Recommended Annual Breeding Schedule

Egernia stokesii badia - Western gidgee skink

Habitat basis
A geographically isolated western subspecies from the Geraldton Sandplains, northern wheatbelt, Murchison region and Houtman Abrolhos islands, using open eucalypt woodland, Acacia shrubland, hollow timber and limestone cracks.

Social principle
This is a strongly social gidgee skink. Stable family groups centre on a permanent hollow-log and fallen-branch residence often described as a log castle. Captive compatibility still requires individual monitoring.

Seasonal principle
The Southern Hemisphere cycle below is shifted six months for a Netherlands facility. Use a milder winter reduction than for inland or eastern gidgee skink populations; avoid abrupt lamp-off cooling.

Month	Day ambient	Night	Basking surface	UVI at bask	Photoperiod	Lamp hours	Feeding	Seasonal management
Jan	19 C	11 C	30 C	2	10 h	5 h	Low	Winter maintenance
Feb	20 C	11 C	32 C	2	10 h	5 h	Low	Winter maintenance
Mar	21 C	12 C	35 C	2	11 h	6 h	Moderate	Courtship begins
Apr	24 C	14 C	39 C	3	12 h	7 h	Moderate	Courtship
May	26 C	16 C	43 C	3	12 h	8 h	High	Mating
Jun	28 C	18 C	46 C	3	13 h	9 h	High	Gestation
Jul	29 C	19 C	48 C	4	14 h	10 h	High	Births
Aug	31 C	22 C	49 C	4	14 h	10 h	High	Births
Sep	29 C	19 C	47 C	3-4	13 h	9 h	High	Late summer
Oct	26 C	16 C	43 C	3	12 h	8 h	Moderate	Autumn transition
Nov	22 C	13 C	37 C	2	11 h	6 h	Low	Pre-winter
Dec	20 C	12 C	32 C	2	10 h	5 h	Low	Winter maintenance

Humidity: follow the seasonal daytime progression of roughly 60% in winter, 35-40% during peak activity and 45-55% through autumn, with night humidity usually about five percentage points higher. Maintain good ventilation and dry resting surfaces.

Gradient caution: the day figures are warm-side air targets, not enclosure-wide temperatures. Provide cooler hollow logs and limestone-style cracks at all times. Change heat and photoperiod gradually and cool only healthy, well-conditioned adults.

Practical Husbandry and Group Management

Translate the subspecies' social hollow-timber ecology into a secure, measurable captive environment with several equivalent thermal and refuge choices.

Enclosure and stable groups

For two animals, use floor dimensions of at least **2.5 times the longest resident's total length per side**, with the enclosure height no less than twice body length or 40 cm. Add about 20% floor area for every additional resident and increase space further whenever refuge or basking access is uneven.

Maintain established compatible pairs or family groups. Provide several equivalent basking, feeding and retreat positions and record the condition of each individual. Separate for persistent chasing, refuge exclusion, bite wounds, suppressed feeding, failure to bask or declining body mass.

Log castle and substrate

Build the enclosure around a substantial, securely fixed pile of hollow logs and fallen branches. Include multiple entrances, internal routes and cavities across warm, intermediate and cool zones. Add anchored limestone-style slabs and cracks as secondary cover, but preserve the hollow-timber structure as the defining residence.

Use approximately **5 cm of red sand or well-drained sandy loam**. Keep exposed surfaces dry, remove waste promptly from communal latrine areas and prevent damp pockets inside hollow timber during cooler months.

Basking, light and UVB

During peak activity provide a broad measured surface around **43-49 C**, with immediate access to cooler hollow logs and cracks. Reduce the surface gradually to about **30-32 C** in December-February. The hotspot is not an enclosure-wide air target.

Target a measured **UVI 3-4** at the seasonal basking position and around UVI 2 during winter maintenance. Provide complete shade within hollow logs and crevices. Measure exposure with a UV meter; lamp percentage alone does not establish UVI.

Diet and supplementation

Juveniles feed more frequently and take a larger proportion of insects. Adults become predominantly herbivorous and normally feed every two to three days. Base adult meals on collard, mustard and turnip greens, dandelion, parsley and snow peas, with fig, grape, pear, raspberry or blackberry only as occasional treats.

Offer gut-loaded crickets, roaches, beetles or mealworms as a smaller protein component, especially to juveniles and reproductive females. Do not feed at temperatures that prevent normal basking and digestion. Adjust portions to activity and body condition.

Dust growing juveniles and reproductive females appropriately with plain calcium and use a low-frequency multivitamin according to product strength. Avoid routine high-dose vitamin D3 when effective measured UVB is available.

Period	Feeding management
Dec-Feb	Low intake; feed only while regular basking and digestion continue
Mar-Apr	Increase gradually as heat, light and courtship rise
May-Sep	High seasonal intake; support reproductive females and growing young
October	Moderate feeding as heat hours shorten
November	Reduce to the winter-maintenance level; monitor body mass

Winter management

Use a gradual autumn reduction rather than an abrupt shutdown. This coastally moderated western population receives a milder winter cycle than inland or eastern E. stokesii. Maintain a daily basking opportunity near 30-32 C and nights around 11-12 C rather than imposing hard lamp-off brumation.

Continue only small meals while animals bask and digest normally. Weigh adults weekly or fortnightly under consistent conditions. Review the cycle for sustained inactivity, dehydration, respiratory noise, abnormal faeces or material weight loss.

Water and routine records

Keep a shallow stable bowl of fresh water available, replace it daily and disinfect it weekly. Record basking use, refuge choice, food intake, faeces, body mass and group interactions separately for every animal. Check thermostats and UV operation every day.

Breeding, Neonates and Accuracy Review

Use the schedule as a controlled starting point and let recorded activity, courtship, gestation and birth dates establish the facility-specific cycle.

Reproductive management

Egernia stokesii badia is viviparous. Under this Netherlands schedule, monitor courtship most closely from March through May, mating through June and females for late gestation or birth from June through September. Treat those months as a facility starting point and revise them from recorded events.

Typical litters are small, often one to three young, although larger litters may occur. Breed only full-sized, well-conditioned adults from stable groups. Females may mature from roughly 18 months to two years, while males may mature later, around three years; use size, condition and behaviour rather than age alone.

Females and neonates

Provide several quiet warm crevices and minimize handling if a female becomes visibly distended or changes retreat use. After birth, add narrow neonatal refuges and low, safely accessible basking ledges. Confirm that every youngster feeds and gains weight; separate any neonate that is bitten, excluded or unable to thermoregulate.

Juveniles may remain within a stable natal group for an extended period, but group living is not a reason to ignore individual welfare. Document pairing history, maternal mass, observed courtship, birth date, litter size, neonatal mass and SVL. Track each youngster separately and intervene if access to heat, food or shelter is unequal.

Keeper priorities

Area	Operational check
Seasonal change	Alter heat, lamp hours, UVI and feeding gradually. Use the annual table as a starting schedule, then calibrate it from behaviour, mass and breeding records.
Thermal access	Measure the basking surface and warm-side air separately. Every animal must be able to reach heat and retreat immediately to a cooler hollow or crack.
Social group	Preserve compatible long-term groups, but record every animal individually. Act on refuge exclusion, bite wounds, suppressed basking or falling body mass.
Structural habitat	Use securely fixed hollow timber as the main residence, with multiple entrances and internal routes. Add anchored limestone-style cracks as secondary retreats.
Breeding	Treat March-September as a working courtship-to-birth window for this shifted cycle. Record actual courtship, mating, gestation and birth dates.
Young	Offer narrow refuges, low basking access and frequent small feeds. Confirm feeding and growth for every neonate rather than assessing the litter as a group.

Key references

1. Duffield, G.A. & Bull, C.M. (1998). Seasonal and ontogenetic changes in the diet of the Australian skink Egernia stokesii. Herpetologica.

2. Pearson, S.K. et al. (2020). Fine-scale genetic structuring in a group-living lizard, the gidgee skink (Egernia stokesii). Austral Ecology.

3. Johnston, G.R., Lanham, E.J. & Bull, C.M. (2020). United in adversity: aridity and cold influence aggregation behaviour in the gidgee skink, Egernia stokesii. Austral Ecology.

4. Chapple, D.G. (2003). Ecology, life-history, and behavior in the Australian scincid genus Egernia. Herpetological Monographs 17:145-180.

5. User-supplied Egernia stokesii badia keeper protocol, used as the facility schedule basis for the annual environmental table and practical husbandry targets.

Important: This is a practical evidence-informed protocol, not a controlled experimental standard. Use thermostatic control, independent thermometers, an infrared surface thermometer and a UV meter. Change seasonal parameters gradually and revise the schedule from your own breeding and health records.

UVI beneath the optional T5 tube

Egernia stokesii badia

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	2
February	2
March	2
April	3
May	3
June	3
July	4
August	4
September	3-4
October	3
November	2
December	2

Retain numbers; clarify measurement
The retained range remains a provisional captive working target. No new species-specific result was found that clearly requires a numerical change. Retaining it is not certification of an experimentally established optimum.

Evidence level: Provisional retention. 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. Full rationale and monthly comparison: UVI_Audit_Report.html.