Brachylophus fasciatus

Lau Banded Iguana - Fiji

This protocol is for true Brachylophus fasciatus sensu stricto: the Lau/Moala banded iguana of eastern Fiji. Historic zoo literature often used B. fasciatus for banded iguanas from central Fiji that are now B. bulabula, so older reproductive figures should be interpreted with provenance in mind. This Northern Hemisphere keeper calendar shifts the Lau seasonal sequence six months for the Netherlands; managed-care target ranges are retained.

Taxonomic anchor True B. fasciatus is the eastern Lau/Moala species. Central-island banded iguanas are B. bulabula; Gau animals are B. gau.	**Habitat** Arboreal, primarily herbivorous iguana of wet and dry forest patches in the Lau Group. Dense foliage, branches and shaded retreats are essential.	**Climate anchor** Fiji wild climate: wettest Jan-Apr; drier Jun-Aug. Keeper calendar shifted six months for the Netherlands: cool/drier Dec-Feb; warm/wet summer; no brumation.	**Breeding anchor** Northern keeper cycle: courtship/mating around May-Jun; eggs mainly Jul-Sep, usually 3-6. Historical Fiji dates: mating around Nov; eggs Jan-Mar; long incubation.

Annual keeper schedule - Northern Hemisphere (Netherlands)

Month	Day air	Night	Bask	UVI*	Light	RH day/night*	Rain / mist	Food d/wk	Seasonal management
January	26-28 C	20-22 C	34-38 C	3-5	11.0 h	65-78 / 76-88%	Driest period; keep hydration and humid refuges	6-7	Cool-season maintenance
February	26-28 C	20-22 C	34-38 C	3-5	11.3 h	66-79 / 77-89%	Drier; regular leaf misting, excellent airflow	6-7	Conditioning / reserve building
March	27-29 C	21-23 C	35-38 C	3-5	11.8 h	68-80 / 78-90%	Rain begins to increase gradually	7	Reproductive conditioning
April	28-30 C	22-24 C	35-39 C	3-5	12.3 h	70-82 / 80-92%	Warmer/wetter transition; daily rain/mist	7	Pre-breeding; increase foliage and food variety
May	28-30 C	23-24 C	36-39 C	3-5	12.7 h	72-84 / 82-93%	Wet-season build; frequent showers	7	Courtship and mating; shifted keeper window
June	29-31 C	23-25 C	36-39 C	3-5	13.0 h	73-85 / 83-94%	Warm/wet; frequent rain with drying intervals	7	Mating / early gravidity; nest area ready
July	28-30 C	23-24 C	36-39 C	3-5	12.8 h	72-84 / 82-92%	Wet season; rain/mist daily with airflow	7	Primary oviposition; maintain deep nest area
August	29-31 C	23-25 C	36-39 C	3-5	12.6 h	74-86 / 84-94%	Wet; frequent rain pulses, foliage dries between	7	Oviposition / early incubation
September	28-30 C	23-24 C	36-39 C	3-5	12.2 h	74-86 / 84-94%	Wettest phase; strong ventilation essential	7	Late laying possible; incubation
October	27-29 C	22-24 C	35-38 C	3-5	11.8 h	70-82 / 80-91%	Rain easing; daily leaf wetting	7	Incubation / female recovery
November	27-29 C	21-23 C	35-38 C	3-5	11.4 h	68-80 / 78-89%	Drier transition; mist most evenings	6-7	Incubation / maintenance
December	26-28 C	20-22 C	34-38 C	3-5	11.1 h	66-78 / 76-88%	Cooler/drier; light daily or alternate-day mist	6-7	Cool-season maintenance; no brumation

* Captive working targets, not direct claims of canopy microclimate. Provide a gradient: a warm basking branch, cooler foliage, deep shade and strong ventilation. Fiji has no true winter brumation; the important annual change is a modest cool/dry phase followed by warmer wetter conditions.

Calendar correction: all monthly climate values and seasonal management cues shifted six months; target ranges retained.

Housing, climate and nutrition

Taxonomy / provenance

Confirm provenance whenever possible. Since the 2008 and later taxonomic work, many historical animals labelled "B. fasciatus" would now be B. bulabula. Do not mix managed lines if conservation breeding or legal provenance matters. True B. fasciatus is associated primarily with the Lau and Moala island groups.

Enclosure

Highly arboreal. Prioritize height and usable branch volume over floor area. For adults, provide numerous horizontal and diagonal branches, living or artificial foliage, visual barriers and several elevated sleeping sites. Branches should support the whole body and allow animals to choose exposed or shaded positions.

Temperature

Aim for general daytime air roughly 26-31 C through the year, with the warmest months at the upper end and winter nights around 20-22 C. Provide a basking branch around 34-39 C. Avoid running the entire enclosure at basking temperature; these forest iguanas need cooler leafy retreats.

UVB and visible light

Use bright full-spectrum lighting plus linear UVB. A practical basking-zone target is approximately UVI 3-5 with immediate access to shade and UVI near zero. Dense canopy structure is essential so the animal can self-regulate exposure. Replace UVB sources according to measured output, not calendar alone.

Humidity and airflow

Maintain generally humid conditions, commonly around 65-85% by day with higher night peaks, but never stagnant air. Mist leaves so animals can drink droplets, then allow surfaces to partially dry. Persistent wetness without ventilation promotes skin and respiratory problems.

Seasonality

Fiji: wetter January-March; drier/cooler June-August. Northern keeper calendar: wetter July-September; cooler/drier December-February. Use a moderate shift; retain drinking access and humid refuges.

Diet

Primarily herbivorous: offer a broad rotation of calcium-rich leafy greens, edible leaves, flowers and smaller amounts of fruit. Hibiscus-type browse is especially appropriate where pesticide-free. Adults do not need routine high-protein animal food. Juveniles may take occasional small invertebrates, but plant foods should remain central.

Feeding schedule

Offer fresh plant food daily in the warm/wet season and 6-7 days per week in the cooler/drier period. Remove spoiled fruit rapidly in high humidity. Use calcium intelligently according to diet and UVB; avoid chronic oversupplementation.

Hydration

These iguanas readily lick droplets from leaves and branches. Combine mist/rain events with a clean water bowl. Newly hatched juveniles dehydrate quickly, so leaf wetting and observation of drinking are especially important.

Social management

Never house two mature males together. Compatible pairs may coexist, but provide multiple feeding stations, basking positions and visual barriers. Separate promptly if the female cannot avoid persistent courtship or if either animal loses condition.

Biosecurity / legal status

B. fasciatus is an endangered, CITES Appendix I conservation species. Maintain complete legal documents, microchip/ID records where applicable, breeder lineage, transfers and reproductive history. Quarantine new arrivals and avoid cross-contact between Brachylophus lines.

Breeding, nesting, incubation and juveniles

Reproductive season

Northern Hemisphere keeper window: courtship/mating around May-June and laying mainly July-September. Historical Southern Hemisphere accounts place mating around November and laying January-early March.
The keeper calendar shifts that sequence six months. Some pre-split zoo records may represent B. bulabula; use this as a working framework rather than an absolute rule for every true Lau lineage.

Breeding trigger

Use a modest cooler/drier December-February phase, then gradually increase warmth, rainfall, food abundance and photoperiod from March. By May-June, maintain strong hydration, abundant browse and stable basking opportunities.
Do not use brumation. These dates follow the Northern Hemisphere keeper calendar for the Netherlands, shifted six months from the Fiji sequence.

Nest preparation

Install a nest zone well before the female becomes restless. Reports describe females digging a burrow roughly comparable to their body length. Provide at least 20-30 cm of stable, diggable substrate - for example soil/sand with enough moisture to hold a tunnel - and more depth if enclosure design allows.

Clutch size

Most natural-history sources report about 3-6 eggs, with a broader captive/wild range of roughly 2-7. Eggs are relatively large for the female body size. Multiple clutches can occur under intensive captive conditions, but one annual clutch is the safer biological expectation for long-term female health.

Female health

Monitor reproductive females closely. Zoo records document serious reproductive disorders in captive Brachylophus, including folliculostasis/ovostasis and yolk coelomitis. Reduced activity, persistent abdominal enlargement, failure to lay, prolonged digging or sudden color/behavior changes warrant experienced reptile-veterinary assessment.

Egg handling

Allow the female to finish laying and back-filling before excavation. Mark the upper surface before moving eggs and preserve orientation. Handle minimally; Brachylophus eggs have a long incubation and water-balance errors can accumulate slowly.

Incubation temperature

A practical starting point from successful captive breeding is about 28-29 C, with 29 C commonly reported. Avoid pushing temperatures high to shorten the process. Because older breeding literature may include now-separated Brachylophus species, record lineage and incubation conditions carefully.

Incubation duration

Published values vary widely: approximately 120-150 days at 29 C in successful captive accounts, about 125-210 days in Fijian natural-history summaries, and even longer figures in some zoo descriptions. Treat 4-7 months as a realistic monitoring window and do not discard viable eggs simply for being slow.

Incubation medium

Use a stable vermiculite or perlite system in a closed or lightly ventilated container. Aim for high humidity without wet egg surfaces or standing water. Track container mass and egg appearance; excessive water can be as damaging as dehydration during the long incubation.

Hatching

Near-term eggs may show subtle surface change and hatch over several days. Avoid forcibly opening eggs unless there is a clear clinical reason. Hatchlings should be allowed to emerge under their own power and moved only after the umbilicus/yolk area is secure.

Juvenile care

Keep juveniles warm, humid and very well ventilated: roughly 26-29 C daytime, 21-24 C night, basking branches around 32-35 C, moderate UVB, dense foliage and frequent drinking droplets. Offer finely cut tender greens, leaves, flowers and small amounts of fruit daily.

Record keeping

Record exact lineage/provenance, courtship and copulation dates, female weight and condition, digging onset, lay date, clutch size, egg weights, incubation temperature and medium ratio, hatch date, hatchling mass/length and sex-linked band development. These data are especially valuable because historical taxonomy complicates comparison with older records.

UVI beneath the optional T5 tube

Brachylophus fasciatus

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

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.