); left side tributary (Condinde River) at Cuando River bridge [-13.6007°, 19.5267°, 1219 m] (PEM R27435); Luvu River camp [-13.7120°, 21.8353°, 1082 m] (PEM R27437).

Distribution in Angola: The species is only known from the province of Cuando Cubango, southeastern Angola (fig. 44).

Global Distribution: *Trachylepis damarana* is known to occur in southeastern Angola and northeastern Namibia, westward through

FIGURE 45. Typical habitat of *Trachylepis damarana* in Cuando Cubango Province. Photo by Werner Conradie.

western Zambia, northern Botswana, Zimbabwe, to northeastern South Africa and western Mozambique (Weinell and Bauer, 2018).

Habitat and Natural History Notes: This species is often found near dry pans in a mosaic of savannah and miombo woodlands (Grandvaux-Barbosa, 1970; Conradie et al., 2016; fig. 45).

Trachylepis hilariae, sp. nov.—Hilária's Skink
Figure 46, plate 3

Trachylepis punctulata [part]: Ceríaco et al. (2016b: 31).

This presently described species was first reported by Ceríaco et al. (2016b) as *T. punctulata*. Our molecular results indicate that these specimens belong to a taxon that is sister to a clade comprising true *T. punctulata* and *T.* cf. *triebneri* from Namibia, and closely related to *T. variegata* from Namibia, *T. ovahelelo*, and *T. vunongue* (fig. 1). It is known only from a small area south of Tombwa in Namibe Province.

Holotype: An unsexed adult (CAS 254775, field number JVV 8721; fig. 46) collected at Tombwa dunes, Namibe Province [-16.2776°, 11.8224°, 11 m], by Luis M.P. Ceríaco, Edward L. Stanley, Arianna Kuhn, Jens V. Vindum, Sango de Sá, Suzana A. Bandeira, and Hilária Valério, on 8 December 2013.

Paratypes: All specimens from Angola. Three unsexed adults: (CAS 254769, 254770, 254771, field numbers JVV 8713, 8715, 8716, respectively), same data as holotype.

Diagnosis: A small-sized skink (max. SVL 43.1 mm, CAS 254770), with fully developed, pentadactyl limbs (fig. 46); dorsal scales pentacarinate; ventral scales smooth; 58 SAV; 46–48 SAD; 29–30 MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 21–22 LUFT, 15–16 LUFF; supranasals in contact; parietals in contact; prefrontals separated; frontoparietals in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; three subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly

FIGURE 46. Holotype of *Trachylepis hilariae*, sp. nov., from Tombwa, Namibe Province (CAS 254775). Photos by L.M.P.C.

upward from the anterior margin of the ear opening. Supralabials eight, the fifth being subocular; five supraciliaries, the second longest; nostril oriented dorsally. Dorsum and upper flanks grayish brown, with series of dark spots or dashes with tendency to form longitudinal lines, usually prolonged through the tail; limbs with a variegated aspect above, with black edged scales and scattered pale spots. Top of head brown, with light grayish speckling; anterior labials pale brown to cream-white; there may be a more or less distinct pale stripe from the subocular to the forelimb insertion, bordered with black. Venter, gular region and lower flanks grayish to bluish, often with grayish speckling near the flanks.

Description of the Holotype: A well-preserved, unsexed adult. Body cylindrical and robust with a poorly defined neck and well-developed pentadactyl limbs; tail long, its length greater than the SVL, smoothly tapering. Fore- and hind limbs overlap when adpressed against the body. SVL 37.2 mm, TL 55.3 mm. HL 8.8 mm, with relatively long and thin snout. Additional measurements are presented in table 6. Ear opening medium sized. Three subtriangular auricular scales extend posteriorly from the anterior margin of the ear opening. Rostral visible from above. Nostrils oriented dorsally and set posteriorly, so that postnasal effectively borders nostril. Supranasals in contact. Frontonasal broader than long, in contact with loreal scale. Prefrontals pentagonal, contacting at a single point, each in contact with the following head shields: frontonasal, loreal, first and second supraocular, first and second supraciliary and frontal. Two loreals. Frontal length similar

TABLE 6

Mensural and Meristic Data for the Type Series of *Trachylepis hilariae*, sp. nov.
Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages

	CAS 254775	CAS 254769	CAS 254770	CAS 254771
	Holotype	Paratype	Paratype	Paratype
Sex	unsexed	unsexed	unsexed	unsexed
SVL	37.2	32.8	43.1	33.4
TL	55.3	53	47	50
TL/SVL	150	160	110	150
HL	8.8	7.9	8.9	8.3
HL/SVL	20	20	20	20
SVL/HL	420	420	480	400
HW	5.4	4.7	5.9	4.8
HW/HL	60	60	60	60
HH	3.8	3.3	4.1	3.4
IN	1.1	1	1.2	1
EN	2.5	2.4	2.7	2.5
ES	3.6	3.3	3.6	3.6
MSR	30	29	29	30
SAD	46	47	48	46
SAV	58	58	58	58
LUFF	16	16	15	16
LUFT	22	21	22	21
SC	5	5	5	5
SL (SO)	8 (5)	8 (5)	8 (5)	8 (5)
CP	C	C	C	C
CFP	C	C	C	C
CSN	C	C	C	C
CPF	S	S	S	S
KDS	5	5	5	5
Plantar scales	spinose	spinose	spinose	spinose

to the distance between anterior tip of frontal and tip of snout. Frontal in contact with two supraoculars on each side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars, parietal, and interparietal. Frontoparietal plus interparietal length similar to frontal length. Interparietal twice as long as broad, with a visible parietal foramen. Parietals greater than frontoparietals. Parietals in contact with each other. Five supraciliaries, second largest. Eight supralabials, fifth being subocular. Six infralabials. Postmental bordering seven scales (mental, two infralabials on each side and two primary chin shields). Transparent scale present in lower eyelid, as is usual for *Trachylepis*. Tympanum visible, at same level

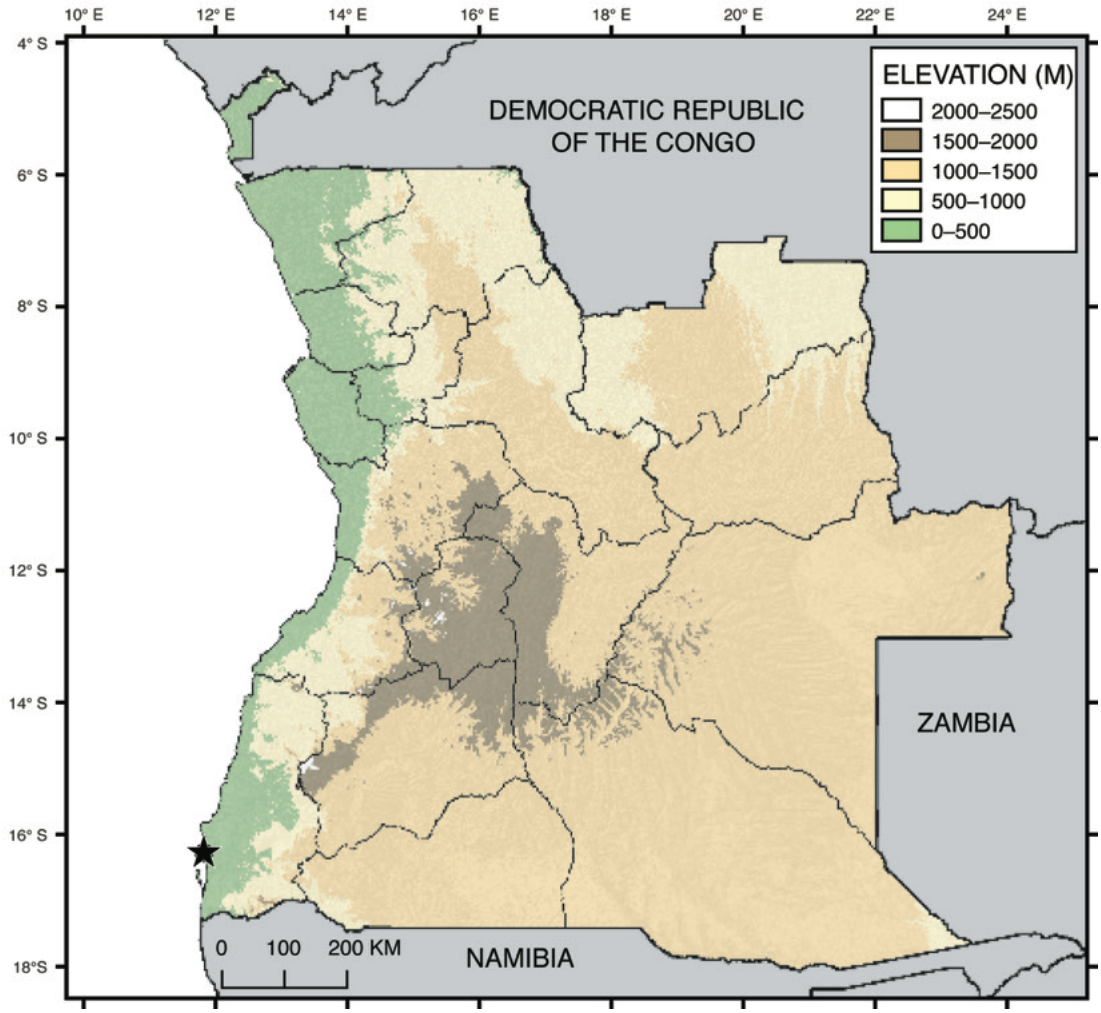


FIGURE 47. Distribution of *Trachylepis hilariae* in Angola. Black star denotes the type locality.

as mouth. Dorsal scales each with three smooth keels. Ventral scales smooth. MSR 30, SAD 46, SAV 58. Limbs with five digits; scales on palms and soles spinose. Relative length of fingers IV > III > V > II > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 16, Toe-IV lamellae 22.

Coloration in Ethanol: Background color of flanks, upper side of head, neck, dorsum, legs, and tail grayish brown, with series of dark spots that tend to form longitudinal lines from the nape to the tail; limbs variegated above with scattered pale and dark speckles. Top of head bluish posteriorly, with light grayish speckling; anterior labials brownish, subocular bluish; a dark stripe starts behind the eye and extends to the forelimb insertion, becoming reduced to scattered spots posteriorly. Lower flanks, venter, and gular region blueish, with light grayish speckling near the flanks; underside of limbs and tail whitish, with light grayish speckling under the tail.

Variation: Variation in scalation and measurements among the type series is reported in table 6.

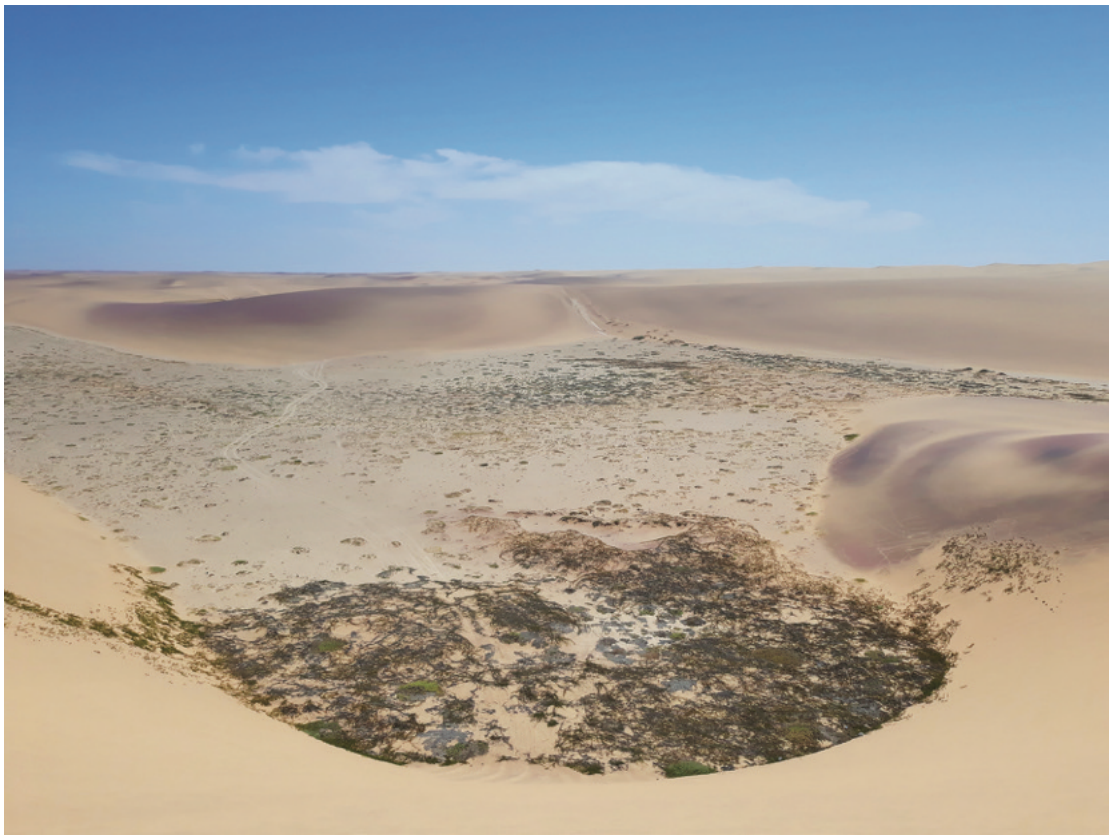


FIGURE 48. Typical habitat of *Trachylepis hilariae* in Tombwa Dunes, Namibe Province. Photo by L.M.P.C.

Comparison with Other Angolan and Southwest African *Trachylepis*: *Trachylepis hilariae*, sp. nov., differs from all other species of *Trachylepis* known to occur in Angola, with the exception of *T. albopunctata*, *T. damarana*, *T. chimbana*, *T. bouri*, *T. bocagii*, *T. attenboroughi*, *T. wahlbergii*, *T. sulcata*, and *T. ansorgi*, by having spinose plantar scales. It differs from *T. attenboroughi*, and *T. wahlbergii* by the presence of subtriangular auricular scales on the anterior margin of the ear opening (vs. absent in the latter). *Trachylepis hilariae* is readily distinguished from *T. suzanae* and *T. wilsoni* by not having a wedge-shaped snout (vs. wedge-shaped in the latter two). The new species can be readily distinguished from *T. albopunctata*, *T. damarana*, *T. ansorgii*, and *T. sulcata* by having its nostrils situated more dorsally, directed upward (vs. nostrils situated more laterally, directed sideward in the latter). It can be distinguished from *T. chimbana*, *T. bouri*, *T. ovahelelo*, and *T. bocagii* by having <31 MSR (vs. >32 in the latter). In comparison with its sister taxon *T. punctulata*, *T. hilariae* presents a grayish-bluish venter (vs. uniformly white in *T. punctulata*). It differs from *T. vunongue* by having 29–30 MSR (vs. 30–35 in the latter), 58 SAV (vs. 45–55) and 15–16 LUFF (vs. 9–14). Regarding the other southwestern African congeners of the *variegata* subgroup sensu Weinell et al. (2019), *T. hilariae* is readily differentiated from *T. variegata* by having five keels on dorsal scales (vs. three in *T. variegata*).

Distribution in Angola: This species is known only from a small area south of Tombwa, Namibe Province (fig. 47).

Global Distribution: Endemic to Angola.

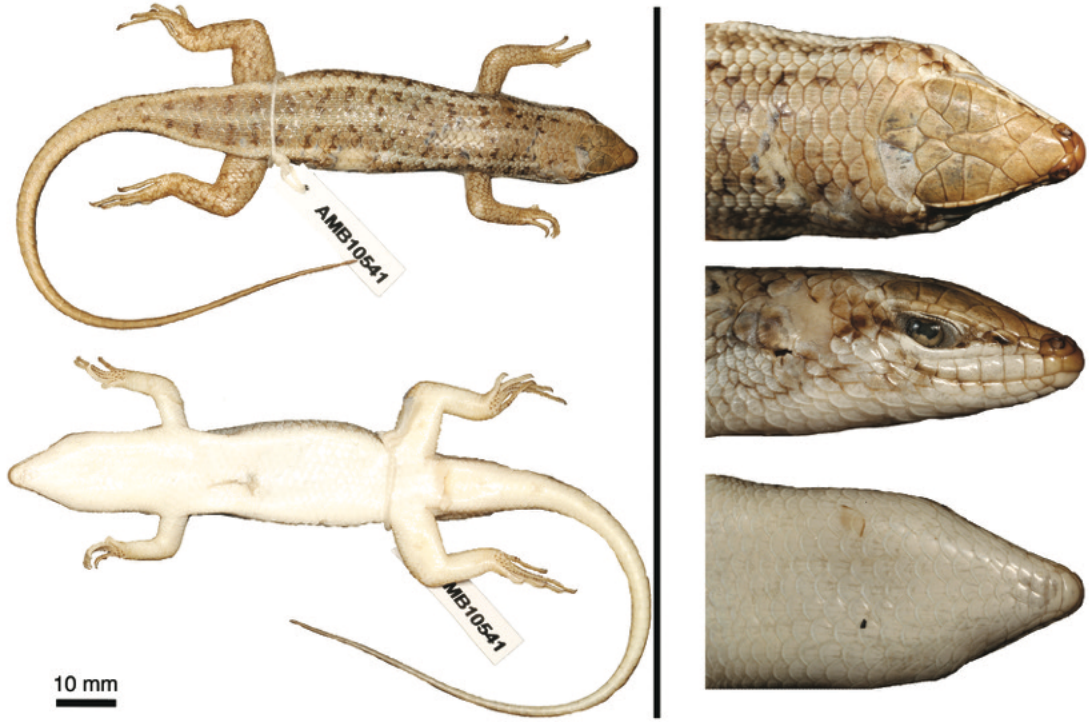


FIGURE 49. Specimen of *Trachylepis hoeschi* from Virei-Calundolo, Namibe Province (CAS 263483). Photos by L.M.P.C.

Habitat and Natural History Notes: This species is found in the mobile sand dunes of the Namib Desert in southwestern Angola (Grandvaux-Barbosa, 1970; fig. 48).

Etymology: The specific epithet "*hilariae*" is formed in the genitive singular and is feminine. It is given in honor of Hilária Valério (1991–), Angolan herpetologist and professor at Agostinho Neto University's department of biology in Luanda. Hilária has been a fundamental part of our team since the beginning of our joint herpetological studies in the country. Hilária initiated her scientific career collecting *Trachylepis* and other reptiles in the Namibe desert in 2013 and is now an established and respected member of the Angolan scientific community. We suggest "Hilária's Skink" and "Lagartixa de Hilária Valério" as the English and Portuguese common names, respectively, for this species.

Trachylepis hoeschi (Mertens, 1954)—Hoesch's Skink

Figures 49, 50, plate 3

Mabuya hoeschi Mertens, 1954: 178. Holotype: SMF 45681 (collected by W. Hoesch). Type locality: "Roessing-Berge, östlich von Swakopmund, SW-Afrika" [= Rössing Mts., east of Swakopmund, Erongo Region], Namibia.

Mabuya hoeschi: Laurent (1964: 68); Branch (1998: 153).

Trachylepis hoeschi: Ceríaco et al. (2016b: 32, 57); Marques et al. (2018: 261); Baptista et al. (2018: 402); Branch et al. (2019a: 318); Ceríaco et al. (2020a: 402); Lobón-Rovira et al. (2022: 309).

Laurent (1964) provided the first record of this species for Angola based on a single speci-

FIGURE 50. Life photo of *Trachylepis hoeschi* from Munhino, Namibe Province (AMB 13048). Photo by L.M.P.C.

men collected by António de Barros Machado in "Plage das Conchas, Moçâmedes." This new record represented a considerable extension to the species' known distribution range, which at the time was only known from Namibia. Additional material was collected from Iona National Park by Wulf Haacke in the 1970s and deposited in the Ditsong National Museum of Natural History. New records of this species were recently published by Ceríaco et al. (2016b) from Pediva Hot Springs and Namibe Reserve.

Diagnosis: A medium-sized skink (max. SVL 76.5 mm, CAS 254851, max. SVL of extralimital populations 100 mm, see Branch, 1998), with fully developed, pentadactyl limbs (figs. 49, 50); dorsal scales tricarinate; ventral scales smooth; 55–62 SAV; 43–48 SAD; 33 scales rows around the midbody [starting at 32 in extralimital populations, see Branch, 1998]; lamellae beneath fingers and toes both keeled and smooth; plantar scales smooth; 18–19 LUFT, 13–15 LUFF; supranasals usually in contact; parietals always separated; prefrontals always separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid, smaller than the eye; subtriangular auricular scales on the anterior margin of the ear opening absent. Ten supralabials; subocular not reaching the lip; supraciliaries usually five, the second longest. Dorsum grayish brown, with series of dark brown blotches forming transverse bars that may extend to the flanks, interrupted by two to three pale longitudinal stripes. Belly, throat, and lower flanks white. Scales on palms and soles with dark brown tubercules along the digits, except for the distal subdigital lamellae (usually three to five). Juveniles have a more contrasting pattern, with scattered white speckles on the back and irregular dark mottling on the hind limbs, while adults

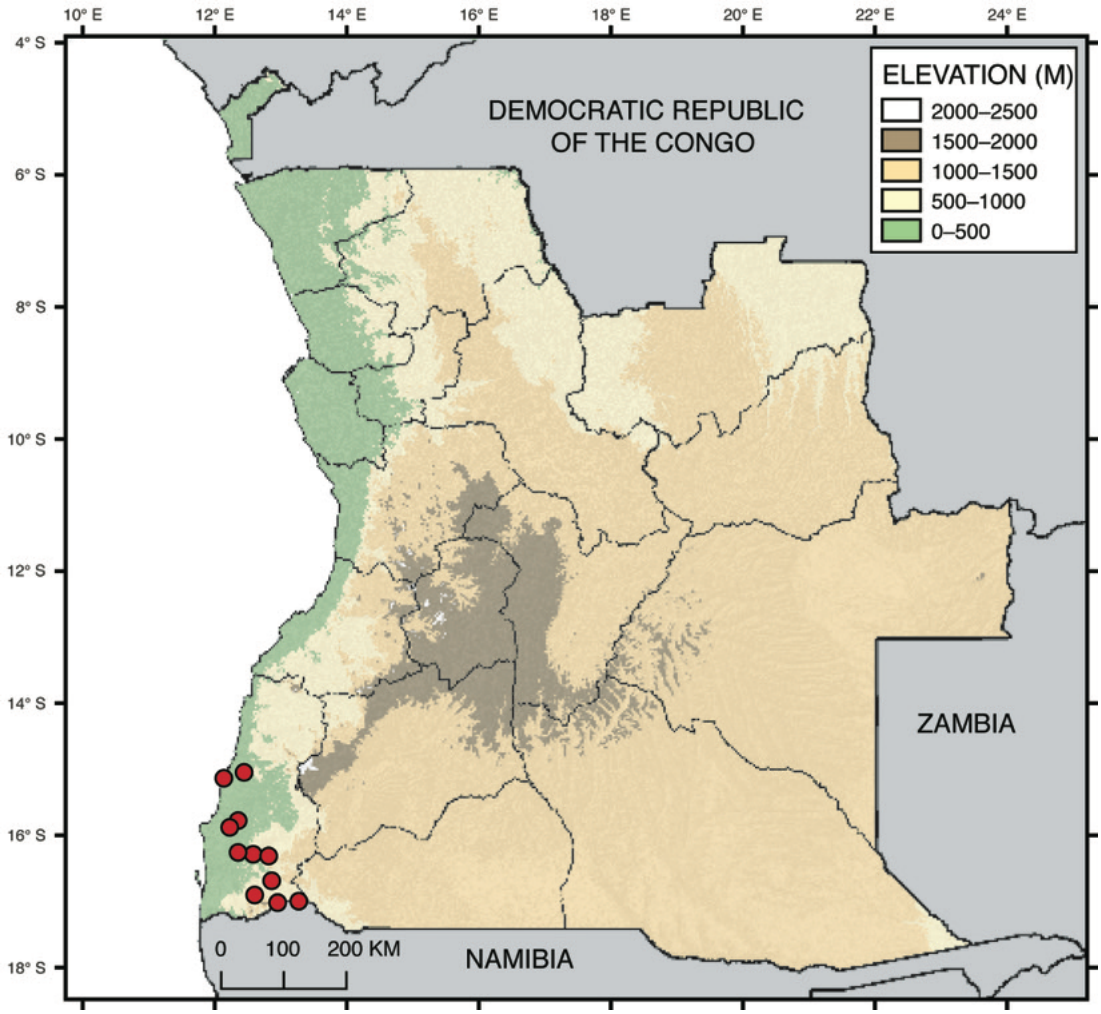


FIGURE 51. Distribution of *Trachylepis hoeschi* in Angola.

are usually duller, with the pale vertebral stripe often indistinct. Labials white.

Material Examined: **Namibe Province:** Iona National Park, Curoca River, Pediva Hot Springs area [-16.2836°, 12.5611°, 250 m] (CAS 254851); Namibe Reserve [-15.7739°, 12.3331°, 263 m] (CAS 254852); Virei-Calundolo [-16.3102°, 12.7950°, 471 m] (CAS 263483).

Additional Material: **Namibe Province:** Plage «das Conchas», Moçâmedes [-15.1333°, 12.1167°, 16 m] (MD 1932); Namibe road to Tambor, boulders on side of road, in dry river bed [-15.8761°, 12.2058°, 189 m] (PEM R17951); Iona National Reserve [-16.9000°, 12.5833°, 1000 m] (TM 40733–40737); Otchifengo [-16.6849°, 12.8413°, 584 m] (AMB 13085, 13086, 13097, 13132, 13136, 13137, 13149–51); Vipungos [-15.0439°, 12.4234°, 333 m] (AMB 13065); Baynes [-17.0161°, 12.9314°, 349 m] (AMB 13119, 13120); Curoca river near Omauha [-16.2555°, 12.3327°, 259 m] (AMB 13266); Epupa [-16.9943°, 13.2515°, 649 m] (AMB 13183, 13191, 13207).

Distribution in Angola: In Angola, the species is known only from central and southern Namibe Province (fig. 51). Baptista et al. (2018) recorded the species from the Tundavala region.

Global Distribution: Endemic to northwestern Namibia and southwestern Angola (Branch, 1998).

FIGURE 52. Typical habitat of *Trachylepis hoeschi*, Pediva Hot Springs, Namibe Province. Photo by L.M.P.C.

Habitat and Natural History Notes: This species is usually found among boulders and rocky outcrops in a mosaic of steppe, arid savannah and mopane woodlands (Grandvaux-Barbosa, 1970; fig. 52).

Trachylepis huilensis (Laurent, 1964)—Huíla Skink

Figures 53, 54, plate 3

Mabuya bayoni huilensis Laurent, 1964: 67. Holotype: MD 1866 (collected by A. Barros Machado). Type locality: "Boca da Humpata, environs de Sá da Bandeira" [= Lubango], Huíla Province, Angola.
Euprepes Bayonii Var. B.: Bocage (1872: 75).
Mabuia Bayonii [part]: Bocage (1895: 38).
Mabuya bayoni huilensis: Ceríaco et al. (2020a: 421).
Trachylepis varia: Ceríaco et al. (2016b: 31).
Trachylepis bayonii [part]: Marques et al. (2018: 256); Ceríaco et al. (2020a: 422).
Trachylepis bayoni huilensis: Baptista et al. (2018: 400); Branch et al. (2019a: 318).
Trachylepis huilensis: Butler et al. (2019: 234).

In the original description of *Euprepes Bayonii*, Bocage (1872) noted the existence of two varieties: variety A (the "typical one") from Duque de Bragança, and variety B from Huíla Province. According to the author, the difference between the two was exclusively based on coloration patterns on the dorsum and flanks (Bocage, 1872). In his major review of the Angolan herpetofauna, Bocage (1895) no longer referred to

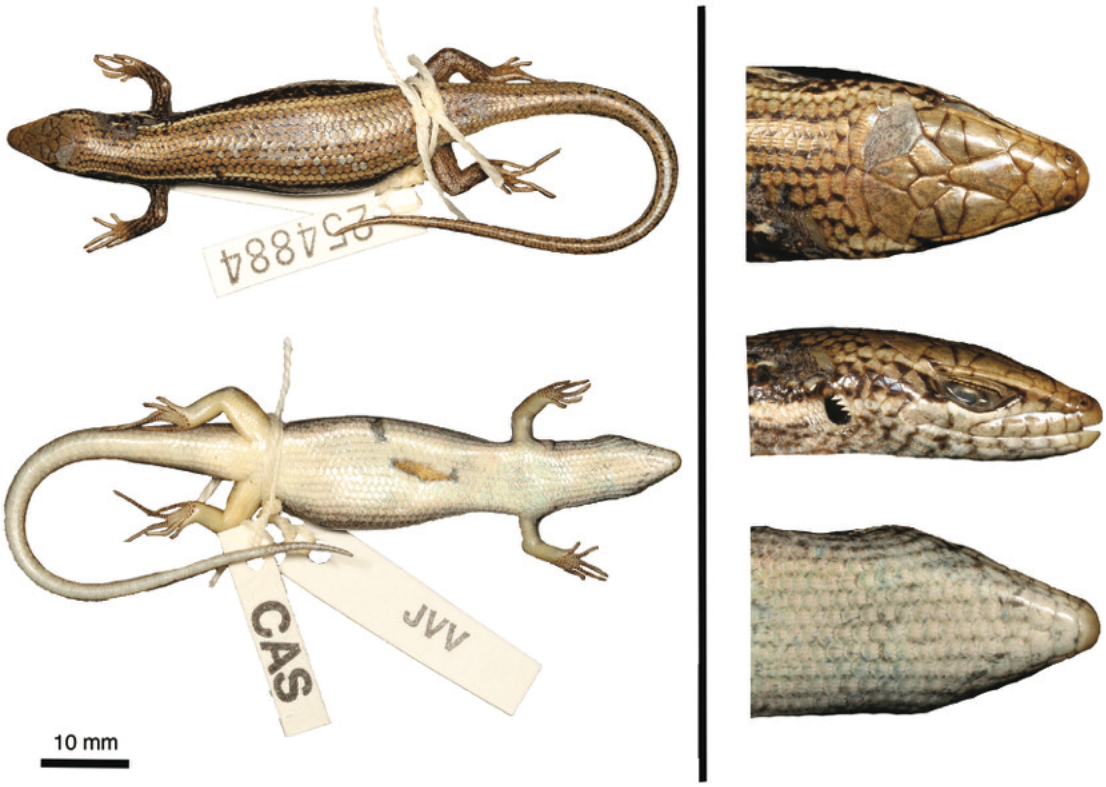


FIGURE 53. Specimen of *Trachylepis huilensis* from Leba Pass, Huíla Province (CAS 254884). Photos by L.M.P.C.

variety B, but still noted two coloration forms corresponding to the two original varieties.

Laurent (1964) described *Mabuya bayoni huilensis* based on a juvenile specimen that presented several differences in terms of scalation from the original form, namely the presence of two frontoparietal scales (vs. a single fused frontoparietal in the nominotypical form). As noted by Ceríaco et al. (2020a) who reviewed the holotype of *M. b. huilensis*, it is uncertain whether Laurent (1964) considered his newly described subspecies conspecific with Bocage's Variety B, because he did not make any reference to this form, nor did he focus its diagnosis on any coloration pattern as Bocage did. As the original "Var. B" material from Bocage was lost, it is impossible to recheck the frontoparietal condition of those specimens. Nevertheless, we feel that it likely that these two entities refer to the same taxon. Ceríaco et al. (2016b) confounded the species with *T. varia*. Marques et al. (2018) took a conservative approach and lumped *huilensis* into the nominotypical form until further research provided evidence regarding its validity, while Branch et al. (2019a) kept it as a subspecies, noting, however, that further studies would likely elevate it to full species. Based on preliminary molecular data from a recently collected juvenile specimen from Tundavala region, Huíla Province, Butler et al. (2019) confirmed that *huilensis* should be considered a full species, rather than a subspecies. Based on newly collected molecular and morphological data, we found evidence that the species is more widespread than originally known.

Diagnosis: A small skink (max. SVL 60.4 mm, MUNHAC/MB03-001470), with fully developed, pentadactyl limbs (figs. 53, 54);

FIGURE 54. Life photo of *Trachylepis huilensis* from Tundavala, Huíla Province. Photo by L.M.P.C.

dorsal scales usually pentacarinate; ventral scales smooth; 55–66 SAV; 51–56 SAD; 34–39 MSR; lamellae beneath fingers and toes smooth; plantar scales smooth; 16–18 LUFT, 12–14 LUFF; supranasals always in contact; parietals usually in contact; prefrontals always separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; four subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Eight supralabials, the sixth being subocular; supraciliaries usually three, the first notably longer; nostrils oriented dorsally. Dorsum olive brown, with a pair of faint pale dorsolateral stripes; between these stripes there are often black-edged scales with tendency to form dark longitudinal lines that continue through the tail. Top of head uniformly brownish or with light grayish stippling; labials cream white to brownish, usually with gray mottling. Upper flanks darker, with black spots that may overcome the brownish background; a white to bluish lateral stripe extends from the labials to the hind-limb insertion, sometimes indistinct anteriorly; lower flanks and sides of the neck usually with extensive black speckling. Venter bluish to white; subdigital lamellae and plantar scales brown.

Material Examined: **Huíla Province:** Tundavala [-14.8239°, 13.3811°, 1295 m] (CAS 263351); Leba Pass, between river and highway [-15.0703°, 13.2438°, 1670 m] (CAS 254874, 254884); Boca da Humpata [-14.9300°, 13.5200°, 1782 m] (MD 1866). **Namibe Province:** Serra da Neve base camp [-13.7770°, 13.2591°, 1488 m] (CAS 263565; UF 187310); Serra da Neve [-13.7877°, 13.2572°, 1600 m] (UF 187311); Serra da Neve [-13.7865°, 13.2572°, 1594 m] (CAS 263558); Serra da Neve [-13.7881°, 13.2571°, 1612 m] (CAS 263559); Serra da Neve,

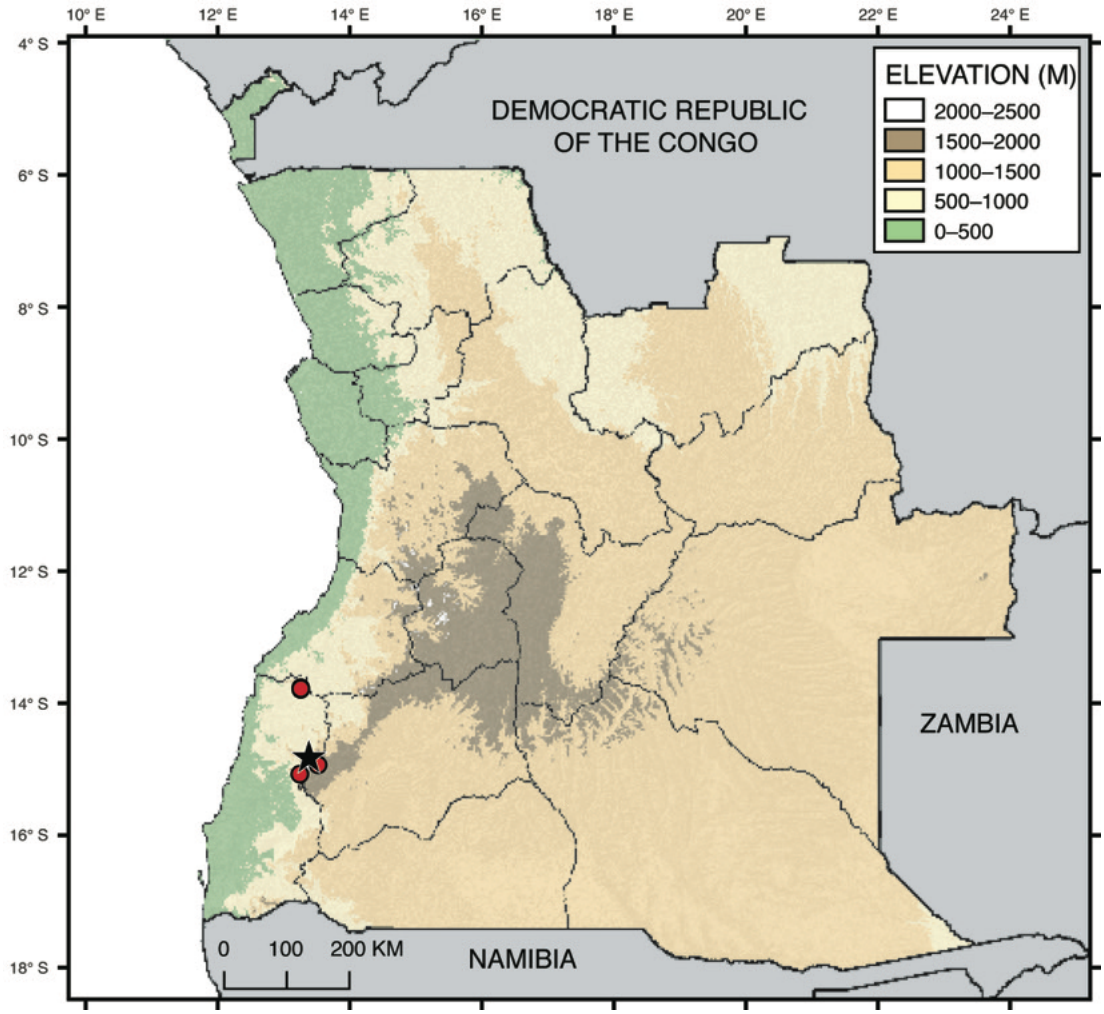


FIGURE 55. Distribution map of *Trachylepis huilensis* in Angola. Black star denotes the type locality.

2016 base camp [-13.7770°, 13.259°, 1488 m] (MUNHAC/MB03-001388, 001516); Serra da Neve, Catchi surroundings [-13.7619°, 13.2569°, 1585 m] (MUNHAC/MB03-001467, 001470, 001471, 001517).

Distribution in Angola: The species is known only from southwestern Angola, in the highlands of Huíla and Namibe provinces (fig. 55).

Global Distribution: Endemic to Angola.

Habitat and Natural History Notes: This species inhabits miombo woodlands and savannahs in the high-elevation areas of Serra da Neve and Serra da Leba (Grandvaux-Barbosa, 1970; fig. 56).

Trachylepis laevis (Boulenger, 1907)—
Angolan Blue-Tailed Skink

Figures 57, 58, plate 3

Mabuia laevis Boulenger, 1907: 212. Holotype: BMNH 1946.8.15.31 (formerly BMNH 06.8.24.71, collected by W.J. Ansorge). Type locality: "Maconjo, Benguella" [restricted to "the vicinity of the streams Conjo, Conjo

FIGURE 56. Typical habitat of *Trachylepis huilensis*, Tundavala, Huíla Province. Photo by L.M.P.C.

Pequeno, and Cocumba (12°52′S, 13°21′E, 355 m asl)" by Vaz Pinto et al. (2019)], Benguela Province, Angola.

Mabuya laevis: Hellmich (1957b: 54); Laurent (1964: 76); Branch (1998: 155).

Oelofsia laevis: Steyn and Mitchell (1965: 2)

Trachylepis laevis: Ceríaco et al. (2016b: 33, 57, 2020a: 402); Paluh and Bauer (2017: 4); Marques et al. (2018: 263, 2019b: 518); Branch et al. (2019a: 318); Vaz Pinto et al. (2019: 37); Lobón-Rovira et al. (2022: 309).

This conspicuous skink was described by Boulenger (1907) from a specimen collected by W.J. Ansorge in "Maconjo, Benguella." Vaz Pinto et al. (2019) recently restricted the type locality to "the vicinity of the streams Conjo, Conjo Pequeno, and Cocumba (12°52′S, 13°21′E, 355 m a.s.l.)," Benguela Province, and collected the first topotypic material since the original description. Hellmich (1957b) recorded one specimen from Piri-Dembos, a considerable extension of the known natural range of this species. Laurent (1964) expressed doubts regarding the identity of this outlier specimen, and Marques et al. (2018) noted that this record is "highly improbable and surely represents a misidentification, although it is not clear to which species it might actually belong." While reviewing Hellmich's (1957b) specimens in the ZMH, we were not able to locate any representative of *T. laevis*, thus this record remains uncertain. However, considering the continuous discovery of new species in the country, the presence of a not-yet-described, morphologically similar species in the forested highlands of Piri-Dembos cannot be dismissed. We posit that the specimen locality was mislabeled, and

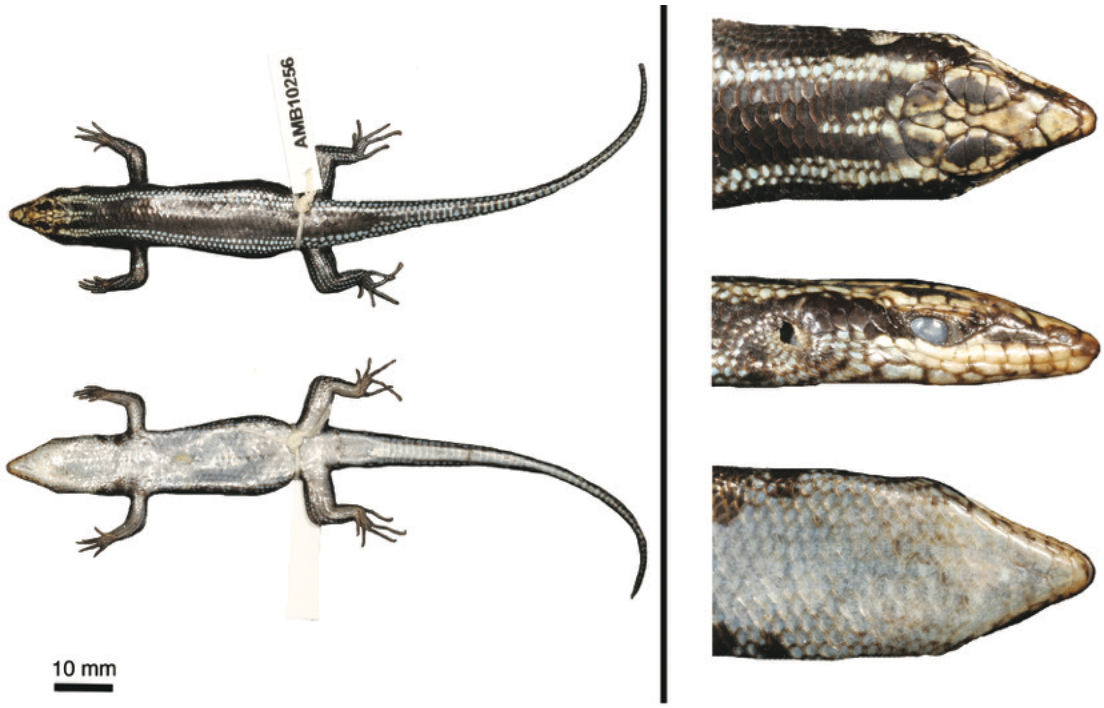


FIGURE 57. Specimen of *Trachylepis laevis* from N'Dolondolo, Namibe Province (CAS 263541). Photos by L.M.P.C.

FIGURE 58. Life photo of *Trachylepis laevis* from N'Dolondolo, Namibe Province (UF 187308). Photo by L.M.P.C.

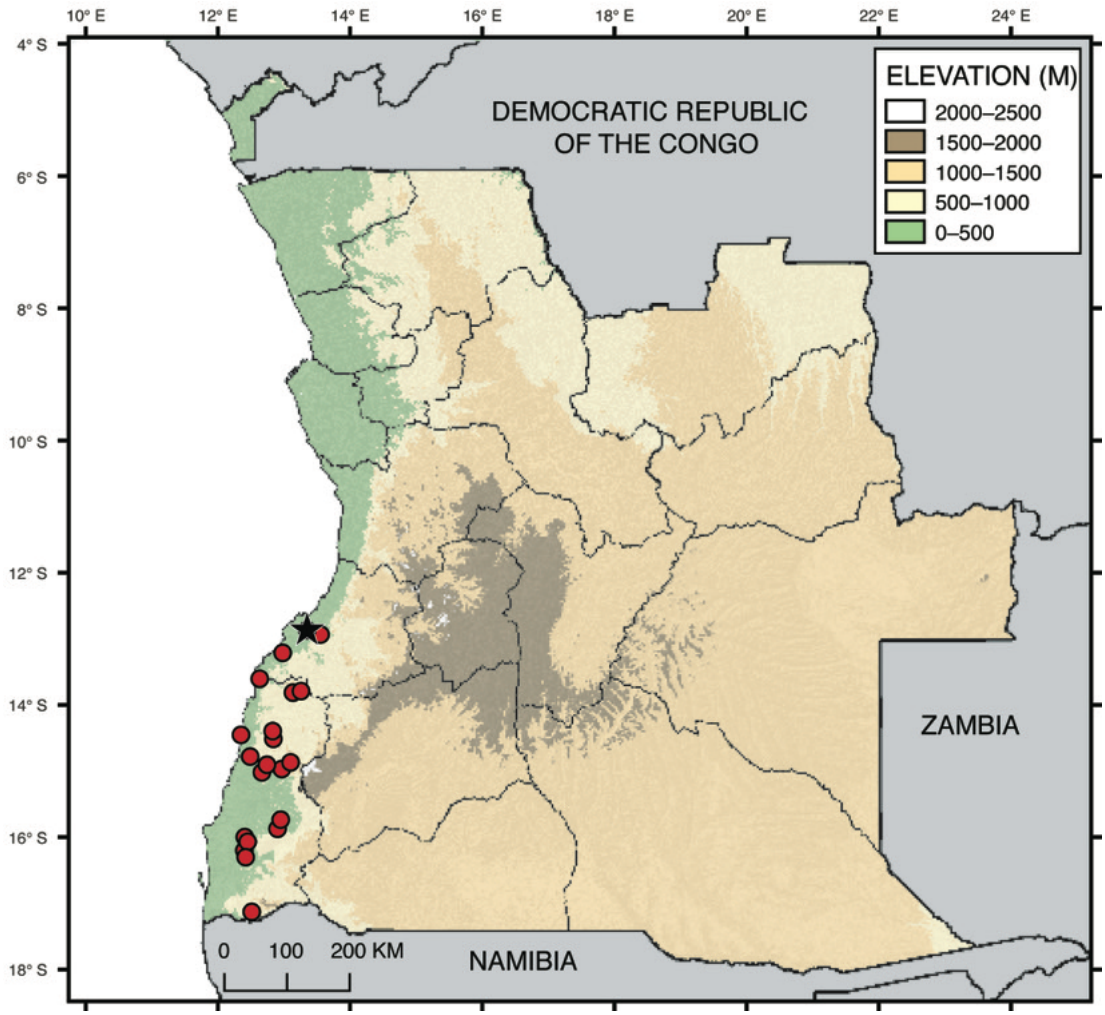


FIGURE 59. Distribution of *Trachylepis laevis* in Angola. Black star denotes the type locality.

that the now lost specimen may have originated from one of the localities in Benguela or Namibe provinces where parts of Hellmich's (1957b) collection was obtained.

Diagnosis: A medium-sized, flattened-body skink (max. SVL 63 mm, CAS 263541), with fully developed, pentadactyl limbs (fig. 57, 58); dorsal and ventral scales smooth; 56–57 SAV; 49–53 SAD; 30–33 MSR; lamellae beneath fingers and toes keeled; plantar scales smooth; 19–22 LUFT; 15–16 LUFF; supranasals separated; parietals in contact; prefrontals always separated; frontoparietals in contact; one to two pairs of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; lacking subtriangular auricular scales on the anterior margin of the ear opening. Supralabials usually nine, the seventh subocular; supraciliaries usually five; nostril oriented laterally. Dorsum and flanks black, with a pair of bright blue dorsolateral stripes; a series of irregular blue bars or spots running along the lower edge of the flanks; tail bright blue. Belly grayish blue; arms and legs grayish blue below and bright blue above, with black outlined scales forming a reticulated pattern.

FIGURE 60. Typical habitat of *Trachylepis laevis* in Mucungo, Namibe Province. Photo by L.M.P.C.

Head and throat orange in life, pale to reddish brown in preserved specimens; a black stripe starts at the nostril, crosses the eye and continues through the flanks; middorsal black band bifurcates behind the head and extends to the supraoculars.

Material Examined: **Namibe Province:** vic. N'Dolondolo [-13.8105°, 13.1361°, 713 m] (CAS 263541; UF 187308); Omauha-Chitundolo [-15.8706°, 12.9030°, 551 m] (CAS 263515); Serra da Neve [-13.7881°, 13.2571°, 1612 m] (CAS 263582); Omauha [-16.1986°, 12.4007°, 340 m] (UF 187309); Mucungo farm, rocky area [-14.7781°, 12.4888°, 325 m] (CAS 264662); Bentiaba river near Maungo [-14.5106°, 12.8391°, 4174 m] (CAS 264722); Dirt road to Chingo [-14.3934°, 12.8290°, 618 m] (MUNHAC/MB03-001389); Serra da Neve, boulders near base camp [-13.7646°, 13.2601°, 1603 m] (MUHNAC/MB03-001463–001465).

Additional Material (* denotes type material): **Benguela Province:** 53 km SE of Benguela [-12.9324°, 13.5526°, 656 m] (TM 41273); Maconjo [-12.8667°, 13.3500°, 355 m] (BMNH 1946.8.15.31*); 35 km S of Dombe Grande [-13.2098°, 12.9802°, 326 m] (TM 41252, 41253; NMZB 16416). **Namibe Province:** Muninho 50 km west Sá da Bandeira [-14.9667°, 12.9667°, 393 m] (MD 1918); Stop 2, Granite outcrops in sandy veld, 50 Km East Namibe South West Angola [no exact location] (PEM R17939); Assunção [-14.8667°, 13.1000°, 505 m] (TM 40166–40171; NMZB 16415); Caraculo [-15.0167°, 12.6667, 463 m] (TM 40231); Virei [-15.7333°, 12.9500°, 451 m] (TM 40991); Iona National Park, north of Tambor [-15.9964°, 12.4071°, 297 m] (CAS 254838); 14 km NE of Caraculo [-14.9021°, 12.7423°, 451 m] (TM 40195, 40196); Tambor [-16.0667°, 12.4500°, 401 m] (TM 40499); Rio Coroca – Iona [-16.3000°, 12.4200°, 224 m] (TM 40593); Chapeau Armado Turnoff [-14.5119°, 12.5019°, 459 m] (TM 41129); Lucira rd 5 KM S of Catara River [-13.6019°, 12.6332°, 412 m] (TM 41193, 41194); Serra Cafema [-17.1269°, 12.5126°, 2030 m] (P1.131 fide Lobón-Rovira et al., 2022); Vipungos [-15.0439°, 12.4234°, 333 m] (AMB 13007).

Historical Localities (no extant specimens): **Kwanza Norte Province:** Piri-Dembos (questionable record) [-8.5299°, 14.4377°, 712 m] (Hellmich, 1957b).

Distribution in Angola: This species occurs in the low-elevation areas of Namibe and Benguela provinces (fig. 59).

Global Distribution: Endemic to southwestern Angola and northwestern Namibia (Steyn and Mitchell, 1965; Bauer et al., 1993).

Habitat and Natural History Notes: *Trachylepis laevis* is usually found on granite outcrops in a mosaic of steppe and arid savannah (Grandvaux-Barbosa, 1970; fig. 60). This rupiculous skink is dorsoventrally depressed, with several morphological adaptations to its crevice-dwelling habits (Paluh and Bauer, 2017).

Trachylepis maculilabris (Gray, 1845)—Speckled-Lipped Skink

Figures 61–63, plate 4

Euprepis maculilabris Gray, 1845: 114. Holotype: BMNH 1946.8.18.17 (formerly BMNH xv.109a, collected by W. Raddon). Type locality: "W. Africa."

Euprepes Anchietae: Bocage 1866a: 44 Neotype [here designated]: An unsexed adult (MUNHAC/MB03-001390, field number AMB 11108; fig. 63) collected by S. Bandeira in June 2018. Type locality: Sanctuary of the Catholic Mission of Cabinda, Cabinda Province, northwestern Angola [-5.5614°, 12.1779°, 7 m].

Euprepes Anchietae: Bocage (1866b: 62).

Euprepes (Eupr.) Perrotetii: Peters (1877: 614); Bocage (1895: 39).

Mabuia maculilabris: Boulenger (1887: 164); Bocage (1895: 40); Ferreira (1906: 170); Monard (1937: 85).

Mabuya maculilabris: Loveridge (1933: 312); Parker (1936: 138); Laurent (1950: 12, 1954: 65); Broadley (2000: 94).

Mabuya maculilabris maculilabris: Hellmich (1957a: 61); Loveridge (1957: 209); Laurent (1964: 65).

Euprepes maculilabris: Mausfeld-Lafdhiya et al. (2004: 160).

Trachylepis maculilabris: Ceríaco et al. (2014: 671, 2020a: 402); Branch and Conradie (2015: 200); Marques et al. (2018: 263); Branch et al. (2019: 318); Santos et al. (2021: 24).

Trachylepis maculilabris is one of the most widespread species of the genus in the continent, ranging from West to East Africa (Mausfeld-Lafdhiya et al., 2004; Ceríaco et al., 2016a; Allen et al., 2019). It was originally described by Gray (1845) from a specimen from "West Africa." Its taxonomic and nomenclatural history is complicated, with more than a dozen different nomina proposed as subspecies and junior synonyms (Broadley, 1974; Hoogmoed, 1974; Ceríaco et al., 2016a). It has long been known that the *Trachylepis maculilabris* species complex comprises at least two clearly distinct species—the nominotypical form from West Africa, and a putatively undescribed species in East Africa (Mausfeld-Lafdhiya et al., 2004; Allen et al., 2019). Despite this fact, the nomenclatural complexity of the group has prevented taxonomists from formally describing the East African form due to the need for a careful revision of the extant type material pertaining to the numerous nomina associated with the complex. Allen et al. (2019) showed that within the West-African (nominotypical) form, there are considerable levels of phylogenetic structure. A review of the several names currently in the synonymy of *T. maculilabris* was presented by Ceríaco et al. (2016a). While some of these synonyms may prove in the future to represent valid taxa, their status does not affect the Angolan population.

The Angolan populations are conspecific with the nominotypical form, as shown by our molecular and morphological data. Nevertheless, the nomenclatural history of the species within Angolan borders also reflects its nomenclatural complexity. Bocage (1866a) coined the name *Euprepes anchietae* as a nomen nudum for a specimen brought from "Zaire," Angola, by José d'Anchieta. A valid description appeared in a subsequent paper (Bocage, 1866b) of the same issue of the journal. The holotype of this species was destroyed in the fire that consumed Museu Bocage in 1978. Years later, Peters (1879) described *Euprepes notabilis* based on specimens collected in "Chinxoxo," Cabinda Province and another from "Pungo Andongo," Malanje Province. Subsequent authors who have dealt with Angolan populations of *T. maculilabris* considered both *anchietae* and *notabilis* as junior synonyms of

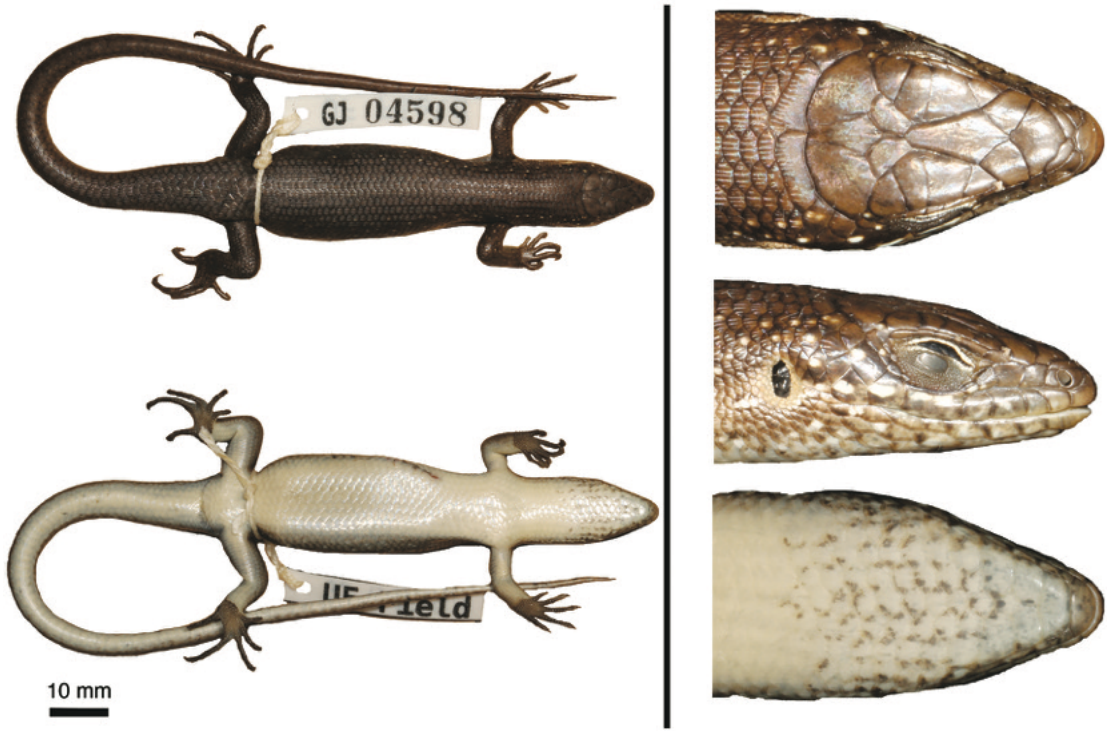


FIGURE 61. Specimen of *Trachylepis maculilabris* from Serra Mucaba, Uíge Province (MUNHAC/MB03-001401). Photos by L.M.P.C.

FIGURE 62. Life photo of *Trachylepis maculilabris* from Serra Mucaba, Uíge Province (MUNHAC/MB03-001402). Photo by L.M.P.C.

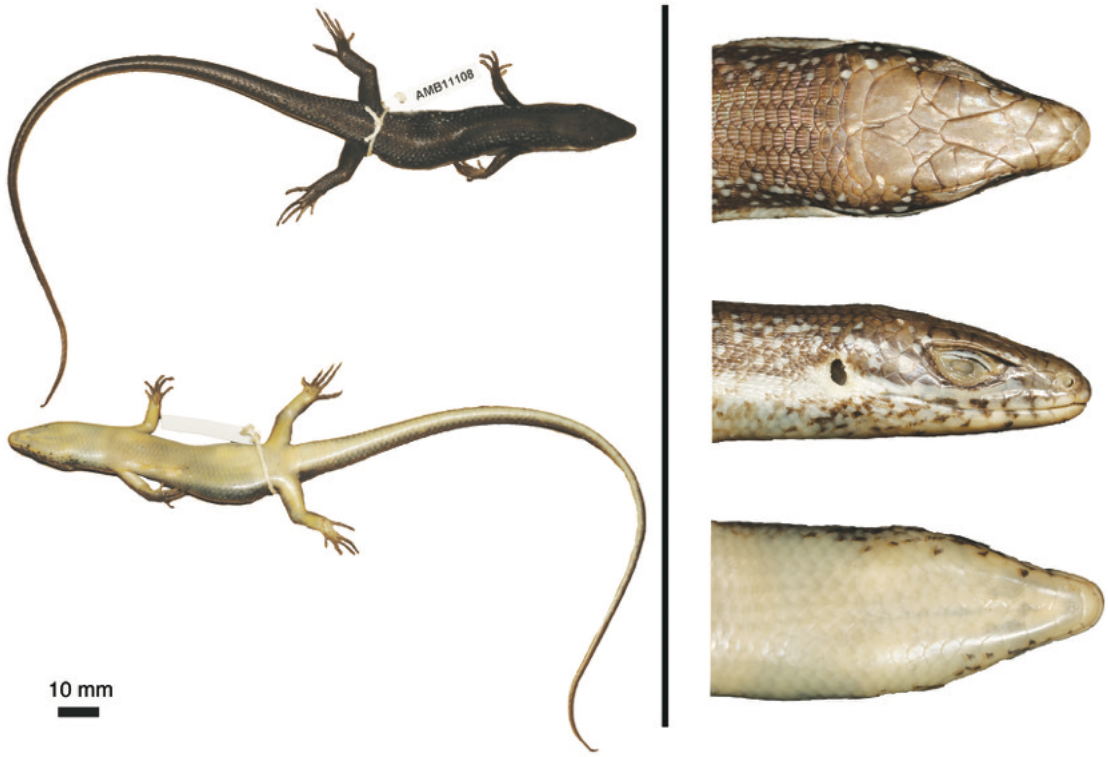


FIGURE 63. Neotype of *Euprepes anchietae* from Cabinda, Cabinda Province (MUNHAC/MB03-001390). Photos by L.M.P.C.

the nominotypical form (Boulenger, 1887; Bocage, 1895; Schmidt, 1919; Bauer et al., 2003; Marques et al., 2018). While destruction of the complete type series of *Euprepes anchietae* impedes its correct taxonomic allocation, the existence of type material of *Euprepes notabilis* confidently allows us to consider *notabilis* as a valid species (see account below). Given that both *notabilis* and *maculilabris* are sympatric in the Cabinda region from where *anchietae* was described, and given the overall similarity between both species, the type material of *anchietae* could correspond to either one of the species. Herein, we opt to follow the opinion of most authors who have dealt with this nomen and consider *anchietae* as a junior synonym of *maculilabris*. To stabilize the taxonomy of the group, we designate a neotype for *anchietae*, which corresponds both genetically and morphologically to *T. maculilabris*.

Together with *T. albilabris*, *T. maculilabris* is a representative of the central/western African clade of the genus (Weinell et al., 2019). It has historically been recorded in the northwestern areas of the country by several authors (Bocage, 1895; Ferreira, 1903; Parker, 1936; Hellmich, 1957b) and has recently been collected in Bengo (this paper) and Uíge provinces (Ernst et al., 2020; this paper), where its habitat presents a southern continuation of the Congolese habitats and biomes.

Diagnosis: A medium-sized and robust skink (max. SVL of Angolan specimens 91.9 mm, MUNHAC/MB03-001403; max. SVL of extralimital populations 95 mm; see Allen et al., 2017), with fully developed, pentadactyl limbs (fig. 61–63); dorsal scales usually pentacarinate; ventral scales smooth; 50–66 SAV; 47–62 SAD; 32–40 MSR; lamellae beneath fingers and toes smooth; plantar

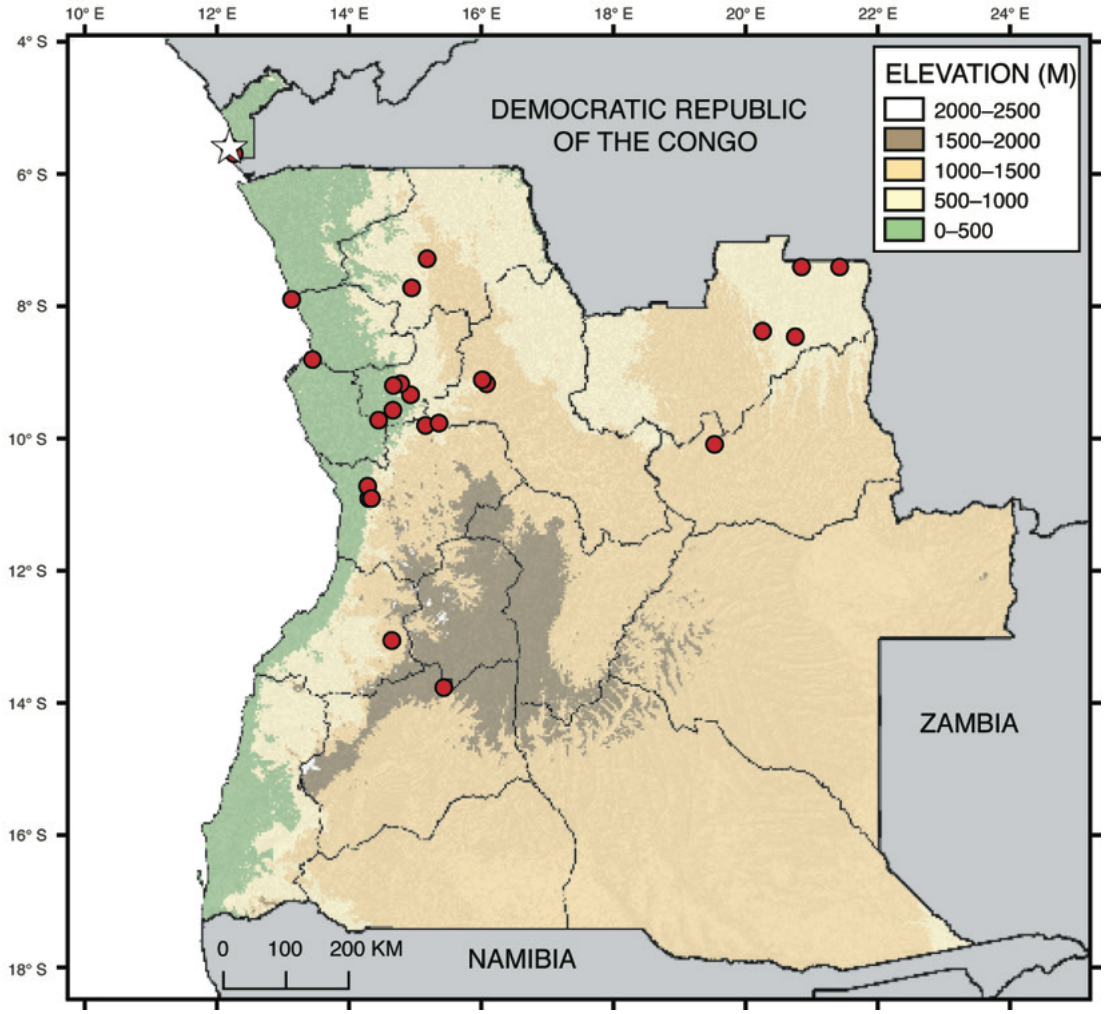


FIGURE 64. Distribution of *Trachylepis maculilabris* in Angola. White star denotes the locality of the neotype of *Euprepes anchietae*.

scales smooth; 12–19 LUFT, 10–15 LUFF; supranasals usually in contact or touching at a single point; parietals usually in contact; prefrontals usually in contact; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye, lacking subtriangular auricular scales on the anterior margin. Supralabials usually seven, the fifth is subocular (sometimes third or fourth); usually five supraciliaries, but may vary from four to seven; nostril oriented laterally. Dorsum olive gray to dark brown, usually with scattered black speckles; upper flanks often darker; lower flanks lighter, grayish to orange; scattered white speckles on the flanks, sometimes extending to the limbs. Supralabials with series of white spots and dashes, usually forming a white stripe extending to the ear opening or the forelimb insertion; auricular and orbicular regions often yellowish to orange. Venter, throat and infralabials whitish to yellow in life, white in preserved specimens, uniformly colored; occasionally scattered black punctuations on the underside of tail.

FIGURE 65. Typical habitat of *Trachylepis maculilabris* in Serra Mucaba, Uíge Province. Photo by L.M.P.C.

Neotype [for *Euprepes anchietae* Bocage, 1866]: Here designated, an unsexed adult (MUNHAC/MB03-001390, field number AMB 11108; fig. 63) collected at the Sanctuary of the Catholic Mission of Cabinda, Cabinda Province, northwestern Angola [-5.5614°, 12.1779°, 7 m], by S. Bandeira in June 2018.

Material Examined (* denotes type material): **Cabinda Province:** Cabinda, at the Catholic Mission Sanctuary [-5.5614°, 12.1779°, 7 m] (MUNHAC/MB03-001390*); Municipal beach (Tafi's Beach) [-5.5578°, 12.1796°, 5 m] (CAS 264215, 264216); Fortaleza [-5.6528°, 12.2481°, 114 m] (CAS 264217). **Huíla Province:** Gungue, Rio Kwando [-13.7363°, 15.4216°, 1514 m] (AMB 12713, 12714). **Malanje Province:** Laúca Dam, flooded area [-9.7627°, 15.1438°, 750 m] (MUNHAC/MB03-001352–001361); swamp on the edge of corn field, Kalandula [-9.0755°, 16.0117°, 1063 m] (CAS 263587). **Uíge Province:** Forested lagoon in Mucaba mountains [-7.2430°, 15.1673°, 1185 m] (MUNHAC/MB03-001401, 001402); Camp site near water pump, east of Ponte, Serra Pingano [-7.6829, 14.9340, 744 m] (MUNHAC/MB03-001403).

Additional Material: **Benguela Province:** Entre Rios, Dep. De Benguela [-13.0167°, 14.6333°, 1267 m] (ZSM 99/1953). **Cabinda Province:** near Tafe Beach [-5.5578°, 12.1796°, 5 m] (CAS 264215, CAS 264216); Fortaleza, landfill [-5.6528°, 12.2481°, 114 m] (CAS 264217). **Kwanza Sul Province:** Congulu, Amboim [-10.8667°, 14.2833°, 640 m] (BMNH 1936.8.1.612–617); Quirimbo, 75 km E of Amboim [-10.6833°, 14.2667°, 302 m] (BMNH 1936.8.1.618–619); Cada Amboim, abandoned plantation [-10.8672°, 14.3244°, 930 m] (CAS 263098). **Lunda Norte Province:** Dundo [-7.3667°, 20.8333°, 663 m] (BMNH 1966.250–255; MD 226, 2259, 5085, 5088, 5090, 5092, 5094, 5099, 5103, 5119, 5130, 5142, 5150, 5155, 5164, 5200, 5209); Muita [-7.8000°, 21.4100°, 725 m] (MD 807, 1076); De Beers, Lucapa [-8.4228°, 20.7392°, 949 m] (PEM R19459, 19463); Headwaters of Lovua, North of village Capaia [-8.3385°, 20.2425°, 953 m] (PEM R19459), Mucoso bei Dondo [-9.5333°, 14.6500°, 280 m] (ZSM 100/1953); Carumbo, Lucapa [-8.4228°, 20.7392°, 949 m] (Branch and Conradie, 2015). **Lunda Sul Province:** Alto Cuíla (= Alto Cuílo) [-10.0500°, 19.5170°, 1260 m] (MCZ R-74111; MD 5308, 5309). **Malanje Province:** Ndalla Tando (currently N'dalatando) [-9.3000°,

14.9167°, 782 m] (BMNH 1909.10.29.99); Duque de Bragança (currently Kalandula) [-9.1333°, 16.0667°, 1010 m] (TM 45468); Capanda [-9.7284°, 15.3459°, 859 m] (MNHNL Rep/A/Sc 1–36); Quifangondo [-8.7667°, 13.4333°, 9 m] (MNHNL Rep/A/Sc no number); Kalandula Falls [-9.0740°, 16.0030°, 1069 m] (CAS 263586). **Zaire Province:** Ambriz [-7.8574°, 13.1182°, 36 m] (BMNH 1851.1.19.8–11). **Undetermined locality:** Unknown locality (AMNH 48710–48726; FMNH 74301; MHNG 1545.015; MNHN 1907.200, 1907.256; MHNC-UP/REP 272).

Historical Localities (no extant specimens): **Cabinda Province:** Cabinda [-5.5500°, 12.1833°, 6 m] (Bocage, 1895). **Kwanza Norte Province:** Dondo (Quanza edges) [-9.6833°, 14.4333°, 33 m] (Bocage, 1895); Golungo [-9.1333°, 14.7667°, 666 m] (Ferreira, 1906); Cambondo [-9.1596, 14.6577, 374 m] (Ferreira, 1906).

Distribution in Angola: The distribution of this species in Angola is restricted to the northern areas of the country, from the Cabinda enclave eastward to Lunda Norte and Lunda Sul provinces, and southward along the escarpment to Bié, Kwanza Sul, and Benguela provinces (fig. 64).

Global Distribution: The species has a wide distribution from West Africa, through Central Africa, reaching its southern distribution in western Angola. East African populations have long been known to represent a different taxon (Mausfeld-Lafdhiya et al., 2004; Allen et al., 2019).

Habitat and Natural History Notes: This species occupies a variety of habitats in a forest-savannah mosaic, as well as anthropogenic habitats such as human settlements (Grandvaux-Barbosa, 1970; fig. 65). It is diurnal and arboreal, frequently found in open habitats such as forest clearings, often climbing trees and bushes, or even buildings and walls.

Trachylepis notabilis (Peters, 1879)—Notable Skink

Figures 66–69, plate 4

Euprepes notabilis Peters, 1879: 36. Syntypes: ZMB 9204 (collected by A.V. Homeyer) and 8485 (collected by J.G. Falkenstein, lost fide Bauer et al., 2003). Type locality: "Chinchoxo," Cabinda Province (ZMB 8485) and "Pungo Andongo," Malanje Province (ZMB 9204), Angola.

Mabuya maculilabris: Bauer et al. (2003: 275).

This long-forgotten species was described by Peters (1879) as *Euprepes notabilis* based on specimens from "Chinchoxo," Cabinda Province and another from "Pungo Andongo," Malanje Province (the latter still extant in the collections of ZMB, accession number ZMB 9204, fig. 66). All subsequent authors considered *E. notabilis* as a junior synonym of *T. maculilabris* (Boulenger, 1887; Bocage, 1895; Schmidt, 1919; Bauer et al., 2003; Marques et al., 2018), and the taxon was apparently forgotten. Only recently, during field surveys in Lauca region in the vicinity of Pungo Andongo (ca. 50 km east), new specimens were collected in sympatry with nominotypical *T. maculilabris* (figs. 67, 68). Although *T. notabilis* differs morphologically from *T. maculilabris*, the two species are very similar (fig. 68). The main characters that appear to differ in these species are the general appearance of the male's body, with *T. notabilis* being much bulkier than *T. maculilabris*, and ventral coloration, with *T. notabilis* having a strikingly blue neck and yellow venter versus a homogeneously whitish or yellow venter in *T. maculilabris* (fig. 68). Both our morphological and molecular data support its recognition as a valid species. Since the specimen from "Chinchoxo" was lost (see Bauer et al., 2003), we designate the remaining syntype from Pungo Andongo (ZMB 9204) as the lectotype of the species in order to stabilize its nomenclature and avoid potential confusions with other species occurring in the region.

Diagnosis: A large, robust skink (max. SVL 97.9 mm, MUNHAC/MB03-001355) with fully developed, pentadactyl limbs (figs. 66–69); dorsal scales usually quadricarinate or pentacarinate; ventral scales smooth; 50–60 SAV; 49–59 SAD; 31–38 MSR; lamellae beneath fin-

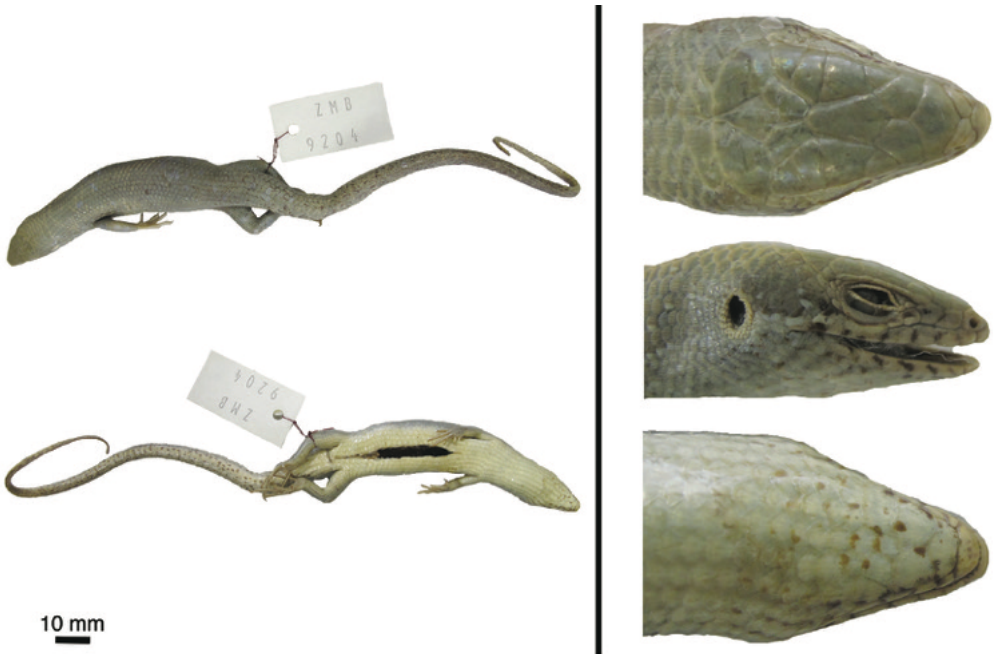


FIGURE 66. Lectotype of *Trachylepis notabilis* from Pungo Andongo, Malanje Province (ZMB 9204). Photos by L.M.P.C.

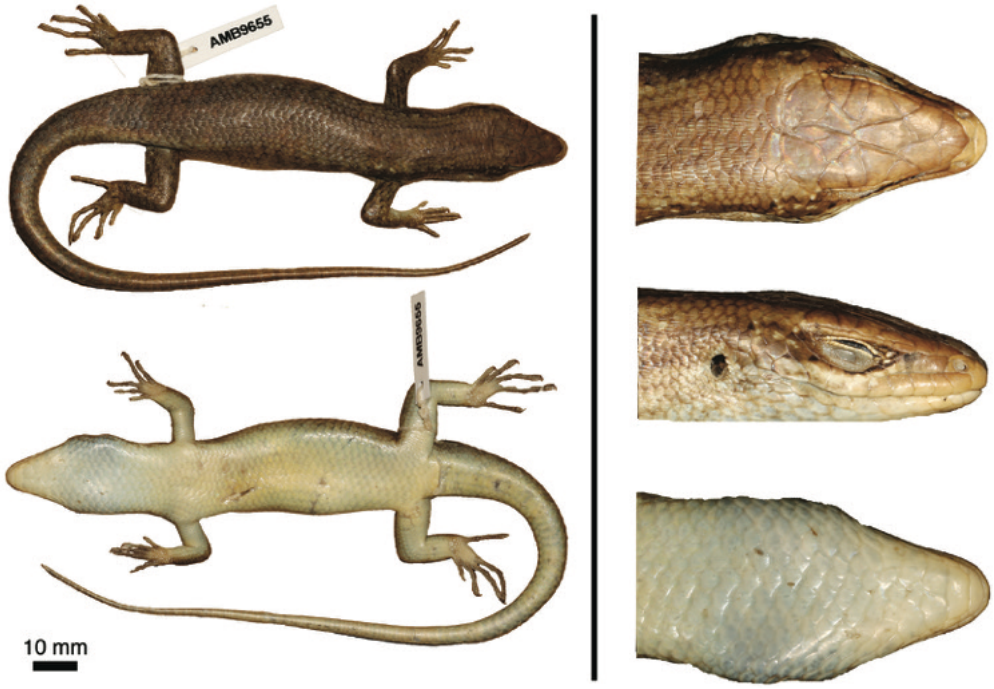


FIGURE 67. Recently collected specimen of *Trachylepis notabilis* from Lauca, Malanje Province (MUNHAC/MB03-001355). Photos by L.M.P.C.

FIGURE 68. Comparison between two adult specimens of *Trachylepis maculilabris* (left; MUHNAC/MB03-001359 and 001360) and one juvenile and one adult of *Trachylepis notabilis* (right; MUHNAC/MB03-001351 and 001355). All specimens from Lauca, collected in the same day. Photo by L.M.P.C.

FIGURE 69. Life photo of *Trachylepis notabilis* from Cassumbi, Bié Province (MUHNAC/MB03-001404). Photo by L.M.P.C.

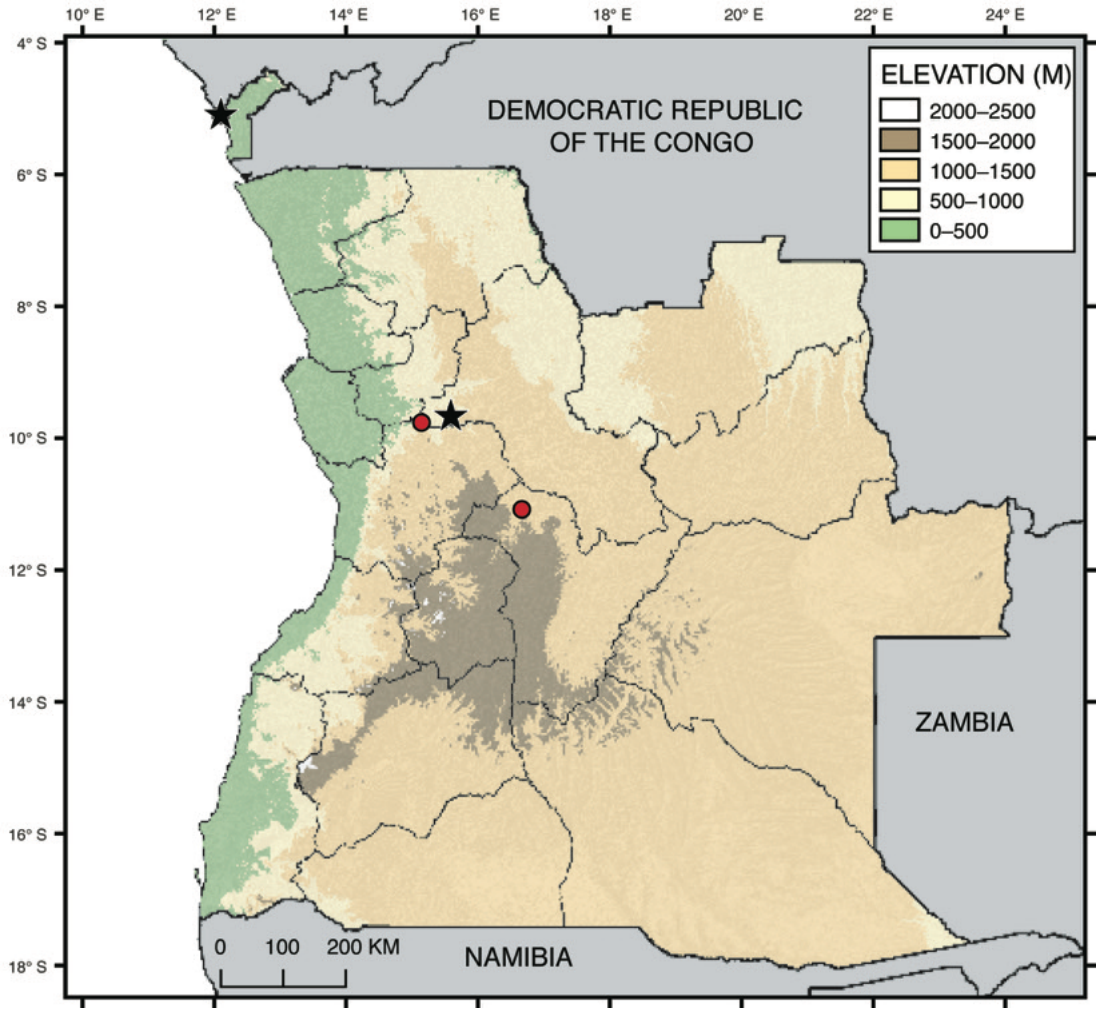


FIGURE 70. Distribution of *Trachylepis notabilis* in Angola. Black stars denote the type locality.

gers and toes smooth; plantar scales smooth; 13–18 LUFT; 11–15 LUFF; supranasals usually in contact; parietals usually separated; prefrontals always in contact; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye, lacking subtriangular auricular scales on the anterior margin. Supralabials usually seven, the fourth or fifth subocular; supraciliaries 5–6; nostril oriented laterally. Dorsum olive gray to dark or golden brown, usually with scattered black speckles; upper flanks often darker; lower flanks lighter, grayish to orange; scattered white speckles on the flanks, sometimes extending to the limbs. Top of head uniform brown; labials, auricular and orbicular regions often yellowish to orange. Supralabials often with series of white spots and dashes, usually forming a white stripe extending to the ear opening or the forelimb insertion. Venter and underside of tail uniform yellowish in life, white in preserved specimens; gular region white anteriorly and bluish posteriorly in males.

Material Examined (* denotes type material): **Bié Province:** Cassumbi [-11.08088°,

FIGURE 71. Typical habitat of *Trachylepis notabilis* in Lauca, Malanje Province. Photo by L.M.P.C.

16.66593°, 1223 m] (MUHNAC/MB03-001404). **Malanje Province:** Pungo Andongo [-9.6695°, 15.5893°, 1149 m] (ZMB 9204*); Laúca Dam [-9.76275°, 15.14380°, 750 m] (MUNHAC/MB03-001349, 001350, 001351, 001355).

Historical Localities (no extant specimens): **Cabinda Province:** Chinchoxo [-5.1000°, 12.1000°, 45 m] (Peters, 1879).

Distribution in Angola: The species is only known from northern and central Angola, from Cabinda to Bié Province (fig. 70).

Global Distribution: Currently known only from material from Angola, but must also be present in the neighboring areas of the Republic of Congo and the Democratic Republic of the Congo, given its occurrence in Cabinda.

Habitat and Natural History Notes: The species seems to be associated with riparian areas with rocky outcrops (fig. 71).

Trachylepis occidentalis (Peters, 1867)—Western Three-Striped Skink

Figures 72, 73, plate 5

Euprepes vittatus var. *australis* Peters, 1862: 19 [preoccupied by *Euprepes australis* (Gray, 1839)]. Syntypes: ZMB 4212, 64401-02 (formerly ZMB 4212A-B) (collected by C.H. Hahn). Type locality: "Neu-Barmen" [= Gross Barmen], Otjozondjupa Region, Namibia fide Bauer et al. (2003).

Euprepes occidentalis Peters, 1867: 20 [replacement name for *Euprepes vittatus* var. *autralis* Peters, 1862].

Euprepes occidentalis: Bocage (1870: 68).

Mabuia occidentalis: Bocage (1895: 42).

Mabuya occidentalis: Laurent (1964: 73); Branch (1998: 156); Broadley (2000: 97).

Trachylepis occidentalis: Masterson et al. (2014a: 263); Ceríaco et al. (2016b: 33, 57; 2020a:

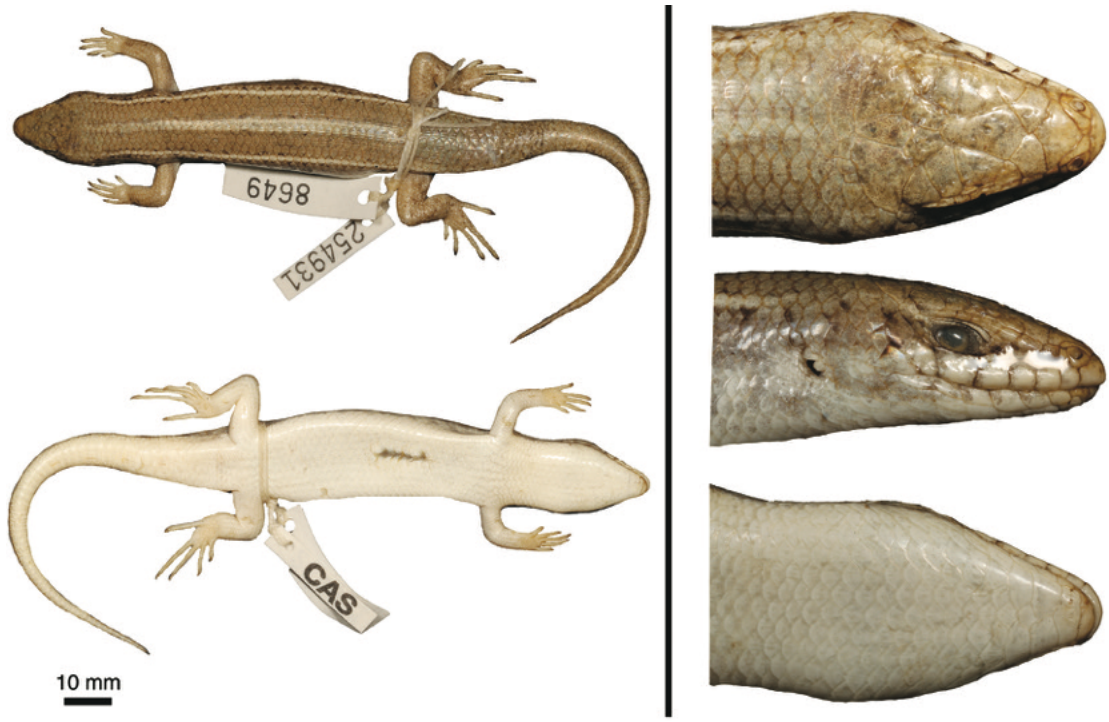


FIGURE 72. Specimen of *Trachylepis occidentalis* from Pico Azevedo, Namibe Province (CAS 254931). Photos by L.M.P.C.

FIGURE 73. Life photo of *Trachylepis occidentalis* from Espinheira, Namibe Province. Photo by William R. Branch.

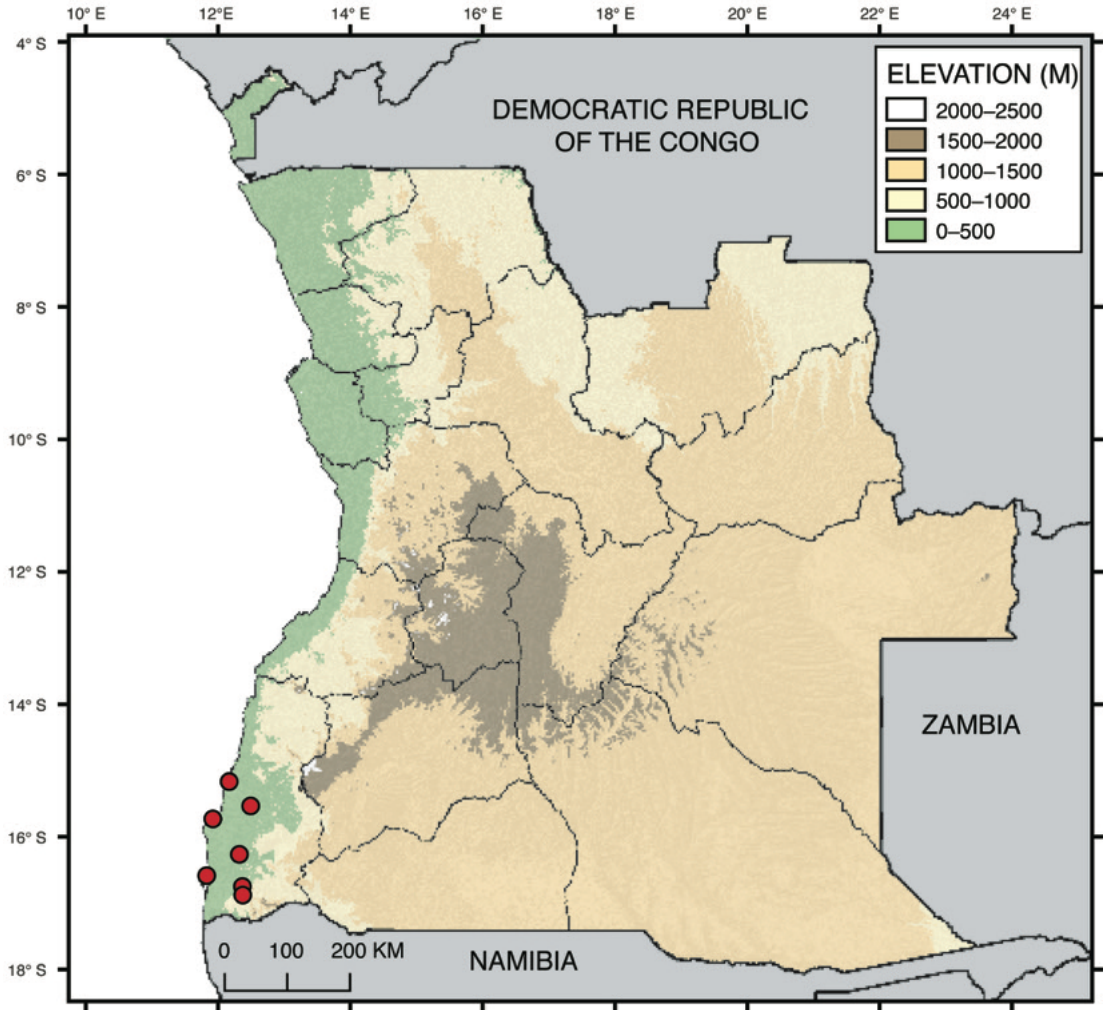


FIGURE 74. Distribution of *Trachylepis occidentalis* in Angola.

402); Marques et al. (2018: 266); Branch et al. (2019a: 318); Santos et al. (2021: 24); Lobón-Rovira et al. (2022: 309).

Trachylepis acutilabris [part]: Ceríaco et al. (2016b: 34).

Peters (1862) originally described this large skink as *Euprepes vittatus* var. *australis*. However, this name was preoccupied by *Euprepes australis* (Gray, 1839) [= *Ctenotus australis* (Gray, 1839)], and Peters (1867) later provided the replacement name *Euprepes occidentalis* (Bauer et al., 2003). The first record of this species from Angola consisted of two specimens collected in 1867 by José d'Anchieta in "Rio Coroca," Namibe Province (Bocage, 1895). Additional specimens were collected by Francisco Newton in 1905 from Baía dos Tigres, Namibe Province (Santos et al., 2021), but subsequent published records were only provided by Laurent (1964), and more recently by Ceríaco et al. (2016b) and Lobón-Rovira et al. (2022).

FIGURE 75. Typical habitat of *Trachylepis occidentalis* in Espinheira, Namibe Province. Photo by L.M.P.C.

Diagnosis: A larger-sized skink (max. SVL 110.7 mm, MHNC-UP/REP 274), with fully developed, pentadactyl limbs (fig. 72, 73); dorsal scales tricarinate; ventral scales smooth; 56–58 SAV; 45–50 SAD; 30–34 MSR; lamellae beneath fingers and toes keeled and feebly spinose; plantar scales smoothly keeled; 18–24 LUFT; 13–16 LUFF; supranasals always in contact; parietals usually separated or touching at a single point; prefrontals usually separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; two subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually seven, the fifth subocular; five supraciliaries, the second slightly larger than others; nostrils oriented dorsally. Dorsum and flanks olive to reddish brown, with five pale, dark-edged, longitudinal stripes. Dorsal stripes start behind the head and may extend beyond the base of the tail; dorsolateral stripes narrower than vertebral and lateral ones. A pale stripe covers the supralabials and extends through the flanks, followed below by a brownish stripe that may be faint and indistinct in preserved specimens. Underparts uniform white.

Material Examined: **Namibe Province:** Curoca river [-16.2653°, 12.3210°, 188 m] (UF 187307); Pico Azevedo [-15.5340°, 12.4920°, 372 m] (CAS 254931); Baía dos Tigres [-16.5856°, 11.8271°, 98 m] (MHNC-UP/REP 273, 274). **Undetermined locality:** Unknown locality (MHNC-UP/REP 275).

Additional Material: **Namibe Province:** Espinheira [-16.7500°, 12.3667°, 437 m] (PEM R17979, 17980, 20356); Moçâmedes [-15.1667°, 12.1667°, 6 m] (TM 24456; MD 1945); Rio Coroca Mouth [-15.7300°,

11.9200°, 6 m] (TM 40401, 40402); Kondundo [-16.8788°, 12.3720°, 515 m] (JLRZC0117 fide Lobón-Rovira et al., 2022).

Historical Localities (no extant specimens): **Namibe Province:** Rio Coroca (Bocage, 1895).

Distribution in Angola: The range of this species in Angola is restricted to the arid regions of Namibe Province (fig. 74).

Global Distribution: Occurs from southwestern Angola southward through Namibia to South Africa and southwestern Botswana (Auerbach, 1986; Branch, 1998; Masterson, 2014a).

Habitat and Natural History Notes: This species is found in the arid habitats of Namibe Province, from steppes to mobile sand dunes (Grandvaux-Barbosa, 1970; fig. 75). It is terrestrial, taking refuge in holes dug in the sand near the base of spiny shrubs (Branch, 1998; Broadley, 2000; Ceríaco et al., 2016b). This skink is known to be oviparous in the Kalahari region, but viviparous in the Namib Desert, Namibia, and Free State Province, South Africa (Branch, 1998; Broadley, 2000).

Trachylepis ovahelelo, sp. nov.— Ovahelelo Skink

Figure 76, plate 5

Mabuya lacertiformis: Broadley (1974b: 12, 2000: 101); Branch (1998: 154).
Trachylepis lacertiformis: Portik and Bauer (2012: 128); Ceríaco et al. (2016a: 57).
Trachylepis cf. *lacertiformis*: Marques et al. (2018: 262); Branch et al. (2019a: 318).

Broadley (1974b) was the first to report the existence of an isolated population of *Mabuya lacertiformis* in southern Angola, based on specimens collected by Wulf Haacke in Namibe and Cunene provinces (specimens currently housed in TM). *Trachylepis lacertiformis* (Peters, 1854) was originally described from the Tete region in Mozambique, and its current known distribution encompasses eastern Zimbabwe, the southern parts of lake Malawi (in Malawi and Mozambique), and the western and isolated southwestern Angolan population (Broadley, 2000; Pietersen et al., 2021). When referring to the isolated Angolan population, Broadley (1974b) suggested that it might represent a distinct taxon. Our molecular results show that these populations belong to an undescribed lineage, sister to a clade comprising *T. hilariae*, *T. variegata*, and *T. vunongue* (fig. 1). The specimens cited by Broadley are still in the collections of the TM, although in a poor state of preservation.

Holotype: An unsexed adult (CAS 263493, field number AMB 10630; fig. 76) collected at Virulundo, Namibe Province [-16.2852°, 12.9419°, 718 m], by Luis M.P. Ceríaco, Suzana A. Bandeira, and Ishan Agarwal, on 2 December 2016.

Additional Material: **Namibe Province:** Cainde, Mossamedes [-15.4833°, 13.3667°, 631 m] (TM 40959, 40960); 14 km NE of Caraculo, Mossamedes [-14.9021°, 12.7423°, 451 m] (TM 40192).

Historical Localities (no extant specimens): **Cunene Province:** Otchinjau [-16.5025°, 13.9240°, 363 m] (TM 40805—lost). **Namibe Province:** Cainde, Mossamedes [-15.4833°, 13.3667°, 631 m] (TM 40958—lost).

Diagnosis: A small-sized skink (max. SVL 37.3 mm, CAS 263493), with fully developed, pentadactyl limbs (fig. 76); dorsal scales pentacarinate; ventral scales smooth; 53 SAV; 43 SAD; 34 MSR; lamellae beneath fingers and toes spinose; plantar scales spinose; 18 LUFT, 14 LUFF; supranasals in contact; parietals in contact; prefrontals separated; frontoparietals in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; two subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Seven supralabials, the fifth subocular; five supraciliaries, the second notably longer than others; nostrils oriented dorsally. Dorsum grayish to golden brown, uniform or with

TABLE 7

Mensural and Meristic Data for the Holotype of *Trachylepis ovahelelo*, sp. nov.
Abbreviations are listed in the Materials and Methods.
Measurements are presented in millimeters
and ratios as percentages

	CAS 263493
	Holotype
Sex	unsexed
SVL	37.3
TL	70.9
TL/SVL	190
HL	8
HL/SVL	20
SVL/HL	470
HW	5.8
HW/HL	70
HH	3.3
IN	0.9
EN	2.5
ES	3.2
MSR	34
SAD	43
SAV	53
LUFF	14
LUFT	18
SC	3
SL (SO)	7 (5)
CP	C
CFP	C
CSN	C
CPF	S
KDS	5
Plantar scales	spinose

series of transversely aligned dark speckles; there may be a pair of indistinct pale dorsolateral stripes, especially on the tail; flanks uniformly colored. An incomplete dark stripe starts at the nostril and extends to the ear opening; labials white. Venter white, with light grayish speckling that may form longitudinal lines on the chin, throat, and tail.

Description of the Holotype: A well-preserved, unsexed adult. Body cylindrical and robust with a poorly defined neck and well-developed pentadactyl limbs; tail long, its length almost twice the SVL, smoothly tapering. Fore- and hind limbs overlap when adpressed against the body. SVL 37.3 mm, TL 70.9 mm. HL 3.3 mm, with relatively long and thin snout. Additional measurements are presented in table 7. Ear opening medium sized. Two subtriangular auricular scales extend posteriorly from the anterior margin of the ear opening. Rostral visible from above. Nostrils oriented dorsally and set posteriorly, so that postnasal effectively borders nostril. Supranasals in contact. Frontonasal broader than long, in contact with loreal scale. Prefrontals subtriangular, without contact, each in contact with the following head shields: frontonasal, loreals, first and second supraocular, and frontal. Two loreals. Frontal length similar to the distance between anterior tip of frontal and tip of snout. Frontal in contact with two supraoculars on each side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars, parietal and interparietal. Frontoparietal plus interparietal length similar to frontal length. Interparietal twice as long as broad, with a visible parietal foramen. Parietals greater than frontoparietals. Parietals in contact in a single point with each other. Five supraciliaries, second largest. Seven supralabials, fifth subocular. Seven infralabials. Postmental bordering seven scales (mental, two infralabials on each side and two primary chin shields). Transparent scale present in lower eyelid, as is usual for *Trachylepis*. Tympanum visible, at same level as mouth. Dorsal scales

FIGURE 76. Holotype of *Trachylepis ovahelelo*, sp. nov., from Virulundo, Namibe Province (CAS 263493). Photos by L.M.P.C.

each with five smooth keels. Ventral scales smooth. MSR 34, SAD 43, SAV 53. Limbs with five digits; plantar scales spinose. Relative length of fingers IV > III > V > II > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 14, Toe-IV lamellae 18.

Coloration in Ethanol: Dorsum brown, with 11 series of transversely aligned dark speckles between the forelimbs and the base of the tail; a pair of barely distinct, pale dorsolateral stripes; flanks uniform brown. There is an irregular and faint dark stripe from the nostril to the ear opening; labials white. Ventral side white, with light grayish speckling laterally that forms faint longitudinal lines on the tail.

Comparison with Other Angolan and Southwest African *Trachylepis*: *Trachylepis ovahelelo*, sp. nov., differs from *T. albilabris*, *T. bayonii*, *T. binotata*, *T. hoeschi*, *T. laevis*, *T. maculilabris*, *T. notabilis*, *T. occidentalis*, and *T. raymondlaurenti*, by having spinose plantar scales. It differs from *T. attenboroughi*, and *T. wahlbergii* by the presence of subtriangular auricular scales on the anterior margin of the ear opening. *T. ovahelelo* can be readily distinguished from *T. suzanae* and *T. wilsoni* by absence of wedge-shaped snout. It can be readily distinguished from *T. albopunctata*, *T. damarana*, *T. ansorgii*, and *T. sulcata* by having its nostrils situated more dorsally, directed upward (vs. nostrils situated more laterally, directed sideward in the latter). *T. ovahelelo* can be distinguished from *T. hilariae* by having 34 MSR (vs. 29–30 in the latter), 53 SAV (vs. 58), 43 SAD (vs. 46–48), 14 LUFF (vs. 15–16) and 18 LUFT (vs. 21–22). It differs

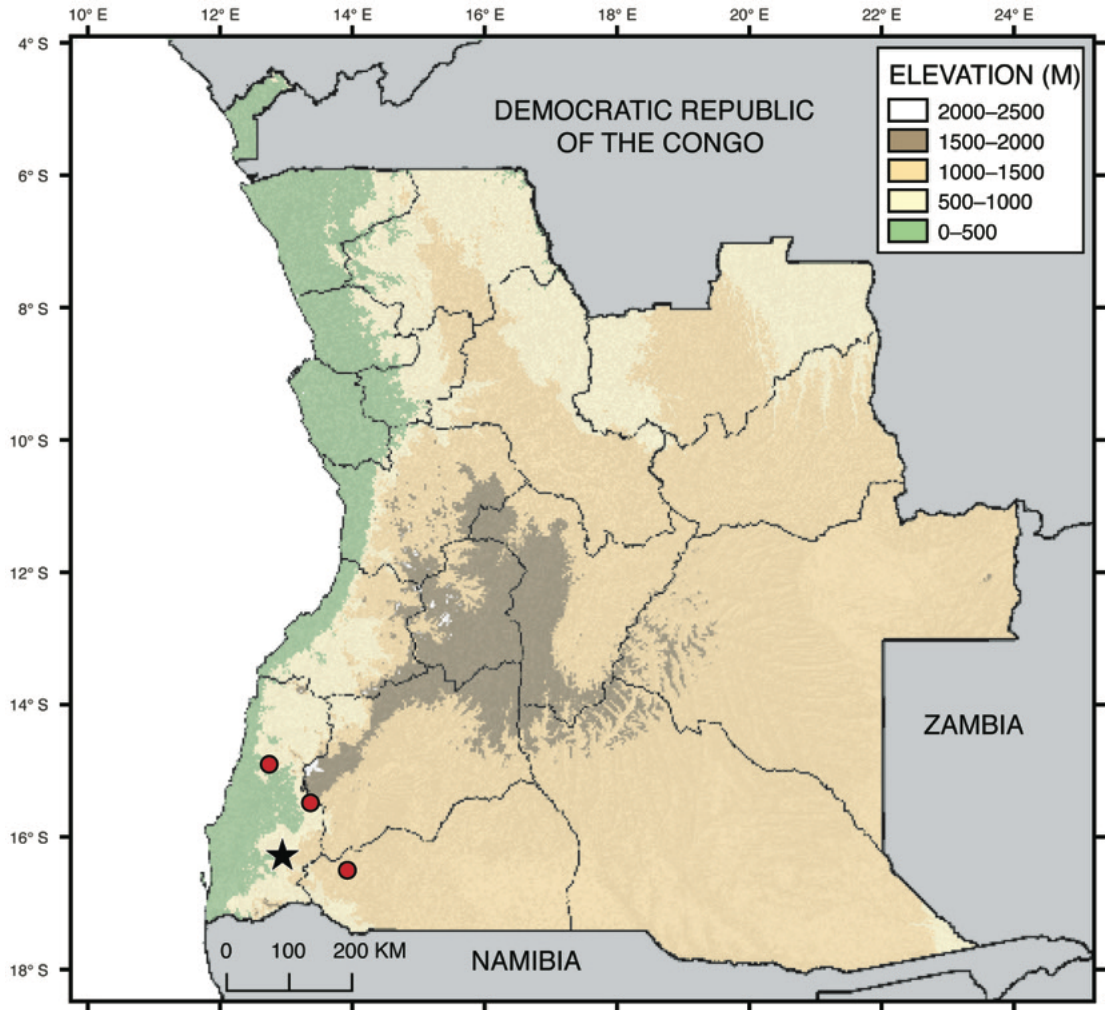


FIGURE 77. Distribution of *Trachylepis ovahelelo* in Angola. Black star denotes the type locality.

from *T. punctulata* by having 18 LUFT (vs. 21–24 in the latter). It is distinguished from *T. vunongue* by the presence of transversely aligned dark speckles (vs. dorsum uniform or with irregularly scattered dark and pale spots in the latter) and a longer tail (TL/SVL 190% vs. 111%–152% in *T. vunongue*). It can be distinguished from *T. bouri* and *T. chimbana* by having only 43 SAD (vs. >48 in the latter). *T. ovahelelo* can be readily distinguished from *T. bocagii* by the absence of dorsal bands (vs. five yellowish dorsal bands in *T. bocagii*). Regarding the other southwestern African congeners of the *variegata* subgroup sensu Weinell et al. (2019), *T. ovahelelo* is readily differentiated from *T. variegata* by having five keels on dorsal scales (vs. three in *T. variegata*). Similar to Broadley (1974b), we were unable to find any major morphological difference between *T. ovahelelo* and *T. lacertiformis*. Misidentifications are, however, very unlikely, as the two species are separated by a broad (more than 1500 km) band of aelion soils, with *T. ovahelelo* in southwestern Angola and the closest population of *T. lacertiformis* in western Zimbabwe.

FIGURE 78. Type locality of *Trachylepis ovahelelo* in Virulundo, Namibe Province. Photo by L.M.P.C.

Distribution in Angola: This species is known only from southwestern Angola, in Namibe and Cunene provinces (fig. 77).

Global Distribution: Currently known only from material from Angola, but almost certainly present in the neighboring areas of Namibia, given its close proximity to the border.

Habitat and Natural History Notes: This is a rupiculous species that is usually found on weathered rocky outcrops with fissures (usually granite) or loose rocks in mopane woodlands and steppe-savannah mosaic (Grandvaux-Barbosa, 1970; Broadley, 1974b; fig. 78).

Etymology: The specific epithet "*ovahelelo*" is a noun in apposition and is given in honor of the dominant ethnolinguistic group of the region where the species exists. We acknowledge the Mucubal people, a subgroup of the Ovahelelo (also known as Herero) ethnolinguistic group, for allowing our team to camp and study the herpetofauna of their lands and for their welcoming attitude and support. We suggest "Ovahelelo Skink" and "Lagartixa Ovahelelo" as the English and Portuguese common names for this species, respectively.

Trachylepis punctulata (Bocage, 1872)—Speckled Sand Skink

Figures 79, 80, plate 5

Euprepes punctulatus Bocage, 1872: 76. Syntypes: MBL 742 (2 specimens) (collected by J.A. Anchieta, destroyed by fire on March 18, 1978); ZMB 6478 (collected by J.A. Anchieta; see Bauer et al., 2003: 276). Type locality: "Rio Coroca, dans le littoral au sud de Mossamedes," Namibe Province, Angola.

Mabuia punctulata: Boulenger (1887: 204); Bocage (1895: 44, 1897a: 195).

Mabuya punctulata [part]: Schmidt (1933: 12); Frade (1963: 253); Broadley (2000: 100).

Mabuya longiloba longiloba: Laurent (1964: 73).

Mabuya variegata punctulata [part]: Broadley (1974b: 7); Branch (1998: 158).

Trachylepis punctulata [part]: Portik (2009: 136); Portik and Bauer (2012: 128); Ceríaco et al. (2016b: 31, 57); Marques et al. (2018: 267); Branch et al. (2019: 319);

Santos et al. (2021: 25); Lobón-Rovira et al. (2022: 310).

Described by Bocage based on two specimens from "Rio Curoca," Namibe Province, this taxon has experienced a convoluted taxonomic and nomenclatural history—see Broadley (1974b). The Angolan populations were considered either as a valid species (Bocage, 1872, 1895, 1897a; Boulenger, 1887; Schmidt, 1933; Frade, 1963), as *Mabuya* (= *Trachylepis*) *longiloba* (Laurent, 1964), or as a subspecies of *Mabuya* (= *Trachylepis*) *variegata* (Broadley, 1974b, Branch, 1998). The work of Broadley (1974b) was of particular importance to resolve the taxonomic chaos into which *T. punctulata*, as a member of the "*Mabuya lacertiformis* complex" was involved. Broadley considered that *T. punctulata* has a broad distribution, from southern Angola through a large extent of northern and central Namibia, Botswana, Zimbabwe, Zambia, northern parts of South Africa, and Mozambique. This interpretation was followed by Branch (1998). However, Broadley (1974b) noted that the populations from Botswana, Zimbabwe, Zambia, South Africa, and Mozambique have considerable morphological differences from those of Angola and Namibia, which may reflect either a clinal variation or even a different taxon (see the account of *Trachylepys vunongue*). Broadley (2000), Portik (2009), and Portik and Bauer (2012) had provided, respectively, morphological and molecular evidence in support of *T. punctulata* as a full species, rather than a subspecies of *T. variegata*. Subsequently, all recent authors who have dealt with the species in Angola considered it a valid species (Ceríaco et al., 2016a; Marques et al., 2018; Branch et al., 2019a; Santos et al., 2021; Lobón-Rovira et al., 2022). The present work presents a considerable change to the concept of *T. punctulata*. We have molecular evidence supporting the monophyly of all southwestern Angolan populations, including topotypical material from Curoca River. Available samples from Namibia indicate that the Namibian population of what was known as *T. punctulata* is not conspecific with the southwestern Angolan form, and we interpret them instead as representing *Trachylepis* cf. *triebneri*, while the southeastern Angolan and western Zambian populations represent a new species, *Trachylepis vunongue* (see account below). Our present sample size does not allow us to confidently assess whether true *punctulata* is endemic to Angola or it also extends to northern Namibia (but has yet to be genetically sampled). The role of the Cunene River as a potential barrier for this group needs to be further investigated. One outcome of our interpretation is that the previously accepted range of *T. punctulata* (see Branch, 1998) is now much smaller and wholly or mostly restricted to southwestern Angola.

Diagnosis: A small-sized skink (max. SVL 48.5 mm, MUNHAC/MB03-1409), with fully developed, pentadactyl limbs (fig. 79, 80); dorsal scales usually pentacarinate; ventral scales smooth; 46–60 SAV; 42–50 SAD; 28–35 MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 21–24 LUFT; 12–18 LUFF; supranasals in contact; parietals usually in contact; prefrontals always separated; frontoparietals in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; 2–3 subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually eight, the sixth subocular; usually five supraciliaries, the second the longest; nostril oriented dorsally. Dorsum bronze to golden brown, uniform or with scattered black speckles; sometimes with a pair of weakly defined pale dorsolateral stripes; flanks grayish or mottled with black and white. Head uniform or with irregular black speckling; labials white, sometimes with black spots or vertical bars; a subocular white stripe may extend to the tympanum or forelimb insertion. Venter uniformly white.

Material Examined (* denotes type material): **Namibe Province:** Iona National Park,

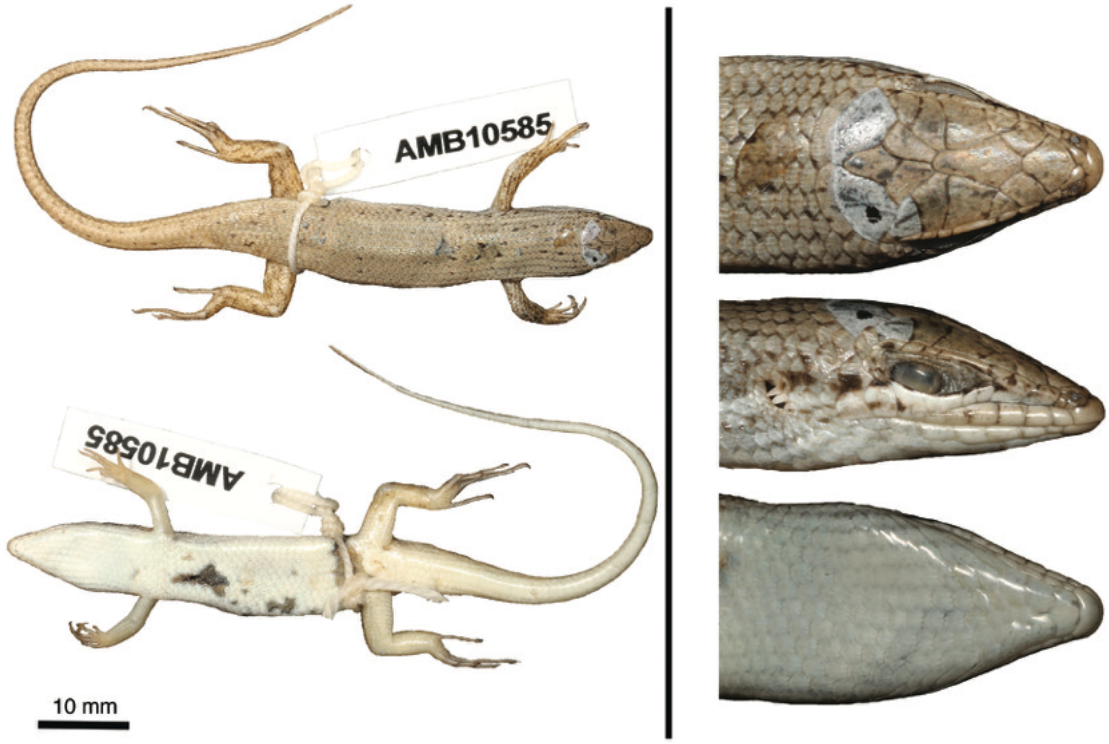


FIGURE 79. Specimen of *Trachylepis punctulata* from Chipumpo, Namibe Province (CAS 263502). Photos by L.M.P.C.

FIGURE 80. Life photo of *Trachylepis punctulata* from Virei camp, Namibe Province (CAS 263508). Photo by Ishan Agarwal.

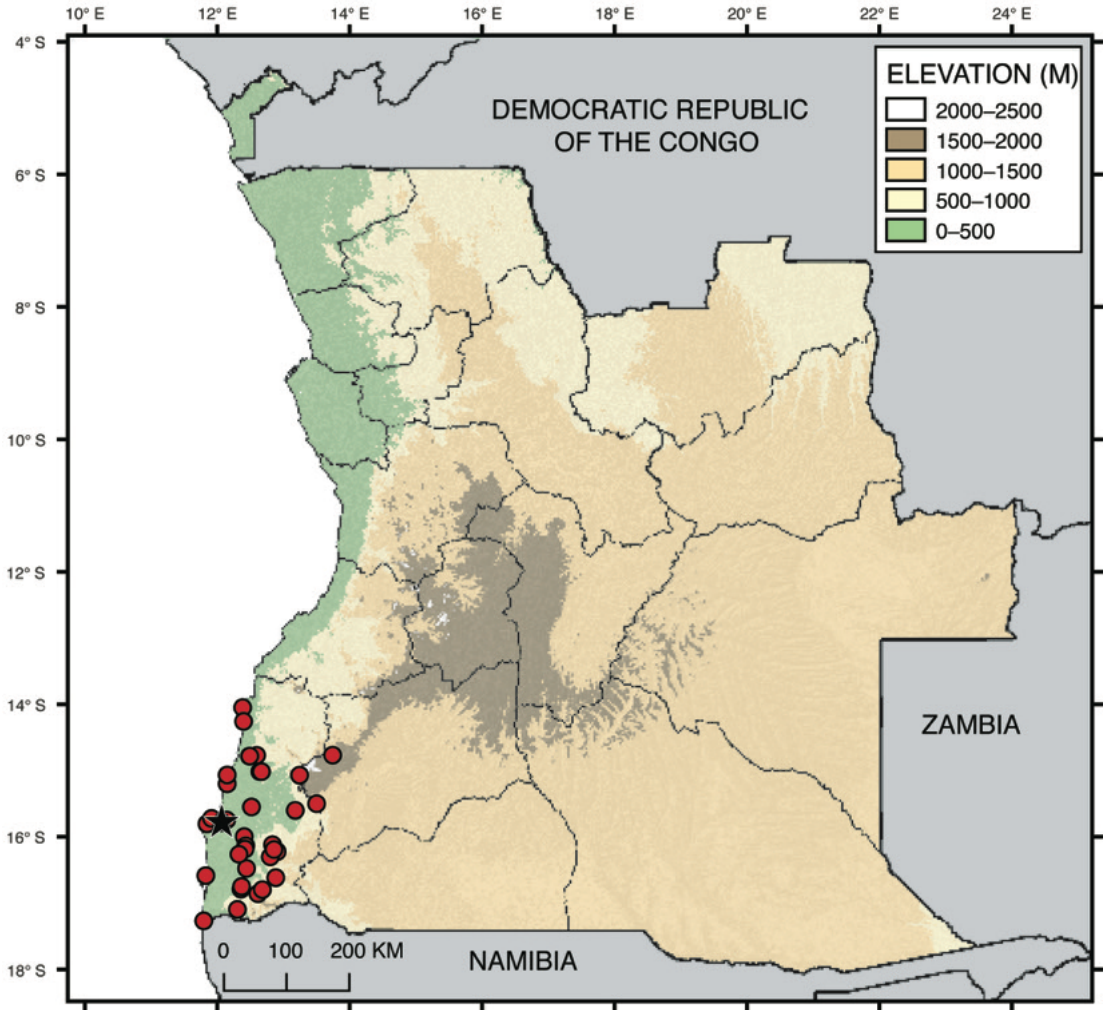


FIGURE 81. Distribution of *Trachylepis punctulata* in Angola. Black star denotes the type locality.

Espinheira [-16.7891°, 12.3576°, 452 m] (CAS 254793); Virei camp [-16.1196°, 12.8346°, 522 m] (CAS 263508, 263509, 263510); Virei-Chipumpo [-16.2229°, 12.9038°, 593 m] (CAS 263497, 263498); Virei-Calundolo [-16.3022°, 12.8008°, 470 m] (CAS 263488); Chipumpo [-16.1923°, 12.8565°, 542 m] (CAS 26502); Rio Curoca [-16.2653°, 12.3210°, 188 m] (ZMB 6478*); Moçâmedes [-15.2000°, 12.1500°, 24 m] (MHNC-UP/REP 263, 264, 265); Baía dos Tigres [-16.5856°, 11.8271°, 98 m] (MHNC-UP/REP 278); Mucungo farm [-14.7823°, 12.4859°, 286 m] (MUNHAC/MB03-001405–001410); on the way to Espinheira (INP) [-16.4777°, 12.4418°, 409 m] (MUNHAC/MB03-001411).

Additional Material: **Huíla Province:** 50 km W of Humpata, by roadside in boulders [-15.0507°, 13.0279°, 464 m] (PEM R1800); Leba Pass [-15.0700°, 13.2434°, 1667 m] (TM 46760). **Namibe Province:** 41 mi NE of Moçamedes [-14.7705°, 12.5942°, 518 m] (CAS 85961); Namibe-Lubango road, marker 59, 1.8 km W of Caraculo, N side of road [-15.0153°, 12.6424°, 497 m] (CAS 254903, 255057); Cunene 8 km SW of Oncocua [-16.8583°, 12.6128°, 808 m] (PEM R18004); Namibe 16 km E of Iona [-16.7980°, 12.6806°, 783 m] (PEM R18003); Namibe 9 km South of Camp at the Red Canyon [-15.7460°, 12.1399°, 81 m] (PEM R17998);

FIGURE 82. Typical habitat of *Trachylepis punctulata* in Curoca, Namibe Province. Photo by L.M.P.C.

Mucungu [-14.7824°, 12.4907°, 304 m] (CM S5648); Cima [-15.0667°, 12.1500°, 57 m] (TM 41243); Porto Alexandre (currently Tombwa) [-15.8046°, 11.8449°, 8 m] (TM 40400); Inamangando River on Lucira Road [-14.0500°, 12.3833°, 6 m] (TM 41153); 23 km W of Virei [-15.6011°, 13.1777°, 476 m] (TM 41020); Namibe Omauha Lodge, N of entrance to Iona National Park [-15.9968°, 12.4068°, 301 m] (PEM R17999); Namibe road from Lake Arco to Espinheira rocky valley [-15.7460°, 12.1399°, 81 m] (PEM R18001); Espinheira [-16.7500°, 12.3667°, 437 m] (PEM R18002); Caraculo [-15.0167°, 12.6667°, 463 m] (TM 24532); Caraculo, 16 km E [-15.5000°, 13.5000°, 1288 m] (TM 23905); Rio Curoca mouth [-15.7233°, 11.9139°, 4 m] (TM 40395–40397, 40399); 30 km N of Tambor [-16.1356°, 12.4297°, 379 m] (TM 40492); Pico Azevedo [-15.5500°, 12.5167°, 347 m] (TM 41062–41069); São Nicolau [-14.2582°, 12.3967°, 17 m] (TM 43963, 43964); Otchifengo river [-16.6167°, 12.8833°, 560 m] (TM 40773); Foz do Cunene [-17.2693°, 11.7961°, 13 m] (TM 40671); 6 km S of Rio Coroca on Iona road [-15.7833°, 12.0667°, 45 m] (TM 40590); Road to Omauha [-16.1843°, 12.4189°, 365 m] (FKH 0781 fide Lobón-Rovira et al., 2022); Tonombe [-17.0964°, 12.3035°, 615 m] (FKH 0791 fide Lobón-Rovira et al., 2022); Curoca river at Ialutala [-16.2641°, 12.3277°, 172 m] (AMB 13265). **Undetermined locality:** between Mossamedes and Benguela [undetermined locality] (TM 44052); São Nicolau, 17 km [undetermined locality] (TM 41152); Rio Caroca, between Mossamedes and Port Alexandre (currently, Tombwa) [undetermined locality] (TM 22554–22556).

Historical Localities (no extant specimens): **Namibe Province:** Rio Coroca [-15.7833°, 12.0667°, 45 m] (Bocage, 1872, 1895, 1897a).

Distribution in Angola: This species is known from southwestern areas of the country, in Namibe Province and western Huíla Province (fig. 81).

Global Distribution: Confirmed records are restricted to southwestern Angola. Further work is needed to establish the status of Namibian populations (labelled as *T.* cf. *triebneri* in fig. 1). The distribution of the non-Angolan population has been noted by Portik (2009), Portik and Bauer (2012), and Branch (1998).

Habitat and Natural History Notes: This species occupies a variety of habitats in the arid regions of southwestern Angola, from mopane woodlands to steppe-savannah mosaic, or even the mobile sand dunes of the Kaokoveld desert (Grandvaux-Barbosa, 1970; fig. 82). It is commonly found associated with *Welwitschia* plants.

Trachylepis raymondlaurenti Marques et al., 2019—Laurent's Long-tailed Skink

Figures 83, 84, plate 5

Trachylepis raymondlaurenti Marques et al., 2019: 59. Holotype: CAS 258401 (collected by M.P. Marques, L.M.P. Ceríaco, S. Bandeira, E. Stanley and J. Vindum). Type locality: "Giant Sable Sanctuary of Cangandala National Park (-9.84606° N, 16.7223° E, WGS-84; elevation 1101 m)," Malanje Province, Angola.

Mabuya megalura: Laurent (1964: 74).

Trachylepis cf. *megalura*: Ceríaco et al. (2016c: 71, 2018a: 423); Marques et al. (2018: 264); Branch et al. (2019a: 318).

Trachylepis raymondlaurenti: Marques et al. (2019a: 59); Ceríaco et al. (2020a: 402, 423).

Laurent (1964) provided the first record of this species for Angola based on two specimens from Alto Cuilo, Lunda Sul Province (specimens still extant in the collections of Museu do Dundo and Museum of Comparative Zoology; see Ceríaco et al., 2020a). Laurent (1964) assigned these specimens to a putative new subspecies of *Mabuya megalura* from Angola and the Katanga region of the Democratic Republic of the Congo, but refrained from providing a description of this new "race," leaving this task for his colleague Gaston-F. de Witte, who had collected and studied a larger series of the same taxon from Upemba National Park, Democratic Republic of the Congo (de Witte 1953). However, a description was never published by de Witte, and the species was only recently described by Marques et al. (2019a) based on a comprehensive review of historical and recent material.

Diagnosis: A medium-sized slender skink (max. SVL 80.0 mm, MD 5309), with fully developed pentadactyl limbs (fig. 83, 84); tail more than twice as long as body; dorsal and ventral scales smooth, rarely keeled; 50–58 SAV; 48–53 SAD; 24–28 MSR; lamellae beneath fingers and toes smooth; plantar scales smooth; 20–27 LUFT; 16–21 LUFF; supranasals separated; parietals usually separated (rarely in contact); prefrontals separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; lacking subtriangular auricular scales on the anterior margin of the ear opening. Supralabials usually seven, the fifth subocular; five supraciliaries, second largest; nostril oriented laterally. Dorsum uniformly brown in preserved specimens, and greenish brown in live specimens, with some white speckles running from the labials through the anterior half of the tail. Ventral surfaces uniformly whitish with some scattered dark speckles near the flanks and under the tail.

Material Examined (* denotes type material): **Lunda Sul Province:** Alto Cuílo [-10.0167°, 19.5500°, 1264 m] (MD 5309*; MCZ R-67627). **Malanje Province:** Cangandala National Park [-9.8461°, 16.7223°, 1101 m] (CAS 258401*).

Distribution in Angola: This species appears to be restricted to northern regions of the country, with records for Malanje and Lunda-Norte provinces. This skink may have a wider distribution and potentially occur in the neighboring provinces of Bié, Lunda-Sul, and Moxico (fig. 85).

Global Distribution: *Trachylepis raymondlaurenti* is known only from northern Angola and southeastern Democratic Republic of Congo, although it may extend into neighboring northern Zambia (Marques et al., 2019a).

Habitat and Natural History Notes: This species is usually found in savannahs and miombo woodlands (Grandvaux-Barbosa, 1970; fig. 86). Marques et al. (2019a) noted that the holotype (collected in September 2015) contained 10 well-developed fetuses, suggesting that this viviparous species gives birth in late September or October.

FIGURE 83. Holotype of *Trachylepis raymondlaurenti* from Cangandala National Park, Malanje Province (CAS 258401). Photo by L.M.P.C.

FIGURE 84. Life photo of the holotype of *Trachylepis raymondlaurenti* from Cangandala National Park, Malanje Province (CAS 258401). Photos by L.M.P.C.

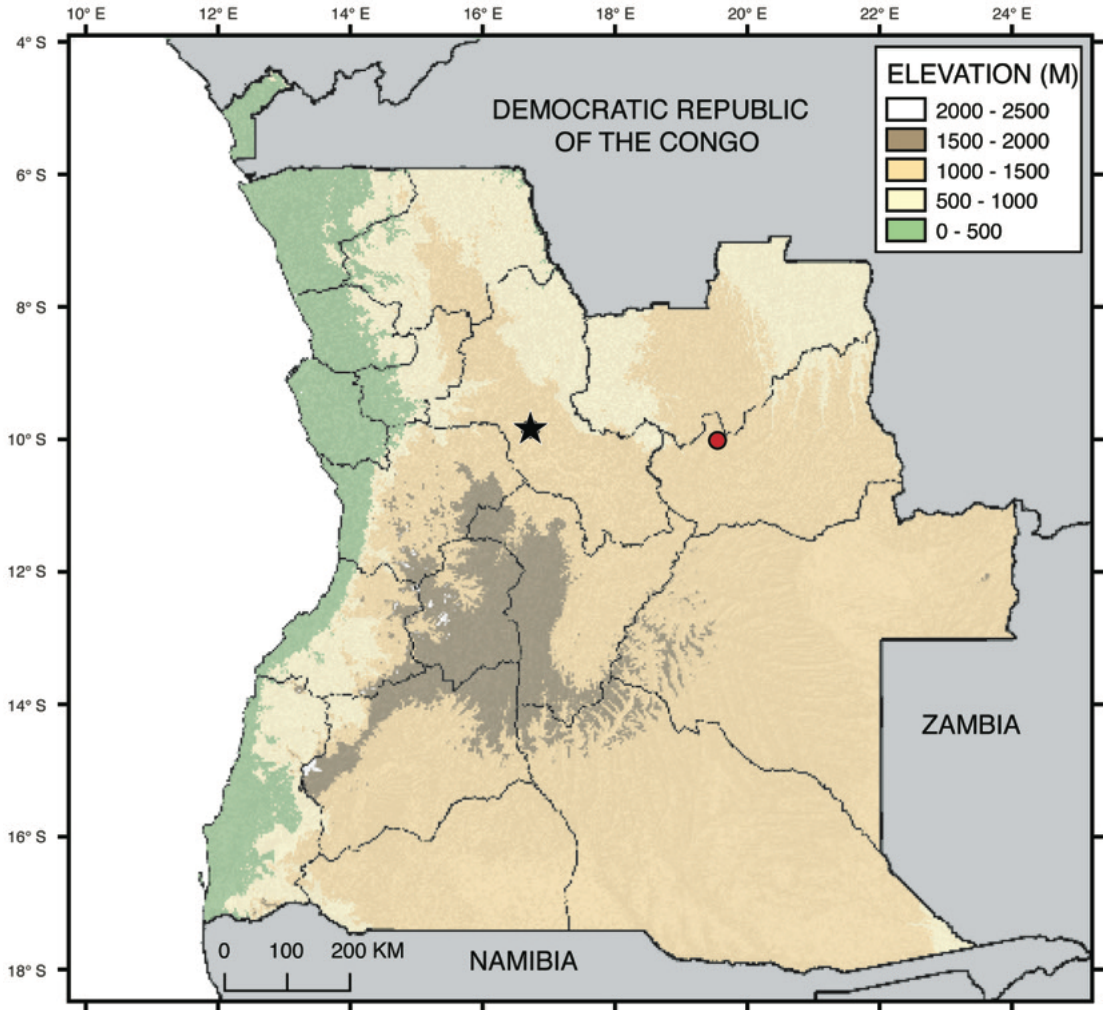


FIGURE 85. Distribution of *Trachylepis raymondlaurenti* in Angola. Black star denotes the type locality.

Trachylepis sulcata (Peters, 1867)—
Western Rock Skink

Figures 87–90, plate 6

Euprepes olivaceus Peters, 1862: 21 [preoccupied by *Euprepes olivaceus* Gray, 1839]. Syntypes: ZMB 4209, 4210, 64329-30 (formerly ZMB 4210 part), 64346-47 (formerly ZMB 4209), MNHN 1470 (collected by C.H. Hahn). Type locality: "Neu-Bramen" [= Gross Barmen], Otjozondjupa Region, Namibia.

Euprepes sulcatus Peters, 1867: 20 [replacement name for *Euprepes olivaceus* Peters, 1862].

Euprepes olivaceus [part] [?]: Bocage (1870: 68)

Mabuia sulcata [part]: Bocage (1895: 41)

Mabuya sulcata ansorgii [part]: Mertens (1938: 438); Hellmich (1957b: 55); Branch (1998: 157)

Mabuya sulcata ansorgei: Laurent (1964: 74)

Mabuya sulcata: Broadley (2000:102)

Trachylepis sulcata [part]: Portik (2009: 23); Portik et al. (2010: 147; 2011: 1744); Masterson et al. (2014b: 267); Marques et al. (2018:

FIGURE 86. Typical habitat of *Trachylepis raymondlaurenti* in Cangandala National Park, Malanje Province. Photo by L.M.P.C.

269); Ceríaco et al. (2020a: 403); Lobón-Rovira et al. (2022: 310).

Trachylepis sulcata sulcata: Butler et al. (2019: 235); Baptista et al. (2019: 110).

Trachylepis sulcata ansorgii [part]: Branch et al. (2019a: 319).

Trachylepis sulcata is a commonly observed viviparous skink distributed across the western parts of South Africa, Namibia, and into southwestern Angola (Branch, 1998; Masterson et al., 2014b; Marques et al., 2018). Two subspecies have been historically recognized: *T. sulcata nigra* (Werner, 1915), a melanistic form from Lüderitz Bay, Namibia, and *T. sulcata ansorgii* (Boulenger, 1907), from the southwestern highlands of Angola and Namibia (Branch, 1998; Masterson, 2014b; Marques et al., 2018). Previous works by Portik et al. (2010, 2011) looked at population structure and phylogeographic patterns in *T. sulcata* from South Africa and Namibia. Angolan samples were unavailable at the time. The results showed that the melanistic form *T. s. nigra* from Namibia is nested within the nominal *T. s. sulcata*, the population structure of which displayed three distinct groups: a northern clade from northern Namibia, a central clade from southern Namibia and western South Africa, and a southern clade with the remaining South African individuals (Portik et al., 2010, 2011).

Until recently, the taxonomy of the Angolan populations of *T. sulcata* was unresolved due to the uncertainties of the taxonomic validity of its subspecies *T. s. ansorgii*. This was exacerbated by the confusion created by Mertens (1938, 1955, 1971) who referred to the existence of sympatric populations of *T. s. sulcata* and *T. s. ansorgii* in northern Namibia. Branch (1998) perpetuated this confusion. With some preliminary molecu-

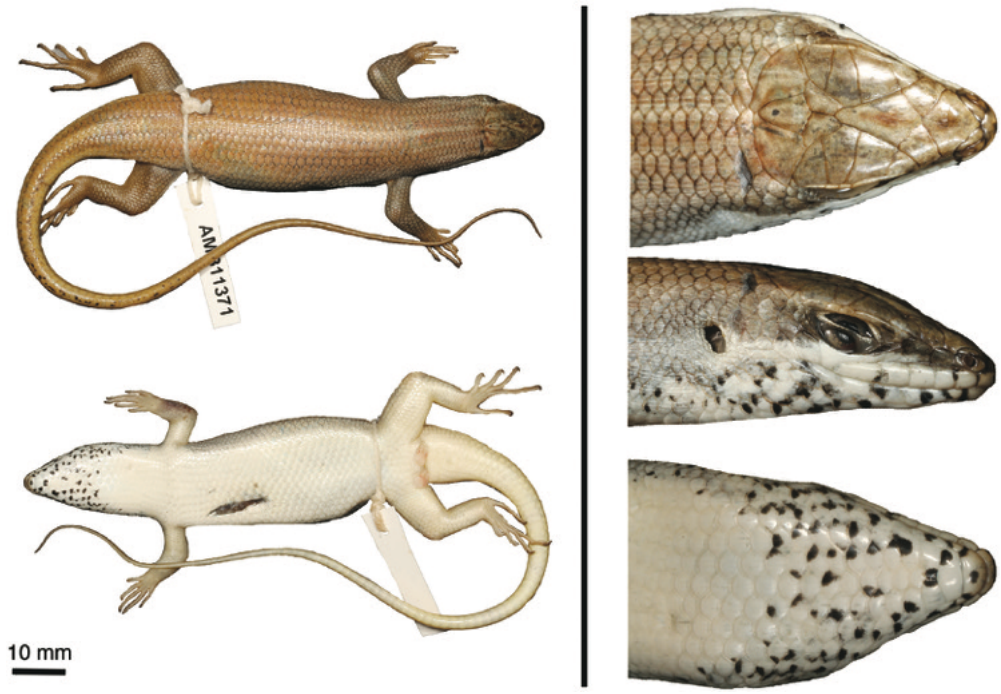


FIGURE 87. Male specimen of *Trachylepis sulcata* from dirt road to Chingo, Namibe Province (CAS 264711). Photos by L.M.P.C.

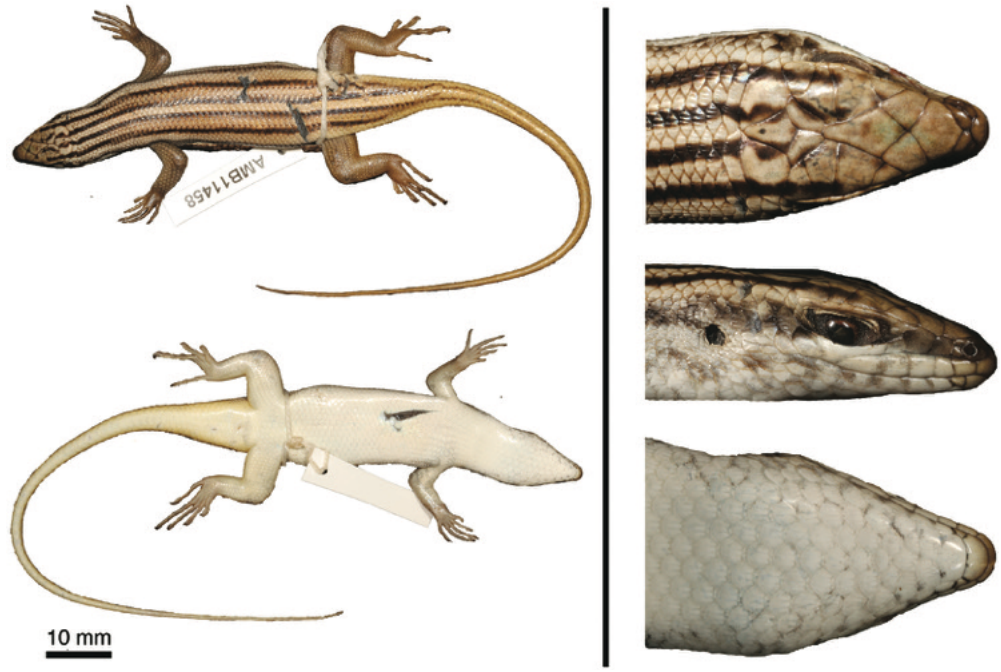


FIGURE 88. Female specimen of *Trachylepis sulcata* from dirt road to Chingo, Namibe Province (CAS 24731). Photos by L.M.P.C.

FIGURE 89. Life photo of a male *Trachylepis sulcata* from Tundavala, Huíla Province (CAS 263338). Photo by L.M.P.C.

FIGURE 90. Life photo of a female *Trachylepis sulcata* from Tundavala, Huíla Province (CAS 263344). Photo by L.M.P.C.

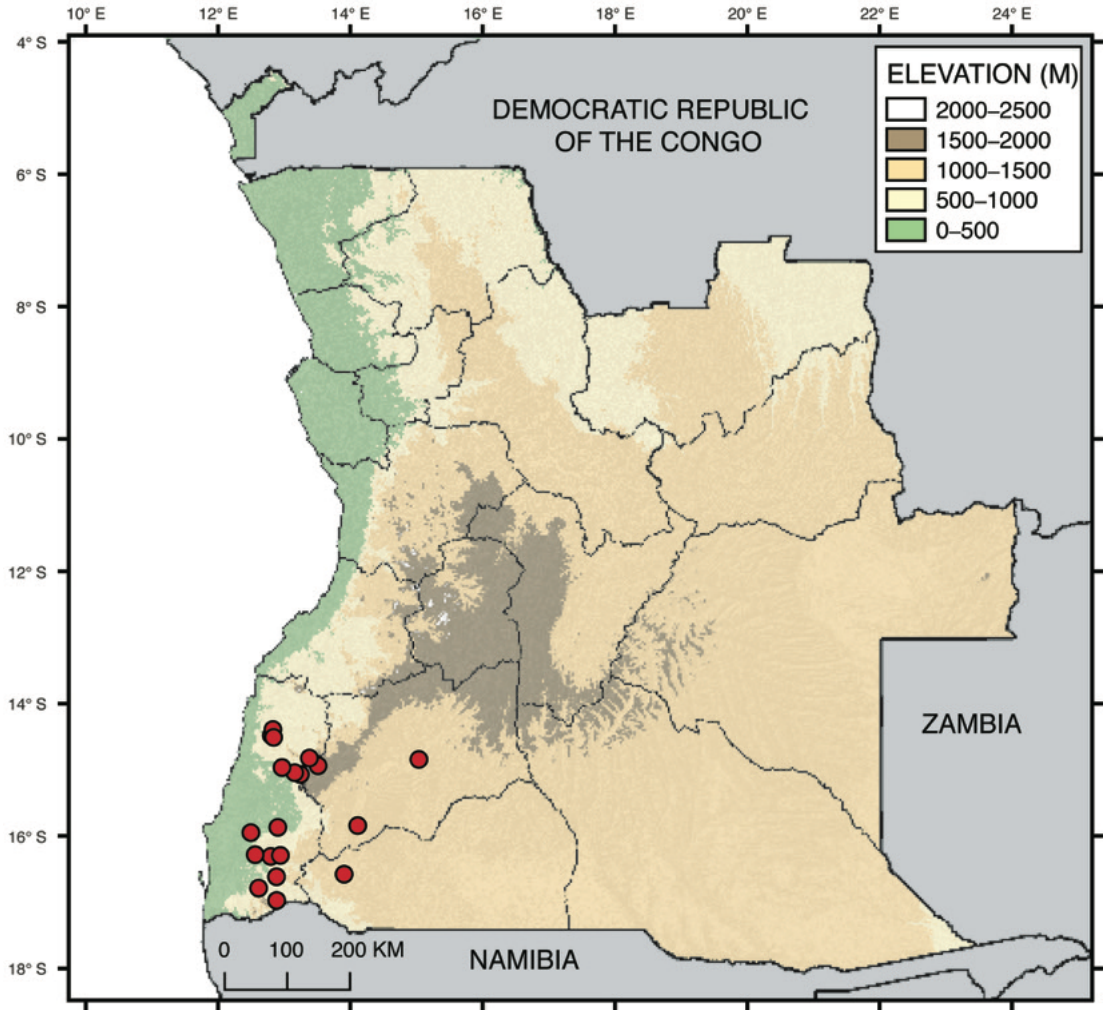


FIGURE 91. Distribution map of *Trachylepis sulcata* in Angola.

lar data, Butler et al. (2019) were the first to provide evidence that both taxa were valid, and subsequent authors followed this arrangement (Baptista et al., 2019; Vaz Pinto et al., 2019; Ceríaco et al., 2020a; Lobón-Rovira et al., 2022). Branch et al. (2019a) considered all populations of the *T. sulcata* group in Angola as *T. sulcata ansorgii*. Our morphological and molecular data suggests that *T. sulcata* occurs in the southwestern lowlands of Angola, especially in the southern half of the Namibe Province. *Trachylepis ansorgii* replaces it in the northern half of the province and ranges to Benguela, as well as to the higher elevation areas of the Angolan Plateau (see *T. ansorgii* account) (Butler et al., in review).

Diagnosis: A medium-sized robust skink (max. SVL 87.9 mm, CAS 263350), with fully developed pentadactyl limbs (figs. 87–90); dorsal scales usually pentacarinate; ventral scales smooth; 57–68 SAV; 48–58 SAD; 33–42 MSR; lamellae beneath fingers and toes spinose; plantar scales spinose; 20–27 LUFT; 16–21 LUFF; supranasals usually in contact; parietals usually in contact or touching at a

FIGURE 92. Typical habitat of *Trachylepis sulcata* in Omauha, Namibe Province. Photo by L.M.P.C.

single point; prefrontals usually separated; frontoparietals in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; two to three subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually 7 or 8, the sixth is subocular; usually five supraciliaries, second largest; nostril oriented laterally. Color pattern exhibits pronounced sexual dimorphism. Adult females and juveniles are pale to golden brown above, with six dark longitudinal stripes (a pair of paravertebral stripes, a pair of dorsolateral stripes, and another pair on the flanks) that usually continue on the tail as irregular lines or series of spots; lower flanks whitish, sometimes with an irregular dark line or series of spots. Dorsum uniform golden brown to reddish brown in adult males; flanks and limbs light grayish; tail often with remnants of dark stripes. Ventral parts whitish; labials, throat, and chin sometimes yellowish to orange in live specimens; usually with heavy black speckling, in some cases restricted to the labials and in others extending to the sides and top of the head.

Material Examined: **Huíla Province:** Cristo Rei, Lubango [-14.9401°, 13.5117°, 2124 m] (CAS 263333, 263336, 263338–263341); Tundavala, Lubango [-14.8239°, 13.38114°, 1295 m] (CAS 263342–263345, 263348–263350); Leba Pass [-15.0700°, 13.2434°, 1667 m] (CAS 254875); Mangueiras near Leba [-15.0446°, 13.1586°, 653 m] (CAS 254886, 254888); Capelongo, near Bicuar National Park

entrance [-14.8443°, 15.0356°, 1220 m] (MHNC-UP/REP 460, 461). **Namibe Province:** Virei-Calundolo [-16.3102°, 12.7960°, 471 m] (CAS 263484, 263485); Curoca-Omauha [-15.9503°, 12.4953°, 394 m] (CAS 263520); Virulundo [-16.2949°, 12.9408°, 759 m] (CAS 263489–263491); Iona National Park, Curoca river, Pediva Hot Springs Area [-16.2836°, 12.5611°, 250 m] (CAS 254853); Omauha-Chitundolo [-15.8706°, 12.9030°, 553 m] (CAS 263516); dirt road to Chingo (approx. 31 km N of Chingo) [-14.4816°, 12.8046°, 449 m] (CAS 264711, 2674712); dirt road to Chingo (approx. 18 km N to Chingo) [-14.3934°, 12.8289°, 620 m] (CAS 264731); Bentiaba River near Maungo [-14.5106°, 12.8391°, 417 m] (CAS 264723); Maungo houses [-14.8443°, 15.0356°, 1220 m] (CAS 264717).

Additional Material: **Cunene Province:** Otschinjau [-16.5790°, 13.9052°, 1218 m] (ZSM 247/1953, 253/1953, 273/1953, 276/1953). **Huíla Province:** 11 km south of Chibemba [-15.8439°, 14.1107°, 1275 m] (Baptista et al. 2019). **Namibe Province:** Munhino [-14.9667°, 12.9667°, 393 m] (MD 1918); Otchifengo River [-16.6167°, 12.8833°, 560 m] (TM 40775, 40776); Espinheira [-16.7885°, 12.6127°, 455 m] (PEM R17975); Tchamalindi [-16.9757°, 12.8856°, 1436 m] (P1.97–8, fide Lobón-Rovira et al., 2022); Epupa [-16.9968°, 13.2486°, 649 m] (AMB 13222, 13199, 13208, 13030).

Historical Localities (no extant specimens): **Huíla Province:** Capangombe (Rio Chimba et Biballa) (Bocage, 1895).

Distribution in Angola: This species appears to be restricted to the southwestern regions of the country, with records for southern Namibe, western Cunene, and southwestern Huíla provinces (fig. 91).

Global Distribution: *Trachylepis sulcata* is widely distributed from southwestern Angola through Namibia to western South Africa (Branch, 1998; Masterson, 2014b).

Habitat and Natural History Notes: This rupiculous species is usually found as groups of several individuals on granite outcrops in the arid habitats of southwestern Angola, including dry mopane woodlands and savannah-steppe mosaic (Grandvaux-Barbosa, 1970; fig. 92), but occupies more heavily vegetated areas in parts of inland Namibia and South Africa (A.M.B., personal obs.). Females give birth to three to five young and may have two broods per year (Broadley, 2000). Butler et al. (2019) noted that in Huíla Province many females were found gravid in August, suggesting that the reproductive season may be in winter and spring.

Trachylepis suzanae, sp. nov.— Suzana's Wedge-Snouted Skink

Figures 93–95, plate 5

Euprepes acutilabris [part]*:* Bocage (1870: 68); Peters (1877: 614).

Mabuia acutilabris [part]: Boulenger (1887: 208); Bocage (1895: 46); Monard (1937: 94).

Mabuya acutilabris [part]: Schmidt (1919: 551); Parker (1936: 138); Laurent (1947: 8, 1954: 65, 1964: 75); Hellmich (1957a: 58); Branch (1998: 151).

Trachylepis acutilabris [part]: Marques et al. (2018: 252); Branch et al. (2019a: 318); Ceríaco et al. (2020a: 402).

This species has previously been confounded with the phenotypically similar *T. acutilabris*. Bocage (1870) first cited *Mabuia acutilabris* for Angola and was followed by several authors who reported specimens from most of the Angolan coastal regions (Peters, 1877; Bocage, 1895; Schmidt, 1919; Monard, 1937; Laurent, 1947, 1954, 1964; Hellmich, 1957a; 1957b; Haacke, 2008; Ceríaco et al., 2016b; Vaz Pinto et al., 2019). Recently collected material allowed us to identify two divergent lineages in Angolan populations, forming a clade sister to true *Trachylepis acutilabris* from Namibia (fig. 1). Populations from northwestern Angola previously assigned to *T. acutilabris* are here described as *T. suzanae*, sp. nov., based on specimens collected at the mouth of the Kwanza River, Luanda Province. Historical records from Cabinda (Peters, 1877),

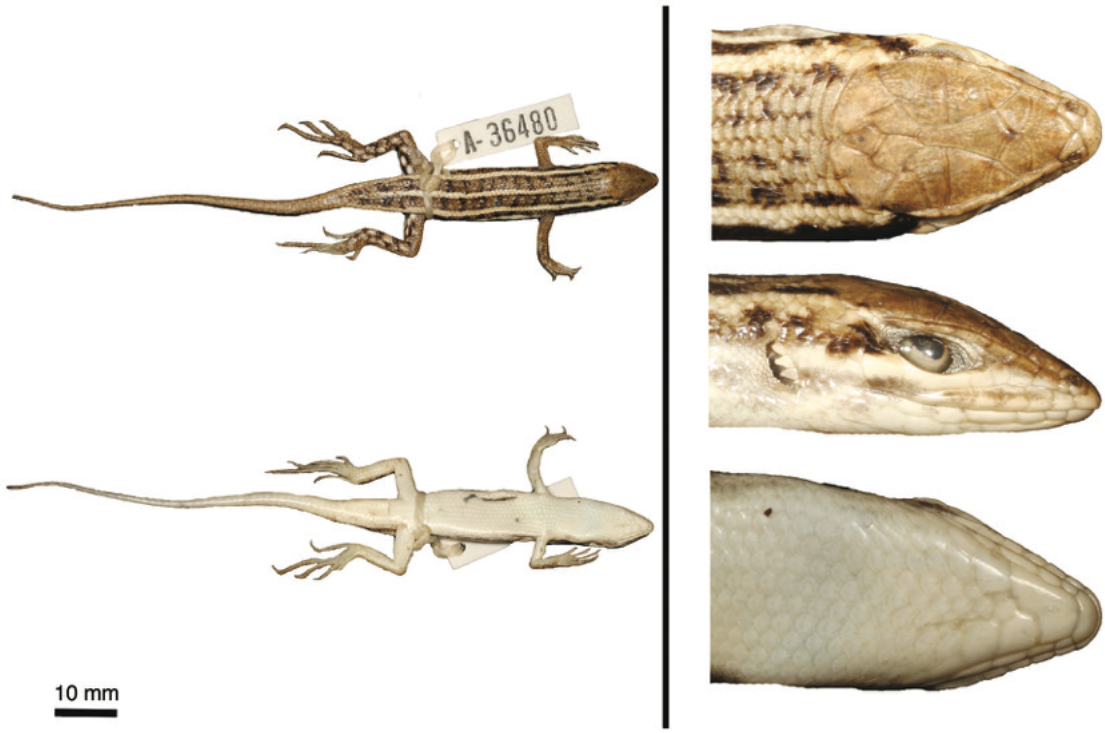


FIGURE 93. Holotype of *Trachylepis suzanae*, sp. nov., from Kissama National Park, Luanda Province (CAS 263357). Photos by L.M.P.C.

FIGURE 94. Life photo of the holotype of *Trachylepis suzanae*, sp. nov., from Kissama National Park, Luanda Province (CAS 263357). Photo by John Cavagnaro.

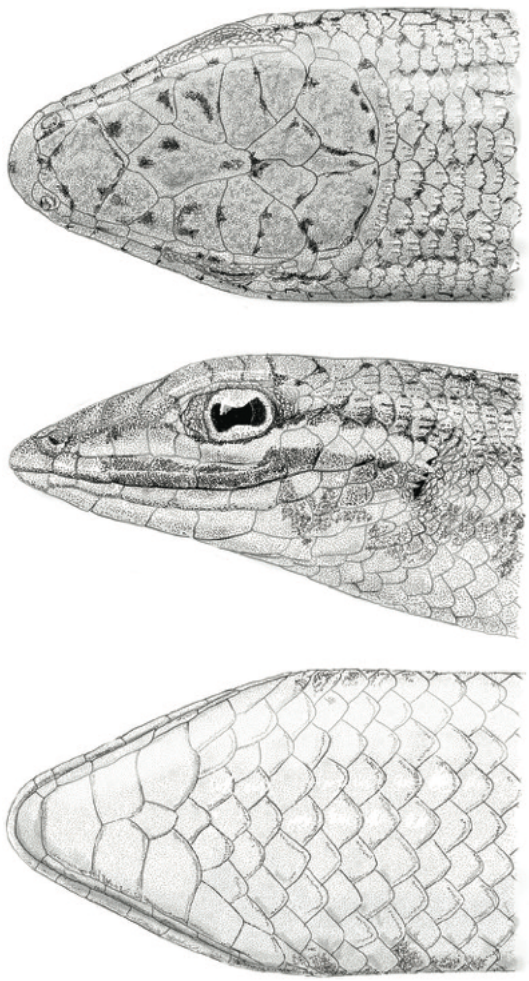


FIGURE 95. Details of head morphology of *Trachylepis suzanae*. Drawings by A.T.

Luanda (Hellmich, 1957a), and Benguela provinces (Boulenger, 1887; Parker, 1936; Monard, 1937; Laurent, 1947, 1954, 1964) are also referred to this species. Schmidt (1919) recorded "*Mabuya acutilabris*" from several localities along the Congo River in northern Angola and southern Democratic Republic of the Congo, but only those from Santo António do Zaire, Zaire Province represent *Trachylepis suzanae* the remaining specimens being representatives of *T. albopunctata* (see respective account). Additional specimens of this species from Benguela Province, collected by the Lang-Boulton Vernay Angola Expedition in 1925, are deposited in the AMNH and remained unpublished until now, as well as a small series from Luanda Province deposited at the USNM, collected at the end of the 19th century by both Héli Chatelain and the U.S. Eclipse Expedition. The now lost specimens from "Duque de Bragança," Malanje Province (Bocage, 1895) represent a dubious record, as it is the only inland locality cited for the species.

Diagnosis: A medium-sized skink (max. SVL 62.3 cm), with fully developed, pentadactyl limbs and a wedge-shaped snout (figs. 93–95). Dorsal scales tricarinate or quadricarinate; ventral scales smooth; 48–56 SAV; 43–49 SAD; 26–32 MSR; lamellae beneath fingers and toes spinose; plantar scales spinose; 19–26 LUFT; 12–15 LUFF; supranasals in contact or separated, with frequent occurrence of intrusive scales and scale fusion (see Schmidt, 1919 for further detail on the variation of nasal scales arrangement); parietals in contact; prefrontals usually separated; frontoparietals usually in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; three subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Dorsum olive to grayish brown, with three white to yellowish longitudinal stripes; between dorsal stripes usually scattered pale spots, and dark, irregular transverse bands that extend to the upper flanks. A white lateral stripe starts behind the eye and extends to the hind-limb insertion; lower flanks white, usually with light grayish speckling. Limbs brown above; hind limbs with black-edged, white circles or irregular shapes posteriorly. Top of head uniform brown; labials white, usually with light grayish speckling. Venter white, with light grayish speckling near the flanks, under the tail, hands and feet.

Holotype: An adult female (CAS 263357, field number MCZ-A 36480; fig. 93, 94) collected at Kissama National Park, Kwanza River mouth, southern bank, Luanda Province [-9.3510°, 13.1532°, 5 m], by Mariana P. Marques, Luis M.P. Ceríaco, John Cavagnaro, and Phillip Pastor, on 3 June 2016.

TABLE 8

Mensural and Meristic Data for the Type Series of *Trachylepis suzanae*, sp. nov.

Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages

	CAS 263357	AMNH 11101	AMNH 11103	AMNH 11106	AMNH 11124	AMNH 11128	AMNH 11137	AMNH 11151	AMNH 11153	AMNH 11162	AMNH 11163	AMNH 48542	AMNH 48553	AMNH 48555	AMNH 48605	AMNH 48644
	Holo-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type
Sex	♀	♂	unsexed	unsexed	unsexed	♂	unsexed	♀	♂	♀	unsexed	unsexed	♂	♂	unsexed	♂
SVL	41.6	56.9	52.4	54.3	55.5	56.6	57.4	52.6	55.9	54.8	54.9	62.3	57.5	57.4	58.3	50.0
TL	60.8	97.5	87.4	95.1	102.9	103.4	107.8	83.1	88.3	103.6	77.2	–	106.6	109.9	–	–
TL/SVL	150	170	170	170	180	180	180	160	170	180	174	–	180	190	–	–
HL	10.6	14.9	12.3	13.2	13.5	13.4	13.6	13.2	12.4	13.6	12.5	14.1	14.1	14.1	13	12.9
HL/SVL	30	30	20	20	20	20	20	20	20	20	20	20	20	20	20	20
SVL/HL	390	380	420	410	410	420	420	390	450	400	440	410	410	410	450	390
HW	6.2	9.6	8.1	8.6	8.6	9.1	8.8	8.3	8.9	8.5	8.7	8.5	9.1	9.1	8.4	8.1
HW/HL	60	60	60	60	60	60	60	60	70	60	70	60	60	60	60	60
HH	4.5	6.8	5.7	6.4	6.9	6.6	6.5	6.5	6.4	6.6	6.4	7.1	6.5	7.0	6.4	6.7
IN	1.5	2.3	1.5	1.8	2.1	1.9	2.1	1.9	2.3	2.1	2.1	2.2	2.0	2.2	2.2	1.9
EN	3.5	4.5	3.7	4.2	3.9	3.9	3.9	3.8	4.1	3.7	4.0	4.2	4.6	4.8	4.1	4.0
ES	4.6	6.7	5.2	6.0	5.7	5.9	5.8	5.4	6.2	5.5	5.6	6.1	6.2	6.1	5.8	5.6
MSR	29	29	28	29	29	29	29	28	29	29	30	30	29	30	32	31
SAD	49	44	43	45	47	47	44	45	45	47	47	44	48	49	45	43
SAV	56	51	51	52	55	52	53	53	52	53	48	54	49	57	51	53
LUFF	15	13	13	14	14	–	13	14	14	13	14	12	15	13	14	15
LUFT	26	21	22	20	19	22	20	22	20	20	20	26	24	23	22	22
SC	5	6	5	5	5	5	5	5	7	6	5	5	5	5	5	5
SL (SO)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	7 (5)	6 (5)	7 (5)
CP	C	SPC	C	SPC	SPC	C	C	C	C	C	S	C	C	C	SPC	C
CFP	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
CSN	C	S[a]	C	S[a]	S[a]	S[a]	C	C	C	S[a]	S[a]	C	C	C	C	C
CPF	C	S	S	S	S	S	S	S	S	S	S	S	SPC	S	S	S
KDS	3–4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Plantar scales	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose

[a]Separated by small internasal scale.

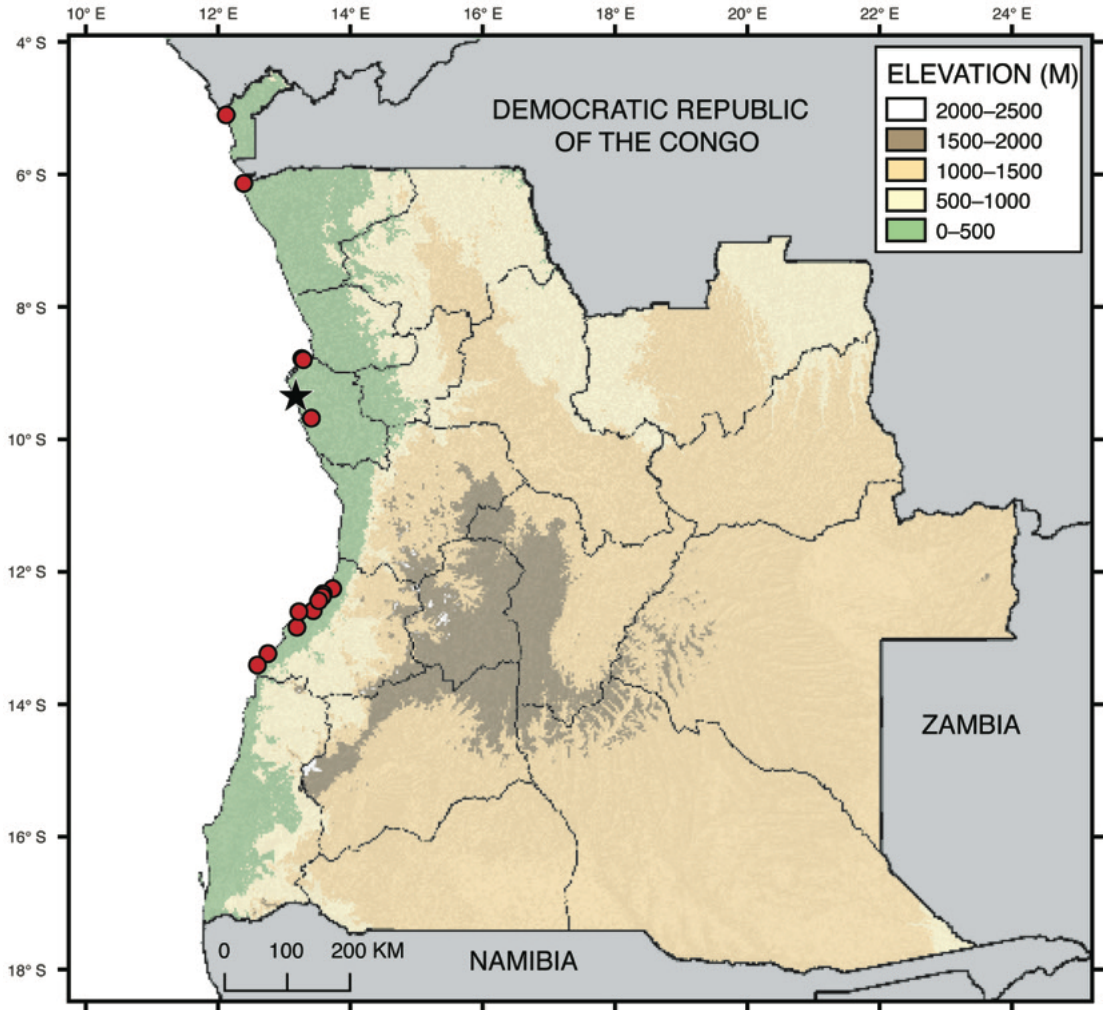


FIGURE 96. Distribution of *Trachylepis suzanae* in Angola. Black star denotes the type locality.

Paratypes: Two adult females (AMNH 11151, 11162), three adult males (AMNH 11101, 11128, 11153) and five unsexed adults (AMNH 11103, 11106, 11124, 11137, 11163) collected at "St. Antonio" [do Zaire], Zaire Province [-6.1333°, 12.3667°, 4 m] by Herbert Lang and James P. Chapin on August 1915; one adult male (AMNH 48644) collected at "Lobito Bay," Benguela Province [-12.3500°, 13.5500°, 7 m] by Herbert Lang and Rudyerd Boulton on April 1925; two adult males (AMNH 48553, 48555) and two unsexed adults (AMNH 48542, 48605) collected at "Hanha," Benguela Province [-12.2506°, 13.7116°, 83 m] by Herbert Lang and Rudyerd Boulton on April 1925.

Additional Material: **Benguela Province:** Lobito Bay [-12.3500°, 13.5500°, 7 m] (AMNH 48645, 147566–147579); Hanha [-12.2506°, 13.7116°, 83 m] (AMNH 40655, 41548–41561, 48530–48541, 48543–48552, 48554, 48556–48604, 48606–48643); Benguela [-12.5833°, 13.4167°, 15 m] (BMNH 1906.8.24.65–67); Lobito, Restinga [-12.3292°, 13.5661°, 6 m] (MD 1265.22); Lobito [-12.3709°, 13.5542°, 3 m] (BMNH 1936.8.1.593–596, MHNC 91.0496); Chimalavera Nature Reserve, vic main camp [-12.8338°, 13.1699°, 250 m] (CAS 263306–263309; UF 187301, 187302). **Luanda Province:** Kissama National Park, Cabo Ledo [-9.6777°, 13.3881°, 26 m]

FIGURE 97. Typical habitat of *Trachylepis suzanae* at the mouth of Kwanza River, Luanda Province. Photo by Luis Querido.

(AMB 12428–38, 12440–42); Kissama National Park, Kwanza river mouth [-9.3510°, 13.1532°, 14 m] (AMB 12466–73); Luanda [-8.7949°, 13.2661°, 1 m] (USNM 20045, 20046); Cabo Ledo [-9.6556°, 13.2392°, 101 m] (USNM 16105, 16106). **Zaire Province:** "St. Antonio" [do Zaire], Zaire Province [-6.1333°, 12.3667°, 4 m] (AMNH 11099, 11100, 11102, 11104, 11105, 11107–11123, 11125–11127, 11129–11136, 11138–11150, 11152, 11154–11161, 11164–11193).

Historical Localities (no extant specimens): **Benguela Province:** Benguela [-12.5833°, 13.4167°, 15 m] (Bocage, 1895); Catumbela [-12.4333°, 13.5000°, 7 m] (Bocage, 1895); "Plage de Lobito" (Laurent, 1964); "Baía dos Elefantes" [-13.2323°, 12.7317°, 5 m] (Laurent, 1947: 8); "Mullet Bay" [-13.4051°, 12.5735°, 138 m] (Laurent, 1947: 8); "Baía Farta" [-12.6000°, 13.2000°, 4 m] (Laurent, 1947: 8); "Baía de St. Bras, près Lobito" (Laurent, 1947: 8). **Cabinda Province:** Chinchoxo [-5.1000°, 12.1000°, 45 m] (Peters, 1877). **Luanda Province:** Ilha de Luanda [-8.7789°, 13.2437°, 0 m] (Hellmich, 1957a).

Description of the Holotype: A well-preserved adult female. Body cylindrical and robust with a poorly defined neck and well-developed pentadactyl limbs; tail long, its length almost twice the SVL, smoothly tapering. Fore- and hind limbs overlap when adpressed against the body. SVL 41.6 mm, TL 60.8 mm. HL 10.6 mm, with wedge-shaped snout. Additional measurements are presented in table 8. Four subtriangular auricular scales extend posteriorly from the anterior margin of the ear opening, the lowermost distinctly smaller. Rostral visible from above. Nostrils oriented dorsally, set posteriorly, so that postnasal effectively borders nostril. Supranasals in contact at a single point. Frontonasal broader than long, in contact with loreal scales. Prefrontals pentagonal, in contact, each in contact with the following head shields: frontonasal, posterior loreal, first supraocular and frontal. Two loreals. Frontal length similar to the distance between anterior tip of frontal and tip of snout. Frontal in contact with three supraoculars on each side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars (left frontoparietal in contact only with third supraocular), parietal,

and interparietal. Frontoparietal plus interparietal length shorter than frontal length. Interparietal longer than broad, with a visible parietal foramen. Parietals greater than frontoparietals, in narrow contact with each other. Five supraciliaries, second largest. Seven supralabials; subocular narrow, not reaching the lip. Seven infralabials. Postmental and right primary chin shield fused into a large and irregular scale, in contact with the mental, first two left infralabials, first three right infralabials, left primary chin shield, right secondary chin shield, and two gular scales. Transparent scale present in lower eyelid, as is usual for *Trachylepis*. Tympanum visible, at same level as mouth. Dorsal scales each with three smooth keels. Ventral scales smooth. MSR 29, SAD 49, SAV 56. Limbs with five digits; scales on palms and soles spinose. Relative length of fingers IV > III > V > II > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 15, Toe-IV lamellae 26. Color in life is homogenously light brown on the flanks, upper side of head, neck, dorsum, legs and tail brown with three pale dorsal stripes; vertebral stripe starts at the nape and extends to the base of the tail; a pair of dorsolateral stripes starts behind the eye and extend to the base of the tail. Scattered pale spots and irregular black spots between dorsal stripes; the latter form transverse bands extending to the flanks. Hind limbs covered above by black-edged, pale circles or irregular shapes. A white lateral stripe starts below the eye and extends to the hind limb insertion; lower flanks white, with grayish speckling. Top of head uniformly brown; labials, subocular and lower half of loreals white, with light grayish speckling. Ventral surfaces uniformly whitish with some scattered dark speckles near flanks, under tail, hands, and feet.

Coloration in Ethanol: Same as in life (see above).

Variation: Variation in scalation and measurements among the type series is reported in table 8. All paratypes generally agree with the holotype in terms of coloration.

Comparison with Other Angolan and Southwest African *Trachylepis*: *Trachylepis suzanae* differs from all other species of *Trachylepis* known to occur in Angola, with the exception of *T. wilsoni* by having a wedge-shaped snout. It differs from its sister taxon, *T. wilsoni*, by having a more acuminate head and less prominent *canthus rostralis* (fig. 95). This difference also applies to true *T. acutilabris* from Namibia, which also has a higher number of MSR than *T. suzanae* (28–32 in *T. suzanae* vs. 32–39 in *T. acutilabris*).

Distribution in Angola: This species occurs in the coastal regions of northern and central Angola, from Benguela Province northward to Zaire Province (fig. 96).

Global Distribution: Confirmed records of this species are limited to Angola, but its presence at the mouth of the Congo River and the historical record from Chinchoxo, Cabinda Province (Peters, 1877) suggest that it is present in adjacent Democratic Republic of Congo and possibly in the Republic of Congo as well.

Habitat and Natural History Notes: This psammophilous species is found in a forest-savannah mosaic or miombo woodlands, in habitats with sandy substrate, especially near the shore and along riverbanks (Grandvaux-Barbosa, 1970; fig. 97). These skinks have been recorded on the sandy beaches of Luanda Island (Hellmich, 1957a) and Lobito (Laurent, 1964), and are known to dig burrows in the sand at the mouth of the Congo River, sometimes so close to the shore that they are in reach of the waves, although slightly vegetated areas are preferred (Schmidt, 1919). Laurent (1954) recorded the species under the layer of fallen needles in coniferous woods. Schmidt (1919) also noted that a fishery at the mouth of the Congo River formed a great attraction for these lizards, with fish spoils and waste which in turn attracted a variety of insects.

Etymology: The specific epithet "*suzanae*" is formed in the genitive singular and is feminine. It is given in honor of Suzana A. Bandeira (1991–), Angolan herpetologist and conservationist. Suzana has been a fundamental part of our team since the beginning of our joint herpetological studies in the country. Suzana initiated her scien-

tific career collecting *Trachylepis* and other reptiles in the Namibe Province in 2013 and is now an established and respected member of the Angolan scientific community. We suggest "Suzana's Wedge-snouted Skink" and "Lagartixa de Suzana Bandeira" as the English and Portuguese common names, respectively, for this species.

***Trachylepis vunongue*,** sp. nov.—
Mwene Vunongue Skink

Figures 98, 99, plate 6

Mabuya variegata punctulata [part]: Broadley (1974b: 7).
Mabuya punctulata [part]: Broadley (2000: 100).
Trachylepis punctulata: Pietersen et al. (2021: 276).
Trachylepis punctulata [part]: Marques et al. (2018: 267); Branch et al. (2019: 319).
Trachylepis cf. *punctulata*: Conradie et al. (2022: 203).

The presence in Angola of this taxon has only very recently been confirmed by Conradie et al. (2022), as *Trachylepis* cf. *punctulata*, and by a recently collected specimen from Cuatir, Cuando Cubango Province (this study). According to our molecular results, these animals belong to a group containing *T. hilariae*, *T. ovahelelo* and *T. variegata*, which is sister to a clade comprising true *T. punctulata* and *T.* cf. *triebneri* from Namibia, and it presents clear morphological and coloration differences from its closest relatives. These differences had already been noted by Broadley (1974b), who considered that *T. punctulata* sensu lato comprised different, morphologically distinctive populations: those in central Namibia, whose specimens presented "well defined pale lateral and (sometimes) vertebral stripes"; those in Gordonia District in the Northern Cape Province, South Africa, with fused paravertebral black streaks forming continuous stripes; the Zambian and northwestern Zimbabwe populations that are uniform gray-brown above, apart from a white stripe extending from subocular to anterior border of ear opening; the ones from Botswana, which are "uniform apart from the white lateral stripe"; and finally the topotypical Angolan population (see *T. punctulata* account). A recent visit to the collections of the NMZB allowed us to review Broadley's (1974b, 2000) specimens from Botswana, Zambia, Zimbabwe, and Mozambique and confirm these morphological data. Portik and Bauer (2012) supported the existence of cryptic speciation within the *T. punctulata* species complex, noting that part of the populations from Northern Cape province in South Africa were genetically similar to those from Namibia but separate from those from Limpopo and Zimbabwe.

The available data allow us to confirm some of Broadley's (1974b) observations and to start solving some of the taxonomic uncertainties surrounding the difficult *T. punctulata* species complex. Sequenced specimens from Namibia morphologically agree with the coloration pattern (presence of well-defined, pale lateral and vertebral stripes) and morphological characters presented by Mertens (1954) in the description of *Mabuya longiloba triebneri*. This taxon, considered by Broadley (1974b, 2000) as a synonym of *T. punctulata*, was described from "Osona bei Okahandja" in central Namibia (Mertens 1954). The geographic origin of our sequenced specimens includes areas surrounding the *triebneri* type locality and the overall distribution of the Namibian population noted in Broadley (1974b). Additional material available in the collections of CM (CM 115685, 115686) also morphologically agree with both the sequenced specimens and the descriptions provided by Mertens (1954) and Broadley (1974b). These data lead us to consider that *triebneri* may represent a valid species. Research is underway to review the taxonomic status and distribution of the *T. punctulata* species complex in Namibia, and therefore we refrain from elevating *triebneri* to a full species status yet, preferring to list it as *T.* cf. *triebneri* (fig. 1).

Specimens from western Zambia and northwestern Zimbabwe, studied by Broadley (1974b)

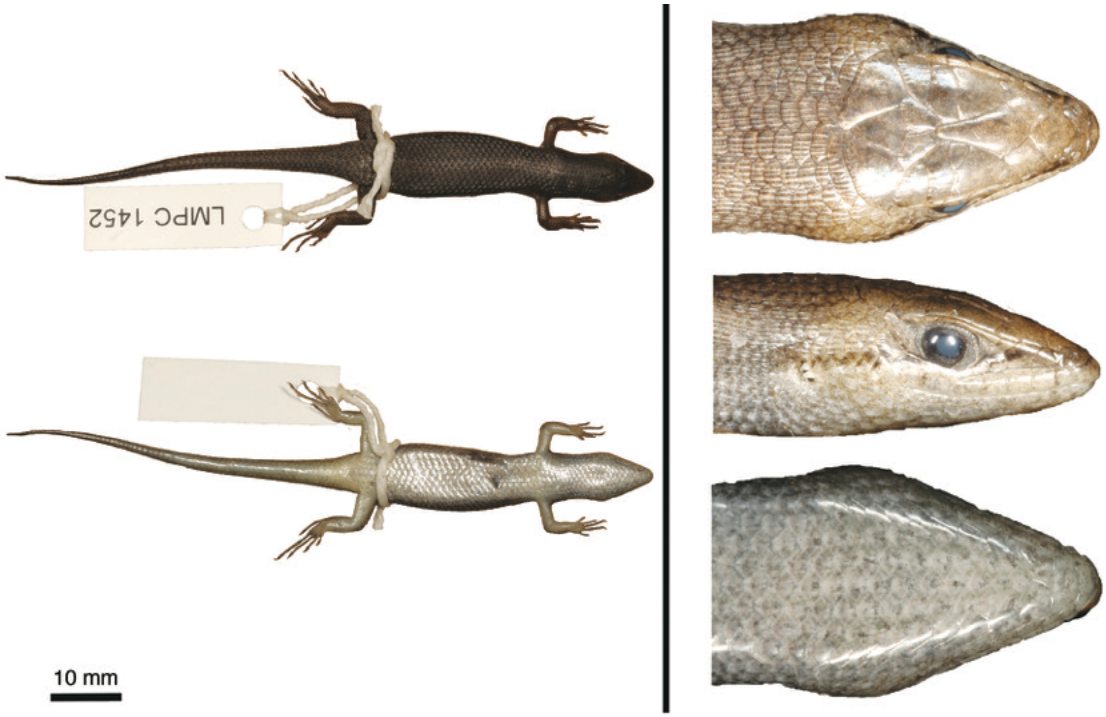


FIGURE 98. Preserved holotype of *Trachylepis vunongue*, sp. nov., from Cuatir main camp, Cuando Cubango Province (MUNHAC/MB03-001520). Photos by L.M.P.C.

FIGURE 99. Life photo of the holotype of *Trachylepis vunongue* from Cuatir main camp, Cuando Cubango Province (MUNHAC/MB03-001520). Photo by D.P.

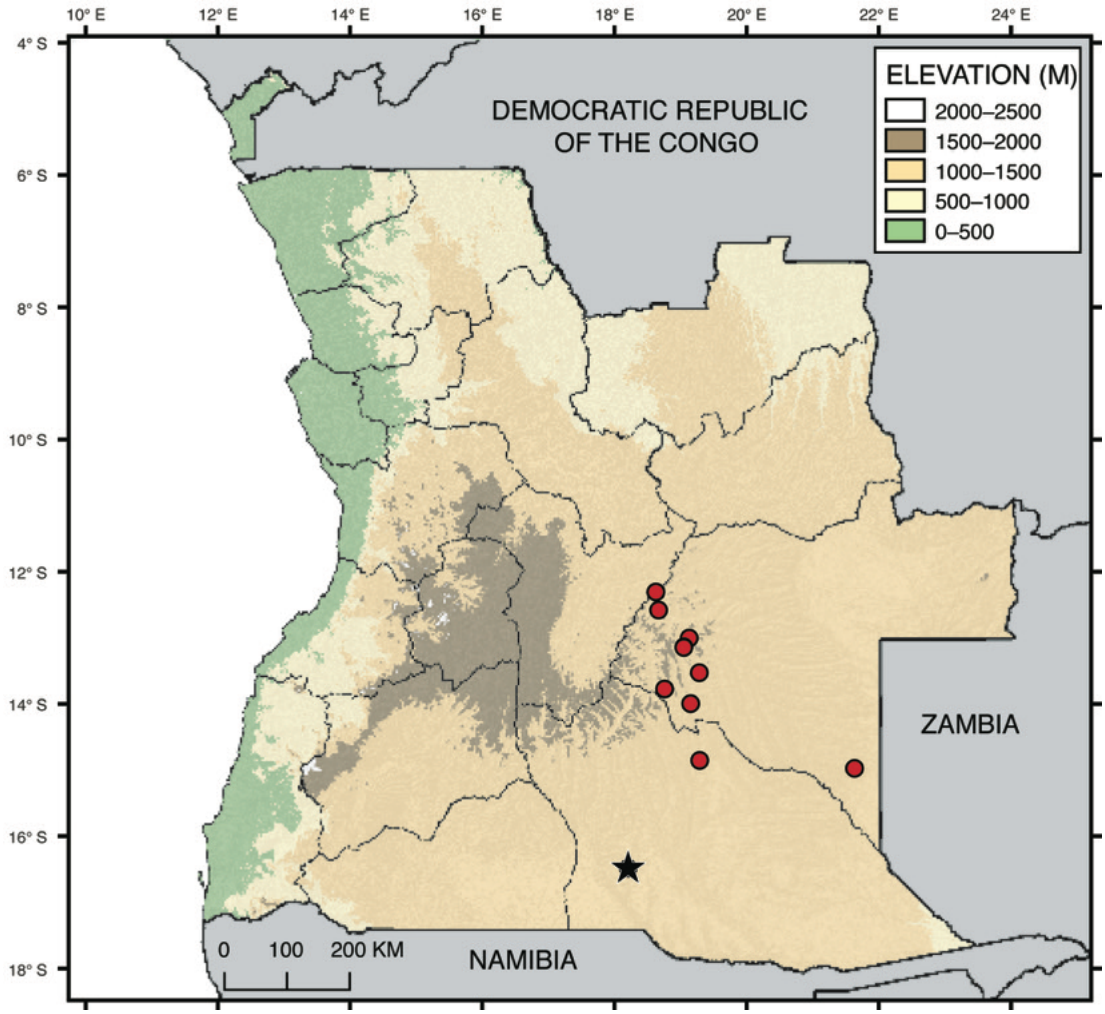


FIGURE 100. Distribution of *Trachylepis vunongue* in Angola.

and reviewed by us (tables 1, 9), agree entirely with the morphological data provided for the Angolan populations by Conradie et al. (2022) and for the western Zambian populations provided by Pietersen et al. (2021), as well as our recently collected specimen from Cuatir, which is uniform gray-brown above, apart from a white stripe extending from subocular to anterior border of ear opening.

Diagnosis: (Based on Conradie et al., 2022, and the type series, including specimens from Zambia and Zimbabwe partly studied by Broadley, 2000) A medium-sized skink (max. SVL in Angola 46.0 mm, PEM R 23255 (fide Conradie et al., 2022), with fully developed pentadactyl limbs (figs. 98, 99); dorsal scales pentacarinate; ventral scales smooth; 45–55 SAV; 40–52 SAD; 30–35 (36 fide Broadley, 2000) MSR; lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 15–22 (28 fide Broadley, 2000) LUFT; 9–14 LUFF; supranasals in contact; parietals in contact, at least at a single point; prefrontals separated; frontoparietals in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye, usually with two (2–4 fide Broadley, 2000) lan-

FIGURE 101. Typical habitat of *Trachylepis vunongue* at Cuatir main camp, Cuando Cubango Province. Photo by D.P.

ceolate auricular scales on the anterior margin of the ear opening. Supralabials seven to eight (rarely nine); supraciliaries usually five, sometimes four or six; nostril oriented dorsally. Dorsum light gray-brown. There may be black and pale spots irregularly scattered on the dorsum, flanks, limbs, and tail. Top of head uniformly colored or with irregular dark vermiculation; labials dirty white, uniform or with diffuse grayish stippling; a dark stripe runs from nostril, through the eye, to ear opening; immediately below, a white stripe starts at subocular position and stops at ear opening, rarely extending beyond ear opening to forelimb insertion. Ventral parts white to bluish white, sometimes with irregular dark spotting, especially on subcaudal and gular region, and near flanks.

Holotype: An unsexed adult (MUNHAC/MB03-001520, field number LMPC 1452; fig. 98, 99) collected at Cuatir main camp, Cuando Cubango Province [-16.4852°, 18.2030°, 1148 m], Angola, by Diogo Parrinha on 21 February 2023.

Paratypes: An unsexed adult (NMZB 16016, field number BFP/R 114) and two adult females (NMZB 16017–16018, field numbers BFP/R 114) collected at Ndau School, Western Province [-15.4415°, 23.2227°, 1044 m], Zambia, by Donald G. Broadley and Shiela Broadley on 27 March 1999; an unsexed adult (NMZB 16006, field number BFP/R 111) collected at Ndau School, Western Province [-15.4415°, 23.2227°, 1044 m], Zambia, by Peter van Daele on 26 March 1999; an unsexed adult (NMZB-UM 21008) collected

at Kalabo, Barotseland [-14.9928°, 22.6785°, 1026 m], Zambia, by R.G. Japp on unknown date; an unsexed adult (NMZB 13382, field number GR 83) collected at Makona Pan, Hwange National Park [-19.3167°, 26.9167°, 993 m], Zimbabwe, by G.S.A. Rasmussen on 9 March 1994; an unsexed adult (NMZB 13589, field number GSA 279) collected at Shaba Shaba, Hwange National Park [-19.3167°, 26.1667°, 976 m], Zimbabwe, by G.S.A. Rasmussen on 9 May 1994; two unsexed adults (NMZB 13563, 13564) collected at Shakwanki Pan 0,5km NW, Hwange National Park [-19.1297°, 26.2303°, 976 m], Zimbabwe, by G.S.A. Rasmussen on 6 May 1994.

Additional Material: **Cuando Cubango Province:** Cuanavale River source [-14.8547°, 19.2864°, 1201 m] (PEM R23371). **Moxico Province:** Cacundu falls [-13.7739°, 18.7552°, 1281 m] (PEM R23255); Cuanavale River [-13.9948°, 19.1492°, 1251 m] (PEM R23372); Cuando River source [-13.0035°, 19.1275°, 1343 m] (PEM R23425–6); Quembo River, trap 4 [-13.1359°, 19.0471°, 1368 m] (PEM R23461–2); Sombanana village river [-12.3071°, 18.6235°, 1408 m] (PEM R23504); Quembo River source camp [-13.1456°, 19.0457°, 1422 m] (PEM R23550–2); Lungwebungu River trap 3 [-12.5806°, 18.6642°, 1302 m] (PEM R23981–2); Quembo River bridge camp [-13.5275°, 19.2806°, 1241 m] (PEM R27438–40; WC-6769 fide Conradie et al. 2022); Lake Hundo [-14.9743°, 21.6297°, 1100 m] (WC-6942 fide Conradie et al. 2022).

Description of the Holotype: A well-preserved, unsexed adult. Body cylindrical and robust with a poorly defined neck and well-developed pentadactyl limbs; tail moderate, its length slightly greater than the SVL, smoothly tapering. Fore- and hind limbs overlap when adpressed against the body. SVL 41.1 mm, TL 45.5 mm. HL 9.2 mm, with relatively long and thin snout. Additional measurements are presented in table 9. Ear opening medium. Two subtriangular auricular scales extend posteriorly from the anterior margin of the ear opening. Rostral visible from above. Nostrils oriented dorsally and set posteriorly, so that postnasal effectively borders nostril. Supranasals in contact. Frontonasal broader than long, in contact with loreal scale. Prefrontals subquadrangular, separated, each in contact with the following head shields: frontonasal, loreals, first and second supraocular, and frontal. Two loreals. Frontal length slightly greater than the distance between anterior tip of frontal and tip of snout. Frontal in contact with two supraoculars on each side, plus an intrusive scale between second and third supraoculars on right side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars, parietal, and interparietal. Frontoparietal plus interparietal length slightly shorter than frontal length. Interparietal longer than broad, with a visible parietal foramen. Parietals greater than frontoparietals, in contact with each other at a single point. Four supraciliaries, second largest. Eight supralabials, sixth subocular. Eight infralabials. Postmental bordering seven scales (mental, two infralabials on each side, and two primary chin shields). Transparent scale present in lower eyelid, as is usual for *Trachylepis*. Tympanum visible, at same level as mouth. Dorsal scales each with five smooth keels. Ventral scales smooth. MSR 32, SAD 47, SAV 54. Limbs with five digits; scales on palms and soles spinose. Relative length of fingers IV > III > II > V > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 14, Toe-IV lamellae 19. Coloration in life homogeneously grayish brown on dorsum, flanks, dorsal aspect of head, limbs, and tail; few white and black speckles on flanks, barely distinct. Top of head with irregular dark stippling; a black stripe runs from through the eye to ear opening; below, a white stripe starts at subocular position and stops at ear opening; labials creamy white, with diffuse grayish stippling. Ventral parts creamy white with diffuse grayish stippling, especially near flanks, under tail and gular region.

Coloration in Ethanol: Same as in life (see above).

Variation: Variation in scalation and measurements among the type series is reported in table 9. All paratypes generally agree with the holotype in terms of scalation and coloration. In NMZB 14564

and 16016 there is a pair of barely distinct, pale dorsolateral stripes, while in NMZB 16016 and 13563 the pale subocular stripe extends beyond the ear opening to the forelimb insertion.

Comparison with Other Angolan and Southwest African *Trachylepis*: *Trachylepis vunongue*, sp. nov., differs from all other species of *Trachylepis* known to occur in Angola, with the exception of *T. albopunctata*, *T. damarana*, *T. chimbana*, *T. bouri, T. bocagii*, *T. attenboroughi*, *T. wahlbergii*, *T. sulcata*, *T. ansorgi*, and *T. hilariae* by having spinose plantar scales. It differs from *T. attenboroughi* and *T. wahlbergii* by the presence of subtriangular auricular scales on the anterior margin of the ear opening (vs. absence in the latter). *Trachylepis vunongue* is readily distinguished from *T. suzanae* and *T. wilsoni* by not having a wedge-shaped snout (vs. wedge shaped in the latter two). The new species can be readily distinguished from *T. albopunctata*, *T. damarana*, *T. ansorgii*, and *T. sulcata* by having its nostrils situated more dorsally, directed upward (vs. nostrils situated more laterally, directed sideward in the latter). It can be distinguished from *T. bouri* and *T. bocagii* by having <36 MSR (vs. >35 in the latter). It can be distinguished from *T. ovahelelo* by having the dorsum uniform or with irregularly scattered black and pale speckles (vs. transversely aligned series of black speckles in the latter) and a shorter tail (TL/SVL 111–152% vs. 190% in *T. ovahelelo*). It can be distinguished from *T. chimbana* by having 45–55 SAV and 9–14 LUFF (vs. 55–63 and 15–17, respectively, in *T. chimbana*). In comparison with its sister taxon *T. punctulata*, *T. vunongue* presents a light gray-brown dorsum (vs. bronze to golden-brown in *T. punctulata*). It differs from *T. hilariae* by having 30–35 MSR (vs. 29–30 in the latter), 45–55 SAV (vs. 58), and 9–14 LUFF (vs. 15–16 in *T. hilariae*). Regarding the other Southwestern African congeners of the *variegata* subgroup sensu Weinell et al. (2019), *T. vunongue* is readily differentiated from *T. variegata* by having five keels on dorsal scales (vs. three in *T. variegata*).

Distribution in Angola: *Trachylepis vunongue* is know from the southeastern parts of the country, in the Cuanavale, Cuanda, and Quembo river sources, as well as the Cuatir basin (fig. 100).

Global Distribution: The global distribution of this taxon is poorly known, but appears to be restricted to the Kalahari basin, from southeastern Angola to southwestern Zambia and northwestern parts of Zimbabwe (Broadley 1974b; Pietersen et al. 2021). The species also likely occurs in northeastern Namibia and Botswana, but these populations need to be critically reviewed to confirm their taxonomic identity, as already noted by Conradie et al. (2022).

Habitat and Natural History Notes: According to Conradie et al. (2022), the species is common where it occurs and often found moving around on the sandier regions, in close proximity to water sources. This is concordant with our own observations at Cuatir, where the species was found on sandy substrate close to the river floodplains (D.P., personal obs.; fig. 101). Pietersen et al. (2021) noted that the species occurs in arid and mesic savannahs, and forages between grass tussocks in sandy regions, feeding on insects and spiders. Females give birth to 2–4 young in March (Pietersen et al. 2021). The female paratype NMZB 16017, collected on 17 March 1999, contained a fully developed embryo.

Etymology: The specific epithet "*vunongue*" is a noun in apposition and is given in honor of the Mwene (= King) Vunongue (1800–1886), king of the N'Ganguelas and one of the most important Angolan chieftains, whose kingdom spanned approximately the same region as the known distribution of the new species. As a curiosity, the name of the capital city of Cuando Cubango Province—Menongue—derivates from the admixture of the words "Mwene" and "Vunongue." We propose the Portuguese common name of "Lagartixa de Mwene Vunongue," and the English common name of "Mwene Vunongue Skink" for this species.

TABLE 9

Mensural and Meristic Data for the Type Series of *Trachylepis vunongue*, sp. nov.

Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages

	MUHNAC/ MB03–001520	NMZB 16016	NMZB 16017	NMZB 16018	NMZB 13382	NMZB 13589	NMZB 16006	NMZB 13563	NMZB 13564	NMZB–UM 21008
	Holotype	Paratype	Paratype	Paratype	Paratype	Paratype	Paratype	Paratype	Paratype	Paratype
Sex	unsexed	unsexed	female	female	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed
SVL	41.1	39.5	40.7	44.8	43.5	35.1	43.3	37.5	40.0	38.7
TL	45.5	–	57.4	63.0	–	53.3	53.7	–	–	47.0
TL/SVL	1.1	–	1.4	1.4	–	1.5	1.2	–	–	1.2
HL	9.2	9.4	8.4	9.1	9.0	8.1	9.0	8.3	8.8	8.7
HL/SVL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SVL/HL	4.5	4.2	4.9	4.9	4.8	4.4	4.8	4.5	4.5	4.4
HW	6.0	6.1	5.9	6.2	6.1	5.4	6.0	5.4	5.6	5.6
HW/HL	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
HH	4.4	4.7	4.6	4.8	5.0	4.0	4.4	3.9	4.2	4.4
IN	1.0	1.5	1.3	1.4	1.2	0.8	1.2	1.1	1.3	1.1
EN	3.0	2.3	2.3	2.0	2.8	2.0	2.5	2.3	2.8	2.4
ES	3.9	3.4	3.5	3.6	3.9	3.4	3.4	3.4	3.8	3.8
MSR	32	31	32	31	32	32	30	30	32	31
SAD	47	45	48	48	45	48	50	50	46	52
SAV	54	48	52	50	52	54	54	53	49	52
LUFF	14	12	–	14	–	9	9	–	11	12
LUFT	19	19	–	15	18	16	19	17	17	20
SC	4	5	5	6	5	4	5	5	6	6
SL (SO)	8 (6)	9 (7)	8 (6)	8 (6)	7 (5)	8 (6)	8 (6)	8 (6)	8 (6)	7 (6)
CP	SPC	SPC	SPC	C	SPC	SPC	SPC	C	C	SPC
CFP	C	C	C	C	C	C	C	C	C	C
CSN	C	C	C	C	C	C	C	C	C	C
CPF	S	S	S	S	S	S	S	S	S	S
KDS	5	5	5	5	5	5	5	5	5	5
Plantar scales	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose

Trachylepis wahlbergii (Peters, "1869" 1870)—Wahlberg's Striped Skink

Figures 102–104, plate 6

Euprepes Wahlbergii Peters, "1869" 1870: 661. Lectotype: ZMB 6155 (collected by J.A. Wahlberg), designated by Boulenger (1887). Type locality: "Damaraland," Namibia.
Euprepes punctatissimus: Bocage (1866a: 44, 1870: 68, 1872: 80).
Mabuia striata: Bocage (1895: 41, 1896: 111, 1897b: 211); Boulenger (1905: 111); Angel (1923: 160); Monard (1937: 88); Themido (1941: 8).
Maubya striata: Schmidt (1933: 12); Parker (1936: 136).
Mabuia striata angolensis: Monard (1937: 89); Schätti and Perret (1997: 366).
Mabuya striata striata: Manaças (1963: 235).
Mabuya striata chimbana: Laurent (1964: 69).
Mabuya angolensis: Laurent (1964: 72).
Mabuya striata angolensis: Mahnert (1976: 488); Ortiz (1989: 56).
Mabuya striata wahlbergi: Branch and McCartney (1992: 1); Branch (1998: 157)
Mabuya wahlbergii: Broadley (2000: 106).
Trachylepis wahlbergi: Branch and Conradie (2015: 200); Conradie et al. (2016: 26); Baptista et al. (2019: 110); Branch et al. (2019a: 319).
Trachylepis striata: Ceríaco et al. (2016c: 69); Branch et al. (2019a: 319).
Trachylepis wahlbergii: Marques et al. (2018: 270); Ceríaco et al. (2021: 115); Conradie et al. (2022: 205).
Trachylepis monardi: Marques et al. (2018: 265); Branch et al. (2019a: 318); Ceríaco et al. (2020a: 402).
Trachylepis chimbana: Ceríaco et al. (2020a: 402).

This species is a member of the *Trachylepis striata* species complex, a complex whose taxonomic status and phylogenetic relationships are not yet fully resolved. Bocage (1866a, 1870, 1872) provided the first records of the species for Angola as *"Euprepes punctatissimus"* from "Duque de Bragança," "Biballa," and "Caconda." Additional material was later recorded as "*Mabuya striata*" by several authors (Bocage, 1895, 1896, 1897b; Boulenger, 1905; Angel, 1923; Schmidt, 1933; Monard, 1937). Based on morphological and coloration differences, Monard (1937) described specimens from "Kuvangu" and "Bimbi" as "*Mabuya striata angolensis*" (fig. 102). Specimens conforming to *T. wahlbergii* were also recorded by Laurent (1964) as "*Mabuya striata chimbana*" and "*Mabuya angolensis*." Considering that the specific epithet *angolensis* was preoccupied by Bocage's (1872) *Euprepis angolensis*, Marques et al. (2018) provided a replacement name for *Mabuya striata angolensis*, *Trachylepis monardi*. Branch and McCartney (1992) were the first to refer Angolan specimens to *wahlbergii*, and were followed by most authors (Branch, 1998; Broadley, 2000; Branch and Conradie, 2015; Conradie et al., 2016; Marques et al., 2018). In a revision of the *Trachylepis* from southeastern Africa, Broadley (2000) treated both *wahlbergii* and *striata* as valid species, while Castiglia et al. (2006), based on molecular and karyological data, suggested these two taxa should be considered conspecific. However, the taxonomic status and relationships within the *striata* complex remained unresolved, with some authors accepting the presence of *striata*, *wahlbergii*, and *monardi* in Angola (Branch et al., 2019a). In a species-level phylogeny of the genus, Weinell et al. (2019) confirmed the validity of both *T. striata* and *T. wahlbergii*, with Angolan populations assigned to the latter. Our data support this decision, and previous records of *striata* from Angola should be assigned to this species, as well as those recorded as *T. angolensis* and *T. monardi*. Although not based on Angolan specimens, Stephens et al. (2022) showed that misidentification of this species in museums and collections is quite common.

Diagnosis: A large-sized skink (max. SVL 85.8 mm, CAS 258394, max. SVL of extralimital populations 107 mm, see Pietersen et al., 2021),

FIGURE 102. Syntype of *Trachylepis monardi* from Angola (presumably from Kuvangu or Bimbi, Cunene and Huíla provinces, respectively) (MHNC 91.0610). Photos by L.M.P.C.

with fully developed pentadactyl limbs (figs. 102–104); dorsal scales usually tricarinate; ventral scales smooth; 53–63 SAV; 46–55 SAD; 35–40 MSR (32–43 in extralimital populations, see Branch, 1998); lamellae beneath fingers and toes keeled and spinose; plantar scales spinose; 15–18 LUFT; 12–15 LUFF; supranasals in contact; parietals usually separated; prefrontals usually separated; frontoparietals in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; lacking subtriangular auricular scales on the anterior margin of the ear opening. Supralabials usually eight, sixth subocular; supraciliaries usually five, second largest; nostril oriented laterally. Dorsum grayish to olive brown; a pair of pale dorsolateral stripes starting above the eye and becoming fainter posteriorly, usually restricted to the anterior half of the body and sometimes completely absent. Middorsal scales sometimes edged with black to form irregular longitudinal lines. A black lateral stripe starts at the eye and becomes fainter posteriorly, usually extending through the anterior half of the flank, rarely reaching the hind-limb insertion. There may be black and pale spots irregularly scattered on the dorsum, flanks, limbs, and tail. Top of head uniformly colored or with irregular dark vermiculation; labials dirty white without markings; gular region sometimes with irregular dark spotting. Breeding males acquire a vibrant yellow to orange coloration on the head and throat, sometimes extending to the neck and flanks. Ventrum white to bluish white.

Material Examined: **Bié Province:** Chitau [-11.4333°, 17.1500°, 1510 m] (CM 5863,

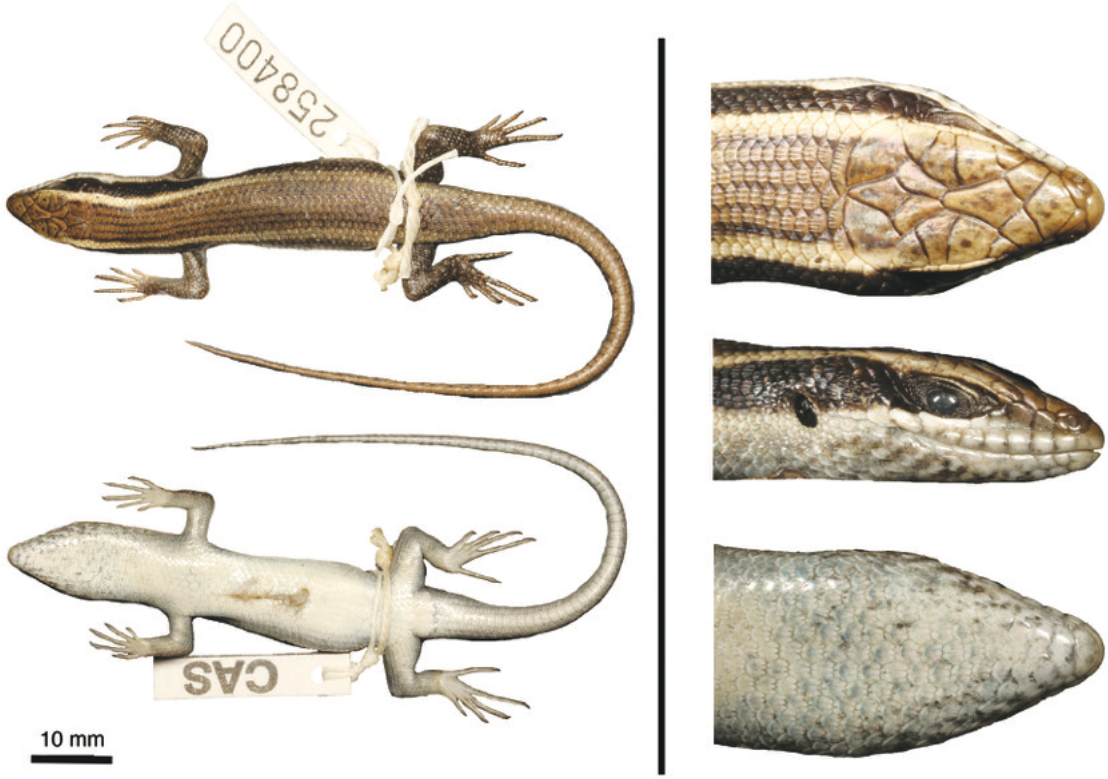


FIGURE 103. Specimen of *Trachylepis wahlbergii* Cangandala National Park, Malanje Province (CAS 258400). Photos by L.M.P.C.

5873, 5879, 5882, 5887); Pavalange, Luando Natural Reserve [-10.9698°, 17.6124°, 1127 m] (ANSP 32190, 32197, 32198, 32200); 14 km ENE from Mumbue village, near camp in small farm [-13.8577°, 17.4260°, 1569 m] (CAS 266043); camp established near Cassumbi village, 14km dirt road, village near banana [-11.0839°, 16.6637°, 1242 m] (CAS 266027); camp surroundings, 14 km dirt road from Cassumbi village [-11.0832°, 16.6666°, 1241 m] (MUNHAC/MB03-001414). **Huíla Province:** Jau [-15.2000°, 13.5200°, 1753 m] (MD 1890). **Malanje Province:** Cangandala National Park, vicinity of park headquarters [-9.8177°, 16.6546°, 10961 m] (CAS 258399); Cangandala National Park, vicinity of park headquarters [-9.8181°, 16.6554°, 1091 m] (CAS 258395); Cangandala National Park, vicinity of park headquarters [-9.8194°, 16.6538°, 1090 m] (CAS 258397); Cangandala National Park, park headquarters [-9.8194°, 16.6539°, 1090 m] (CAS 258394); Cangandala National Park [-9.8178°, 16.6553°, 1119 m] (MUNHAC/MB03-001412); Cangandala National Park, park guesthouse, around buildings [-9.8194, 16.6539, 1090 m] (MUNHAC/MB03-001413). **Moxico Province.** Cameia lake [-11.7167°, 20.8000°, 1110 m] (IICT/R 23/1958, 26/1958, 232/1959); Calombe [-11.8333°, 19.9333°, 1345 m] (IICT/R 61–67/1959, 253/1959, 256–257/1959, 259/1959, 280/1959, 283/1959, 326/1959, 335/1959, 405/1959, 426/1959); Dilolo lake [-11.5000°, 22.0167°, 1088 m] (IICT/R 79–84/1959, 124–125/1958); Luena [-11.7833°, 19.9167°, 1337 m] (IICT/R 234–235/1959, 238/1959); Santa Cruz farm, Luena [-11.78333°, 19.9167°, 1337 m] (IICT/R 138/1958); environs du lac Calundo [-11.8000°,

FIGURE 104. Life photo of *Trachylepis wahlbergii* from 14 km dirt road from Cassumbi village, Bié Province (MUNHAC/MB03-001414). Photo by L.M.P.C.

20.867°, 1119 m] (MD 5603, 5672, 5703, 5746, 5752); Cazombo [-11.8800°, 22.9200°, 1110 m] (MD 5783); Calunda [-12.1200°, 23.4600°, 1473 m] (MD 5857).

Additional Material (* denotes type material): **Bié Province:** Silva Porto (currently Kuito) [-12.3975°, 16.9377°, 1727 m] (MD 1806-5); Kuito [-12.3919°, 16.9387°, 1716 m] (IICT/R 77/1957, 81/1957); Chitau [-11.4333°, 17.1500°, 1510 m] (NMZB/UM 16356); HALO Cuito [-12.3958°, 16.9607°, 1700 m (PEM R23363–6); Munhango village [-12.1607°, 18.5504°, 1428 m] (PEM R23559). **Cuando Cubango:** 75 km West of Mavinga [-15.6667°, 19.7000°, 1204 m] (PEM R4821); Cuando River Basin (site 43) [-17.5350°, 23.1892°, 981 m] (PEM R20520-1). **Cunene Province:** "Kuvelai" [-15.6500°, 15.8000°, 1217 m] (MHNC 91.0568); "Humbi" [-16.6833°, 14.9000°, 1105 m] (MHNC 91.0548, 91.0550, 91.0542); "Mupa" [-16.1833°, 15.7500°, 1166 m] (MHNC 91.0556–91.0558, 91.0560); "Mupanda" [-17.1333°, 15.7667°, 1114 m] (MHNC 91.0559, 91.0570, 91.0597, 91.0598). **Huambo Province:** Bimbi [-11.8167°, 15.8333°, 1777 m] (NMB 13349, 13350, MHNC 91.0606*); Cubango River source site [-12.6605°, 16.089°, 1777 m] (PEM R23401). **Huíla Province:** Kuvangu (= Kuvango) [-14.4667°, 16.3000°, 1453 m] (NMB 13344–13347; MHNC 91.0561*, 91.0565*, 91.0599–91.0604*); Kalukembé [-13.7833°, 14.6830°, 1699 m] (MHNC 91.0605); "Sangévé" [-13.8833°, 15.8333°, 1634 m] (MHNC 91.0546, 91.0547); "Kapelongo" [-14.8833°, 15.0833°, 1192 m] (MHNC 91.0596); "Kambisa" [-15.3167°, 16.2167°, 1377 m] (MHNC 91.0554); "Kului" [-15.4167°, 15.7333°, 1228 m] (MHNC 91.0562); "Mulondo" [-15.6333°, 15.2000°, 1133 m] (MHNC 91.0555, 91.0563). **Lunda Sul Province:** Alto Cuílo, Lunda [-10.0500°, 19.5170°, 1260 m] (MD 5307); Alto Chicapa, Lunda [-10.9333°, 19.1500°, 1373 m] (MD 5402); "Lunda" [-10.9667°, 20.0667°, 1238 m] (MHNC 91.0551). **Malanje Province:** Cangandala National Park, vicinity of park headquarters [-9.8191°, 16.6547°, 1094 m] (CAS 258400), [-9.8177°, 16.6546°, 1091 m] (CAS 258398), [-9.8181°, 16.6554°, 1091 m] (CAS 258396); Palavange [-11.3662°, 17.7216°, 1142 m] (USNM 85169, 85170). **Moxico Povince:** en route to

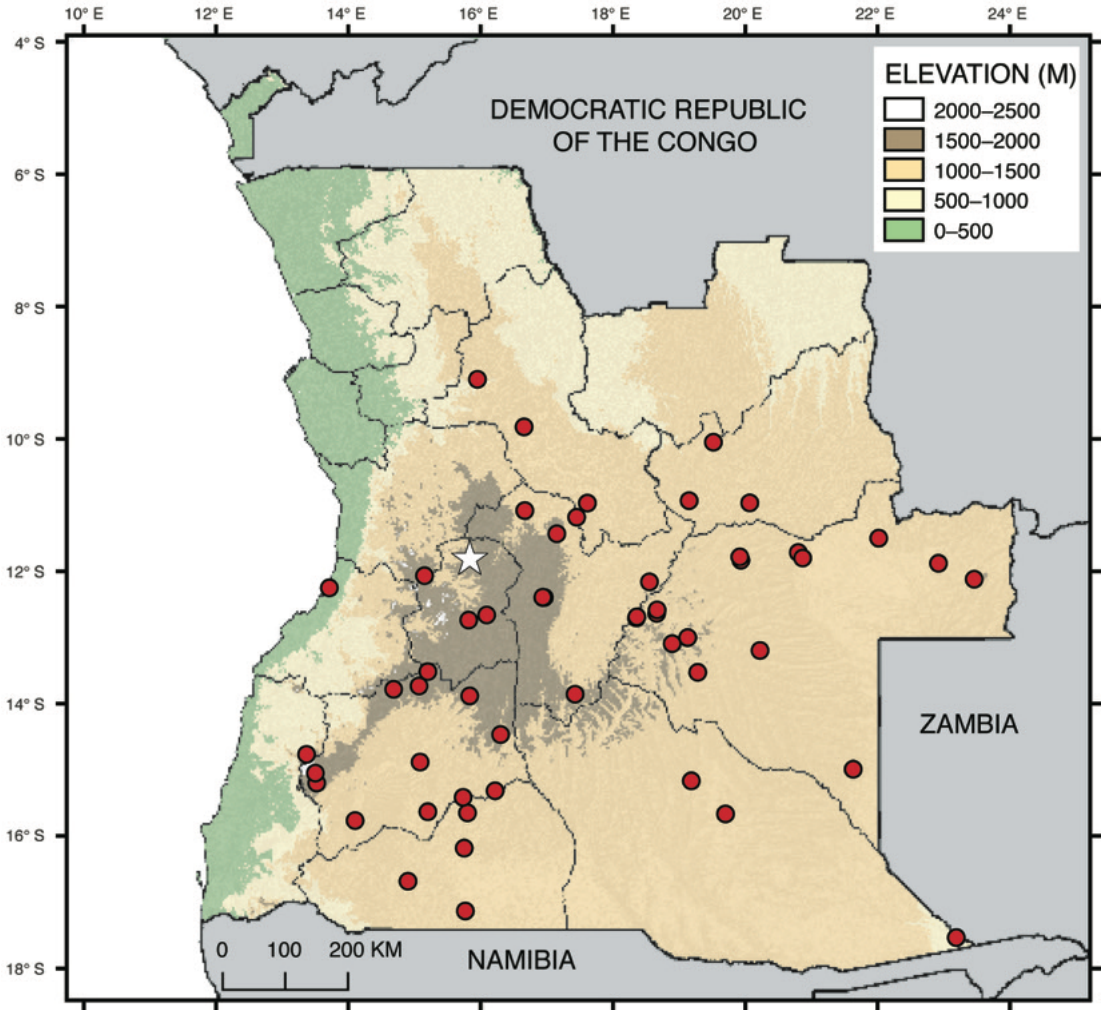


FIGURE 105. Distribution of *Trachylepis wahlbergii* in Angola. White star denotes the type locality of the syntype of *Trachylepis monardi*.

Cuanavale River source [-12.6368°, 18.6598°, 1316 m] (PEM R23259); PEM R23289–95, Cuanavale River source [-13.0933°, 18.8940°, 1356 m] (PEM R23289–95); Cuito River source lake [-12.6894°, 18.3601°, 1435 m] (PEM R23339–41); outlet of Cuito River source lake [-12.7045°, 18.3545°, 1429 m] (PEM R23376); Lungwebungu River camp bridge crossing [-12.5835°, 18.6660°, 1304 m] (PEM R23412); Cuando River source [-13.0035°, 19.1275°, 1343 m] (PEM R23427; INBAC no number fide Conradie et al., 2022); Cuando River source trap 4 [-13.0016°, 19.1296°, 1372 m (PEM R23484–5; INBAC/WC-4776); Cuito River source lake [-12.6886°, 18.3603°, 1426 m] (PEM R23513); Quembo River bridge camp [-13.5274°, 19.2806°, 1241 m] (PEM R27442); Luio River camp floodplains [-13.1971°, 20.2219°, 1181 m] (PEM R27443; INBAC no number fide Conradie et al., 2022); Lake Hundo, trap 1 [-14.9916 °, 21.6310°, 1100 m] (PEM R27444; INBAC/WC-6919). **Undetermined locality**: Angola [undetermined locality] (IICT/R Angola10–16); Angola [presumably Kuvangu or Bimbi] (MHNC 91.0607–91.0613*; MHNG 858.95*; MHNN 2130*); Angola [undetermined locality] (MHNC 91.0542–91.0545, 91.0549, 91.0553, 91.0564, 91.0566, 91.0567, 91.0569, 91.0571–91.0595).

FIGURE 106. Typical habitat of *Trachylepis wahlbergii* in Cassumbi, Bié Province, Angola. Photo by L.M.P.C.

Historical Localities (no extant specimens): **Benguela Province:** Hanha [-13.4941°, 14.5276°, 1669 m] (Bocage, 1896, 1897b). **Cuando Cubango Province:** "region du Kwito, affluent du Kubango" [-15.1667°, 19.1833°, 1185 m] (Angel, 1923). **Cunene Province:** Humbe [-16.6833°, 14.9000°, 1105 m] (Bocage, 1895). **Huambo Province:** Galanga [-12.0667°, 15.1500°, 1573 m] (Bocage, 1895). **Huíla Province:** Rio Cuce [-13.5167°, 15.2000°, 1752 m] (Bocage, 1895); Caconda [-13.7333°, 15.0667°, 1674 m] (Bocage, 1872); Huilla [-15.0500°, 13.5000°, 1901 m] (Bocage, 1895; Angel, 1923); Gambos [-15.7667°, 14.1000°, 1329 m] (Bocage, 1895). **Malanje Province:** Duque de Bragança [-9.1000°, 15.9500°, 1010 m] (Bocage, 1866a; 1872; 1895). **Namibe Province:** Biballa [-14.7667°, 13.3667°, 955 m] (Bocage, 1872). **Undetermined locality**: Rio Quando (Bocage, 1895); Between Benguella and Bihé (Boulenger, 1905).

Distribution in Angola: *Trachylepis wahlbergii* is widespread in most of the country, but apparently absent from the coastal lowlands (fig. 105).

Global Distribution: Widespread in Angola, eastward through Zambia to western Malawi, and southward through Namibia and Botswana to western South Africa (Masterson, 2014c; Pietersen et al., 2021).

Habitat and Natural History Notes: This species occupies a variety of habitats, most notably miombo woodlands and savannahs (Grandvaux-Barbosa, 1970; fig. 106), where it is frequently found basking on tree trunks or hiding under loose bark (Loveridge, 1953; Broadley, 2000). Although mostly arboreal, it can also be found in rocky outcrops (Laurent, 1964) and manmade structures, such as buildings and bridges (Broadley, 2000). This species is known to be viviparous (Broadley, 2000; Weinell et al., 2019), however, gravid females containing eggs have

been reported from Angola (Manaças, 1963). Manaças (1963) examined four sexually mature females collected between August and October, containing three to seven eggs, those collected in October with fully developed embryos. A female collected by Monard (MHNC 91.0581, date unknown) contained two fully developed embryos. Stomachal contents reported by Manaças (1963) included mostly termites and beetles.

***Trachylepis wilsoni*, sp. nov.—**
Wilson's Wedge-Snouted Skink

Figures 107–109, plate 6

Euprepes acutilabris [part]: Bocage (1870: 68).
Mabuia acutilabris [part]: Bocage (1895: 46).
Mabuya acutilabis [part]: Hellmich (1957b: 53), Branch (1998: 151).
Trachylepis acutilabris [part]: Haacke (2008: 90), Ceríaco et al. (2016b: 34, 57); Marques et al. (2018: 252); Branch et al. (2019a: 318); Ceríaco et al. (2020a: 402); Lobón-Rovira et al. (2022: 308).

This new species has previously been mistaken for *T. acutilabris* due to their remarkable morphological similarities. Bocage (1870) was the first to cite *Mabuia acutilabris* for Angola and was followed by several authors who reported specimens from most of the Angolan coastal regions (Peters, 1877; Bocage, 1895; Schmidt, 1919; Monard, 1937; Laurent, 1947, 1954, 1964; Hellmich, 1957a; 1957b; Haacke, 2008; Ceríaco et al., 2016b; Vaz Pinto et al., 2019). Recently collected material allowed us to identify two divergent lineages in Angolan populations, forming a clade sister to true *T. acutilabris* from Namibia. Based on material recently collected in Namibe Province, we here describe populations from southwestern Angola previously assigned to *T. acutilabris* as a new species, *Trachylepis wilsoni*, sp. nov. Historical records of *T. acutilabris* from Namibe Province (Bocage, 1870, 1895; Hellmich, 1957b) are referred to this species. Additional material of this species was collected during the Vernay Angola Expedition in 1925 in Pico Azevedo and 101 km east of Moçamedes (specimens in the American Museum of Natural History).

Holotype: An unsexed adult (CAS 254930, field number JVV 8681; fig. 107) collected at Pico Azevedo [-15.5340°, 12.49197°, 372 m], by Luis M.P. Ceríaco, Edward L. Stanley, Arianna Kuhn, Jens V. Vindum, Sango de Sá, Suzana A. Bandeira, and Hilária Valério, on 7 December 2013.

Paratypes: All specimens from Angola. 21 specimens: Two unsexed adults (CAS 254927, 254928) Pico Azevedo [-15.5340°, 12.4919°, 372 m] same data as holotype; an unsexed adult (CAS 254751), collected at Iona National Park, 3.4 km SW (by air) of Espinheira, vicinity of "Lion Cave" [-16.8151°, 12.337°, 453 m] by Luis M.P. Ceríaco, Edward L. Stanley, Arianna Kuhn, Jens V. Vindum, Sango de Sá, Suzana A. Bandeira, and Hilária Valério, on 30 November 2013; two unsexed adults (CAS 254899, 254907) Namibe-Lubango road, marker 59, 1.8 km W of Caraculo, N side of road [-15.0165°, 12.643°, 487 m] by Luis M.P. Ceríaco, Edward L. Stanley, Arianna Kuhn, Jens V. Vindum, Sango de Sá, Suzana A. Bandeira, and Hilária Valério, on 6 December 2016; one unsexed adult (UF 187318) Virei camp [-16.1196°, 12.8346°, 522 m] by Luis M.P. Ceríaco, Suzana A. Bandeira, and Ishan Agarwal, on 29 November 2016; one unsexed adult (UF 187317) Omauha-Chitundolo [-16.0006°, 12.8381°, 583 m] by Luis M.P. Ceríaco, Suzana A. Bandeira, and Ishan Agarwal, on 29 November 2016; one unsexed adult (CAS 263487) Virei-Calundolo [-16.3102°, 12.7960°, 471 m] by Luis M.P. Ceríaco, Suzana A. Bandeira, and Ishan Agarwal, on 30 November 2016; two unsexed adults (CAS 263492, UF 187298) Virulundo [-16.2852°, 12.9419°, 718 m] by Luis M.P. Ceríaco, Suzana A. Bandeira, and Ishan Agarwal, on 2 December 2016; three unsexed adults (CAS 263494, 263495; UF 187297) Virei-Chipumpo [-16.2793°, 12.9584°, 742 m] by Luis M.P. Ceríaco, Suzana A. Bandeira, and Ishan Agarwal, on 1 December 2016; one adult female (MUNHAC/MB03-001415) Mucungu farm, rocky area

FIGURE 107. Holotype of *Trachylepis wilsoni*, sp. nov., from Pico Azevedo, Namibe Province (CAS 254930). Photos by L.M.P.C.

[-14.7799°, 12.4878°, 305 m] by Mariana P. Marques, Luis M.P. Ceríaco, and Joyce M. Janota, on 2 August 2018; two adult females (MUNHAC/MB03-001416, 001417) Bentiaba river near Maungo [-14.5106°, 12.8391°, 417 m] by Mariana P. Marques, Luis M.P. Ceríaco, and Joyce M. Janota, on 11 August 2018; (MUNHAC/MB03-001418–001420) base camp, in a dry river line at Maungo farm [-14.3934°, 12.8289°, 367 m] by Mariana P. Marques, Luis M.P. Ceríaco, and Joyce M. Janota, on 12 August 2018; one adult female (MUNHAC/MB03-001421) on the road to Sangaia [-16.3382°, 12.2525°, 242 m] by Luis M.P. Ceríaco on 13 November 2019; one adult female (MUNHAC/MB03-001422) on Iona National Park [-16.6896°, 12.8128°, 623 m] by Luis M.P. Ceríaco on 15 November 2019.

Additional Material: **Namibe Province:** Deserto de Moçâmedes (MD 1945, 1946); Iona National Park, 20 km SSW (by air) of Espinheira [-16.9316°, 12.2460°, 615 m] (CAS 254789); Pico Azevedo [-15.5340°, 12.4920°, 372 m] (CAS 254929, AMNH 48646, 48647, 48648); Espinheira [-16.7856°, 12.3589°, 454 m] (TM 40628, 40629; PEM R18019, 18022, 18035, 18036); Otchifengo River [-16.6167°, 12.8833°, 560 m] (TM 40774); Iona 6 km S of Rio Curoca [-16.3400°, 12.4400°, 287 m] (TM 40581–40589); 101 km east of Moçamedes [location not georeferenced] (AMNH 32799); Caraculo [-15.0165°, 12.6425°, 464 m] (AMB 13030–32, 13041–43); Munhino [-14.9788°, 12.9781°, 415 m] (AMB 13050, 13052, 13053, 13062, 13063); Omauha [-16.1986°, 12.4007°, 337 m] (AMB 13226); Otchifengo [-16.6849°, 12.8413°, 584 m] (AMB 13084, 13135, 13159, 13160, 13103–13); Vipungos [-15.0439°, 12.4234°, 333 m] (AMB 13018, 13019, 12993–95).

Historical Localities (no extant specimens): **Namibe Province:** Rio Coroca [-15.7833°, 12.0667°, 45 m] (Bocage, 1895: 46); Cahinde-Ougueiria [-15.4833°, 13.3667°, 631 m] (Hellmich, 1957b: 53).

Diagnosis: A medium-sized skink (max. SVL 57.3 mm, CAS 254899), with fully developed, pentadactyl limbs, and wedge-shaped snout (figs.

FIGURE 108. Life photo of the paratype of *Trachylepis wilsoni* from Iona National Park, Namibe Province (MUNHAC/MB03-001422). Photo by L.M.P.C.

107, 108). Dorsal scales usually tricarinate or quadricarinate; ventral scales smooth; 52–57 SAV; 48–52 SAD; 29–33 MSR; lamellae beneath fingers and toes spinose; plantar scales spinose; 22–26 LUFT; 15–17 LUFF; supranasals always in contact; parietals usually in contact; prefrontals always separated; frontoparietals always in contact; one pair of enlarged nuchal scales present; ear opening vertically ovoid and smaller than the eye; three to four subtriangular auricular scales (shorter than the diameter of ear) extend posteriorly and usually slightly upward from the anterior margin of the ear opening. Supralabials usually seven; subocular does not reach the lip; supraciliaries usually five, second largest; nostril oriented dorsally. Dorsum and upper flanks pale to grayish brown, uniform or with pale longitudinal stripes; when present, dorsal stripes are often faint, especially vertebral one; there are usually scattered white spots on the back and irregular, dark transverse bars that extend to the upper flanks. Limbs brownish above; hind limbs with dark-edged, pale circles posteriorly. A white lateral stripe may be evident, starting below the eye and extending to the hind limb insertion; lower flanks usually grayish. There is often heavy grayish speckling, especially on top of the head, labials, and along the flanks. Venter white.

Description of the Holotype: A well-preserved, unsexed adult. Body cylindrical with a poorly defined neck and well-developed pentadactyl limbs; tail long, its length greater than the SVL, smoothly tapering. Fore- and hind limbs overlap when adpressed against the body. SVL 50.6 mm, TL 69.2 mm. HL 10.8 mm, with wedge-shaped snout. Additional measurements are presented in table 10. Three subtriangular auricular scales extend posteriorly from the anterior margin of the ear opening. Rostral visible from above. Nostrils oriented dorsally and set

TABLE 10

Mensural and Meristic Data for the Type Series of *Trachylepis wilsoni*, sp. nov.

Abbreviations are listed in the Materials and Methods. Measurements are presented in millimeters and ratios as percentages.

	CAS 254930	CAS 254927	CAS 254928	CAS 254751	CAS 254899	CAS 254907	CAS 263487	CAS 263492	CAS 263494	CAS 263495	UF 187317	UF 187318	UF 187297	UF 187298	MUH-NAC/ MB03-001415	MUH-NAC/ MB03-001416	MUH-NAC/ MB03-001417	MUH-NAC/ MB03-001418	MUH-NAC/ MB03-001419	MUHNAC/ MB03-001420	MUH-NAC/ MB03-001421	MUH-NAC/ MB03-001422
	Holo-type	Paratype	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type	Para-type
Sex	♀	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	unsexed	♀	♀	♀	♀	♀	♀	♀	♀
SVL	50.6	51.8	56.3	51.9	57.3	53.8	56.3	56.8	50.5	44.8	46	54.6	49.6	51.7	42.4	49.1	40.5	40.8	40	43.2	46.2	38.6
TL	69.2	60.3	61.2	–	72.9	83.6	87	63	83	81.2	69	–	67.7	83	69	–	–	73.4	–	81.5	91.1	–
TL/ SVL	140	120	110	–	130	150	150	110	160	180	150	–	160	160	160	–	–	180	–	190	200	–
HL	10.8	11.4	11.7	12	11.8	12.6	12.1	12.2	10.9	10.5	10	11.9	12.5	11.2	9.6	10.9	9	10.3	9.3	9.5	10.5	8.2
HL/ SVL	20	20	20	20	20	20	20	20	20	20	20	20	30	20	20	20	20	30	20	20	20	20
SVL/ HL	437	450	480	430	480	430	470	470	460	430	460	450	400	460	440	450	450	400	430	450	440	470
HW	7.8	8.1	8.2	7.8	8.2	8.4	8.7	8	7.2	6.7	7,1	8	7.6	7.7	6.5	7.4	6.7	6	6.4	6.5	6.8	6.2
HW/ HL	70	70	70	70	70	70	70	70	70	60	70	70	60	70	70	70	70	60	70	70	60	80
HH	5.6	5.5	5.9	5.6	5.9	5.9	6.1	5.5	5	4.9	5,1	5.7	5.1	5.6	4.6	6	5.1	4.4	4.6	4.5	4.5	4.3
IN	2	2	1.8	1.9	2	1.7	2.2	1.9	2	1.7	1,7	1.9	1.6	1.6	2.3	2.5	1.2	1.3	1.8	1.7	2.3	1.8
EN	3.5	3.5	3.5	3.7	3.5	3.8	3.7	4.8	3.5	3.5	3	3.4	3.4	3.2	2.8	3.6	2.2	3.3	3	2.9	3.4	2.5
ES	4.9	5	5.2	5.3	5.3	5.1	5.3	5.2	4.8	5.1	4.3	4.9	4.8	4.7	4.1	4.6	3.5	4.1	3.9	4.3	4.6	4
MSR	31	29	30	30	31	29	30	33	29	32	30	30	30	31	31	34	32	34	32	21	30	33
SAD	51	50	48	52	50	50	50	50	51	51	49	50	49	49	48	48	48	53	49	48	50	44
SAV	56	53	55	55	57	54	54	53	55	54	54	52	54	55	52	52	54	56	52	55	52	45
LUFF	16	16	17	16	15	16	16	16	16	17	17	15	16	16	17	16	14	14	14	15	15	14
LUFT	26	23	23	24	22	23	25	23	23	26	25	24	25	25	22	22	22	22	22	22	26	23
SC	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
SL (SO)	8 (6)	8 (6	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)	8 (6)
CP	C	C	C	SPC	C	S	C	SPC	C	C	C	SPC	C	C	C	C	C	C	C	C	C	C
CFP	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
CSN	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
CPF	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
KDS	3–4	3–4	3–4	3–4	3–4	3–4	3	2–3	3	3–4	3	2–3	3–4	3	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4
Plantar scales	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose	spinose

posteriorly so that postnasal effectively borders nostril. Supranasals in single point contact. Frontonasal broader than long, in contact with anterior loreal scale. Prefrontals subquadrangular, without contact, each in contact with the following head shields: frontonasal, loreals, first supraocular and frontal. Two loreals. Frontal tapering posteriorly, longer than the distance between anterior tip of frontal and tip of snout. Frontal in contact with three supraoculars on each side. Two frontoparietals, in contact with each other and the frontal, third and fourth supraoculars, parietal, and interparietal. Frontoparietal plus interparietal length smaller than frontal length. Interparietal twice as long as broad, with a visible parietal foramen. Parietals greater than frontoparietals. Parietals in contact in a single point with each other. Five supraciliaries, second largest. Seven supralabials (six on left side); subocular elongated, above fifth supralabial, not reaching the lip. Six infralabials. Postmental bordering seven scales (mental, two infralabials on each side and two primary chin shields). Transparent scale present in lower eyelid, as is usual for *Trachylepis*. Tympanum visible, at same level as mouth. Dorsal scales each with three to four smooth keels. Ventral scales smooth. MSR 31, SAD 51, SAV 56. Limbs with five digits; scales on palms and soles spinose. Relative length of fingers IV > III > V > II > I, relative length of toes IV > III > V > II > I. Finger-IV lamellae 16, Toe-IV lamellae 26. Color in life is homogenously light brown on the flanks, upper side of head, neck, dorsum, legs, and tail brown with three pale dorsal stripes; vertebral stripe starts at the nape and extends to the base of the tail; a pair of dorsolateral stripes start behind the eye and extend to the base of the tail. Scattered pale spots and irregular black spots between dorsal stripes; the latter form transverse bands extending to the flanks. Hind limbs covered above by black-edged, pale circles or irregular shapes. A white lateral stripe starts below the eye and extends to the hind limb insertion; lower flanks white, with grayish speckling. Top of head uniformly brown; labials, subocular and lower half of loreals white, with light grayish speckling. Ventral surfaces uniformly whitish with some scattered dark speckles near flanks, under tail, hands and feet.

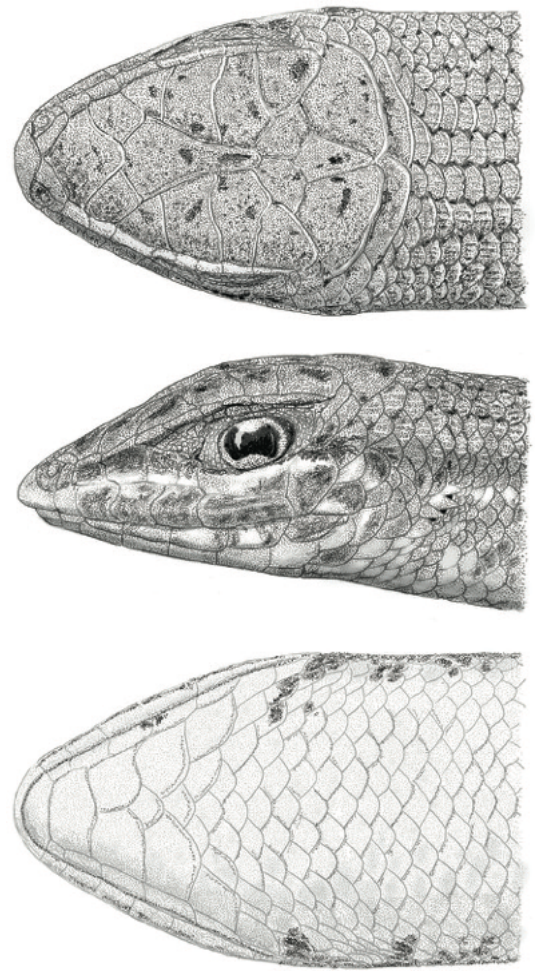


FIGURE 109. Details of head morphology of *Trachylepis wilsoni*. Drawings by A.T.

Coloration in Ethanol: Same as in life (see above).

Variation: Variation in mensural and meristic characters among the type series is presented in table 10.

Comparison with Other Angolan and Southwest African *Trachylepis*: *T. wilsoni* differs from all other species of *Trachylepis* known to occur in Angola, with the exception of *T. suzanae*, by having a wedge-shaped snout. It differs

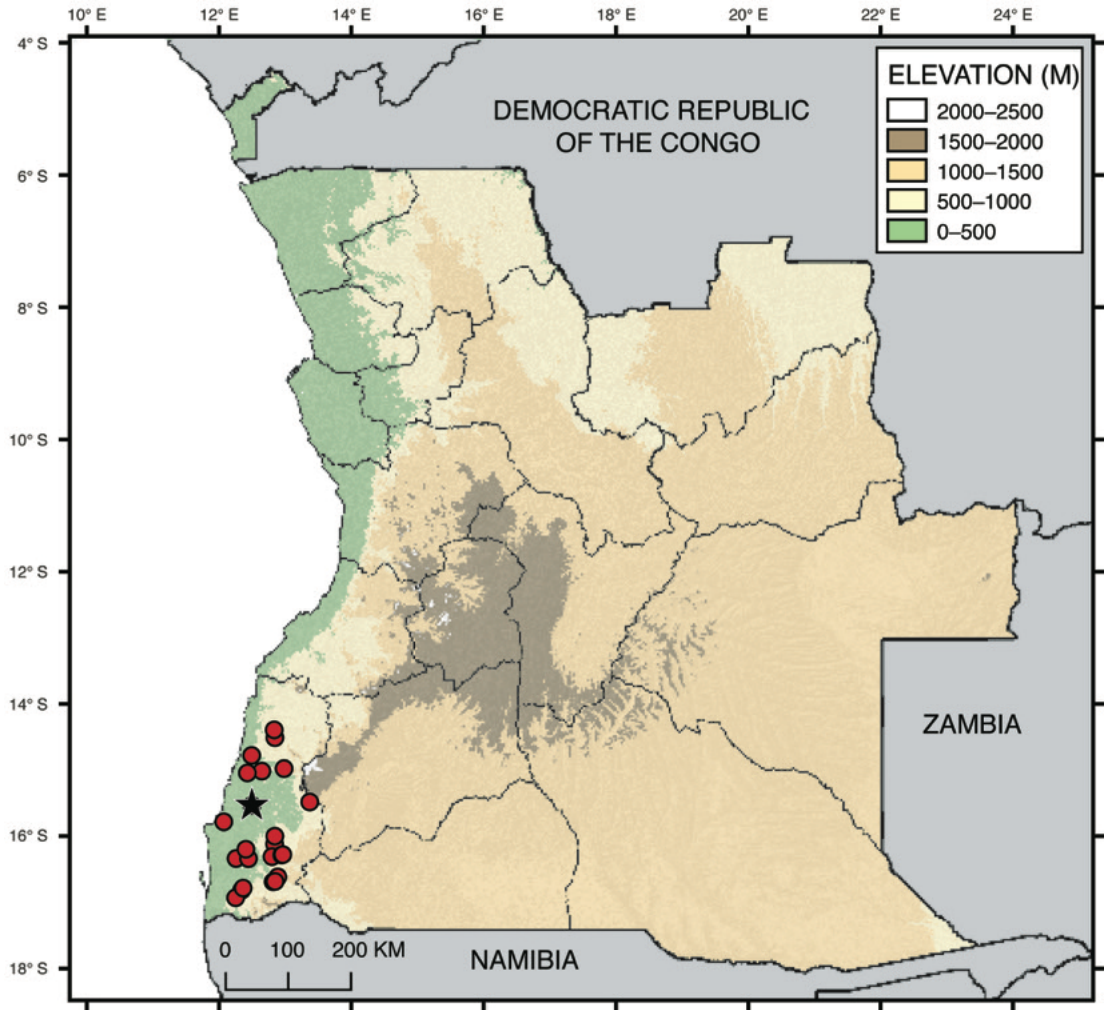


FIGURE 110. Distribution of *Trachylepis wilsoni* in Angola. Black star denotes the type locality.

from its sister taxon, *T. suzanae*, in having a more round, less acuminate head and more prominent canthus rostralis (fig. 109). The new species differs from *T. acutilabris* from Namibia, by having 29–32 midbody scale rows (vs. 32–39 in *T. acutilabris*).

Distribution in Angola: This species is known only from inland areas of central and southern Namibe Province (fig. 110).

Global Distribution: Confirmed records of this species are restricted to southwestern Angola. Further sampling in northern Namibia and a review of Namibian species is needed to better establish the distribution limits of *T. wilsoni* and true *T. acutilabris*, and the putative role of the Cunene River as a barrier between these taxa.

Habitat and Natural History Notes: This species is usually found in mopane woodlands and mosaic of steppe and savannah (Grandvaux-Barbosa, 1970; fig. 111). It is associated with sandy substrates, where it digs burrows near the base of vegetation (Ceríaco et al., 2016b).

Etymology: The specific epithet "*wilsoni*" is masculine in the genitive singular. It is given in honor of Edward O. Wilson (1929–2021), North American biologist, naturalist and author, in rec-

FIGURE 111. Typical habitat of *Trachylepis wilsoni* in Pico Azevedo, Namibe Province. Photo by L.M.P.C.

ognition of the importance and influence of his work and legacy to all field biologists, taxonomists, and naturalists. We suggest "Wilson's Wedge-snouted Skink" and "Lagartixa de Edward Wilson" as the English and Portuguese common names, respectively, for this species.

DISCUSSION

The considerable taxonomic diversity of *Trachylepis* occurring in Angola, combined with its almost complete geographic coverage of the country's territory, makes the genus an interesting proxy to investigate the main biogeographic patterns present in the region. The complexity of the biogeography of Angola has been the subject of many studies (Monard, 1937; Frade, 1963; Crawford-Cabral, 1991, unpubl. report; Romeiras et al., 2014; Rodrigues et al., 2015; Marques et al., 2018; Krásová et al.; 2021).

As outlined as early as the 19th century by Bocage (1895), Angola presents a north-south biogeographic division. Other authors deepened and refined this division, but as a whole they all agreed that the country presents two main zoogeographic areas—one in the northern regions of the country, coming south through the escarpment with strong links to the Congolese/Central African fauna, and another one in the eastern and southern regions, that has strong biogeographic links to the southern African and Zambezian faunas (Monard, 1937; Frade, 1963; Crawford-Cabral, 1991, unpubl. report; Marques et al., 2018).

While a biogreographical study of Angola is being prepared for publication in the near future (Ceríaco et al., in prep.), the distribution of the main lineages in the genus serves as a very interesting example of this north-south division. Following the whole-genus phylogeny of Weinell et al. (2019), Angola has representatives of two of the three main phylogenetic groups (sensu Weinell et al. (2019)) comprising the genus—Group B, mostly representing Central/Western African taxa, and Group C, mostly representing southern African taxa.

Within Group B sensu Weinell et al. (2019), Angola has representatives of the *T. maculilabris*

group (sensu Weinell et al., 2019)—*T. maculilabris* and *T. notabilis*—and from the *T. affinis* group (sensu Weinell et al., 2019)—*T. albigularis*. While Weinell et al.'s (2019) Group B is composed of groups that are not exclusively Central/West African (e.g., the Seychelles group endemic to the Seychelles archipelago and the *T. quinquetaeniata* group, which contains *T. margaritifera*, a species endemic to southeastern Africa), both the *affinis* and *maculilabris* groups are exclusively composed of species that have their distribution range in Central and West Africa. These three species, *T. affinis*, *T. maculilabris*, and *T. notabilis*, can therefore be viewed as representatives of the Central/West African fauna that finds its southern distribution limit in northern Angola and following the escarpment north to south. This distribution pattern agrees with the distribution of other co-occurring Central/West African reptiles in the country, such as *Panaspis cabindae* and *Panaspis breviceps* (Ceríaco et al., 2018b), *Bitis heraldica* (Ceríaco et al., 2020c), *Hemidactylus nzingae* (Ceríaco et al., 2020b), etc., as well as rodents (Krásová et al., 2021).

Within Group C sensu Weinell et al. (2019), Angola has representatives of all but the Malagasy group, which is endemic to Madagascar. Angolan representatives of the *T. varia* group—*T. albopunctata*, *T. raymondlaurenti*, and *T. damarana*—as well as of the *T. striata* subgroup—*T. wahlbergii* and T. *attenboroughi*—present a more Zambezian distribution, with the majority of the group being restricted to the Zambezi region, and the Angola representatives distributed mostly in the central and eastern highlands of the country. This pattern is similar to that described by Krásová et al. (2021) for rodent taxa with affinities to the Zambezian region.

The remaining groups contained within Group C sensu Weinell et al. (2019) have their distribution in southern Africa, in an area that roughly extends from southern Angola, Namibia, South Africa, southern Botswana, and Zimbabwe to Mozambique. Still under this "southern African" sensu lato description, different groups have particular distributions. For example, the *T. depressa* group, represented in Angola by two new species (formerly considered as part of *T. acutilabris*), *T. wilsoni* and *T. suzanae*, contains sandy substrate adapted specialists whose distribution in Angola follows the coastal areas from Namibe Province northward to Zaire Province and adjoining Democratic Republic of Congo, reaching the northern distributional limit of the whole *T. depressa* group. The *T. sulcata* group, containing Namib specialists, occurs in southwestern Angola (*T. sulcata* and *T. laevis*), reaching central Angola (with *T. ansorgii*), while *T. binotata*, *T. occidentalis*, and *T. hoeschi* are all southwestern African species that also occur in Angola. The most diverse group represented in Angola, however, is the *T. variegata* group, containing species that occur both in more central areas of Angola—such as *T. bayonii* or *T. bocagii*—and in the southern areas of the country. The latter contain a large diversity, including four new species—*T. hilariae*, *T. ovahelelo*, *T. vunongue*, and *T. bouri*. These observations sufficiently demonstrate the need to pursue a more detailed revision of the biogeographic patterns of the genus in Angola. There is also the possibility that taxa occurring in neighboring countries, but not yet recorded in Angola, can be recorded in the country in the future, augmenting the current numbers and providing additional data to such biogeographic analysis. Taxa such as *T. variegata* and *T.* cf. *triebneri* have been recorded near the Angolan border at the Cunene River mouth region in Namibia (Broadley, 1974b), while Pietersen et al. (2021) reported the presence of an unknown *Trachylepis* species—*T.* sp. "Central Africa"—in northwestern Zambia, right at the border with Angola.

Regarding the conservation status of *Trachylepis* species, all species occurring in Angola that have previously been assessed by the IUCN have a conservation status of Least Concern. This is mostly due to large ranges of occurrence of all these species, which, in almost all cases, fall within at least one conservation area, combined

with presumed large populations, based on their ease of detection. The same conservation category is recommended for the newly described species, all of which have large distributions that occur in at least one conservation area. Some species are rarer than others, however, this is most likely a sampling artifact. In the case of *T. notabilis*, numbers and records may be underestimated due to its common confusion with *T. maculilabris*.

With this study, we deepen our understanding of the diversity and taxonomy of the genus *Trachylepis* in Angola. While it is likely that more taxa will be recognized within the country (even potentially undescribed species), the current contribution represents an important step not only to support the ongoing revision of the country's vast biodiversity, but also to better understand the region as both a hotspot and cradle of herpetological diversity. Similar revisions are due for *Trachylepis* taxa occurring in the neighboring countries, such as the Democratic Republic of Congo, Zambia, and Namibia, and will benefit from this study as a base for comparisons and data.

Angola is a key to solving many taxonomic issues surrounding several of the recognized groups within *Trachylepis*. This is mostly due to the fact that many of the early taxa descriptions were based on Angolan material, which has been lacking from modern revisions, leading many authors to make assumptions regarding the distribution ranges and taxonomic identity of extralimital populations. Some of the extralimital taxonomic problems in the genus, such as the status and distribution of *T. triebneri*, are also informed by Angolan populations. In this case, clarifying the status of Angolan members of the *T. variegata* group provides a better standpoint from which to start dealing with the Namibian populations, which historically have been considered as conspecific with those from Angola, an interpretation shown herein as not always warranted.

Further studies are needed to clarify remaining questions surrounding some taxa within the genus, namely more complete distribution areas, ecological preferences, and basic natural history.

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PLATES

PLATE 1. **1.** *Trachylepis albilabris*; **2.** *T. albopunctata*; **3.** *T. ansorgii*. Drawings by A.T.

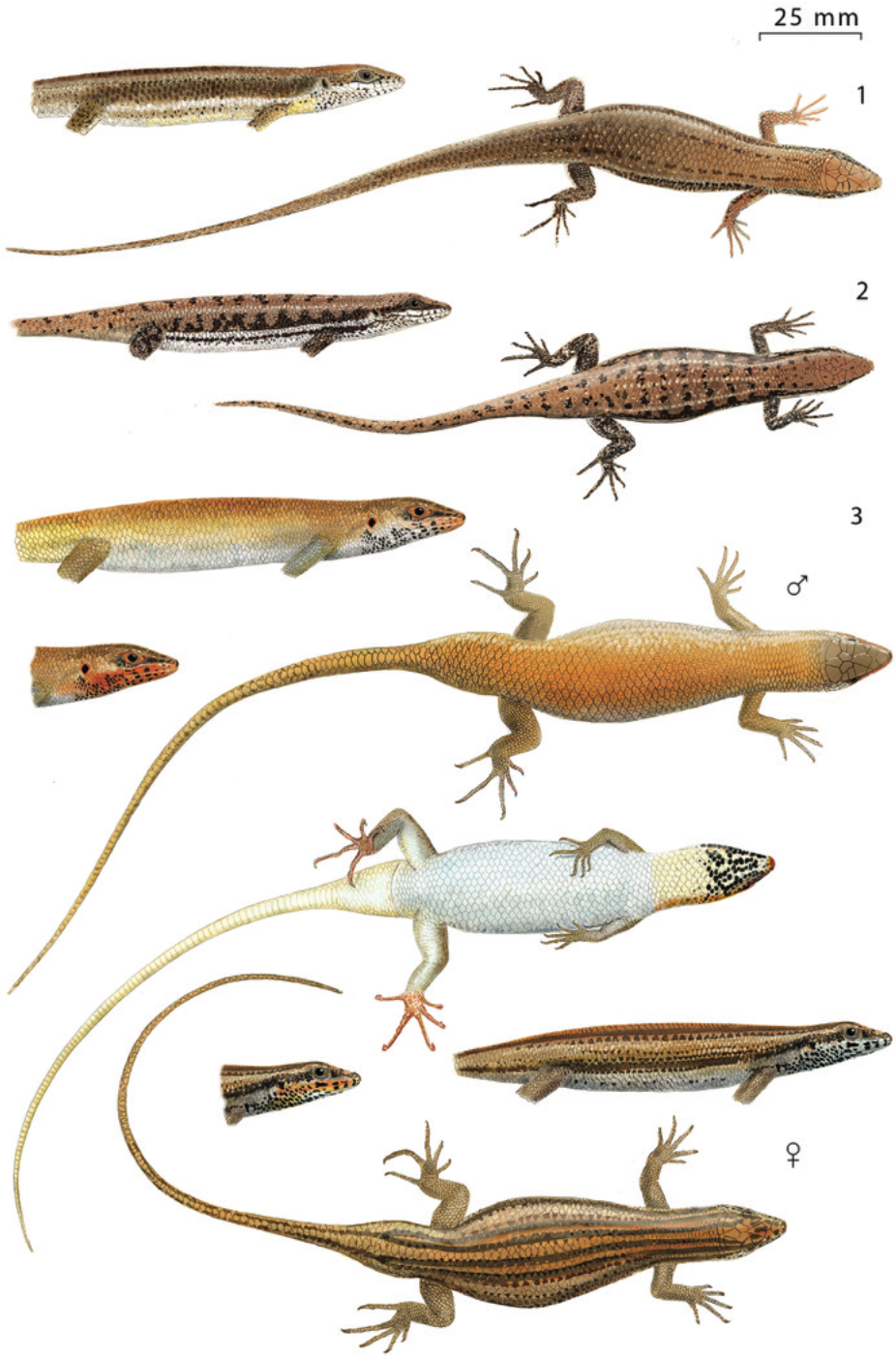

PLATE 2. **4.** *Trachylepis attenboroughi*, sp. nov.; **5.** *T. bayonii*; **6.** *T. binotata*; **7.** *T. bocagii*. Drawings by A.T.

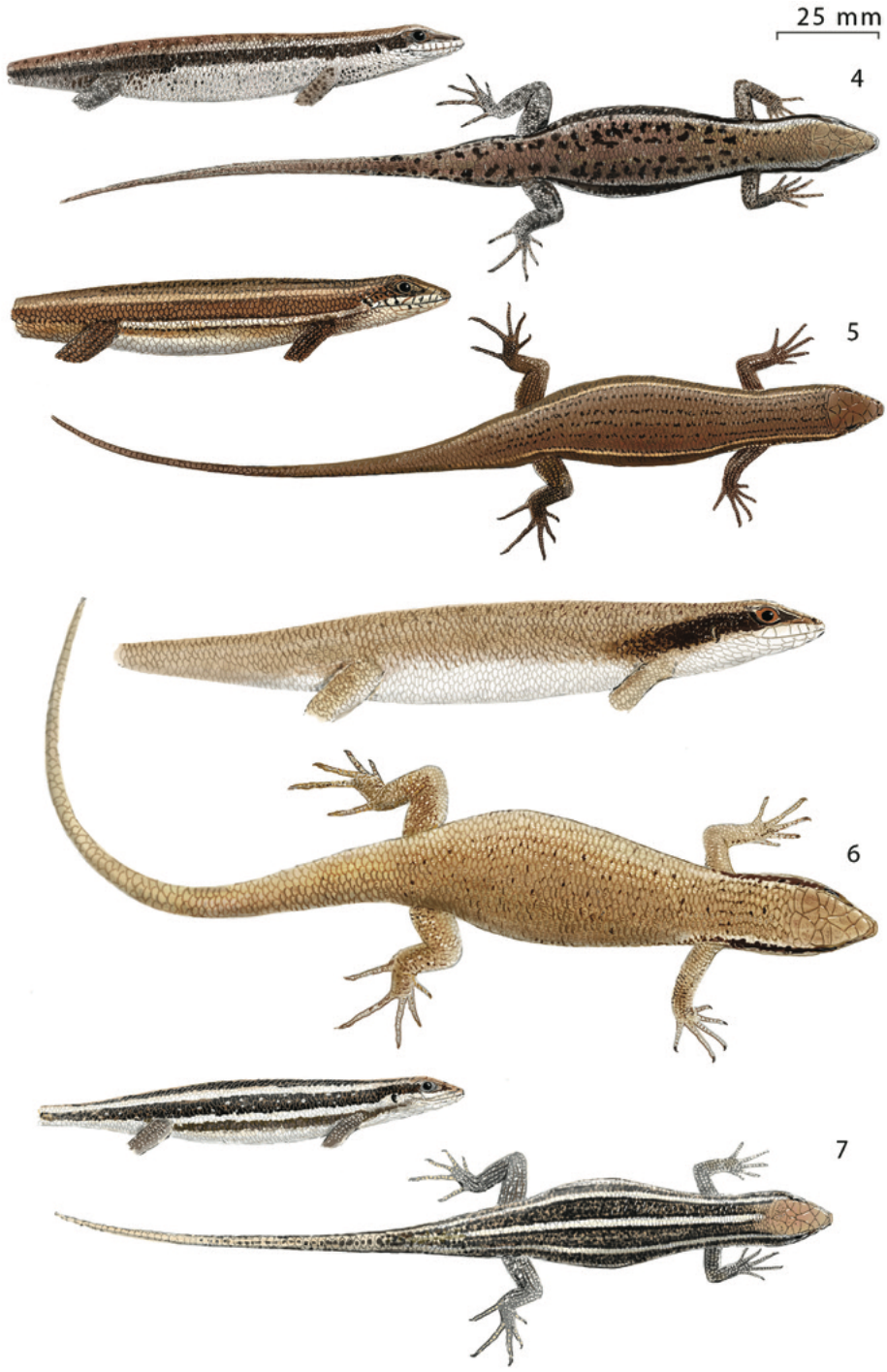

PLATE 3. **8.** *Trachylepis bouri*, sp. nov.; **9,** *T. chimbana*; **10.** *T. damarana*; **11.** *T. hoeschi*; **12.** *T. huilensis*; **13.** *T. hilariae*, sp. nov.; **14.** *T. laevis*. Drawings by A.T.

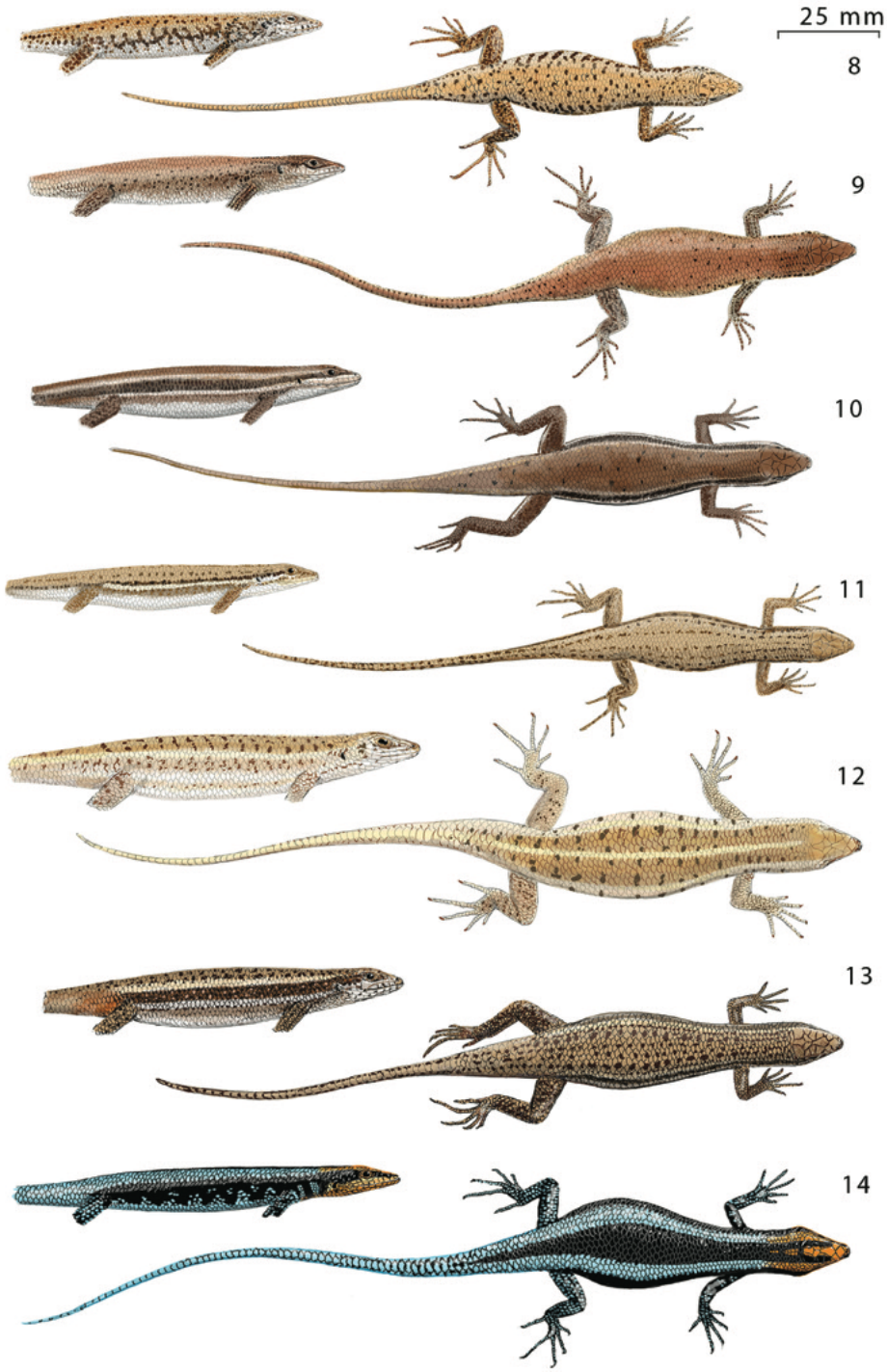

PLATE 4. **15.** *Trachylepis maculilabris*; **16.** *T. notabilis*. Drawings by A.T.

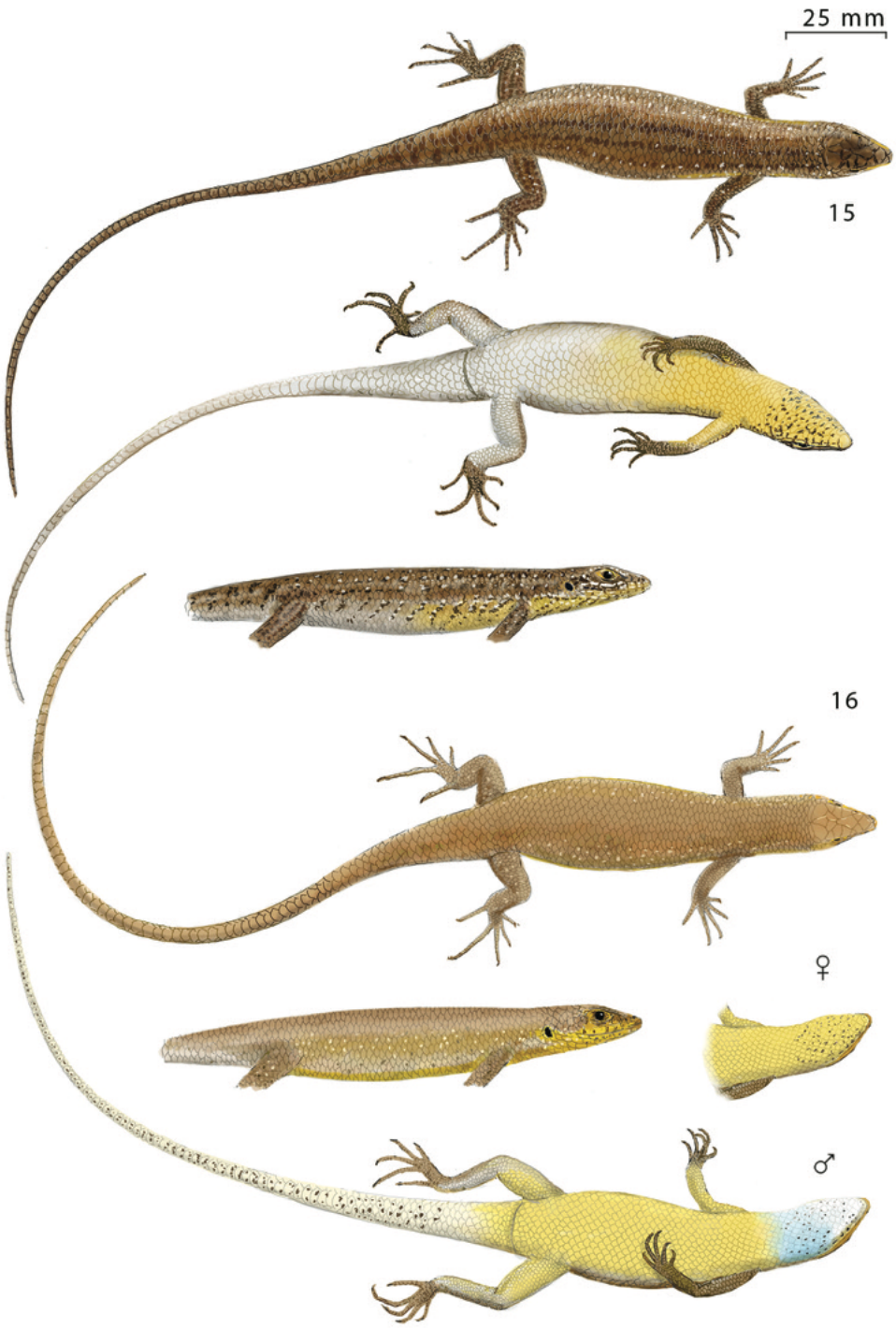

PLATE 5. **17.** *Trachylepis occidentalis*; **18.** *T. ovahelelo*, sp. nov.; **19.** *T. suzanae*, sp. nov.; **20.** *T. punctulata*; **21.** *T. raymondlaurenti*. Drawings by A.T.

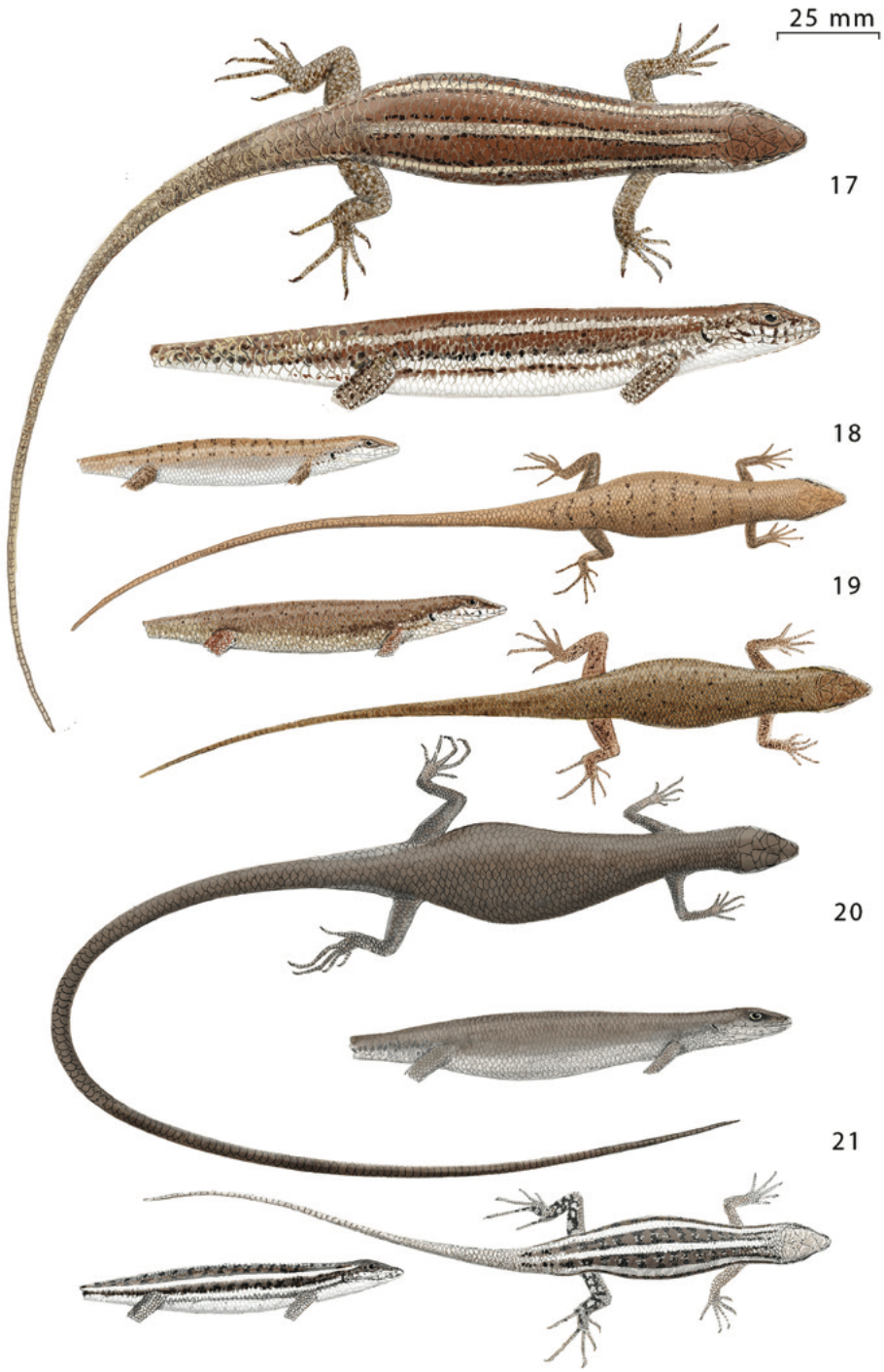

PLATE 6. **22.** *T. vunongue*, sp. nov.; **23.** *T. sulcata*; **24.** *T. wahlbergi*; **25.** *T. wilsoni*, sp. nov. Drawings by A.T.