Cyclura lewisi

Grand Cayman Blue Iguana

Species-specific husbandry protocol for the Grand Cayman endemic. Seasonal targets follow the island's warm marine climate: dry November-April, wetter from mid-May through October, with breeding concentrated in spring and early summer.

Core profile	Breeding anchor	Nest / clutch	Incubation
Endangered, CITES Appendix I, Grand Cayman endemic. Large terrestrial Cyclura; males can exceed 10 kg. Primarily herbivorous, strongly heliothermic and dependent on secure rock-hole retreats.	Traditional mating April-May into early June, with peak courtship in May. Recent conservation records note mating can begin as early as January in unusually warm years.	Oviposition typically June-July. Nest chamber base is usually about 30 cm below the surface; clutches can reach 22 eggs. Females often test-dig before committing.	IUCN husbandry guidance: about 32 C for 66-80 days. Other zoo summaries report 30-33 C and 60-90 days; use stable conditions and lineage records over reactive adjustments.

Annual keeper schedule

Month	Day air	Night	Bask	UVI*	Light	RH day/night*	Rain / mist	Food d/wk	Seasonal management
January	25-28 C	21-23 C	41-45 C	4-6	11.1 h	58-70 / 70-80%	Dry season; light AM mist 2-3x/wk	5	Cooler dry-season maintenance; maintain body condition
February	25-28 C	21-23 C	41-45 C	4-6	11.5 h	57-69 / 70-80%	Dry; localized humid retreat	5	Condition breeders; gradual activity increase
March	26-29 C	22-24 C	42-46 C	4-6	12.0 h	56-69 / 70-80%	Driest month; avoid chronic wetness	5-6	Courtship may begin early in some years
April	27-30 C	23-25 C	42-46 C	4-6	12.5 h	60-72 / 72-82%	Dry-to-wet transition; rain pulses increase	6	Breeding activity rising; prepare nest areas
May	28-31 C	24-26 C	43-47 C	4-6	12.9 h	64-76 / 76-86%	Wet season begins; regular rain pulses	6-7	Main courtship and mating period
June	29-32 C	25-27 C	43-47 C	4-6	13.1 h	66-78 / 78-88%	Warm wet season	6-7	Late mating; gravid females; nesting starts
July	29-32 C	25-27 C	43-47 C	4-6	13.0 h	67-80 / 79-89%	Wet; frequent showers	6-7	Main oviposition window; guard nest zones
August	29-32 C	25-27 C	43-47 C	4-6	12.7 h	68-81 / 80-90%	Wet/storm season	6	Incubation; female recovery
September	29-31 C	25-27 C	42-46 C	4-6	12.2 h	69-82 / 80-90%	Wet; high rainfall/hurricane risk	6	Incubation and early hatching possible
October	28-31 C	24-26 C	42-46 C	4-6	11.7 h	69-82 / 80-90%	Wet season peak/transition	6	Late hatching; juvenile growth
November	27-30 C	23-25 C	41-45 C	4-6	11.3 h	64-77 / 75-86%	Rainfall easing	5-6	Transition to dry season; reduce rain gradually
December	26-29 C	22-24 C	41-45 C	4-6	11.0 h	60-73 / 72-82%	Dry-season transition	5	Seasonal reset; no cold brumation

* UVI and RH values are practical captive targets. Grand Cayman climate data confirm a warm wet season from mid-May through October and a milder dry season November-April. Do not use cold brumation.

Housing, climate and nutrition

Taxonomy and status

Cyclura lewisi is recognized as a full species and is endemic to Grand Cayman. The IUCN SSC Iguana Specialist Group lists it as Endangered; it is protected under CITES Appendix I.

Natural habitat

Historically broader on Grand Cayman, surviving wild populations are associated with inland xerophytic shrubland, dry forest edges, farm-clear interfaces and limestone terrain. Adults use rock-hole retreats and are mainly terrestrial; juveniles are more arboreal.

Seasonality

Grand Cayman has a tropical marine climate. Official 1991-2020 climate normals average about 26 C in January and almost 30 C in August, with the wetter season from mid-May through October and the drier season November-April.

Enclosure

Provide very large floor area, structural complexity, heavy rockwork, deep secure retreats, visual barriers and multiple basking/feeding points. Adults are powerful diggers and can be strongly territorial; construction must tolerate substantial body mass and leverage.

Heat and UVB

Use a broad basking surface around 41-47 C depending on season, with ambient air much cooler and shaded retreats available at all times. UVI 4-6 at the main basking zone is a practical open-habitat Cyclura target, not a measured species threshold.

Humidity and rainfall

Do not confuse the dry season with desert dryness. Keep strong airflow and allow exposed surfaces to dry between wettings while maintaining drinking water and buffered retreat humidity. Increase rain pulses and substrate moisture from May onward.

Diet

Primarily herbivorous. Wild diets include leaves, flowers and fruits from many plant species; rare insects, crabs, slugs and fungi have been reported. Captive adults should receive calcium-rich browse, leafy weeds, flowers, cactus and fibrous vegetables with fruit limited.

Body condition

Males may lose weight during the mating season because of territorial and reproductive effort. Females often reduce food intake shortly before laying. Track weights and appetite so normal seasonal changes are distinguished from illness or social suppression.

Social management

House only in spaces large enough for avoidance. During breeding, males can expand territory use and females become highly intolerant after mating. Separate for persistent biting, chasing, exclusion from heat/food or declining weight.

Breeding, nesting and incubation

Sexual maturity

The IUCN husbandry manual reports reproductive maturity at roughly 20 cm SVL and about 2-3 years in captivity. Wild maturation can be later; body size, skeletal maturity and condition matter more than calendar age.

Courtship and mating

Traditional records place mating in April-May into early June, with strong activity in May. The 2021-2026 conservation action plan notes mating has recently been observed as early as January in some years, probably reflecting changing climate patterns.

Gravid period

Oviposition is approximately six weeks after successful mating. Gravid females may become more active, test-dig repeatedly and reduce food intake around two weeks before laying as abdominal egg mass increases.

Nest provision

Natural/captive guidance places the base of the chamber around 30 cm below the surface, while conservation-facility observations describe tunnels roughly 30-100 cm long and 30-60 cm deep. Offer a large sun-warmed, compactable sand/soil bank at least 50-60 cm deep where space permits.

Clutch size

Published sources report 1-22 eggs, with the husbandry manual listing up to 22. Do not use clutch size alone to judge reproductive health; female size and age strongly influence egg number.

Incubation

The IUCN husbandry manual gives 32 C with 66-80 days. Smithsonian and other summaries report natural/captive nest temperatures around 30-33 C and hatching in about 60-90 days. For artificial incubation, favor stable temperatures near 31-32 C unless your lineage records support another proven setting.

Egg handling

Mark egg orientation if removal is required, minimize rotation, use a humid but not waterlogged incubation medium, prevent free water contacting shells and maintain gas exchange. Monitor egg appearance and container mass rather than making large reactive moisture changes.

Female nest guarding

Females may remain near and defend a nest site for weeks after laying. Provide enough space to avoid forced proximity to males or other females, and restore calcium-rich browse, water and normal basking immediately after oviposition.

Hatchlings

Hatchlings average about 9.7 cm SVL and 44 g in the husbandry manual. Provide secure small retreats, scaled basking sites, UVB, high-quality leafy plant foods and predator-proof housing. Young animals tend to climb more than adults.

Records and conservation

Maintain exact pedigree records and never hybridize with other Cyclura. Log mating dates, test digging, laying date, clutch size, egg mass, incubation temperature, hatch timing and hatchling measurements; these records are valuable for long-term conservation breeding.

UVI beneath the optional T5 tube

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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	4-6
February	4-6
March	4-6
April	4-6
May	4-6
June	4-6
July	4-6
August	4-6
September	4-6
October	4-6
November	4-6
December	4-6

Refine numerical target
Replace the blanket UVI 5-7 default with an optional adult T5 patch at UVI 4-6, aiming initially around 5. This is a moderate working choice within published exposure guidance, not proof that 5-7 is harmful or a measured optimum for every Cyclura. Published UV-Tool assignments vary even within the genus; no trial was found that makes UVI 7 a necessary default.

Evidence level: Inferred genus-level working range. 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.