

Recommended Annual Husbandry Schedule

Intellagama lesueurii - Australian water dragon / Eastern water dragon

Identity and range	<i>Intellagama lesueurii</i> is the accepted species name. Two subspecies are generally recognized: <i>I. l. lesueurii</i> and the more southerly <i>I. l. howittii</i> . The species ranges from tropical Queensland through New South Wales to temperate Victoria.
Thermal and seasonal biology	A large diurnal, semi-aquatic riparian agamid with a relatively low preferred body temperature for an Australian dragon (about 30.1 C). Temperate populations undergo a real winter slowdown/brumation; northern stock should be cooled more conservatively. Provenance matters.
Breeding and incubation	Females typically lay 1-2 clutches, commonly 6-18 eggs. Canberra field nests averaged 8.5 eggs. Incubation is temperature-dependent and also determines offspring sex; around 28 C produced an approximately 1:1 sex ratio in one controlled study, while extremes reduced survival or strongly skewed sex.

MONTH	DAY AMBIENT	NIGHT	BASKING	UVI*	PHOTOPERIOD	RH DAY / NIGHT*	SPRAY / WATER	FOOD*	SEASONAL MANAGEMENT
January	12-15 C	10-12 C	Off	Off	8 h 30 m	60-75 / 70-85%	Light mist 1-2x/wk; water always	None	Winter rest
February	14-18 C	11-14 C	28-32 C late	Off / 1 late	9 h 30 m	60-75 / 70-85%	Mist 2x/wk; water always	0-1 late	Rest; staged wake late
March	20-24 C	14-17 C	33-36 C	2	11 h	55-70 / 65-80%	Mist 2-3x/wk; pool always	3	Warm-up / courtship
April	22-26 C	16-19 C	35-38 C	2-3	12 h 30 m	50-70 / 65-80%	Mist 3x/wk; moist nest	4	Courtship / mating
May	24-28 C	18-20 C	36-40 C	2-3	14 h	50-70 / 65-80%	Mist 3-4x/wk; moist nest	4-5	Mating / follicles
June	25-29 C	19-21 C	36-40 C	2-3	15 h	50-70 / 65-80%	Mist 3-4x/wk; moist nest	4-5	Main laying period
July	25-29 C	19-21 C	36-40 C	2-3	15 h	50-70 / 65-80%	Mist 3-4x/wk; moist nest	4-5	Incubation / possible 2nd clutch
August	24-28 C	18-20 C	35-39 C	2-3	14 h	50-70 / 65-80%	Mist 3x/wk; pool always	4	Incubation / hatching
September	22-26 C	16-19 C	34-38 C	2-3	12 h 30 m	55-70 / 65-80%	Mist 2-3x/wk; pool always	3-4	Recovery / conditioning
October	19-23 C	13-16 C	32-36 C	1-2	11 h	55-70 / 65-80%	Mist 2x/wk; pool always	2-3	Autumn taper
November	16-20 C	11-14 C	30-34 C brief	1	9 h 30 m	60-75 / 70-85%	Light mist 1-2x/wk	1 then stop	Gut clearance / cooling
December	12-15 C	10-12 C	Off	Off	8 h 30 m	60-75 / 70-85%	Light mist 1-2x/wk; water always	None	Winter rest

Calendar: Northern Hemisphere translation for captive management. *UVI, RH and adult feeding frequency are operational starting points, not fixed field values. Winter depth must match provenance: southern/howittii-type stock can tolerate a stronger rest than tropical Queensland-origin animals. Juveniles should not be deeply brumated. Clean swimming water remains available year-round.

Practical Husbandry and Daily Management

A large temperate-to-subtropical riparian agamid: clean water, vertical structure, moderate humidity, bright basking and seasonal cooling are all important.

Enclosure and structure

A large semi-arboreal species. For one adult, about **200 x 100 x 180 cm** is a practical starting point; larger is preferable. Serious pair breeding should use roughly **300 x 150-200 x 200 cm** or more, with sturdy branches, rock platforms, multiple visual barriers and easy access to water. Adult males must not be housed together.

Swimming water

Provide a permanent pool large enough for full submersion, turning and short swimming. Adults benefit from roughly 30-45 cm usable depth with easy exits and branches over the water. Filter strongly, remove faeces immediately and perform regular water changes. Water must never become the only cool retreat from excessive heat.

Heat and UVB

Active-season air generally works well around 22-29 C with a local **35-40 C basking surface**. The species has a preferred body temperature around **30.1 C**, so do not heat the whole enclosure like a desert agamid. Use measured linear UVB; an operational basking target around **UVI 2-3** with shaded retreat below UVI 1 is a conservative starting point.

Humidity and ventilation

Aim for roughly 50-70% daytime RH with higher overnight humidity, a large open-water source and slightly humid retreat zones. Daily saturation is unnecessary. Provide strong air exchange and allow basking branches and exposed surfaces to dry. Riparian does not mean stagnant tropical humidity.

Seasonal rest

For healthy, fully conditioned adults of unknown provenance, use a conservative 8-10 week winter rest around **10-15 C** after complete gut clearance. The table uses 12-15 C as a safer default. Southern *I. l. howittii* stock may tolerate colder seasonal conditions; tropical-origin animals should be reduced more mildly.

Diet

Australian water dragons are omnivorous. Use varied gut-loaded insects and other invertebrates as a major component: roaches, crickets, locusts, earthworms, snails and occasional larvae. Adults can also receive leafy vegetation, edible flowers and modest fruit. Avoid routine fatty mammal prey, processed meat and excessive high-sugar fruit.

Feeding schedule

Juveniles need small frequent meals while actively growing. Adults are generally fed 3-5 times weekly in the active season, adjusted to body condition and activity. Reduce feeding early in autumn and stop before deep cooling so the gut is empty. Restart only after the animal is fully warmed and active.

Social management

Adult males are territorial and can inflict serious bite and scratch wounds. A male may live with compatible females only when the enclosure is very large, visually complex and has duplicate basking, feeding and escape areas. Keep immediate separation housing ready throughout the breeding season.

Breeding cycle

Canberra populations nest from early November through late December in the Southern Hemisphere; northern tropical populations begin earlier. For a Northern Hemisphere captive schedule, spring warm-up and mating are followed by laying mainly in late spring and summer. Females may produce a second clutch when conditions and body reserves permit.

Nest site

Provide a warm, secluded zone of deep, diggable soil/sand kept evenly moist but not wet. Field nests averaged about **13 cm deep** with a recorded range of roughly 9.5-28 cm and were placed in relatively open, sun-exposed ground. A captive laying bed of at least **25-30 cm** depth gives females freedom to choose.

Breeding, Incubation and Evidence Notes

Incubation temperature affects both developmental speed and sex. Treat temperature as a breeding decision, not merely a way to hatch faster.

Clutch size and frequency

Australian Museum records give **6-18 eggs** per clutch. In the Canberra field study, females laid **1-2 clutches**, with 53 nests averaging **8.5 eggs**. Captive females can occasionally double-clutch; repeated laying should trigger close monitoring of calcium status and body condition.

Incubation temperature and TSD

This species shows type-II temperature-dependent sex determination. In one controlled experiment, **27 C produced 83% males**, 27.5 C produced 77% males, and **28 C produced a 1:1 ratio**. Cooler and warmer extremes increasingly produced females. Population differences are possible, so these values are not a universal sexing guarantee.

Incubation duration and survival

Natural incubation is reported at roughly **60-120 days**. In the controlled study, mean duration was about 84 days at 24 C, 71.6 days at 26 C, 61 days near 27-28 C and 49.7 days at 31 C. Egg survival at 31 C was only **27%**; do not use extreme heat merely to shorten incubation.

Practical incubation

For general breeding where an approximately mixed sex outcome is desired, begin around **27.5-28 C** average in evenly moist, aerated vermiculite/perlite and avoid overheating. A modest day-night fluctuation is biologically plausible. Mark egg tops and do not rotate after laying. Measure actual medium temperature, not just incubator air.

Hatchlings

Hatchlings require shallow safe water, many small climbing routes and hides, measured UVB, and a gentler thermal gradient than adults. Keep them warm and feeding through their first winter rather than applying the adult brumation schedule.

Accepted name and subspecies - High

The Reptile Database recognizes *Intellagama lesueurii* (Gray, 1831). Two widely used subspecies are the nominate eastern water dragon *I. I. lesueurii* and the more southerly Gippsland water dragon *I. I. howittii*.

Seasonal geographic variation - High

Recent work emphasizes the huge climatic range of the species: nesting begins around September in tropical northern populations but only around December in the coldest southern populations. Therefore, calendar and winter depth must be adjusted to known origin.

Thermal biology - Moderate/High

Australian zoo husbandry literature reports a preferred body temperature around 30.1 C, lower than many other Australian agamids, and notes reduced feeding around 18-22 C with brumation at low average day temperatures. Captive targets in this sheet intentionally maintain a broad cool gradient.

Nesting and reproduction - High

Canberra field data show 1-2 clutches, 4-14 eggs per nest, mean clutch size 8.5, mean nest depth 13 cm and a roughly two-month nesting season. Australian Museum records give a broader clutch range of 6-18 eggs and confirm that females can double-clutch in captivity.

Temperature-dependent sex - High

Pezaro, Thompson & Doody (2016) experimentally incubated 173 eggs across ten constant temperatures. Male production peaked at intermediate temperatures and females dominated both low and high extremes. This is why a single incubation temperature should never be presented as biologically neutral.

Keeper warning

Do not house adult males together. Do not cool juveniles deeply. Do not place unknown-provenance adults directly into a cold southern-Australian brumation regime. Seasonal rest should be entered only by healthy, well-hydrated animals with an empty gut and close weight monitoring.

Key references: The Reptile Database (accessed 2026); Australian Museum, Water Dragon species account; Hosking, Water Dragon Husbandry Guidelines (Australian Museum); Pezaro, Thompson & Doody 2016, Evolutionary Ecology 30:551-565; Pezaro et al. 2024, Journal of Zoology, geographical variation in embryonic development; Baird et al. 2023, Journal of Herpetology 57:274-280; UV-Tool, Journal of Zoo and Aquarium Research 4:42-63.

UVI beneath the optional T5 tube

Intellagama lesueurii

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 / 1 late
March	2
April	2-3
May	2-3
June	2-3
July	2-3
August	2-3
September	2-3
October	1-2
November	1
December	Off

Retain numbers; clarify measurement

Retain the peak UVI 2-3. The UV-Tool places Australian water dragons in Ferguson Zone 2, supporting a moderate optional exposure patch; do not substitute the guidance for the Chinese water dragon.

Evidence level: Published UV-Tool exposure assignment. 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](#).