

# Uromastyx macfadyeni

Macfadyen's mastigure / Somali spiny-tailed lizard

Keeper protocol for the Netherlands facility. Evidence-informed working targets for healthy, established animals; not a validated species-specific breeding recipe.

## Identity and provenance

Accepted species: *Uromastyx macfadyeni* Parker, 1932 (Agamidae). Older records may use *U. ocellata macfadyeni*. Confirm identity and locality with the breeder; older accounts sometimes confuse *macfadyeni* with *ocellata* or *princeps*. [1,2]

## Natural history

Known from northern Somalia / Somaliland, between Berbera and Heis, including inland records. IUCN describes diurnal, ground-dwelling animals on arid stony Guban plains at about 53-500 m. Adults shelter beneath rocks and juveniles use stone crevices. Activity is reported mainly in May-September; November-March is quieter and vegetation is scarce. [1]

## Calendar and evidence

The native range is already in the Northern Hemisphere: no six-month shift is needed. The monthly settings below are a facility operating proposal, not measured wild monthly temperatures or proven breeding dates. No reliable species-specific UVI trial, incubation optimum, clutch-size range or captive reproductive calendar was found in the reviewed sources.

## Daily targets at a glance

|                                 |                                                                                                                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Housing                         | One animal per enclosure; practical starting footprint 120 x 70 cm, height at least 60 cm, larger preferred. This is a design recommendation, not a proven species minimum.                        |
| Active basking surface          | 48-54 C across a body-sized rock; offer cooler basking options. Avoid small scorching spots. Start at the lower end and assess use. [3]                                                            |
| Active daytime air              | Warm zone 32-36 C; shaded cool end 24-28 C. Measure air separately from the basking surface.                                                                                                       |
| Active night air                | 22-25 C as a cautious initial facility target; darkness, with thermostatic non-light-emitting heat only if required.                                                                               |
| T5 exposure zone                | UVI 3-5 at dorsal / back height beneath the tube, with complete UV-free refuges. Inferred from related <i>Uromastyx</i> and UV-Tool guidance, not measured for <i>macfadyeni</i> . [4]             |
| Humidity and drinking           | Initial daytime open-zone RH about 35-55%, adjusted to hydration and ventilation; not a species-validated optimum. Dry exposed surface, a separate lightly moist retreat, and clean shallow water. |
| Juveniles / compromised animals | Maintain active-season heat, UV and feeding rather than deliberately applying the adult winter-rest programme.                                                                                     |

## Enclosure, heat, UV and moisture

### Build the gradient first

Secure slabs and supports on the enclosure base before adding substrate. Provide snug crevices on both warm and cool sides, plus an accessible moist retreat. Use a compactable sand/soil mix without fertiliser or pesticides; provide a deeper digging zone where practical. Feed on a clean dish or slab. Newly acquired animals can begin on a simple, easily inspected substrate.

### Heat and visible light

Use broad overhead basking lamps with a dimming thermostat and bright daytime lighting. Verify the full basking patch with an infrared thermometer and warm/cool air with shaded probes. A thermostat reading alone does not establish the whole gradient. Check the warmest accessible rocks after lamps stabilise; secure guards where animals could reach bulbs.

### Your T5 arrangement

Keep the T5 in the middle towards the back, accessible voluntarily. Include a warm basking place within its useful UV field and an alternative UV-accessible place that is less hot. Measure UVI at the height of the animal's back, not on the floor. Use a UVI-reading meter such as a Solarmeter 6.5 / 6.5R; a broadband UVB reading in microwatts is not interchangeable with UVI. Map all accessible elevated positions and adjust tube height after warm-up or changes to mesh, reflector or decor. [4]

### What UVI 3-5 means

This is the exposure available under the T5, not an enclosure average or a requirement to remain there. Keep that intensity stable through the year and vary the hours instead. UV-Tool lists other *Uromastix* as Zone 4 and recommends roughly UVI 3-5 for artificial sunbeam zones. Its suggested 7-8 maximum is a general safety ceiling, not a target for this species. Provide a gradient to zero. [4]

### Moisture without a wet cage

Offer a small shallow water bowl on the cooler side, clean daily. Both breeder accounts and specialist experience identify *macfadyeni* as a form that may drink and benefit from more refuge moisture than some Saharan species. [3,5] Keep most substrate dry; moisten only the retreat when its interior dries. Do not use compulsory whole-cage spraying or routine soaking. The retreat must be ventilated, clean and warm enough; never cold and waterlogged.

# Feeding and seasonal decisions

## Daily food

Offer a fresh varied mix of leafy plants in the morning while basking heat is available. Rotate endive, chicory, dandelion leaves/flowers, rocket and suitable pesticide-free edible leaves. Add small amounts of grated squash or carrot for variety. Remove spoiled food. Treat seed mixes and lentils as occasional adult additions, not the staple; avoid hard dry seeds for small hatchlings. [3,6]

## Diet boundaries

Use a plant-based routine. Do not base the diet on insects, fruit, animal protein or dry pellets. Any balanced herbivore pellet is supplementary and should be prepared appropriately for the animal's size. Never collect unidentified plants or vegetation exposed to pesticides, herbicides or road contamination.

## Supplement plan

Lightly dust greens with plain calcium on approximately two feeding days weekly as an initial adult routine. Use a reptile multivitamin at its label frequency, considering any fortified food. Breeding females and growing young require an individual calcium plan. With measured UVB, avoid adding high-dose D3 or stacking products without veterinary direction. The frequency is a facility starting point, not a macfadyeni trial result. [5,6]

## Winter and appetite

The winter proposal retains daily digestion heat. Offer smaller fresh portions whenever the animal is active; do not impose a fixed months-long fast. Record intake and weight. Persistent anorexia, dehydration or loss of condition warrants investigation, not further cooling.

## Winter safeguards

Do not transfer the 11-13 C cooling regime used for some of the facility's other species to macfadyeni. This protocol uses a modest reduction in heat duration and night temperature, not cold brumation. Newly acquired, juvenile, thin, ill or reproductively compromised animals stay on active care. If an established breeder has a successful lineage-specific cycle, review that record before replacing it with this proposal.

## Humidity through the year

Keep clean water and the separate moist retreat available in every month. There is no reliable basis here for a fixed monthly spray count or an artificial rainy season. Adjust local moisture to measured drying, drinking, shed and hydration; do not reproduce coastal weather-station humidity throughout a closed cage.

## Breeding dates are conditional

May-July is a proposed observation and introduction window, aligned with the documented warm-season activity. It is not a confirmed wild mating/laying season. Use actual courtship, female readiness and your colony's records to decide timing; do not force breeding to match the table.

## Annual schedule | Northern Hemisphere

All temperatures below are captive working targets for healthy established adults. Air = warm zone / shaded cool end; surface = basking rock. Daylight and T5 share the stated hours; basking lamps have their own shorter timer. UVI remains 3-5 beneath the T5 every month. The refuge stays UV-free. Change settings gradually over 2-3 weeks, not abruptly on the first day of a month.

| Month     | Daylight / T5 UVB | Basking lamps | Basking surface C | Day air C warm / cool | Night air C | Keeper focus                                           |
|-----------|-------------------|---------------|-------------------|-----------------------|-------------|--------------------------------------------------------|
| January   | 11 h              | 6 h           | 45-48             | 28-30 / 22-25         | 20-22       | Mild rest; weigh and offer food if active.             |
| February  | 11 h 15 m         | 6 h           | 45-48             | 28-30 / 22-25         | 20-22       | Continue rest; review hydration and condition.         |
| March     | 11 h 45 m         | 8 h           | 46-50             | 30-33 / 23-26         | 21-23       | Gradual warm-up; increase food with activity.          |
| April     | 12 h 15 m         | 10 h          | 48-52             | 31-35 / 24-27         | 22-24       | Condition adults; prepare nest before pairing.         |
| May       | 12 h 45 m         | 11 h          | 48-54             | 32-36 / 24-28         | 22-25       | Active season; pair only if both are ready.            |
| June      | 13 h              | 12 h          | 48-54             | 32-36 / 24-28         | 22-25       | Monitor mating / nesting if occurring.                 |
| July      | 13 h              | 12 h          | 48-54             | 32-36 / 24-28         | 22-25       | Continue nesting support; recover any laying female.   |
| August    | 12 h 45 m         | 11 h          | 48-54             | 32-36 / 24-28         | 22-25       | Active care; hatchlings follow their own warm routine. |
| September | 12 h 15 m         | 10 h          | 48-52             | 31-35 / 24-27         | 22-24       | Assess recovery and condition before taper.            |
| October   | 11 h 45 m         | 8 h           | 46-50             | 30-33 / 23-26         | 21-23       | Gradually reduce heat hours; retain digestion heat.    |
| November  | 11 h 15 m         | 6 h           | 45-48             | 28-30 / 22-25         | 20-22       | Mild rest; no breeding introductions.                  |
| December  | 11 h              | 6 h           | 45-48             | 28-30 / 22-25         | 20-22       | Quiet adult maintenance; no forced fasting.            |

UVI 3-5 all year is the voluntary exposure beneath the T5 at back height. It is not the cage average. Winter entries retain daily basking; this is not a cold brumation programme. Breeding events are conditional and may fall outside the suggested months.

Juveniles and animals needing recovery use the active-care routine, not the adult table. Keep water and a clean moist retreat available throughout the year.

# Breeding, eggs and hatchlings

## Selection and introductions

Confirm sex and identity, stable adult condition and provenance. House separately normally. Introduce only under direct supervision with spare housing ready; separate if there is sustained chasing, injuries, feeding suppression or rejection. Do not leave a persistently unreceptive female with the male. Record dates and observed copulation. Single housing and controlled introductions are supported by breeder experience across *Uromastyx*. [6]

## Nest provision

Before introductions, provide an opaque, private nest chamber with an easy entrance and about 20-30 cm of compactable, lightly moist sand/soil where enclosure dimensions allow. Keep the mixture cohesive enough to hold a tunnel without saturation. A measured nest interior around 28-32 C is a provisional starting range; offer choice and check female acceptance. Do not place the nest beneath the hottest lamp.

## Laying and recovery

No species-specific gestation interval or clutch size is assigned. Monitor digging, repeated unsuccessful nest attempts and changes in condition. Persistent straining, prolapse, weakness or a gravid female unable to settle warrants prompt reptile-veterinary assessment. After laying, offer fresh greens, calcium and water, reduce disturbance and record her weight and the clutch.

## Incubation: provisional only

A macfadyeni-specific successful incubation protocol could not be verified. Prefer the supplying breeder's documented method. If none exists, a cautious genus-derived starting temperature is 29-30.5 C, checked by an independent probe in a pre-tested incubator. Use separate aerated egg boxes with lightly moist perlite or vermiculite, without standing water or dripping condensation. Avoid an untested jump to hotter incubation. [6]

## Egg records

Mark the upper surface and retain orientation when moving eggs. Record egg count, mass, placement, box/substrate/water masses, temperature extrema and hatch outcomes. Medium water requirements depend on material and box ventilation: do not copy your iguana 1:1 perlite-water ratio automatically. Comparable *Uromastyx* breeder records suggest incubation can exceed 75 days at the cooler end, but no fixed hatching deadline is claimed for macfadyeni. [6]

## Hatchlings

Use secure small refuges, finely chopped fresh greens, shallow accessible water and individually monitored intake. Provide the same voluntary UVI 3-5 field with full shade; confirm back-height measurements separately. Begin with basking 46-50 C, warm air 30-34 C, cool air 25-28 C and nights 22-25 C as provisional juvenile settings. Keep warm year-round during establishment. Separate animals if growth or feeding diverges; do not routinely introduce adult faeces because of pathogen risk.

# Keeper checks and evidence trail

## Daily

Check both thermal zones, basking surface, timer operation, food intake, water cleanliness, normal movement and access to hides. Observe before handling; never pull an animal out of a rock crevice by its tail.

## Weekly / monthly

Weigh established animals weekly during conditioning or recovery and at least monthly otherwise. Record body condition, shed, stools, drinking and behaviour. Check UVI monthly and after every lamp/decor adjustment; record tube age and measured output. Review humid-retreat cleanliness and rock stability.

## Escalation

Laboured breathing, weakness, tremor, burns, swollen limbs, persistent diarrhoea, wounds, prolapse or sustained weight loss require a reptile veterinarian. Quarantine new arrivals with separate tools and a veterinary faecal assessment. Do not apply routine deworming, force-feeding or medicinal baths without a diagnosis.

## Records and refinement

Keep animal IDs, source documents, sex, hatch date, mating/laying/hatching dates and all incubation conditions. The 2019 IUCN account lists CITES Appendix II; verify current trade requirements before any transfer. Reassess this working protocol against colony outcomes rather than treating every numeric target as settled science. [1]

# Sources and interpretation

**[1]** Mazuch, T. & Spawls, S. (2019). *Uromastyx macfadyeni*. IUCN Red List, e.T199811A21708420. Author-uploaded full assessment: range, habitat, seasonal activity, historical status. Assessment dated 2014, published 2019; not a new population survey.

[Open source](#)

**[2]** The Reptile Database. *Uromastyx macfadyeni* Parker, 1932. Accepted name, synonyms, distribution and oviparity. Accessed 13 October 2026.

[Open source](#)

**[3]** Exotics Keeper (2024). *Uromastyx* in Captivity: Breeding, Husbandry and Diets. Interview with breeder Kamiel Vanasten: genus-level heat, lighting, refuges and macfadyeni moisture distinction. Breeder practice, not a controlled species trial.

[Open source](#)

**[4]** Baines et al. (2016). How much UV-B does my reptile need? *Journal of Zoo and Aquarium Research* 4(1):42-63. UV-Tool, artificial sunbeam method and related *Uromastyx* Zone 4 entries; macfadyeni is not separately listed.

[Open source](#)

**[5]** Pike, L. (2011). *Uromastyx* Care Sheet. *Reptiles Magazine*. Firsthand genus husbandry and macfadyeni drinking-water observations; historical practice reviewed critically.

[Open source](#)

**[6]** Arids Only. *Uromastyx* Care Guide. Firsthand breeder guidance on solo housing, introductions, supplements and genus incubation. Accessed 13 October 2026; not a species-specific macfadyeni trial.

[Open source](#)

Evidence priority: species field assessment and taxonomy first; peer-reviewed UV framework second; firsthand genus husbandry third. All month-by-month settings, moisture targets, nest conditions and juvenile settings are proposed operating values requiring observation and refinement. Research reviewed 13 October 2026.