Recommended Annual Breeding Schedule

Dipsosaurus dorsalis - desert iguana

Habitat basis	Thermal principle	Breeding anchor
Sandy creosote flats, desert washes and thornscrub of the Mojave, Sonoran and Colorado deserts of the southwestern USA and northwestern Mexico.	One of the most heat-tolerant lizards known. A very hot basking surface must be paired with an immediate cooler retreat; it is never a target body temperature.	Courtship follows spring emergence. Peak laying is commonly May-June, usually one clutch of 3-8 eggs, with hatchlings appearing from late July.

Month	Day ambient	Night	Basking surface	UVI at bask	Photoperiod	Heat / UV hours	Feeding	Seasonal management
Jan	15-18 C	13-15 C	Off	Off	9 h 30 m	0 h	None	Dormancy - healthy adults only
Feb	16-20 C	14-16 C	Off, then 40-45 C	Off, then 2-3	10 h	0 to 4 h	None; restart late	Staged emergence late month
Mar	24-28 C	17-19 C	45-50 C	3-4	11 h	7 h	Plant food 5-6 days	Emergence / conditioning
Apr	27-30 C	19-21 C	50-55 C	4-5	12 h	9 h	Fresh plant food daily	Courtship / mating
May	29-33 C	21-23 C	55-62 C	4-6	13 h	10-11 h	Daily; calcium focus	Peak mating / follicles
Jun	30-34 C	22-24 C	58-65 C	5-6	14 h	11-12 h	Daily	Peak laying
Jul	30-34 C	23-25 C	58-65 C	5-6	14 h	11-12 h	Daily; adjust to condition	Laying / hatchlings begin
Aug	30-34 C	22-24 C	58-65 C	5-6	13 h 30 m	11 h	Daily; avoid obesity	Peak heat / hatchlings
Sep	28-31 C	20-22 C	54-60 C	4-5	12 h 30 m	9-10 h	5-6 days	Late summer / recovery
Oct	24-28 C	17-19 C	48-54 C	3-4	11 h	7 h	4-5 days, then taper	Autumn transition
Nov	18-22 C	14-16 C	40-45 C, then off	2, then off	10 h	4 h to 0	Stop after gut clears	Pre-dormancy
Dec	15-18 C	13-15 C	Off	Off	9 h 30 m	0 h	None	Dormancy - monitor weekly

Humidity: prioritize strong ventilation and dry basking surfaces rather than a rigid ultra-low figure. A practical active-season baseline is about 20-40% RH by day and 30-50% overnight, with a lightly humid retreat and fresh water available.

Cooling caution: true dormancy requires cool, stable conditions and no basking heat. If an animal remains active or receives daily basking heat, do not withhold food for months. Cool only healthy, well-conditioned adults and record body mass weekly.

Practical Husbandry and Breeding Notes

This revision retains the species' exceptional heat provision while correcting the original burrow, feeding and winter-management guidance.

Enclosure and social management

A welfare-forward working minimum is approximately **150 x 75 x 75 cm for one adult**, with **180 x 90 x 90 cm or larger preferred**. Provide more floor area for pairs or groups and house only one adult male per enclosure.

Desert iguanas modify mammal burrows and also construct their own. Offer at least one secure burrow per animal, plus visual barriers and low branches. Separate for persistent chasing, basking exclusion, bite injuries, loss of condition or failure to feed.

Basking, light and UVB

Use a broad bank of flood lamps to create a **55-65 C surface zone** during peak summer activity, while preserving a cooler retreat in the mid-20s. Measure both rock surface and air temperatures. The hot surface is an energy source, not a target body temperature.

Field studies report active body temperatures commonly around 38-42 C and occasional activity near 45 C. The animal must be able to leave the hotspot immediately. Persistent open-mouth breathing outside brief thermoregulation, disorientation or failure to retreat requires urgent cooling and review.

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

Humidity, water and substrate

Use compactable sandy soil rather than loose fine sand alone. Provide **15-20 cm** over much of the floor and a deeper nesting zone of at least **25-30 cm** for breeding females. Secure all heavy structures from the enclosure floor.

Keep a shallow fresh water bowl available even though wild animals obtain much water from food. A modestly humid burrow supports normal shedding; the enclosure itself should remain dry and well ventilated.

Diet and supplementation

Base the diet on high-fibre leaves and safe flowers: dandelion, endive, escarole, chicory, collard, mustard and turnip greens, plus hibiscus, nasturtium and other pesticide-free blossoms. Creosote should not be offered unless its identity and safety are certain.

Wild diets are primarily herbivorous, although insects and carrion have been recorded. In captivity, animal food is **optional and occasional**, not a fixed 10-15% requirement. If used, offer only a small amount of appropriately sized, gut-loaded invertebrates once or twice monthly.

Offer plant food daily during full activity. Dust lightly with plain calcium on approximately **3-5 feed days weekly**, with additional support for gravid females; use a low-frequency multivitamin according to product strength. Avoid routine high-dose vitamin D3 when effective UVB is provided.

Period	Feeding management
Dec-Jan	No food during established cool dormancy
Late Feb-Mar	Restart only after normal heat and activity return
Apr-Aug	Daily varied leaves and flowers; strong calcium support for females
Sep-Oct	Daily or 5-6 days weekly; taper with temperatures
November	Stop before cooling and allow complete gut clearance

Winter cooling

Wild desert iguanas enter a genuine physiological hibernation. Field animals were found near the temperature of surrounding winter soil, averaging about 15-16 C. For captive cycling, reduce heat, food and day length gradually and remove basking once the gut is clear.

The original combination of 21-22 C daytime air, a 40-42 C basking site and no food for four months is not retained. Warm, basking animals remain metabolically active. If an animal does not settle, restore appropriate heat and feeding rather than forcing the calendar.

Nest site

Install a dark nest area before persistent digging begins. Use a packed, slightly damp soil-sand mix at least 25-30 cm deep that holds a tunnel when pinched. Field evidence indicates successful nests are often more than 22 cm deep in open washes away from creosote roots.

Breeding, Incubation and Accuracy Review

The revised protocol separates field evidence, practical captive targets and precautionary limits.

Reproductive timing

Courtship and copulation occur shortly after spring emergence. Egg laying varies with locality and year, but peak laying is around May-June. Strong evidence supports **one clutch annually**, usually **3-8 eggs**. Hatchlings commonly appear from late July into August.

Provide the nest before the female becomes restless. Reduced appetite can be normal late in gravidity, but weakness, repeated unproductive digging or prolonged straining requires prompt reptile-veterinary assessment.

Incubation

A conservative captive starting range is **29-31 C** in a ventilated container with stable, lightly moist vermiculite or perlite. Published laboratory work found normal hatching across 28-38 C, but incubation shortened sharply from about **86 days at 28 C** to about **44 days at 36 C**.

Do not use the experimental upper limit as a routine target. At 40 C, hatchlings showed serious congenital abnormalities. Keep eggs in their original orientation and prevent direct contact with free water or saturated substrate.

What was corrected from the supplied file

Original point	Review and revision
Small-mammal burrows only	Corrected: the species modifies existing burrows and also constructs its own.
40-42 C winter basking plus no food	Replaced with true cool dormancy and basking off; active warm animals must not be starved.
10-15% insects offered weekly	Changed to primarily plant-based feeding with only optional, occasional invertebrates.
Egg laying Jun-Jul	Expanded: timing varies, but peak laying is commonly May-June and can extend later.
Minimum 91 x 61 x 61 cm	Replaced with a larger welfare-forward working enclosure for this active species.
60-70 C basking surface	Retained cautiously as 55-65 C with a broad gradient and explicit body-temperature warning.

Key references

1. Marlow, R. Desert Iguana life-history account. California Wildlife Habitat Relationships System, California Department of Fish and Wildlife. nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2669

2. Moberly, W.R. (1963). Hibernation in the Desert Iguana, *Dipsosaurus dorsalis*. Physiological Zoology 36:152-160. library.iucn-isg.org/documents/1963/Moberly_1963

3. Muth, A. (1980). Physiological ecology of desert iguana eggs: temperature and water relations. Ecology 61(6):1335-1343. library.iucn-isg.org/documents/1980/Muth_1980_Ecology.pdf

4. Plasman, M. et al. (2025). Endurance of a thermophilic reptile to harsh temperatures on an extremely hot island. pmc.ncbi.nlm.nih.gov/articles/PMC12043117

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

UVI beneath the optional T5 tube

Dipsosaurus dorsalis

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	UVI 3-4
April	UVI 4-5
May	UVI 4-6
June	UVI 5-6
July	UVI 5-6
August	UVI 5-6
September	UVI 4-5
October	UVI 3-4
November	UVI 2, 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.