

New insights into the distribution of *Scincus* and *Scincopus* (Scincidae) in Northwest Africa, with the first record of the Sandfish Skink, *Scincus scincus* (Linnaeus, 1758), from Morocco

Abdellah Bouazza¹ and Gabriel Martínez del Mármol^{2,*}

Skinks of the genera *Scincus* and *Scincopus* (Sauropsida: Scincidae) are emblematic reptiles of arid and semi-arid environments in North Africa. *Scincus* is widely distributed across the Sahara Desert, the Arabian Peninsula, and southern Iran (Sindaco and Jeremčenko, 2008). It currently comprises five recognised species: *Scincus albifasciatus* Boulenger, 1890, *S. conirostris* Blanford, 1881, *S. hemprichii* Wiegmann, 1837, *S. mitranus* Anderson, 1871, and *S. scincus* (Linnaeus, 1758) (Šmíd et al., 2021; Uetz et al., 2025), with several recognised subspecies, including *S. albifasciatus* Boulenger 1890, *S. a. laterimaculatus* Werner, 1914, *S. scincus scincus* (Linnaeus 1758), *S. s. meccensis* Wiegmann, 1837, and *S. s. cucullatus* Werner, 1914 (Schleich et al., 1996; Bauer et al., 2017; Šmíd et al., 2021; Uetz et al., 2025).

Three subspecies of *Scincus* occur in Northwest Africa. *S. a. albifasciatus*, which is rare in Morocco, with isolated records from Tarfaya, Laayoune and Dakhla region southward into Mauritania, Senegal, and Mali (Arnold and Leviton, 1977; Sánchez-Vialas and Calvo-Revuelta, 2018). *S. a. laterimaculatus*, occurs in central and western Algeria and, in Morocco, is confined to the major dune systems, where it is relatively common (Pasteur and Bons, 1960; Arnold and Leviton, 1977; Bons and Geniez, 1996; Martínez del Mármol et al., 2019). And *S. s. cucullatus*, known from Algeria, Tunisia, and Libya (Schleich et al., 1996; Bauer et al., 2017), but not previously reported in Morocco (Martínez del Mármol et al., 2019; Bouazza et al., 2021). The distributional boundaries and possible

contact zones among these subspecies remain poorly resolved, with a wide area of potential overlap in central Algeria, where *S. albifasciatus* and *S. scincus* may co-occur (Šmíd et al., 2021).

The genus *Scincopus* is monotypic, comprising only *Scincopus fasciatus*, a nocturnal and elusive skink that remains poorly known. It inhabits the Sahel-Sahara ecotone, with a range extending from Mauritania to Sudan, and scattered records in Morocco, Algeria, Tunisia, and Libya (Bons and Geniez, 1996; Carranza et al., 2008; Bauer et al., 2017; Vicent-Castelló et al., 2018; Kalboussi, 2021; Sánchez-Vialas et al., 2022; Martínez del Mármol et al., 2023; Idriss Bouam, pers. obs.).

This note presents an updated synthesis of the distribution of *Scincus* and *Scincopus* in Northwest Africa, integrating data from numerous sources. Notably, we report the first occurrence of *Scincus scincus cucullatus* in Morocco, contributing novel data to refine the regional distribution of these arid-adapted skinks.

Distribution data for *Scincus* spp. and *Scincopus fasciatus* in Northwest Africa, following the regional scope defined by Trape et al. (2012), were compiled from published literature, GBIF (2025), collaborator observations, and recent field surveys conducted in Morocco, Mauritania, and Tunisia. These sources were used to update and refine the known distribution of both genera in Northwest Africa. Additional records were integrated from citizen science platforms (e.g., Facebook) if accompanied by photographs allowing reliable species/subspecies identification, which was assigned based on morphological traits following Arnold and Leviton (1977), Schleich et al. (1996), and Trape et al. (2012), together with geographic coordinates following the protocol of Chowdhury et al. (2024). Given the frequent ambiguities in old bibliographic sources (e.g., vague locality names or imprecise/missing coordinates), which may introduce spatial bias, we retained only records with sufficient

¹ Département de Sciences et Techniques, Faculté polydisciplinaire of Taroudant, Ibnou Zohr University, Taroudant 83000, Morocco.

² Cl. Pedro Antonio de Alarcón, 34. 5^o A, 18002 Granada, Spain.

* Corresponding author. E-mail: gabrimtnez@gmail.com

geographic precision and a maximum positional uncertainty of 25 km. Literature-based records were derived from books and regional atlases (e.g., Arnold and Leviton, 1977; Bons and Geniez, 1996; Trape et al., 2012; Bauer et al., 2017); when only distribution maps were available, georeferencing was performed if an accuracy of < 25 km could be achieved. Coordinates explicitly provided in publications or confirmed through first-hand field observations were accepted without modification. All retained records and their associated metadata are reported in Appendix 1. Distribution maps representing all compiled records were generated by plotting occurrences on a 50 × 50 km grid, providing a standardised framework for visualising spatial patterns across the region. All spatial analyses were conducted in QGIS (QGIS Development Team, 2025) using the Biological Records tool.

A total of 180 records for *Scincus* and *Scincopus* in Northwest Africa were compiled, allowing us to generate 125 occupied 50 × 50 km grid cells across the

study area (Fig. 1). *Scincopus fasciatus* was represented in 44 grid cells, *Scincus albifasciatus albifasciatus* in 27, *S. a. laterimaculatus* in 13, *Scincus scincus* in 38, and undetermined *Scincus* specimens in three grid cells, reported by Arnold and Leviton (1977) as unidentifiable due to limited specimen information.

The compiled data confirmed the previously known distribution of *Scincus albifasciatus*, which is restricted to Morocco, Algeria, Mauritania, Senegal, and Mali. However, we document here the first confirmed record of *Scincus scincus* from Morocco: a specimen observed in July 2023 near Taфраout Sidi Ali (30.7010°N, 4.7301°W; 740 m elevation), approximately 650 km west of the species' nearest previously known locality in central Algeria (i.e., El Menia region; locality 21 “El Golea” in Arnold and Leviton, 1977). The specimen was identified as *S. scincus cucullatus* based on its morphological characteristics: a grey tail and head, orange background colouration with several black transverse bands, and the absence of black lateral stripes (Arnold and Leviton

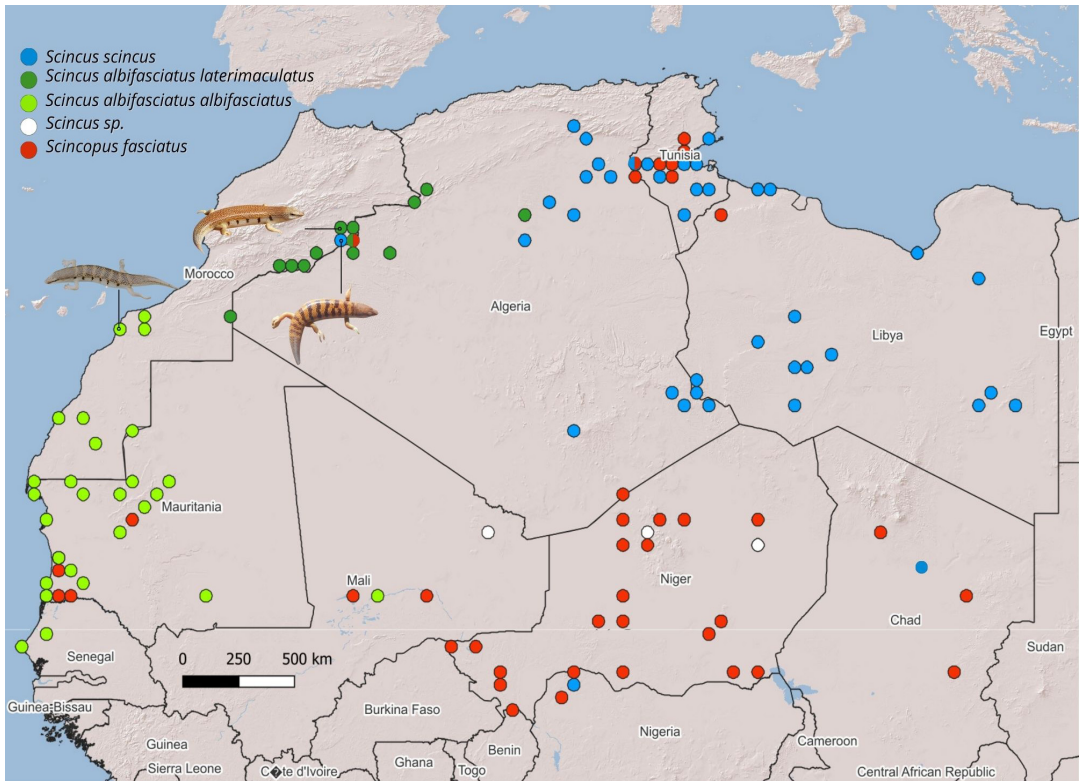


Figure 1. Geographic distribution of *Scincus* spp. and *Scincopus fasciatus* in the Northwest Africa, shown as occupied 50 × 50 km grid cells. Distribution ranges were compiled from multiple sources (see Appendix 1). White dots indicate undetermined *Scincus* records following Arnold and Leviton (1977).

1977; Schleich et al., 1996; Trape et al., 2012; Fig. 2A). In contrast, *S. a. albifasciatus*, distributed from the Atlantic Sahara to Senegal and across Mali, typically exhibits dark transverse bands that are wider than the pale bands separating them and distinct black stripes along the flanks (Arnold and Leviton, 1977, Geniez et al., 2004; Martínez del Mármol et al., 2019; Fig. 2B).

The confirmed presence of *S. scincus* in the Merzouga–Taouz region significantly expands the known range of this taxon and marks its first record in Morocco. This finding indicates that the potential contact zone between *S. albifasciatus laterimaculatus* (Fig. 2C) and *S. s. cucullatus* extends into the Taouz–Taфраout Sidi Ali area, suggesting possible local coexistence. *S. a. laterimaculatus* appears to be more common in extensive sandy environments and is typically associated with large dune systems such as Erg Chebbi, Erg Chegaga, and Erg Znaigui. In contrast, *S. s. cucullatus* may favour smaller dune habitats with scattered vegetation (Fig.

2D), such as those found between Taфраout Sidi Ali and Ramlia to Taouz (Bouazza et al., 2025; A. Bouazza pers. obs.). The apparent rarity of *S. s. cucullatus* in the region likely accounts for its absence in previous surveys, which focused primarily on dune systems dominated by *S. albifasciatus*.

This finding also prompts a re-evaluation of the only historical record of *Scincopus fasciatus* in Morocco, reported by Yves Vial in 1970 from Taouz in a letter to Jacques Bons (Martínez del Mármol et al., 2019). Despite multiple expeditions to Taouz since then, *Scincopus fasciatus* has not been observed again. Vial, a skilled photographer who documented numerous reptiles in the region, including the only known photographs of a living *Chalcides ebneri* (Martínez del Mármol et al., 2019), did not provide any photographic evidence of this record, raising doubts about its reliability. It is plausible that Vial misidentified a specimen of *Scincus scincus cucullatus* as *Scincopus fasciatus* due

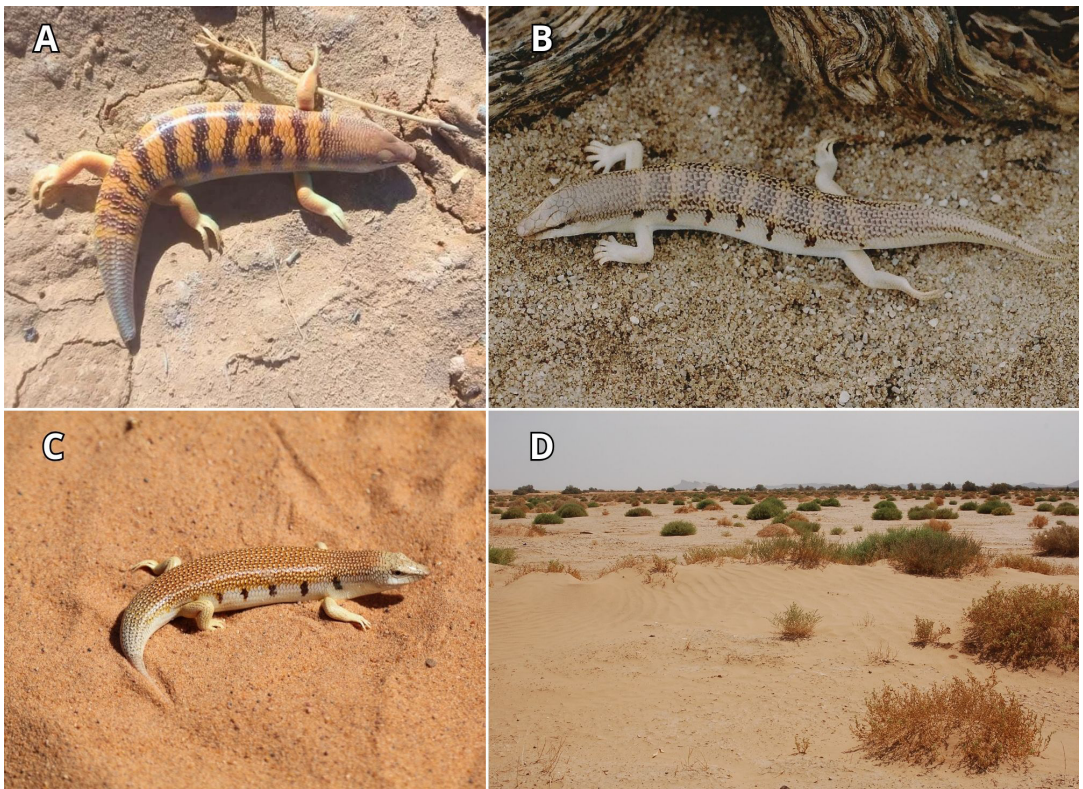


Figure 2. Three specimens of *Scincus* from Morocco. (A) *Scincus scincus cucullatus* from the Taфраout Sidi Ali. (B) *Scincus albifasciatus albifasciatus* from Layoune. (C) *Scincus albifasciatus laterimaculatus* from Taouz. (D) Typical habitat in the Taфраout Sidi Ali–Taouz area. Photos by Mhamed Karaoui (A), Juan Pablo González de la Vega (B), Abdellah Bouazza (C), and Gabriel Martínez del Mármol (D).

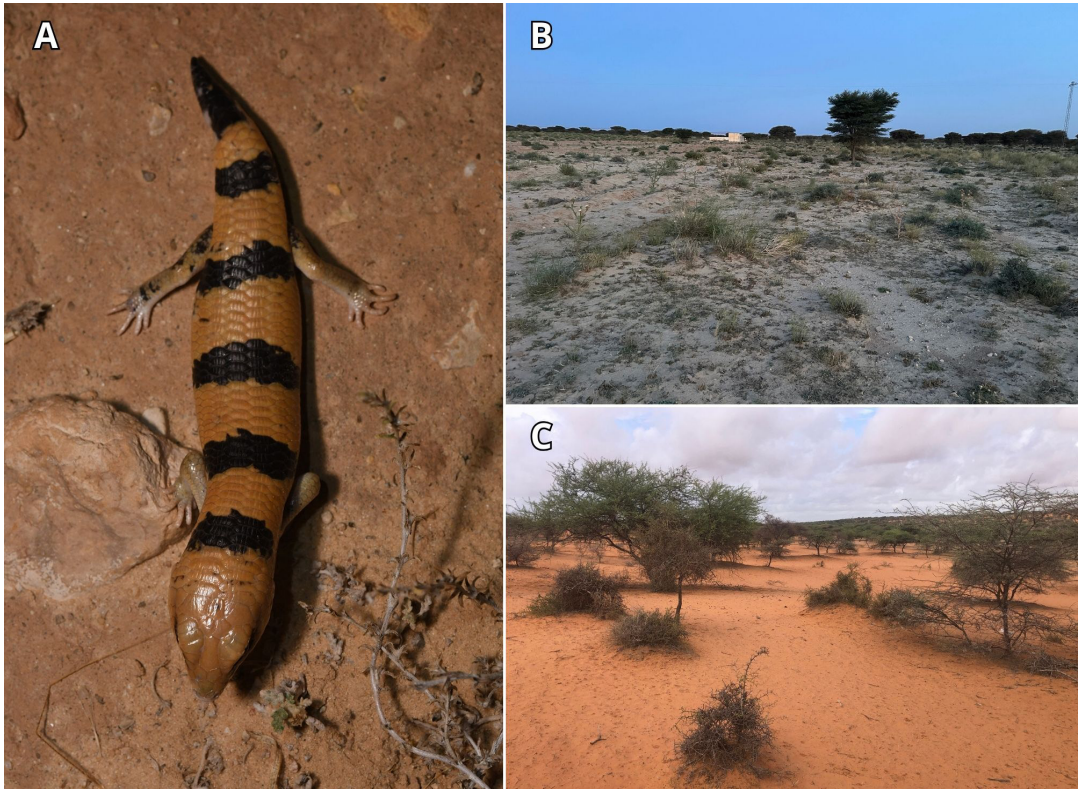


Figure 3. (A) *Scincopus fasciatus* from Bou Hedma National Park, Tunisia. (B) Typical habitat of *S. fasciatus* in Bou Hedma National Park, Tunisia. (C) Typical habitat of *S. fasciatus* in El Haïdi, Mauritania. Photos by Gabriel Martínez del Mármol.

to their superficially similar dorsal patterns (Fig. 3A), particularly as *Scincus scincus* was not known from the area at that time. Additionally, Taouz is characterised by extensive sandy dunes with sparse vegetation, lacking the mixed substrates, scattered trees, and burrow-rich environments where *Scincopus fasciatus* typically occurs in Tunisia and Mauritania (Fig. 3B–C; G. Martínez del Mármol per. obs.). Given that *Scincopus fasciatus* is not a sand-swimming specialist and relies on burrows for refuge, its occurrence in the dunes of Taouz is ecologically questionable (Vicent-Castelló et al., 2018; Kalboussi, 2021; Martínez del Mármol et al., 2023).

A further question concerns how these two morphologically and ecologically similar skinks (i.e., *S. s. cucullatus* and *S. a. laterimaculatus*) might coexist locally. Although habitat overlap among congeneric species is common when competition is low, the ecological similarity between *S. s. cucullatus* and *S. a. laterimaculatus* suggests that some degree of niche differentiation is likely (Mebert et al., 2015). Future

research should focus on clarifying the fine-scale distributions and habitat preferences of these species in Merzouga-Taouz area from Morocco, as well as their potential ecological interactions, to better understand mechanisms of coexistence and habitat partitioning in these desert environments.

Acknowledgments. We thank Alberto Sánchez-Vialas for providing a pre-peer review and valuable comments on an earlier version of this manuscript. We thank Mhamed Karaoui, Moha geography and Zakaria Brahim for providing photographs of *Scincus* specimens. We are also grateful to J. Smid, J. P. González de la Vega, I. Bouam and R. Vázquez Graña for sharing valuable information and/or photographic material. Fieldworks in Morocco were carried out with permits from the Agence Nationale des Eaux et Forêts of Morocco (N° 27/2024 and 10/25 ANEF/DPNAPPN/DPNAP/SECF).

References

- Arnold, E.N., Leviton, A.E. (1977): A Revision of the lizard genus *Scincus* (Reptilia: Scincidae). Bulletin of the British Museum (Natural History). Zoology **31**: 187–248.

- Bauer, A.M., Deboer, J.C., Taylor, D.J. (2017): Atlas of the Reptiles of Libya. Proceedings of the California Academy of Sciences **64**: 155–318.
- Bons, J., Geniez, P. (1996): Amphibiens et reptiles du Maroc (Sahara Occidental compris) : Atlas Biogéographique. Barcelona, Spain, Asociacion Herpetologica Espanola.
- Bouam, I., Abdennebi, A., Tahar Chaouch, L., Lemoufek, T., Benmokhtar, E., Mebarki, T., Moulahcene, L., Kherchouche, A., Messaoudi, T. (2025): Atlas of the herpetofauna of Batna Province and the Belezma Biosphere Reserve, north-eastern Algeria. Acta Herpetologica. *In press*.
- Bouazza, A., Bustos Gil, R., Camina, A., Gómez González, I., Lansari, A., Noughou, M., Martínez del Mármol, G. (2025): An update about the genus *Uromastyx* in Morocco: distribution limits and phenotypic variability. Boletín de la Asociación Herpetológica Española **36**: 55–59.
- Bouazza, A., El Mouden, E., Rihane, A. (2021): Checklist of amphibians and reptiles of Morocco: A taxonomic update and standard Arabic names. Herpetology Notes **14**: 1–14.
- Chowdhury, S., Ahmed, S., Alam, S., Callaghan, C.T., Das, P., Di Marco, M., et al. (2024): A protocol for harvesting biodiversity data from Facebook. Conservation Biology **38**: e14257.
- Carranza, S., Arnold, E. N., Geniez, P., Roca, J., Mateo, J. A. (2008): Radiation, multiple dispersal and parallelism in the skinks, *Chalcides* and *Sphenops* (Squamata: Scincidae), with comments on *Scincus* and *Scincopus* and the age of the Sahara Desert. Molecular Phylogenetics and Evolution **46**: 1071–1094.
- Geniez, P., Mateo, J.A., Geniez, M., Pether, J. (2004): Amphibians and reptiles of the Western Sahara. Frankfurt, Germany, Chimaira.
- GBIF.org (2025): GBIF Occurrence Downloaded on 14 September 2025 <https://doi.org/10.15468/dl.3sxsdz>
- Gonçalves, D.V., Álvares, F., Brito, J.C. (2013): Data on the distribution of herpetofauna of southern Niger with comments on Termit & Tin Toumma National Nature Reserve. Boletín de la Asociación Herpetológica Española **24**: 74–79.
- Kalboussi, M. (2021): *Scincopus fasciatus*, distribution and new records in Tunisia. Scientific Reports in Life Sciences **2**: 52–57.
- Martínez del Mármol, G., Harris, D.J., Geniez, P., de Pous P., Salvi, D. (2019): Amphibians and Reptiles of Morocco. Frankfurt, Germany, Chimaira.
- Martínez del Mármol, G., Izagirre-Egaña, A., Frahm, S., Sassoe, M. (2023): Herpetofauna of Mauritania: results of a field survey. Boletín de la Asociación Herpetológica Española **34**: 73–86.
- Mebert, K., Jagar, T., Grželj, R., Cafuta, V., Luiselli, L., Ostanek, E., et al. (2015): The dynamics of coexistence: Habitat sharing versus segregation patterns among three sympatric montane vipers. Biological Journal of the Linnean Society **116**: 364–376.
- Pasteur, G., Bons, J. (1960): Catalogue des reptiles actuels du Maroc: révision de formes d'Afrique, d'Europe et d'Asie. Rabat, Morocco, Institut Scientifique Cherifien.
- QGIS Development Team (2025): QGIS Geographic Information System (Version 3.34.9). Open Source Geospatial Foundation. Available at: <https://www.qgis.org>
- Sánchez-Vialas, A., Calvo-Revuelta, M. (2018): Commented catalogue of the herpetological collection from Morocco in the Museo Nacional de Ciencias Naturales (Madrid, Spain), with emphasis on the material collected during historical expeditions. Graellsia **74**: e071.
- Sánchez-Vialas, A., Wong, E., Lobón-Rovira, J., García-Antón, P. (2022): *Scincopus fasciatus* (Peter's Banded Skink) reproductive biology. Herpetological Review **53**: 252–253.
- Schleich, H.H., Kastle, W., Kabisch, K. (1996): Amphibians and Reptiles from North Africa. Königstein, Germany, Koeltz Scientific Publications.
- Sindaco, R., Jeremčenko, V.K. (2008): The reptiles of the Western Palearctic. 1. Annotated checklist and distributional atlas of the turtles, crocodiles, amphisbaenians and lizards of Europe, North Africa, Middle East and Central Asia. Monografie della Societas Herpetologica Italica - I. Latina, Italy, Edizioni Belvedere.
- Sow, A.S., Martínez-Freiria, F., Crochet, P.-A., Geniez, P., Ineich, I., Dieng, H., Fahd, S., Brito, J.C. (2014): Atlas of the distribution of reptiles in the Parc National du Banc d'Arguin, Mauritania. Basic and Applied Herpetology **28**: 99–111.
- Šmíd, J., Uvizl, M., Shobrak, M., Salim, A.F.A., AlGethami, R.H.M., Algethami, A.R., et al. (2021): Swimming through the sands of the Sahara and Arabian deserts: Phylogeny of sandfish skinks (Scincidae, *Scincus*) reveals a recent and rapid diversification. Molecular Phylogenetics and Evolution **155**: 107012.
- Trape, J.F., Trape, S., Chirio, L. (2012): Lézards, crocodiles et tortues d'Afrique occidentale et du Sahara. Montpellier, France, IRD Éditions.
- Uetz, P., Freed, P., Aguilar, R., Reyes, F., Kudera, J., Hošek, J. (2025): The Reptile Database. Available at: <http://www.reptile-database.org>. Accessed on 11 of September 2025.
- Vicent-Castelló, P., Herrero-González, D., Rodríguez-Lozano, J.J., García-Antón, P., Sánchez-Vialas, A. (2018): On the presence of *Scincopus fasciatus* (Squamata, Scincidae) in Mauritania. Boletín de la Asociación Herpetológica Española **29**: 56–58.

Appendix 1. Comprehensive dataset of *Scincus* spp. and *Scincopus fasciatus* records used in this study, detailing taxon, country, geographic coordinates (Lat: latitude; Lon: longitude), and reference/source.

N°	Taxon	Country	Lat	Lon	Reference/source
1	<i>Scincopus fasciatus</i>	Libya	31.86	11.49	Bauer et al. (2017)
2	<i>Scincopus fasciatus</i>	Libya	30.24	19.03	Bauer et al. (2017)
3	<i>Scincopus fasciatus</i>	Libya	32.74	12.56	Bauer et al. (2017)
4	<i>Scincopus fasciatus</i>	Mali	16.59	-3.52	Trape et al. (2012)
5	<i>Scincopus fasciatus</i>	Mali	16.65	-0.53	Trape et al. (2012)
6	<i>Scincopus fasciatus</i>	Mauritania	17.67	-15.97	Trape et al. (2012)
7	<i>Scincopus fasciatus</i>	Mauritania	16.67	-16.35	Trape et al. (2012)
8	<i>Scincopus fasciatus</i>	Mauritania	16.78	-15.49	Trape et al. (2012)
9	<i>Scincopus fasciatus</i>	Mauritania	19.61	-12.52	Geniez et al. (2004)
10	<i>Scincopus fasciatus</i>	Mauritania	18.23	-15.95	GBIF (2025)
11	<i>Scincopus fasciatus</i>	Mauritania	16.57	-15.97	Vicent-Castello et al. (2018)
12	<i>Scincopus fasciatus</i>	Morocco	30.88	-3.99	Bons and Geniez (1996)
13	<i>Scincopus fasciatus</i>	Niger	14.65	0.46	Trape et al. (2012)
14	<i>Scincopus fasciatus</i>	Niger	14.63	1.49	Trape et al. (2012)
15	<i>Scincopus fasciatus</i>	Niger	13.71	2.46	Trape et al. (2012)
16	<i>Scincopus fasciatus</i>	Niger	13.67	7.45	Trape et al. (2012)
17	<i>Scincopus fasciatus</i>	Niger	15.58	6.44	Trape et al. (2012)
18	<i>Scincopus fasciatus</i>	Niger	15.73	7.45	Trape et al. (2012)
19	<i>Scincopus fasciatus</i>	Niger	16.63	7.49	Trape et al. (2012)
20	<i>Scincopus fasciatus</i>	Niger	18.58	7.45	Trape et al. (2012)
21	<i>Scincopus fasciatus</i>	Niger	19.63	7.38	Trape et al. (2012)
22	<i>Scincopus fasciatus</i>	Niger	20.56	7.45	Trape et al. (2012)
23	<i>Scincopus fasciatus</i>	Niger	18.65	8.46	Trape et al. (2012)
24	<i>Scincopus fasciatus</i>	Niger	19.59	8.50	Trape et al. (2012)
25	<i>Scincopus fasciatus</i>	Niger	19.63	9.51	Trape et al. (2012)
26	<i>Scincopus fasciatus</i>	Niger	13.71	12.51	Trape et al. (2012)
27	<i>Scincopus fasciatus</i>	Niger	18.58	12.58	Trape et al. (2012)
28	<i>Scincopus fasciatus</i>	Niger	19.60	12.51	Trape et al. (2012)
29	<i>Scincopus fasciatus</i>	Niger	13.67	20.51	Trape et al. (2012)
30	<i>Scincopus fasciatus</i>	Niger	16.66	21.48	Trape et al. (2012)
31	<i>Scincopus fasciatus</i>	Niger	19.49	17.56	Trape et al. (2012)
32	<i>Scincopus fasciatus</i>	Niger	13.63	5.43	Trape et al. (2012)
33	<i>Scincopus fasciatus</i>	Niger	12.78	4.53	Trape et al. (2012)
34	<i>Scincopus fasciatus</i>	Niger	13.56	2.05	GBIF (2025)
35	<i>Scincopus fasciatus</i>	Niger	13.41	2.35	GBIF (2025)
36	<i>Scincopus fasciatus</i>	Niger	15.86	11.44	Gonçalves et al. (2013)
37	<i>Scincopus fasciatus</i>	Niger	15.09	10.62	Gonçalves et al. (2013)
38	<i>Scincopus fasciatus</i>	Niger	12.43	2.89	GBIF (2025)
39	<i>Scincopus fasciatus</i>	Niger	13.56	11.66	Gonçalves et al. (2013)
40	<i>Scincopus fasciatus</i>	Tunisia	33.31	7.95	Kalboussi (2021)
41	<i>Scincopus fasciatus</i>	Tunisia	33.40	9.01	Kalboussi (2021)
42	<i>Scincopus fasciatus</i>	Tunisia	33.56	9.04	Kalboussi (2021)
43	<i>Scincopus fasciatus</i>	Tunisia	33.62	8.92	Kalboussi (2021)
44	<i>Scincopus fasciatus</i>	Tunisia	34.46	9.65	Kalboussi (2021); This study
45	<i>Scincopus fasciatus</i>	Tunisia	34.49	9.80	Kalboussi (2021)
46	<i>Scincopus fasciatus</i>	Tunisia	34.86	9.85	Kalboussi (2021)
47	<i>Scincopus fasciatus</i>	Tunisia	33.74	7.60	GBIF (2025)
48	<i>Scincopus fasciatus</i>	Tunisia	33.87	7.88	GBIF (2025)
49	<i>Scincus albifasciatus albifasciatus</i>	Mali	16.77	-2.99	Arnold and Leviton (1977)
50	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	20.68	-16.60	Sow et al. (2014)
51	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	19.96	-16.08	Sow et al. (2014)

Appendix 1. Continued.

N°	Taxon	Country	Lat	Lon	Reference/source
52	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	19.69	-16.06	Sow et al. (2014)
53	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	19.63	-16.09	Sow et al. (2014)
54	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	19.63	-16.09	Sow et al. (2014)
55	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	19.63	-16.09	Sow et al. (2014)
56	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	17.95	-15.50	GBIF (2025)
57	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	18.24	-15.85	GBIF (2025)
58	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	20.78	-11.92	GBIF (2025)
59	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	21.49	-11.34	GBIF (2025)
60	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	17.43	-16.04	Martínez del Mármol et al. (2023); This study
61	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	21.38	-12.98	Carranza et al. (2008); Smid et al. (2021)
62	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	21.38	-12.98	Carranza et al. (2008); Smid et al. (2021)
63	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	20.50	-14.89	Carranza et al. (2008); Smid et al. (2021)
64	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	21.27	-16.53	Carranza et al. (2008); Smid et al. (2021)
65	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	16.65	-9.61	Carranza et al. (2008); Smid et al. (2021)
66	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	21.32	-12.97	Arnold and Leviton (1977)
67	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	21.03	-15.25	Arnold and Leviton (1977)
68	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	20.50	-13.06	Arnold and Leviton (1977)
69	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	20.45	-12.36	Arnold and Leviton (1977)
70	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	19.28	-13.28	Arnold and Leviton (1977)
71	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	18.09	-15.91	Arnold and Leviton (1977)
72	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	17.00	-15.00	Arnold and Leviton (1977)
73	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	21.29	-16.89	GBIF (2025)
74	<i>Scincus albifasciatus albifasciatus</i>	Mauritania	16.54	-16.45	GBIF (2025)
75	<i>Scincus albifasciatus albifasciatus</i>	Morocco	22.72	-14.24	Bons and Geniez (1996)
76	<i>Scincus albifasciatus albifasciatus</i>	Morocco	23.78	-15.69	Bons and Geniez (1996)
77	<i>Scincus albifasciatus albifasciatus</i>	Morocco	23.26	-12.72	Bons and Geniez (1996)
78	<i>Scincus albifasciatus albifasciatus</i>	Morocco	27.95	-12.40	Bons and Geniez (1996)
79	<i>Scincus albifasciatus albifasciatus</i>	Morocco	27.26	-13.22	Martínez del Mármol et al. (2019)
80	<i>Scincus albifasciatus albifasciatus</i>	Morocco	27.24	-12.26	Bons and Geniez (1996)
81	<i>Scincus albifasciatus albifasciatus</i>	Morocco	27.20	-13.23	Arnold and Leviton (1977)
82	<i>Scincus albifasciatus albifasciatus</i>	Morocco	23.98	-14.82	GBIF (2025)
83	<i>Scincus albifasciatus albifasciatus</i>	Senegal	15.44	-16.34	Arnold and Leviton (1977)
84	<i>Scincus albifasciatus albifasciatus</i>	Senegal	14.75	-17.33	Arnold and Leviton (1977)
85	<i>Scincus albifasciatus albifasciatus</i>	Senegal	14.74	-17.45	Arnold and Leviton (1977)
86	<i>Scincus albifasciatus laterimaculatus</i>	Algeria	27.56	-8.53	Geniez et al. (2004)
87	<i>Scincus albifasciatus laterimaculatus</i>	Algeria	32.75	-0.56	Arnold and Leviton (1977); This study
88	<i>Scincus albifasciatus laterimaculatus</i>	Algeria	30.09	-3.52	Arnold and Leviton (1977)
89	<i>Scincus albifasciatus laterimaculatus</i>	Algeria	30.16	-2.15	Arnold and Leviton (1977)
90	<i>Scincus albifasciatus laterimaculatus</i>	Algeria	31.55	3.45	Arnold and Leviton (1977)
91	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.79	-6.36	Bons and Geniez (1996)
92	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.66	-6.17	Bons and Geniez (1996)
93	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.75	-6.12	Bons and Geniez (1996)
94	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.81	-6.18	Bons and Geniez (1996)
95	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.78	-6.06	Bons and Geniez (1996); This study
96	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.81	-5.77	Bons and Geniez (1996)
97	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.80	-5.60	Bons and Geniez (1996); This study
98	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	30.05	-5.43	Bons and Geniez (1996)
99	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	30.89	-3.99	Bons and Geniez (1996)
100	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.05	-3.92	Bons and Geniez (1996)
101	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.05	-3.99	Bons and Geniez (1996); This study
102	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.05	-4.04	Bons and Geniez (1996)
103	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.12	-4.03	Bons and Geniez (1996)

Appendix 1. Continued.

N°	Taxon	Country	Lat	Lon	Reference/source
104	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.09	-3.99	Bons and Geniez (1996)
105	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.13	-3.94	Bons and Geniez (1996)
106	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.22	-4.00	Bons and Geniez (1996)
107	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.27	-4.06	Bons and Geniez (1996)
108	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.28	-4.34	Bons and Geniez (1996)
109	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.90	-6.71	GBIF (2025)
110	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.87	-6.23	GBIF (2025)
111	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.82	-5.78	GBIF (2025)
112	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.89	-5.68	GBIF (2025); This study
113	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	29.93	-5.51	GBIF (2025)
114	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	30.97	-3.93	GBIF (2025); This study
115	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.08	-4.01	GBIF (2025)
116	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	30.98	-3.94	GBIF (2025); This study
117	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.10	-4.00	GBIF (2025)
118	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.13	-4.02	GBIF (2025)
119	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.20	-4.02	GBIF (2025); This study
120	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.21	-4.01	GBIF (2025)
121	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	31.21	-3.99	GBIF (2025)
122	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	32.12	-1.23	This study
123	<i>Scincus albifasciatus laterimaculatus</i>	Morocco	30.90	-4.00	Pasteur and Bons (1960)
124	<i>Scincus scincus</i>	Algeria	24.51	9.49	GBIF (2025)
125	<i>Scincus scincus</i>	Algeria	35.23	5.30	Bouam et al. (2025)
126	<i>Scincus scincus</i>	Algeria	30.90	3.38	Arnold and Leviton (1977)
127	<i>Scincus scincus</i>	Algeria	32.00	4.30	Arnold and Leviton (1977)
128	<i>Scincus scincus</i>	Algeria	31.93	5.27	Arnold and Leviton (1977)
129	<i>Scincus scincus</i>	Algeria	34.80	5.60	Arnold and Leviton (1977)
130	<i>Scincus scincus</i>	Algeria	33.12	5.93	Arnold and Leviton (1977)
131	<i>Scincus scincus</i>	Algeria	33.96	6.36	Arnold and Leviton (1977)
132	<i>Scincus scincus</i>	Algeria	33.30	6.80	Arnold and Leviton (1977)
133	<i>Scincus scincus</i>	Algeria	33.40	6.90	Arnold and Leviton (1977); This study
134	<i>Scincus scincus</i>	Algeria	24.26	10.50	Arnold and Leviton (1977)
135	<i>Scincus scincus</i>	Algeria	24.47	9.51	Arnold and Leviton (1977)
136	<i>Scincus scincus</i>	Algeria	23.30	5.12	Arnold and Leviton (1977)
137	<i>Scincus scincus</i>	Chad	17.88	19.03	GBIF (2025)
138	<i>Scincus scincus</i>	Libya	32.73	13.17	Arnold and Leviton (1977)
139	<i>Scincus scincus</i>	Libya	32.53	13.13	Arnold and Leviton (1977)
140	<i>Scincus scincus</i>	Libya	29.04	21.52	Arnold and Leviton (1977)
141	<i>Scincus scincus</i>	Libya	24.20	21.97	Arnold and Leviton (1977)
142	<i>Scincus scincus</i>	Libya	32.81	13.24	Bauer et al. (2017)
143	<i>Scincus scincus</i>	Libya	32.66	13.09	Bauer et al. (2017)
144	<i>Scincus scincus</i>	Libya	32.89	13.18	Bauer et al. (2017)
145	<i>Scincus scincus</i>	Libya	32.78	12.96	Bauer et al. (2017)
146	<i>Scincus scincus</i>	Libya	24.97	10.18	Bauer et al. (2017)
147	<i>Scincus scincus</i>	Libya	24.83	10.22	Bauer et al. (2017)
148	<i>Scincus scincus</i>	Libya	24.95	10.09	Bauer et al. (2017)
149	<i>Scincus scincus</i>	Libya	25.35	10.37	Bauer et al. (2017)
150	<i>Scincus scincus</i>	Libya	24.29	14.32	Bauer et al. (2017)
151	<i>Scincus scincus</i>	Libya	25.90	14.59	Bauer et al. (2017)
152	<i>Scincus scincus</i>	Libya	25.93	14.47	Bauer et al. (2017)
153	<i>Scincus scincus</i>	Libya	26.37	15.80	Bauer et al. (2017)
154	<i>Scincus scincus</i>	Libya	27.53	14.27	Bauer et al. (2017)
155	<i>Scincus scincus</i>	Libya	26.59	12.78	Bauer et al. (2017)

Appendix 1. Continued.

N°	Taxon	Country	Lat	Lon	Reference/source
156	<i>Scincus scincus</i>	Libya	24.12	23.34	Bauer et al. (2017)
157	<i>Scincus scincus</i>	Libya	24.93	22.05	Bauer et al. (2017)
158	<i>Scincus scincus</i>	Libya	29.07	21.51	Bauer et al. (2017)
159	<i>Scincus scincus</i>	Libya	30.21	19.12	Bauer et al. (2017)
160	<i>Scincus scincus</i>	Morocco	30.68	-4.42	This study
161	<i>Scincus scincus</i>	Niger	13.04	5.22	Arnold and Leviton (1977)
162	<i>Scincus scincus</i>	Tunisia	32.93	10.96	GBIF (2025)
163	<i>Scincus scincus</i>	Tunisia	33.79	9.81	GBIF (2025)
164	<i>Scincus scincus</i>	Tunisia	33.74	7.60	GBIF (2025)
165	<i>Scincus scincus</i>	Tunisia	33.74	7.63	GBIF (2025)
166	<i>Scincus scincus</i>	Tunisia	33.65	8.16	GBIF (2025)
167	<i>Scincus scincus</i>	Tunisia	33.88	7.88	GBIF (2025)
168	<i>Scincus scincus</i>	Tunisia	33.91	8.13	GBIF (2025)
169	<i>Scincus scincus</i>	Tunisia	33.87	7.87	Arnold and Leviton (1977)
170	<i>Scincus scincus</i>	Tunisia	33.70	7.62	Arnold and Leviton (1977)
171	<i>Scincus scincus</i>	Tunisia	33.70	8.11	Arnold and Leviton (1977)
172	<i>Scincus scincus</i>	Tunisia	33.90	8.12	Arnold and Leviton (1977)
173	<i>Scincus scincus</i>	Tunisia	34.75	10.73	Arnold and Leviton (1977)
174	<i>Scincus scincus</i>	Tunisia	33.88	10.10	Arnold and Leviton (1977)
175	<i>Scincus scincus</i>	Tunisia	33.38	8.62	Arnold and Leviton (1977)
176	<i>Scincus scincus</i>	Tunisia	32.85	10.28	Arnold and Leviton (1977)
177	<i>Scincus scincus</i>	Tunisia	31.94	9.88	Arnold and Leviton (1977)
178	<i>Scincus</i> sp.	Mali	19.11	1.74	Arnold and Leviton (1977)
179	<i>Scincus</i> sp.	Niger	19.05	8.41	Arnold and Leviton (1977)
180	<i>Scincus</i> sp.	Niger	18.69	12.92	Arnold and Leviton (1977)