

Recommended Annual Husbandry Schedule

Liolaemus gununakuna - Green lizard

Identity and locality A valid species described in 2004. Type locality: 2 km SE La Amarga, Zapala Department, Neuquen, Argentina. It is a northern extra-Andean Patagonian rock lizard of the petrophilus group.	Habitat and natural history Strongly saxicolous: isolated rocky outcrops and boulder fields surrounded by sandy shrub-steppe. Lizards bask on horizontal rock and retreat into crevices or beneath flat stones; daily activity can be bimodal.	Reproduction - evidence hierarchy The original description could not directly confirm viviparity, but noted that close relatives share that mode. Later Argentine and reptile databases list the species as viviparous/ovoviviparous. Field observations place male territorial breeding behaviour in late Nov-early Dec and juveniles in late Mar-early May.
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Month	Day ambient	Night	Basking surface	UVI*	Photoperiod	Moisture	Adult food offers*	Seasonal management
Jan	8-11 C	6-8 C	Off	Off	8 h	Water check; light local moisture	None	Core cooling - winter rest
Feb	8-11 C	6-8 C	Off	Off	8 h	Water check; light local moisture	None	Core cooling - winter rest
Mar	11-15 C	7-9 C	30-33 C limited	1-2	9 h	Light local moisture	1 late	Staged warm-up
Apr	15-19 C	8-11 C	32-35 C	2-3	10.5 h	Mostly dry; water always	2-3	Emergence / reconditioning
May	18-22 C	10-13 C	34-36 C	3-4	12 h	Dry; strong ventilation	3-4	Territorial display / courtship
Jun	20-24 C	11-14 C	35-37 C	3-4	13.5 h	Dry; water always	4	Main mating window
Jul	21-25 C	12-15 C	35-38 C	3-4	14 h	Dry; water always	4	Early-mid gestation
Aug	20-24 C	11-14 C	34-37 C	3-4	13.5 h	Dry; water always	4	Gestation
Sep	18-22 C	10-13 C	33-36 C	2-3	12 h	Mostly dry	3-4	Births / juveniles may appear
Oct	15-19 C	8-11 C	31-34 C limited	2-3	10.5 h	Light local moisture	2-3	Juvenile period / recovery
Nov	11-15 C	7-9 C	30-32 C limited	1-2	9 h	Light local moisture	1 then stop	Late juveniles / cooling
Dec	8-11 C	6-8 C	Off	Off	8 h	Water check; light local moisture	None	Winter rest

Climate translation: nearby Zapala has cold arid-steppe conditions, with summer monthly means around 18-19 C and winter means around 4 C; average winter nights can fall below freezing. Captive winter values here are intentionally milder and the Southern Hemisphere season is shifted about six months for a Netherlands keeper calendar.

* No species-specific UV study was found. UVI values are conservative measured starting points. Food frequency assumes healthy adults; juveniles require smaller prey offered more often.

Reproductive timing is evidence-informed rather than experimentally established: field males were territorial in late November/early December and juveniles were seen from late March to early May in Argentina; the table shifts those observations by about six months.

Practical Husbandry and Daily Management

A territorial saxicolous Patagonian *Liolaemus*: cool air, hot local rock, secure crevices and a varied invertebrate diet are central to the working model.

Enclosure and refuge design

For a single adult, approximately 120 x 60 x 50 cm or larger is a practical starting point; 120 x 70 x 50 cm works well. Build stable rock shelves and tight crevices directly from the enclosure floor so digging cannot destabilise heavy stones. Provide multiple fully shaded retreats and a distinctly cooler end.

Heat, light and UVB

Warm the animal through an escapable rock-surface basking zone rather than high whole-enclosure air temperatures. Active-season basking around 34-38 C is a cautious target, with surrounding air mostly in the high teens to low 20s C and much cooler shaded refuges. Use measured UVB and preserve complete shade below UVI 1.

Humidity and water

The natural landscape is arid to semi-arid, windy and open, with relatively greater precipitation in winter. Keep the active-season enclosure dry and very well ventilated, with constant clean drinking water. During cooling, avoid cold saturated substrate; use only localised moisture and monitor hydration.

Rock-use behaviour

The type paper describes animals moving and basking on rock, then retreating rapidly into crevices or beneath flat stones when disturbed. Refuge architecture is therefore functional habitat, not decoration. Provide more secure crevices than animals.

Diet

Argentine references describe the species as insectivorous. Use a rotating base of appropriately sized gut-loaded crickets, roaches, locusts, flies, moth larvae and other lean invertebrates. Avoid relying on mealworms or other fatty larvae. Dust according to prey type, UVB exposure and reproductive status.

Feeding rhythm

Feed strongly through the active season while monitoring body condition. Reduce meal frequency during autumn taper and stop routine feeding before winter rest once digestion slows. Do not cool an animal with a recently full gastrointestinal tract.

Social management

Territorial behaviour is documented. Males were observed defending rocky areas, displaying and fighting. Individual housing is the safest default; breeding introductions should be deliberate, closely observed and supported by duplicate basking sites and refuges. Separate immediately for persistent pursuit, biting, refuge exclusion or suppressed basking.

Daily keeper checks

Record appetite, body-mass trend, stool output, basking use, retreat use, skin condition and locomotion. During breeding season, record male display, introductions and female body contour. During cooling, log body mass and hydration on a planned schedule rather than disturbing animals daily.

Breeding, Live Birth and Evidence Record

The published evidence supports a live-bearing working model, but the original description itself did not directly demonstrate viviparity.

Reproductive status

The 2004 species description stated that no conclusive evidence of viviparity could be offered, while noting that all related species in the *elongatus-kriegi* complex shared that reproductive mode. Subsequent Argentine and reptile-reference databases list *L. gununakuna* as viviparous or ovoviviparous. Manage current stock as live-bearing unless direct observations demonstrate otherwise.

Field timing

At least in late November and early December in Argentina, males were observed defending rocky territories, displaying and fighting. Juveniles were observed from late March to early May. On this six-month-shifted keeper calendar, that becomes a principal courtship/mating window around May-June and a juvenile/birth window around September-November.

Gestating females

Avoid excessive whole-enclosure heat. Give a gestating female multiple thermal choices, including an easily accessed basking rock and deep cool crevices. Minimise unnecessary handling, record body mass and contour, and provide adequate calcium/mineral nutrition through well-fed prey rather than aggressive supplementation.

Neonates

Prepare neonatal-width rock crevices before expected births. House neonates separately if there is any aggression or feeding competition. Offer very small, well-fed invertebrates, measured low-moderate UVB, constant water and a modest local basking surface with immediate cool shade.

Evidence confidence

Topic	Confidence and application
Identity / locality	High: formal 2004 species description
Rock habitat / behaviour	High: directly described in type paper
Climate translation	Moderate-high: nearby Zapala climate normals; microhabitat differs locally
UV requirement	Low-moderate: no species-specific UV study; use measured conservative UVI
Reproductive mode	Moderate-high: original paper inferred; later reference databases list viviparity
Breeding timing	Moderate: territorial males and juvenile timing observed in the field

Wild climate context

Zapala climate normals show a cold arid-steppe regime: January monthly mean about 18.6 C, July about 3.7 C, annual precipitation around 185 mm, with winter wetter than summer. Native winter nights average below 0 C. This sheet deliberately avoids freezing captive animals and uses controlled cooling instead.

Record set for every reproductive cycle

Record adult IDs and provenance; introduction dates; male display and aggression; mating observations; female mass and body contour; estimated birth date; litter size; neonatal mass and total length; first shed; first voluntary feed; and any evidence that confirms or contradicts the currently accepted live-bearing model.

Key references

1. Avila, Morando, Perez & Sites (2004), *Herpetologica* 60: formal species description, type locality and natural-history observations.
2. SIB, Administracion de Parques Nacionales Argentina: habitat, territoriality, insectivory and current viviparous treatment.
3. The Reptile Database: current taxonomy and ovoviviparous listing.
4. Zapala 1991-2020 climate normals used only to translate broad seasonal thermal context.

UVI beneath the optional T5 tube

Liolaemus gununakuna

Your measuring point

Measure UVI at normal back height directly beneath the brightest accessible part of the optional T5 strip. Place the strip toward the middle/back with free access to and away from it; preserve a gradient into fully covered refuges near UVI 0. These numbers describe the exposure area, not the whole enclosure or a daily average.

Measure and adjust

- 1. Use a UV Index meter.** A Solarmeter 6.5/6.5R or equivalent UVI meter is suitable. Broadband UVB readings in microwatts/cm2 cannot be substituted for UVI.
- 2. Measure the installed arrangement.** Warm the tube for about 30 minutes. Keep the reflector, guards and mesh in their normal positions. With the animal elsewhere, hold the sensor at its normal back height, aimed toward the tube.
- 3. Adjust the fixture.** Begin near the lower part of a newly selected working range and adjust gradually. Respect the lamp manufacturer's minimum distance. Recheck after each change and check every higher accessible branch, rock or platform.
- 4. Keep a full gradient.** Provide usable exposure across the animal's body, lower-UVI areas and fully covered refuges near UVI 0. For daytime baskers, overlap the UV area with visible light and appropriate basking warmth while retaining cooler shade.
- 5. Record and recheck.** Log UVI, measuring point, tube-to-back distance, tube age and lamp-on time. Recheck through the year and after changes to the tube, reflector, mesh or furnishings. Exposure duration and behaviour also determine dose.

A T5 range is a working exposure target, not a whole-cage setting, measured wild monthly average, guaranteed optimum or proven safety ceiling. The animal must be able to enter and leave freely.

Monthly target at normal back height

Month	UVI under T5 when on
January	Off
February	Off
March	1-2
April	2-3
May	3-4
June	3-4
July	3-4
August	3-4
September	2-3
October	2-3
November	1-2
December	Off

Refine numerical target

Offer UVI 3-4 in the optional T5 area during May-August, starting near 3, with lower spring/autumn targets. Rock/sun-basking ecology and general sunbeam guidance support this cautious working patch. It is not a measured species-specific optimum, and the recommendation is based on microhabitat and activity, not altitude alone. Keep immediate full shade and crevice retreats.

Evidence level: Inferred from sun-basking ecology. The seasonal schedule is a captive operating plan; it is not measured wild monthly UV. Off means the existing planned UVB-off/rest phase is preserved. Any staged Off/1 entry still means gradual reintroduction.

UV references: Baines et al. (2016), UV-Tool; Muryn, Baines and Dishman (2026), Reptile Lighting Guide V10; Argentine Herpetological Association, Liolaemus gununakuna. Full rationale and monthly comparison: [UVI_Audit_Report.html](#).