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Eremiascincus erebos sp. nov., a new banded skink (Scincidae; Sphenomorphini) from sandstone habitats of the Gulf of Carpentaria

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Abstract

We describe *Eremiascincus erebos* sp. nov., a new species of banded, crepuscular and nocturnal skink from sandstone habitats of the southern Gulf of Carpentaria region in the Northern Territory, Australia. The species is known to inhabit scree and deep, cave-like crevices in gorges and rock towers. Morphology and genomic sequence data indicate *E. erebos* sp. nov. is most closely related to *E. fasciolatus*—with which it shares divided posterior supralabials, a character otherwise absent in *Eremiascincus*—but differs in having a larger ear opening, no ridges along the dorsal surfaces of the hindbody and tail, and a higher midbody scale row count. Although currently known from only two localities in the north-eastern Northern Territory, *E. erebos* sp. nov. is likely more widespread across the region south of the Gulf of Carpentaria.

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https://zoobank.org/References/88D4570C-06F7-43A9-A20E-68EF4A9B3995

Introduction

Eremiascincus Greer, 1979 is a genus of 15 recognised skink species. Four species occur in the Lesser Sundas, while the remaining 11 are from Australia. The Australian species are: *Eremiascincus brongersmai* (Storr, 1972); *E. douglasi* (Storr, 1967); *E. fasciolatus* (Günther, 1867); *E. intermedius* (Sternfeld, 1919); *E. isolepis* (Boulenger, 1887); *E. musivus* Mecke, Doughty & Donnellan, 2009; *E. pallidus* (Günther, 1875); *E. pardalis* (Macleay, 1877); *E. phantasmus*, Mecke, Doughty & Donnellan, 2013; *E. richardsonii* (Gray, 1845), and *E. rubiginosus* Mecke & Doughty, 2018. Members of the genus are terrestrial to semi-fossorial, often inhabiting leaf-litter or loose soil, and are primarily crepuscular and nocturnal (Greer 1979; Mecke et al. 2009, 2013). Several

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species are strongly banded, which are largely associated with arid and semi-arid habitats. In contrast, species from Australia's tropical savannas are usually unbanded, such as *E. isolepis* and *E. douglasi*; although, two banded species—*E. fasciolatus* and *E. intermedius*—have been recorded in the southern tropical savannas (Vanderduys et al. 2012; Mecke et al. 2013).

Several unusual, banded *Eremiascincus* have been photographed or collected from sandstone habitats at Caranbirini Conservation Reserve and Pungalina–Seven Emu Sanctuary in the north-eastern Northern Territory (Fig. 1; authors pers. obs.; S. Mahony pers. obs.). These animals are relatively large-bodied and most have been encountered in or near deep sandstone crevices and small caves. They superficially resemble *E. fasciolatus* and *E. richardsonii* but differ in possessing very large ear openings and lacking dorsal ridges on the tail. To date, only three preserved specimens of this putative taxon are known: two vouchered specimens from Pungalina–Seven Emu Sanctuary and one from Caranbirini that had previously been referred to *E. richardsonii* (Greer 1979), all of which share a consistent and distinctive morphology. Genomic sequence data are available for one of these specimens through the Australian Amphibian and Reptile Genomics (AusARG) phylogenomics initiative (via BioPlatforms Australia: https://data.bioplatforms.com/organization/ausarg). A recent phylogenomic study (Torkkola et al. 2026) that incorporated these data recovered this lineage (as "*Eremiascincus* spp Pungalina") as sister to eastern populations of *E. richardsonii*. While our sampling is unavoidably limited, the apparent distinctiveness of the available specimens warrants taxonomic evaluation. We therefore assessed species status within a multispecies coalescent (MSC) phylogenomic framework, assessing the divergence of this lineage against congeners, particularly sympatric species with good evidence of reproductive barriers. Based on the resulting genomic and morphological evidence, we describe this taxon as a new species.

Methods

Phylogenomics

We obtained Anchored Hybrid Enrichment (AHE) sequence data from Torkkola et al. (2026) for available *Eremiascincus* species—including all recognised Australian species and *E. timorensis*—in addition to *Hemiergis decresiensis* to serve as the outgroup. No samples of *E. antoniorum*, *E. butlerorum*, or *E. emigrans* were available. Two samples were included for *E. isolepis*, *E. pallidus*, *E. pardalis*, *E. richardsonii* (east), and *H. decresiensis*; a single sample was included for all other species. In brief, the Squamate Conserved Loci (SqCL2) dataset probes target 5,462 markers, including 377 AHE loci (Singhal et al., 2017), sequenced on the Illumina HiSeq platform. Raw SqCL reads were assembled via the pipesnake phylogenomics pipeline (Brennan et al. 2024) that identifies sample-specific forward and reverse reads, removes duplicates, adapters, and barcodes, then collates read-pairs. It subsequently maps reads against existing squamate SqCL2 alignments to remove off-target reads. Individual loci were then aligned in MAFFT (Katoh & Standley, 2013) with gap removal by GBLOCKS (Talavera & Castresana, 2007) and error trimming with TAPER (Zhang et al., 2021) — full details in Torkkola et al. (2026). Loci with <70% sample coverage were excluded, as were samples with >30% missing data across loci, resulting in a final dataset of 20 retained samples, including two *Hemiergis decresiensis* outgroup samples. We retained 344 AHE loci ranging from 199–2,217 bp (mean = 1,231 bp; median = 1,303 bp), representing a total of 422,867 bp across all loci, including 10,731 parsimony-informative sites, 11,888 singleton sites, and 400,248 constant sites.

We used BPP v4.1.4 (Flouri et al. 2018) to estimate the species tree under the full multispecies coalescent model and to obtain divergence estimates to inform taxonomic decisions. We first performed an A01 analysis to infer the species tree topology. Priors for population size (θ) and divergence times (τ), both in units of substitutions per site, were specified as InvGamma(3, 0.01). The analysis used a burn-in of 40,000 iterations, followed by sampling every second iteration to yield 200,000 posterior samples (440,000 iterations total). We then conducted an A00 analysis to estimate τ and θ under the fixed topology, using the best tree from the A01 analysis and the same priors and sampling scheme, yielding a species tree with branch lengths in substitutions per site. Convergence and mixing were assessed in Tracer v1.7.2 (Rambaut et al. 2018), confirming that all effective sample sizes (ESS) exceeded 200.

Morphology

Thirty-one traits were recorded: 16 linear measures, 14 scale characters, and one colour-pattern trait (Table 1). These largely follow Mecke et al. (2013) but with three exceptions: i) we measured only the lower limb rather than the full length (insertion to base of claw), because straightening the limbs of well-fixed specimens introduced substantial measurement error; ii) we omitted their HeadL2 (tip of rostrum to posterior margin of parietals); and iii) we did not count dark tail bands, as all specimens of the new taxon had partially regenerated tails. We also assessed two characters not listed in Table 1: the typical width (in scales) of the dark bands on the body and original tail, and the presence of longitudinal ridges on the dorsum of the hindbody and tail. Linear traits were measured with Mitutoyo digital callipers (±0.01 mm). Owing to our small sample size (n = 3), bilateral traits were recorded on both sides of the body to better assess variation.

Results

Phylogenomics

We used BPP both to infer the species tree (A01) and, on that fixed topology, to estimate divergence parame-

Table 1. Definitions for morphological traits assessed herein.

Trait	Definition
Snout–vent length	Tip of snout to posterior margin of cloaca, measured ventrally
Axilla–groin length	Posterior insertion of forelimb to anterior insertion of hindlimb
Original tail length	Length of original portion of tail
Regenerated tail length	Length of regenerated portion of tail
Lower arm length	Elbow to wrist, joint bent at 90° (radio-ulnar length)
Lower leg length	Knee to heel, joint bent at 90° (tibio-tarsal length)
Head length	Tip of snout to anterior margin of ear opening
Head width	Greatest width of head, measured dorsally posterior to eyes
Head depth	Greatest dorsoventral depth of head, just posterior to eyes
Snout length	Tip of snout to anterior margin of orbit
Ear length	Horizontal length of ear opening at its centre
Ear height	Vertical height of ear opening at its centre
Axilla–ear length	Posterior margin of ear to anterior margin of forelimb
Foot length	Medial base of heel to tip of 4th toe, excluding claw
3rd toe length	Length of 3rd toe, excluding claw
4th toe length	Length of 4th toe, excluding claw
Midbody scale rows	Number of scale rows around body at midpoint between limbs
Paravertebral scale rows	Scales in one paravertebral row, counted from posterior margin of parietals to level of hindlimb insertion
Supralabials	Number of supralabial scales, from posterior to rostral to corner of mouth
Divided supralabials	Scale position of divided supralabials
Infralabials	Number of enlarged scales in a row from mental to where they grade into gular scales
Subinfralabials	Presence of a row of scales between infralabials and enlarged chin shields
Infralabials contacting postmental	Number of infralabials in contact with postmental
Supraoculars	Number of supraocular scales
Supraciliaries	Number of supraciliary scales, beginning with scale adjoining prefrontal and loreal, ending with scale still contacting ciliaries and last supraocular
Enlarged chin shields	Number of enlarged chin shields posterior to postmental and contacting infralabials
Medial chin shields	Number of single scales contacted on both lateral margins by enlarged chin shields
Supradigital scale rows	Number of scale rows on dorsal surface of 4th toe, excluding claw sheath
Divided/single supradigital scales	Number of supradigital scale rows that are divided (with oblique sutures) and number that are single
Subdigital lamellae	Number of enlarged subdigital lamellae under 4th toe, counted from toe junction to base of claw
Dorsal band number	Number of dark transverse bands on dorsum, counted to level of posterior margin of hindlimbs

ters (A00). The A01 analysis recovered *E. erebos* sp. nov. as a deeply divergent lineage sister to *E. fasciolatus* with strong support (pp = 0.97; Fig. 1D), with these taxa together forming the sister lineage to eastern *E. richard-*

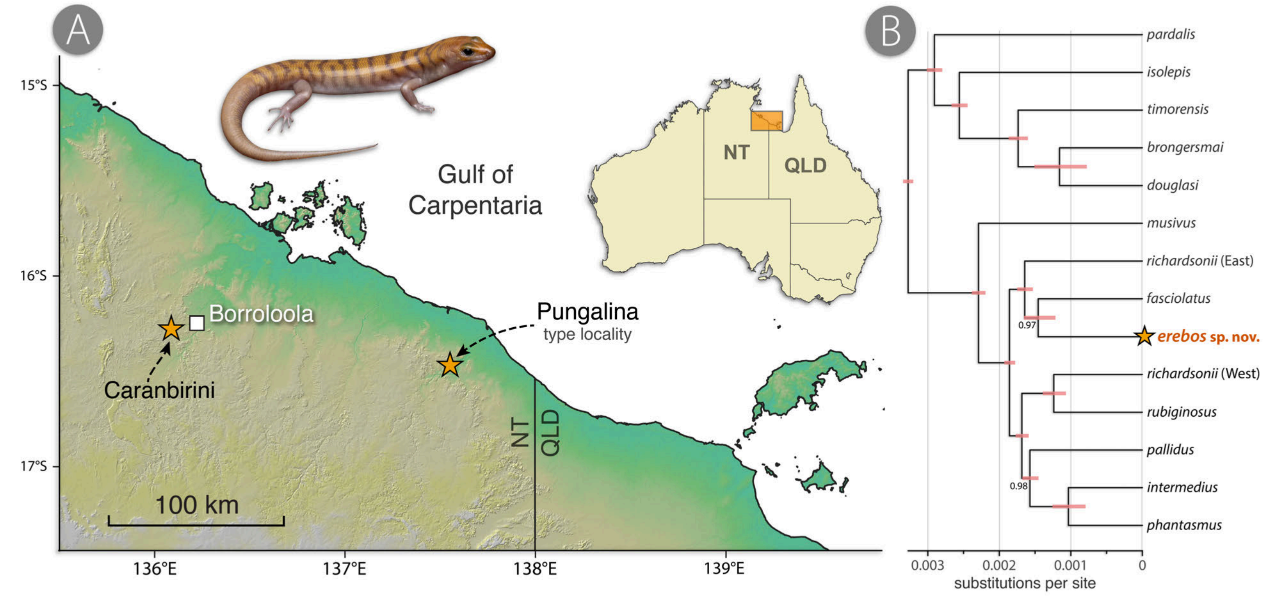

Figure 1. (A) Occurrence records of *Eremiascincus erebos* sp. nov. (orange stars) in the north-eastern Northern Territory. Insets show the location of the mapped area within Australia and a representative individual of *E. erebos* sp. nov. (photo: E. Budd). (B) Nuclear (nuDNA) relationships inferred under a multispecies coalescent model in BPP using 344 anchored hybrid enrichment loci. Node labels indicate posterior probability (pp) support values where pp < 1.0; node bars indicate 95% highest posterior density (HPD) intervals for node height. Branch lengths are in expected substitutions per site. *Hemiergis decresiensis* was used as the outgroup (not shown).

sonii (pp = 1). This topology differs from that recovered by Torkkola et al. (2026), in which *E. erebos* sp. nov. (as '*Eremiascincus* spp Pungalina') was instead sister to eastern *E. richardsonii*, with *E. fasciolatus* placed as the outgroup to that pair; relationships are otherwise broadly congruent between the two studies with respect to *Eremiascincus*. For the purposes of this study, the key result comes from the A00 analysis: estimated divergences (τ) between *E. erebos* sp. nov. and both *E. fasciolatus* and eastern *E. richardsonii* exceed those between other recognised species pairs, including *E. rubiginosus* and western *E. richardsonii*, which co-occur in the Pilbara region.

Morphology

Table 2 presents morphological data for *E. erebos* sp. nov. Further details of colouration, scalation, and other morphological features are given in the species description below, which also sets out the diagnostic characters separating the new species from its congeners (see 'Diagnosis' and 'Comparison').

Taxonomic decision

Although our sample of three specimens, only one with genomic data, restricts the strength of inferences we can draw, several lines of evidence support the recognition of *E. erebos* sp. nov. as a species distinct from all other recognised *Eremiascincus*. In our MSC phylogeny, the divergence between *E. erebos* sp. nov. and its closest relatives—its sister *E. fasciolatus* and eastern *E. richardsonii*—exceeds that between the three other youngest sister pairs in the genus (Fig. 1B), including the sympatric *E. rubiginosus* and western *E. richardsonii* of the Pilbara. We treat this latter pair as a useful heuristic benchmark, given that their coexistence, in combination with their distinct ecologies and morphologies, implies strong reproductive isolation. This conclusion is reinforced by a suite of diagnostic morphological characters—including a very large ear opening, divided posterior supralabials, absence of longitudinal ridges on the hindbody and tail, and the arrangement of supradigital scales on the fourth toe—that distinguish *E. erebos* sp. nov. from all congeners, and that are consistent across the three known specimens and additional photographic observations. Although it would also satisfy most operational criteria for delimiting species (de Queiroz 2007), we recognise *E. erebos* sp. nov. in the spirit of the Biological Species Concept (BSC; Mayr 1963, 1996). We would consider this decision unwarranted should future work reveal recent or ongoing gene flow with *E. fasciolatus* or *E. richardsonii*, demonstrate that late-generation hybrids with either of these species are fit and viable, or show our estimates of phylogenomic divergence to be inflated.

Discussion

Eremiascincus erebos sp. nov. is the 16th recognised species of *Eremiascincus*, and the 12th known from Australia. It joins a growing list of reptiles endemic to the south-western Gulf of Carpentaria region, which includes *Lerista munuwajarlu* Zimny, Vanderduys, Kemp & Zozaya, 2025, *L. carpentariae* Greer, 1983, *Gehyra borroloola* King, 1983, and *Varanus citrinus* Pavón-Vázquez, Esquerré, Fitch, Maryan, Doughty, Donnellan & Keogh,

Table 2. Morphological data for the type series of *Eremiascincus erebos* sp. nov. Bilateral traits are given as left | right.

Trait	MAGNT R36326	MAGNT R36327	AMS R.54808
Snout–vent length	88.36	66.85	98.2
Axilla–groin length	43.4	29.9	48.9
Original tail length	48.4	21.42	broken
Regenerated tail length	70.7	60.87	22.05
Head length	19.1 | 19.4	15.6 | 15.4	21.15 | 21.00
Head width	14.44	10.88	16.35
Head depth	9.66	7.6	10.3
Snout length	7.23 | 7.22	6.02 | 6.06	8.42 | 8.36
Ear length	2.08 | 2.14	1.79 | 1.64	2.78 | 2.67
Ear height	3.18 | 3.2	2.6 | 2.7	3.46 | 3.39
Axilla–ear length	15.65 | 15.5	11.9 | 12.85	16.1 | 16.42
Lower arm length	9.5 | 9.68	6.53 | 6.65	10.36 | 10.07
Lower leg length	11.7 | 11.77	8.78 | 9.84	12.2 | 12.6
Foot length	14.1 | 14.34	12.00 | 12.25	13.8 | 13.11
3rd toe length	7.23 | 7.04	5.5 | 5.6	6.19 | 6.16
4th toe length	9.74 | 9.5	7.64 | 7.9	8.41 | 8.71
Midbody scale rows	37	39	37
Paravertebral scale rows	67	60	63
Supralabials	8 | 8	8 | 8	9 | 8
Divided supralabials	8 | 8	8 | 8	8–9 | 7–8
Infralabials	7 | 7	7 | 6	6 | 6
Subinfralabials	+ | +	- | -	- | -
Infralabials contacting postmental	1 | 2	2 | 1	2 | 2
Supraoculars	4 | 4	4 | 4	4 | 5
Supraciliaries	9 | 9	9 | 10	11 | 11
Enlarged chin shields	4 | 3	3 | 4	3 | 3
Medial chin shields	2	2	2
Supradigital scale rows	20 | 20	19 | 19	16 | 16
Divided/single supradigital scales	18 + 2	17 + 2	14 + 2
Subdigital lamellae	25 | 25	22 | 23	25 | 24
Dorsal band number	11	8	11

2022, with further new species of *Heteronotia* (Zozaya et al. in prep.) and *Gehyra* (Macor et al. in prep.) geckos awaiting formal description.

Eremiascincus erebos sp. nov. is currently known from only two localities, and its true distribution is almost certainly broader. The sandstone escarpments of Limmen National Park to the west, and those near Hells Gate and adjacent areas near the NT–QLD border, are the obvious candidates for additional populations and should be priorities for future surveys. That the species went unrecognised for so long is perhaps unsurprising given its apparent preference for deep, cave-like crevices that are neither easy to survey nor easy to access. We tentatively regard its conservation status as *Data Deficient* pending further survey work, but, considering its apparent affinities to rugged sandstone environments, the species is likely secure in the rocky plateaux and gorges it inhabits.

Taxonomy

Eremiascincus erebos sp. nov.

https://zoobank.org/NomenclaturalActs/6CDFC9AB-D20B-4D0D-83E1-71AFBBA7D9E0

Holotype. MAGNT R36326, Pungalina–Seven Emu Wildlife Sanctuary (16.465°S, 137.553°E), Northern Territory, collect-

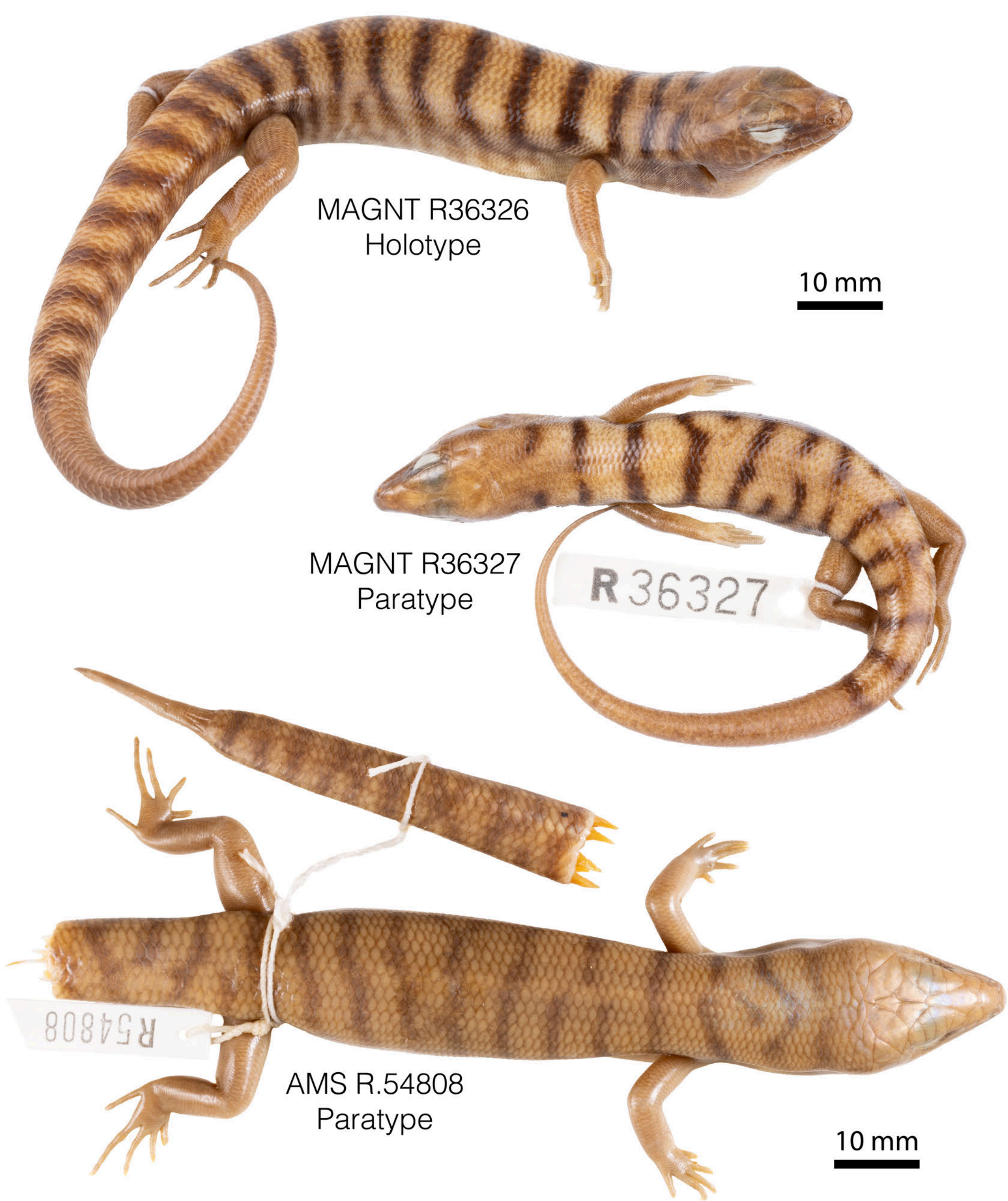

Figure 2. *Eremiascincus erebos* sp. nov. type series in preservative. The holotype (top) is shown in dorsolateral view while the rest are shown in dorsal view. Photos: S. Zozaya.

ed during baseline fauna surveys by R. Lloyd, J. Kanowski, J. Middleton, E. Mulder & R. Jensen on 25 June 2010.

Paratypes. MAGNT R36327, collection details as for holotype; AMS R.54808, collected from "Caranbirini Waterhole, Bluff near Waterhole" (*ca.* 16.267°S, 136.081°E), Northern Territory, by J. Calaby on 8 February 1976.

Diagnosis. Can be differentiated from all other *Eremiascincus* by the following combination of characters: irregular, dark, transverse bands on dorsal surface of body and original tail; dark bands on torso 1–2.5 scales wide; 37–39 MBSR; 8–9 supralabials, the penultimate and/or posteriormost being divided horizontally; ear opening very large (ear height 33–34% head depth) and elliptical; scales on dorsal surface of fourth toe arranged in multiple rows with oblique sutures, with only the terminal and penultimate scale row single; dorsum and tail completely lacking longitudinal ridges; snout rounded in lateral view, not depressed.

Etymology. From the Greek ἔρεβος (*erebos*), used by Homer in the *Iliad* for the dark, gloomy passages between Earth and Hades, in reference to the dark sandstone crevices and caves in which this species is often found. The epithet was intentionally chosen for its phonetic resemblance to the generic name *Eremiascincus*, with both names beginning with *ere-* despite deriving from different Greek roots. The name is used as a noun in apposition. Coincidentally—and unknown to us until we compiled the reference list for this paper—the

Figure 3. *Eremiascincus erebos* sp. nov. in life and associated habitat: (A) MAGNT R36326 (holotype) and (B) MAGNT R36327 (paratype) from Pungalina–Seven Emu Sanctuary; (C) an unvouchered individual from Caranbirini; (D) typical habitat at Caranbirini; (E) an unsampled individual from Caranbirini observed inside a deep, horizontal rock crevice. Photos: R. Lloyd (A–B); E. Budd (C); S. Zozaya (D–E).

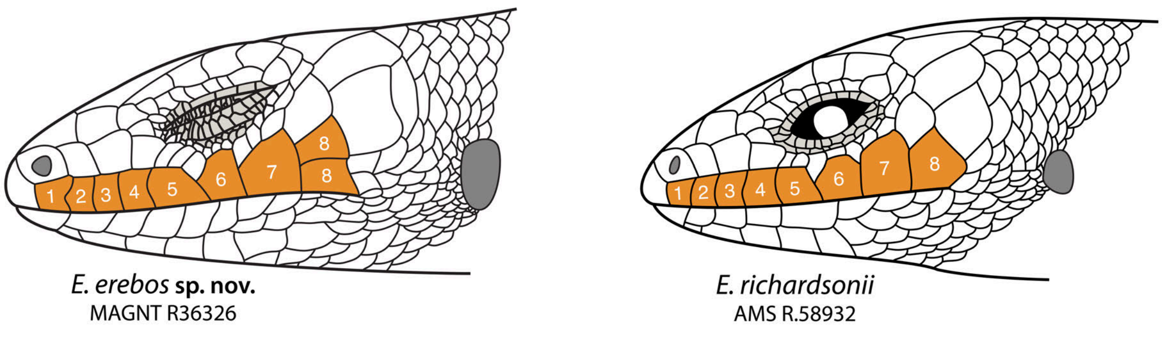

Figure 4. Lateral head scalation of *Eremiascincus erebos* sp. nov. (holotype; left) and *E. richardsonii* (right). Supralabial scales are highlighted in orange. In *E. erebos* sp. nov., the posteriormost supralabial (the 8th in this individual) is divided horizontally, a condition absent in *E. richardsonii* and otherwise known only from the closely related *E. fasciolatus*.

related species *E. pallidus* (Günther, 1875) was described in *The Zoology of the Voyage of HMS Erebus and Terror*, which refers to a ship bearing the same name in its Latinised form.

We recommend the common name 'Garrwa Banded Skink' given that the species' known extent of occurrence falls mostly within Garrwa country. We thank Daphne and Peggy Mawson, Garrwa Elders, for their ongoing support toward understanding the lizard diversity on their country.

Description of type series. All raw measurements and scale counts are presented in Table 2; traits not given therein are described below.

General dimensions and proportions. A large, robust *Eremiascincus*. Head relatively large (21–23% of snout–vent length), deep (depth 49–50% of head

Figure 5. *Eremiascincus erebos* sp. nov. (A) compared with the morphologically similar *E. fasciolatus* (B), geographically adjacent *E. intermedius* (C), and sympatric *E. isolepis* (D). Note that *E. erebos* sp. nov. lacks the longitudinal dorsal ridges on the posterior body and tail visible in B and C. Localities: (A, D) Caranbirini Conservation Reserve, NT; (B) Cecil Plains, Qld; (C) Barkly Homestead, NT. Photos: S. Mahony (A), W. Read (B), M. Clancy (C), S. Zozaya (D).

length), wide (width 70–78% of head length); snout relatively short (38–40% of head length), bluntly rounded; ventral edge of rostral forms obtuse point in lateral view; dorsal snout profile slightly convex, not depressed; canthus rostralis rounded; lower eyelid movable, scaly; ear opening very large (height 33–34% of head depth; length 11–12% of head length), vertically elliptic, somewhat rectangular, bordered by small granular scales; tympanum visible; neck thick, scarcely distinct from head. Limbs pentadactyl, overlapping when adpressed; digits rounded in cross-section; fourth toe longest. Tail thick, smooth, round in cross-section; no ridges or keels on dorsal surface of hindbody or tail; length of fully original tails unknown.

Scalation. Nasals widely separated; frontal elongate, arrowhead-shaped, much larger than prefrontals; prefrontals widely separated; frontal contacting frontonasal; frontoparietals paired; interparietal free, smaller than frontoparietals; parietals large, in contact posterior to interparietal, each bordered posteriorly by upper secondary temporal and enlarged nuchals, sometimes also by unenlarged paravertebral scales; 2nd and 3rd supraoculars usually widest (3rd and 4th widest on right side of AMS R.54808); 2–3 supraoculars contacting frontal; supraciliaries 9–11, 1st usually largest (2nd largest on left side of AMS R.54808; last largest on left side of holotype MAGNT R36326); 1st supraciliary on left side of AMS R.54808 divided horizontally, producing enlarged upper (2nd) supraciliary; loreals 2; in AMS R.54808 lower lateral portion of frontonasal or upper portion of 1st loreal divided horizontally, forming narrow intervening scale; supranasals absent; nasal groove posterior to naris present on right side of AMS R.54808 but otherwise absent; preoculars 2, lower larger than upper; presuboculars 2–3; posteriormost and sometimes penultimate supralabial divided horizontally; upper half of posteriormost supralabial overlapping lower secondary temporal; subinfralabial scales (between chin shields and infralabials) present in holotype MAGNT R36326 but absent in others; temporals one primary and two secondary (upper and lower); distal 4–7 subdigital lamellae on 4th toe single (7 in holotype MAGNT R36326), remainder divided medially; lamellae callose, each single lamella bearing one callus, calli strongest proximally, sometimes appearing keeled rather than callose distally; supradigital scales on 4th toe in multiple rows with oblique sutures, except distalmost (adjoining claw) and penultimate scale rows single; plantar scales rounded to weakly callose; median precloacal scales 2, distinctly enlarged.

Colour-pattern in preservative. Ground colour of dorsal and lateral surfaces pale yellow to yellow-brown, paling to cream on flanks; dorsal pattern of dark brown to blackish latitudinal crossbands, 1–2.5 scales wide, on neck, body, and original tail; anteriormost nuchal band broken medially; torso bands usually oblique and irregular rather than strictly transverse, descending anteriorly on lateral surfaces and often bifurcating toward flanks; bands on dorsum of holotype MAGNT R36326 most regular (Fig. 2), with all but anteriormost unbroken and of largely consistent width; other specimens characterised by more broken and irregular banding (Fig. 2); pale interspaces with diffuse stippling, most intense mid-dorsally, becoming more diffuse laterally; dorsal and lateral surfaces of head with extensive diffuse stippling and mottling, giving head an overall darker appearance than body ground colour; ventral surfaces cream, largely immaculate, with diffuse stippling and/or mottling near flank margins and on lower lateral surfaces of neck and head.

Colouration in life (Figs 3A–3C, 3E, 5A). Based on two type specimens and three unvouchered photographed individuals (n = 5; colour photographs of paratype AMS R.54808 were unavailable). Overall similar to colouration in preservative, but generally more vivid and variable; yellows more intense, pale ventral surfaces closer to ivory than cream. Ground colour of lower lateral surfaces and limbs often greyish in appearance, typically due to fine stippling. Ground colour darkest mid-dorsum, reflecting denser dark stippling, with colour becoming brighter on upper lateral surfaces where stippling is reduced, grading to grey on flanks and to ivory ventrally. One photographed individual (Fig. 5A) exhibited a browner ground colour rather than yellow, with dark bands of reduced contrast relative to other individuals.

Supplementary observations from unvouchered individuals. Photographs of two unvouchered individuals permit limited assessment of diagnostic characters—other than colouration in life, already given above—relative to the type series. One individual (SMZ371; Fig. 3C) bears eight supralabials on each side, with both the penultimate and posteriormost scales horizontally divided; the second individual (Fig. 5A) bears nine supralabials on each side, with the posteriormost divided on the left and both the penultimate and posteriormost divided on the right. Both individuals exhibit very large ear openings and entirely lack raised dorsal ridges on the posterior body and tail. In both individuals, the supradigital scales on the fourth toe are arranged in multiple rows with oblique sutures, with the distalmost (adjoining the claw) and penultimate rows single. These observations are consistent with the type series, thus corroborating several diagnostic traits given above. In contrast, SMZ371 possesses a single median chin scale, rather than the two median chin shields observed in the type series, indicating some intraspecific variation in this character.

Comparison. *Eremiascincus erebos* sp. nov. differs most obviously from *E. musivus*, *E. pardalis*, *E. isolepis*, *E. douglasi*, and *E. brongersmai* in its distinctive colour-pattern consisting of irregular, transverse dark bands. Its rounded snout, very large ear opening, and 8–9 supralabials further distinguish it from all congeners except *E. richardsonii* and *E. fasciolatus*. From *E. richardsonii*, it differs in having at least the posteriormost supralabial divided and multiple scale rows across the dorsal surface of the fourth toe. From *E. fasciolatus*, it differs in lacking longitudinal ridges along the dorsal surface of the hindbody and tail, and possessing a higher MBSR count (37–39 vs. 32–36 in *E. fasciolatus*). *Eremiascincus erebos* sp. nov. further differs from both *E. richardsonii* and *E. fasciolatus* in its relatively larger ear opening (ear height 33–34% of head depth vs. < 23% of head depth in *E. richardsonii* and *E. fasciolatus*). As in *E. richardsonii*, the tail bands may be slightly oblique rather than perfectly transverse—a feature contrasting with *E. pallidus*, *E. intermedius*, and *E. phantasmus*.

Distribution and habitat. This species is currently known from two localities in the north-eastern Northern Territory: Caranbirini Conservation Reserve and Pungalina–Seven Emu Sanctuary. These records span two adjacent IBRA bioregions (DCCEEW 2025), with Caranbirini Conservation Reserve occurring within the Gulf Fall and Uplands Bioregion, and Pungalina–Seven Emu Sanctuary within the Gulf Coastal Bioregion. Given the continuity of suitable sandstone habitats across the southern Gulf of Carpentaria region, the species is likely to be more widespread than currently documented.

Caranbirini Conservation Reserve lies within the Borroloola area, at the western edge of the Bukalara Range (McArthur River sandstone escarpment). At this locality, the species has been recorded from "ruiniform" sandstone rock towers and gorges, with most individuals observed in deep, narrow crevices and caves (SMZ & EB pers. obs.). One individual has been observed active in litter between boulders near the base of a rock tower (S. Mahony pers. comm.). Caranbirini, and the Bukalara Range more broadly, is characterised by Proterozoic sandstone-dominated geology of the McArthur Basin (Roper Group), forming rocky plateaux, dissected ridges, and steep escarpments with extensive skeletal substrates (Wilson et al. 1990; Parks and Wildlife Commission of the Northern Territory 2000; Harrison et al., 2009). Vegetation at Caranbirini comprises a mosaic of mapped units (VMU 10, 14, 15, & 24; Cuff et al. 2009), broadly consisting of mid- to tall open woodland dominated by *Eucalyptus leucophloia, E. tectifica, E. miniata* and *E. tetradonta*, often with *Corymbia dichromophloia* and a grassy or spinifex (*Triodia* spp.) understorey.

At Pungalina–Seven Emu Sanctuary, individuals were recorded from a sandstone scree slope on the edge of a deep rocky gorge within a sandstone escarpment west of the Calvert River. The gorge is set within a series of small, dry sandstone plateaux characterised by small cliffs at the crest, extending downward as large scree slopes and merging into a drainage line at the base. These habitats support comparable open woodland communities dominated by *Corymbia dichromophloia*, *Eucalyptus miniata*, and *E. tetradonta*, with a *Triodia pungens* understorey and more complex assemblages on escarpments and slopes.

While specimens and observations are few, the species appears restricted to complex rocky habitats and has not been recorded from adjacent woodland or riparian habitats. This strong microhabitat association may explain why so few animals have been recorded, and suggests that targeted searches of suitable rocky habitat might find the species in many more places.

Remarks. This species corresponds to "*Eremiascincus* spp Pungalina" from Torkkola et al. (2026). A black-and-white in-life photograph of paratype AMS R.54808 is shown in Fig. 1 of Greer (1979).

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