Ailuronyx trachygaster

Giant Bronze Gecko - Praslin coco-de-mer canopy, Seychelles

One of the world's largest and rarest geckos. Current evidence restricts A. trachygaster to Praslin, where it is strongly associated with mature, continuous coco-de-mer (Lodoicea maldivica) forest and the high canopy. It is predominantly nocturnal but frequently active by day, and natural feeding observations are dominated by coco-de-mer nectar and pollen. Reproductive biology remains poorly resolved, so unvalidated incubation numbers must not be presented as species facts.

Habitat anchor	Activity	Natural diet	Reproduction
Praslin only; mature coco-de-mer forest with continuous canopy, roughly 30-350 m elevation. High-canopy specialist.	Predominantly nocturnal, but regular daytime activity is documented. Build for both dark refuge use and safe daytime light exposure.	Coco-de-mer nectar and pollen are key foods; jackfruit feeding has also been observed. Insect use by A. trachygaster itself is not well quantified.	Oviparous, but wild reproductive biology is still unknown. 2025 IUCN assessment infers glued eggs under palm fronds from related Ailuronyx.

Annual keeper schedule - Northern Hemisphere (Netherlands)

Month	Day air	Night	Warm perch	UVI*	Light	RH day/night*	Rain / mist	Food d/wk	Seasonal management
January	25-28 C	22-24 C	29-31 C	1-2	11.9 h	72-82 / 84-93%	Driest relative phase; mist 5-6x/week	5-6	No brumation; modest seasonal reduction only
February	25-28 C	22-24 C	29-31 C	1-2	11.9 h	72-82 / 84-93%	Drier keeper phase; mist 5-6x/week	5-6	Maintain humidity refuges and canopy cover
March	25-29 C	23-25 C	30-32 C	1-2	12.0 h	73-83 / 85-94%	Rain begins increasing; daily light mist	6	Transition upward in hydration and food
April	26-29 C	23-25 C	30-32 C	1-2	12.1 h	74-85 / 86-94%	More frequent showers; daily mist/rain	6	Pre-wet-season conditioning; no forced breeding trigger
May	26-29 C	24-26 C	30-32 C	1-2	12.2 h	76-86 / 87-95%	Wet season builds; daily rain/mist	6-7	High food/hydration availability; observe reproductive behaviour
June	26-29 C	24-26 C	30-32 C	1-2	12.3 h	78-88 / 88-96%	Wet peak; 1-2 rain/mist pulses daily	6-7	Wet peak; maintain strong ventilation and canopy complexity
July	26-29 C	24-26 C	30-32 C	1-2	12.2 h	78-88 / 88-96%	Wet peak; 1-2 rain/mist pulses daily, strong airflow	6-7	Wet season; high nectar/fruit availability; no cooling
August	26-29 C	24-26 C	30-32 C	1-2	12.1 h	77-87 / 87-95%	Wet; daily mist/rain with partial daytime drying	6-7	Stable warm-wet canopy; monitor pair tolerance
September	27-30 C	24-26 C	31-33 C	1-2	12.1 h	76-86 / 86-95%	Warm humid; daily mist/rain	6-7	Warm phase; maintain abundant flowering/fruit analog foods
October	27-30 C	24-26 C	31-33 C	1-2	12.0 h	75-85 / 86-94%	Warm humid; daily mist, good ventilation	6-7	Warmest period; prevent overheating in upper canopy
November	26-29 C	23-25 C	30-32 C	1-2	11.9 h	74-84 / 85-94%	Rain easing; mist daily or 6x/week	6	Transition to slightly cooler/drier keeper phase
December	25-28 C	23-25 C	29-31 C	1-2	11.9 h	72-82 / 84-93%	Lower-rain phase; mist 5-6x/week	5-6	Slightly cooler phase; retain drinking droplets

* Captive working targets, not measured species-specific microclimate. Northern keeper calendar: wetter May-Oct, peak Jun-Jul; slightly cooler/drier Dec-Mar. Natural Praslin dates: wetter Nov-Apr, cooler/drier Jun-Sep. Keep warm and humid year-round; avoid high heat. Provide a vertical gradient, shaded retreats, excellent ventilation and fresh drinking droplets. No brumation or major drop in humidity.

Calendar correction: all monthly climate and management cues shifted six months; target ranges retained. No established species-specific breeding season.

Housing, climate and nutrition

Conservation and legal status

A. trachygaster is Critically Endangered, locally protected in Seychelles, and Ailuronyx spp. are listed in CITES Appendix III at the request of Seychelles. Maintain complete legal-origin, CITES and parentage records for every individual and offspring.

Enclosure architecture

A very large, heavy-bodied arboreal gecko. Prioritize height, broad vertical trunks, cork slabs, large palm-like leaves, stable horizontal perches and high concealed resting sites. A tall enclosure around 90 x 60 x 120 cm or larger is a prudent starting point for an adult pair, with more space strongly preferred. Provide multiple routes and visual barriers.

Activity pattern

The genus is predominantly nocturnal, but A. trachygaster is frequently active during daylight and feeds on exposed coco-de-mer inflorescences. Provide a normal bright day/night cycle plus dark daytime retreats. Do not treat it as either a strict day gecko or a darkness-only nocturnal gecko.

Temperature

Keep the canopy warm but not hot: roughly 25-30 C ambient depending on season, with only a mild warm perch around 29-33 C. Nights can fall to about 22-26 C seasonally. Upper canopy temperatures must never become trapped above the low 30s without escape.

Light and UVB

Use bright full-spectrum light and low-moderate UVB because daytime activity occurs. A practical working basking exposure is around UVI 1-2 with abundant UVI 0 shade. Never force the animal to cross strong UV to reach food or water.

Humidity and ventilation

Praslin is humid all year. Maintain roughly 72-88% daytime RH with 84-96% night peaks, but pair this with strong ventilation and partial surface drying between sprays. Chronic stagnant wetness is not equivalent to rainforest humidity and predisposes to skin/respiratory problems.

Water

Provide fresh drinking droplets on broad leaves and trunks every day. A shallow water dish can remain available, but arboreal mist-fed drinking should be considered essential. Use clean, low-contaminant water and disinfect misting hardware regularly.

Natural feeding ecology

Published observations show prolonged nectar feeding on male coco-de-mer inflorescences and pollen on/around feeding animals; the 2025 IUCN assessment states that nectar and pollen form a major part of the diet. Jackfruit consumption has also been observed in Vallée de Mai.

Captive diet

Use a high-quality complete gecko fruit/nectar diet as the nutritional base, supplemented with bee pollen in modest amounts, diluted flower-nectar analog foods and small portions of soft fruit. Offer appropriately sized insects 1-2 times weekly as a cautious captive supplement, but note that insect consumption by wild A. trachygaster is not well quantified. Avoid sugar-only nectar or honey-heavy diets.

Calcium and supplementation

Use a nutritionally complete staple and dust insect offerings lightly with calcium. Do not over-supplement vitamin D3 when UVB is provided. Because the natural diet is unusual and pollen-rich, monitor body condition and fecal consistency rather than assuming standard insect-gecko feeding frequency.

Social housing

Published social structure is poorly known. Related Ailuronyx can be maintained as pairs, but A. trachygaster should be treated cautiously. Provide duplicate food stations, multiple high hides and immediate separation capability. Monitor for bite wounds, exclusion from prime perches, weight loss or persistent hiding.

Biosecurity

Quarantine new animals strictly. This species has an exceptionally small wild population; disease prevention is conservation-relevant. Use dedicated tools, record shedding/skin lesions, and seek reptile-veterinary assessment early for fungal or respiratory disease.

Breeding, eggs and juveniles

Evidence boundary

The most important keeper fact is that published A. trachygaster reproductive biology remains largely unknown. The 2025 IUCN assessment states this explicitly. Do not convert practices from A. seychellensis or other glued-egg geckos into claimed trachygaster facts.

Likely egg placement

The current IUCN assessment notes an inference that A. trachygaster may glue eggs to the underside of palm fronds, as related Ailuronyx do. Provide broad leaves, cork overhangs, high protected crevices and removable artificial leaf panels so females can select concealed elevated oviposition sites.

Breeding season

No validated annual breeding season is published. Northern keeper calendar for the Netherlands: wetter May-October, slightly cooler/less rainy December-March, then a gradual rise in rain and food. This shifts the natural Praslin sequence six months. Natural Praslin dates are wetter November-April and slightly cooler/drier June-September. Avoid sharp cooling or a forced breeding trigger; record courtship, copulation and laying dates to build lineage-specific evidence.

Egg handling

If eggs are glued, do not detach them. Protect them in situ with a ventilated cup or mesh guard if adults may disturb them. Mark the position only if an egg must be moved with its attached substrate. Never rotate an established hard-shelled gecko egg unnecessarily.

Incubation temperature

There is no validated A. trachygaster-specific artificial incubation temperature. The safest evidence-led approach is to incubate attached eggs within a stable version of the adult Praslin climate, roughly mid-20s C, rather than using a hot day-gecko incubator. If your established captive lineage has proven settings, retain those and document them.

Incubation duration

No reliable species-specific duration is published. Related A. seychellensis has historical captive records near 69-71 days, but that must not be presented as A. trachygaster data. Monitor eggs by appearance and calendar, and preserve exact temperature logs so every hatch adds useful information.

Historic egg/hatchling measurements

Older taxonomic literature reports an egg around 19.9 mm and a hatchling around 50.8 mm SVL from material attributed to Silhouette. Modern surveys have failed to confirm A. trachygaster on Silhouette and the 2025 assessment treats the species as Praslin-only, so these historical measurements should be used cautiously.

Female management

Watch breeding females for appetite changes, abdominal enlargement and repeated inspection of high crevices or leaves. Ensure high calcium availability, hydration and privacy. Any prolonged straining, weakness, failure to climb or collapse is an urgent veterinary issue.

Hatchling housing

Use a secure vertical nursery with fine branches, broad leaves and many elevated hides. Maintain high humidity with excellent airflow, gentle warmth and low-moderate UVB. Ensure every hatchling can access tiny water droplets without risk of drowning or becoming trapped.

Hatchling feeding

Start with tiny portions of complete gecko nectar/fruit diet and very small insect prey offered separately. Small amounts of pollen can be included. Track body mass and growth rather than increasing sugar concentration to accelerate growth.

Record keeping

For every reproductive event record adult IDs and legal origin, pairing date, courtship, copulation, lay date, egg location, egg measurements, whether glued, exact temperature/RH logger data, hatch date, hatchling mass/SVL and all feeding/health outcomes. Given the scientific knowledge gaps, high-quality captive records have unusual conservation value.

Trade caution

The 2025 IUCN assessment notes that illegal collection and international trade have been significant threats. Never acquire animals without complete legal provenance. Captive breeding should reduce pressure on the wild population, not create demand for undocumented founders.

UVI beneath the optional T5 tube

Ailuronyx trachygaster

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	1-2
February	1-2
March	1-2
April	1-2
May	1-2
June	1-2
July	1-2
August	1-2
September	1-2
October	1-2
November	1-2
December	1-2

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.