

Recommended Annual Breeding Schedule

Sauromalus ater - common chuckwalla

Habitat basis Rocky slopes, boulder fields and lava flows of the Mojave and Sonoran deserts in the southwestern USA and northwestern Mexico.	Thermal principle A broad radiant basking area over 43-50 C, paired with a true cool retreat. Preferred active body temperatures are much lower, generally around 37-39 C.	Breeding anchor Courtship and mating mainly March-June; captive laying commonly late April-June, with wild laying extending through July-August depending on locality.
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Month	Day ambient	Night	Basking surface	UVI at bask	Photoperiod	Heat / UV hours	Feeding	Seasonal management
Jan	18-20 C	14-16 C	Off	Off	10 h	0 h	None	Dormancy - healthy adults only
Feb	19-22 C	15-17 C	Off, then 38-42 C	Off, then 2-3	10 h 30 m	0 to 4 h	None; restart late	Staged emergence late month
Mar	24-27 C	18-20 C	43-46 C	3-4	11 h 30 m	7 h	Greens 5-6 days	Emergence / conditioning
Apr	26-29 C	19-21 C	45-48 C	4-5	12 h 30 m	9 h	Fresh greens daily	Courtship / mating
May	27-31 C	20-22 C	46-50 C	4-6	13 h 30 m	10-11 h	Daily; calcium focus	Peak mating / follicles
Jun	28-32 C	21-23 C	47-50 C	4-6	14 h 15 m	11 h	Daily	Gravid females / early laying
Jul	29-33 C	22-24 C	47-50 C	4-6	14 h	11 h	Daily; adjust to condition	Laying / post-lay recovery
Aug	29-33 C	22-24 C	46-49 C	4-5	13 h 15 m	10 h	Daily; avoid obesity	Peak heat / reduced activity possible
Sep	27-31 C	20-22 C	44-47 C	4-5	12 h 15 m	9 h	5-6 days	Recovery / seasonal slowdown
Oct	24-28 C	18-20 C	42-45 C	3-4	11 h 15 m	7 h	4-5 days, then taper	Autumn transition
Nov	20-24 C	16-18 C	38-42 C, then off	2-3, then off	10 h 30 m	4 h to 0	Stop after gut clears	Pre-dormancy
Dec	18-20 C	14-16 C	Off	Off	10 h	0 h	None	Dormancy - monitor weekly

Humidity: use a dry, strongly ventilated enclosure rather than fixed ultra-low numbers. A practical baseline is about 20-40% RH by day and 30-50% overnight, with clean dry basking surfaces and a slightly more humid crevice available. Short summer rises are natural.

Cooling caution: do not cool thin, ill, newly acquired or juvenile animals. For animals of Sonoran or Baja origin, avoid prolonged exposure below about 12-13 C. Resume feeding only after normal basking heat has been restored for 5-7 days.

Practical Husbandry and Breeding Notes

This revision retains the useful parts of the original protocol while replacing outdated space guidance and rigid humidity targets.

Enclosure and social management

The original 40-gallon recommendation came from a 2004 husbandry article and is not retained as a permanent adult-pair standard. A welfare-forward working minimum is approximately **180 x 90 x 90 cm for one adult** and around **240 x 120 x 100 cm for a pair**, with more space for 1.2 or larger groups.

House only **one adult male per enclosure**. Pairs and female groups require multiple independent basking sites, feeding stations and tight retreats. Separate immediately for persistent chasing, exclusion, weight loss, bite injuries or failure to bask.

Build rocks from the enclosure floor upward so nothing can collapse during digging. Provide several horizontal crevices of different widths; each animal must be able to wedge itself fully out of sight. Height is less important than floor area, but low rocky tiers add usable surface.

Basking, light and UVB

Use a broad flood or bank of lamps to heat the whole body, not a narrow intense spot. Target a **43-50 C basking surface** during the active season, a warm ambient zone around 28-33 C and a cooler retreat in the mid-20s. Measure both surface and air temperatures.

A measured **UVI 4-6** at the main basking position is a practical high-light target for this heliophilic desert iguana, with a gradient to UVI below 1 in retreats. This UVI range is a husbandry inference, not a published species-specific Ferguson-zone measurement.

Published field work found selected active body temperatures averaging about 37-39 C. The hotter rock surface is therefore a heat source, not a target body temperature; animals must be able to leave it immediately.

Humidity, water and substrate

Do not force the cage to 15% RH. Prioritize ventilation, dry surfaces and hygiene, but provide a modest humidity gradient within crevices. A stable shallow water bowl should remain available and be changed daily, especially for females after laying.

Use a firm soil-and-sand mix rather than loose fine sand alone. Five to ten centimetres is adequate in general areas, while females require a much deeper dedicated nesting zone.

Diet and supplementation

Chuckwallas are ecological herbivores and hind-gut fermenters. Base the diet on high-fibre leafy material: dandelion, endive, escarole, chicory, collard, mustard and turnip greens, plus safe flowers and smaller amounts of grasses, herb leaves and other fibrous plants.

Romaine is supplementary rather than a staple. Fruit should be a rare treat, not a routine component. Insects and vertebrate prey are not required and should not form part of normal maintenance feeding.

Offer adults fresh food daily or at least five days weekly during full activity. Dust lightly with plain calcium on approximately **3-5 feed days weekly**, increasing support for gravid females; use a low-frequency multivitamin according to product strength. With strong UVB, avoid indiscriminate high-dose vitamin D3.

Period	Feeding management
Dec-Jan	No food during established dormancy
Late Feb-Mar	Restart 5-7 days after full heat; small portions first
Apr-Jul	Daily varied greens; strong calcium support for females
Aug-Sep	Daily or 5-6 days weekly; manage body condition
Oct-Nov	Reduce gradually; stop before cooling and allow gut clearance

Winter cooling

Cooling is useful for synchronising the cycle but is **not proven essential**: zoo chuckwallas have bred while remaining active through winter under natural seasonal daylight. If cooling is used, restrict it to healthy adults with good body reserves and reduce heat, food and day length gradually.

Check animals weekly without repeatedly disturbing them. Record body mass before, during and after cooling. If an animal remains active, loses excessive mass or appears dehydrated, restore appropriate heat and assess it rather than rigidly maintaining the calendar.

Nest site

Install the nest area before the female begins persistent digging. Provide approximately **50-60 x 40 x 20 cm** or larger, filled with packed, slightly damp soil-sand that holds a tunnel when pinched. Keep it dark and secluded, with safe entry and exit routes.

Gravid females often reduce or stop feeding and dig persistently. Do not move or rearrange the female unnecessarily; disruption can stop nesting and increase dystocia risk. Remove or separate companions if they interfere with her nest site.

Breeding, Incubation and Accuracy Review

The revised protocol distinguishes published observations from practical captive recommendations.

Reproductive timing

Courtship may begin 7-10 days after emergence and intensifies in April-May. Published field and captive matings span late March through June. Males may reduce or stop feeding during intense courtship.

The documented interval from mating to laying was **33-34 days** in one captive series, while another report recorded about **50 days**. Captive laying has occurred from late April through June; wild laying can extend from June through August. Clutches of **5-16 eggs** are well supported, but not every wild female breeds annually.

Incubation

A conservative starting range is **28-30 C** in coarse vermiculite or perlite with stable moisture and air space. At 28-30 C, published captive hatching has ranged roughly **82-112 days**, with many clutches near 89-100 days. At 32 C, reports range roughly 74-93 days but the margin for error is smaller.

Keep eggs in their original orientation. Avoid compact fine sand or fine vermiculite around the eggs because poor gas exchange has been associated with losses. Use a ventilated container and monitor both moisture and egg condition rather than relying only on visible condensation.

Key references

1. Montanucci, R.R. (1997). Captive Management, Behavior and Conservation of Chuckwallas, *Sauromalus obesus* [now *S. ater*]. Bulletin of the Chicago Herpetological Society 32(6):121-137. library.iucn-isg.org/documents/1997/Montanucci_1997
2. Aucone, B. (2004). Captive Husbandry of the Chuckwalla (*Sauromalus ater*). Iguana 11(2):114-119. journals.ku.edu/iguana/article/download/17100/15384
3. The Reptile Database. *Sauromalus ater* - current name, distribution and taxonomic references. reptile-database.reptarium.cz/Sauromalus/ater

Important: This is a practical evidence-informed protocol, not a controlled experimental standard. Source population, age, condition, enclosure size and room climate all affect the safest seasonal settings. Use thermostatic control, independent thermometers and a UV meter, and change parameters gradually.

What was corrected from the supplied file

Original point	Review and revision
40-gallon breeder for an adult pair	Historical minimum; replaced with a substantially larger welfare-forward permanent enclosure.
Fixed 15-20% daytime RH	Too rigid and often unnecessarily dry; replaced by ventilation plus a usable humidity gradient.
July 15:9, August 16:8 photoperiod	Seasonal direction was wrong; August day length now decreases after the June peak.
Brumation Dec-Feb as mandatory	Useful but not essential; now optional and restricted to healthy adults.
27-28 C, about 90 days incubation	Plausible but incomplete; expanded to show the documented temperature-duration range.
43-49 C basking; plant diet; 5-16 eggs	These central points were retained, with clearer gradients and caveats.

UVI beneath the optional T5 tube

Sauromalus ater

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, then 2-3
March	3-4
April	4-5
May	4-6
June	4-6
July	4-6
August	4-5
September	4-5
October	3-4
November	2-3, then off
December	Off

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](#).