

Recommended Annual Husbandry Schedule

Ctenosaura pectinata - Mexican spiny-tailed iguana

Identity and habitat

A large diurnal iguanid native to western and central Mexico, especially tropical dry forest, rocky slopes, open woodland and agricultural mosaics. A well-studied Sierra de Huautla population occurs at about 930 m in tropical dry forest with a long dry season.

Seasonal climate

Breeding is tied to the dry season. In the Sierra de Huautla study area, January-April are extremely dry and April-May are hottest; rains rise from May and dominate the summer. Captivity should reproduce a dry breeding season followed by a warmer humid rainy season, not constant year-round humidity.

Reproduction and diet

Oviparous, usually one clutch yearly. A central-Mexico study found a mean clutch of 31.1 eggs, range 12-52. Mating/vitellogenesis occur mainly January-February; gravid females are common in April. Juveniles are strongly insect-oriented, while adults are primarily herbivorous.

MONTH	DAY AMBIENT	NIGHT	BASKING	UVI*	PHOTO	RH DAY / NIGHT*	SPRAY / RAIN	FOOD*	STATUS / BREEDING
January	25-28 C	18-21 C	41-43 C	3-4	11 h 15 m	35-50 / 50-65%	Light local spray 1-2x/wk	4-5	Vitellogenesis / mating begins
February	26-29 C	18-21 C	42-44 C	4	11 h 40 m	35-50 / 50-65%	Light local spray 1-2x/wk	4-5	Peak mating
March	28-31 C	19-22 C	43-45 C	4-5	12 h 05 m	30-45 / 45-60%	Minimal; drinking water available	4-5	Gravid; nesting prep
April	29-32 C	20-23 C	43-45 C	4-5	12 h 35 m	30-45 / 45-60%	Minimal + moist lay chamber	4-5	Main oviposition window
May	29-32 C	21-24 C	43-45 C	4-5	13 h	45-60 / 60-75%	2-3 light rain events/wk	4-5	Early rainy season / incubation
June	28-31 C	21-24 C	42-44 C	4	13 h 15 m	55-70 / 70-85%	3-4 rain/mist events/wk	4-5	Hatching begins
July	27-30 C	21-24 C	42-44 C	4	13 h	55-70 / 70-85%	3-5 rain/mist events/wk	4-5	Hatchlings / wet-season feeding
August	27-30 C	21-24 C	42-44 C	4	12 h 40 m	55-70 / 70-85%	3-5 rain/mist events/wk	4-5	Peak wet-season activity
September	27-30 C	20-23 C	41-43 C	3-4	12 h 10 m	50-65 / 65-80%	3-4 rain/mist events/wk	4-5	Wet-season maintenance
October	26-29 C	20-22 C	41-43 C	3-4	11 h 45 m	45-60 / 60-75%	2-3 light rain events/wk	3-4	Rains taper
November	25-28 C	18-21 C	40-42 C	3	11 h 20 m	40-55 / 55-70%	Light local spray 1-2x/wk	3-4	Dry-season conditioning
December	24-27 C	17-20 C	39-42 C	3	11 h 05 m	35-50 / 50-65%	Light local spray 1-2x/wk	3-4	Conditioning / pre-breeding

Seasonality: unlike the Patagonian species, *C. pectinata* remains warm and active year-round; the key annual trigger is dry-vs-wet season, not deep winter cooling.

* RH, UVI and spray values are captive working targets. Keep substantial airflow and allow exposed surfaces to dry after rain/misting. Provide drinking water even in the dry season.

Thermal warning: a basking rock in the low-mid 40s C is appropriate only if animals have immediate access to substantially cooler air and shaded retreats. Do not keep the whole enclosure at 31-33 C with no cool zone.

Practical Husbandry and Daily Management

Warm tropical-dry-forest husbandry: strong basking, real thermal escape, seasonal rain, deep nesting substrate and age-specific diet.

Enclosure and structure

Adults need substantial space. For one adult, use at least about 180 x 90 x 120 cm where practical, and larger for breeding animals. Provide heavy branches, rock shelves, elevated basking sites, large secure hides and multiple escape routes. This species is powerful and destructive, so fixtures must be mechanically secure.

Heat, gradient and UVB

Provide a strong local basking surface around 41-45 C during the active day, but maintain a genuine cool end around 25-28 C so animals can regulate. Overnight temperatures should fall meaningfully. A measured basking UVI around 3-5 is a practical target, with deep shade below UVI 1.

RH, rain and ventilation

Dry-season surfaces should remain largely dry, with only localized light spraying and a water bowl. From May through September, simulate the rainy season with more frequent short rain/mist events and higher overnight RH. Never substitute stagnant humidity for rainfall: ventilation should remain strong and surfaces should dry between events.

Breeding setup

During January-February expect male display, chasing and mating. Gravid females require a deep, secluded nesting area well before April. Provide at least 35-45 cm of diggable soil/sand mix where possible, with a moist lower layer and warmer/drier upper layers so the female can select a suitable nest zone.

Adult diet

Adults are predominantly herbivorous. Base the diet on varied dark leafy greens, edible weeds, flowers and browse, with fruit as a smaller seasonal component. Wild adults eat leaves, flowers and fruits; insects are generally a minor component. Avoid routine high-protein animal feeding in adults.

Juvenile diet

Hatchlings are different: insects can dominate the natural juvenile diet, reaching about 86.5% by volume in the smallest juveniles in one classic field study. Offer frequent appropriately sized gut-loaded insects alongside tender leafy greens and flowers, then progressively shift toward a plant-dominant diet as animals grow.

Social management

Males can be intensely territorial during the breeding season. House multiple males separately. Female compatibility must also be observed rather than assumed. Separate for repeated pursuit, biting, cornering, refuge exclusion, suppressed feeding or weight loss.

Daily keeper checks

Check alertness, posture, eyes/nose, toes/tail, feces, hydration, appetite and body condition. Verify that the basking site is hot but that the cool zone remains available. For gravid females, record digging, appetite changes and abdominal profile daily, and do not repeatedly disturb nest exploration.

Breeding, Eggs and Evidence Notes

A well-documented dry-season breeder: mating early in the dry season, oviposition late in the dry season, hatching as the rains begin.

Reproductive timing

Long-term Mexican studies show a consistent seasonal pattern: mating occurs near the beginning of the dry season, oviposition in the second half of the dry season, and hatchlings appear during the first half of the rainy season. In Sierra de Huautla, vitellogenesis and mating are mainly January-February and gravid females are common in April.

Clutch size and egg data

A study of 871 eggs from 28 clutches found an average clutch size of 31.1 eggs, with a range of 12-52. Mean egg mass was about 7.46 g and mean maximum egg diameter about 30.9 mm. The species generally produces one clutch per year.

Incubation and hatch timing

Recent Mexican work estimated 67-88 days between females leaving nests and hatchlings emerging, with a mean of about 78.5 days. This supports expecting hatchlings around June-July after late-March to mid-April nesting in comparable central-Mexico populations.

Nest management

Provide deep diggable substrate before the female begins persistent digging. The lower nesting layer should hold moisture without becoming wet or anaerobic. Once laying is complete, eggs can be incubated separately if desired, but avoid unnecessarily high temperatures; maintain stable moderate warmth and a moisture gradient.

Evidence confidence

Dry/wet season cycle - High

Direct central-Mexico climate and reproductive studies.

Mating / gravid timing - High

January-February mating/vitellogenesis; gravid females collected in April.

Clutch size - High

871 eggs from 28 clutches; mean 31.1, range 12-52.

Incubation duration - High-moderate

Recent harvested-population study: 67-88 d, mean about 78.5.

Diet shift - High

Juveniles insect-heavy; adults primarily herbivorous in multiple studies.

Thermal targets - Moderate

Captive working range consistent with tropical dry-forest iguanid husbandry; direct field body-temperature series not located.

RH / rain targets - Moderate

Translated from strong dry-season / rainy-season climate rather than direct skin-level RH data.

Key references

1. Castro-Franco, Bustos-Zagal & Mendez-de la Cruz (2011), Revista Mexicana de Biodiversidad: clutch size, egg measurements, Sierra de Huautla climate and January-February mating/vitellogenesis. 2. Casas-Andreu & Valenzuela-Lopez (1984): mating at start of dry season, laying late dry season, hatchlings in early rainy season. 3. Durtsche (2000; 2004): ontogenetic diet shift and digestive physiology. 4. Recent Mexican harvested-population work: estimated incubation 67-88 days, mean about 78.5 days.

UVI beneath the optional T5 tube

Ctenosaura pectinata

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	3-4
February	4
March	4-5
April	4-5
May	4-5
June	4
July	4
August	4
September	3-4
October	3-4
November	3
December	3

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](#).