

Naultinus elegans

Elegant Gecko / Auckland Green Gecko / Moko kakariki - northern North Island, New Zealand

A cool-temperate, arboreal and viviparous New Zealand green gecko. This protocol is deliberately written for a Netherlands/Northern Hemisphere collection: the species' natural New Zealand seasonal sequence is retained but shifted by approximately six months, so winter cooling occurs in December-February and the principal birth window falls in late summer-autumn.

Range & habitat Northern North Island south of the Bay of Islands through Auckland/Waikato to Taranaki and Bay of Plenty. Forest, scrub, swamp margins and regenerating manuka/kanuka; also offshore islands.	Activity Predominantly diurnal/heliothermic but can be cathemeral. Strong arboreal climber with a prehensile tail; frequently basks from dense foliage.	Reproduction Viviparous; usually 1-2 live young. Current NZHS species account gives wild mating mainly Jul-Sep and births late Feb-Apr after about 7.5 months. Here this becomes Jan-Mar mating and late Aug-Oct births.	Critical thermal note Cool-temperate species. Provide a small bright basking zone, not a hot enclosure. Genuine winter cooling and strong ventilation are important; prolonged heat and stagnant humidity are major risks.
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Annual keeper schedule - Northern Hemisphere

Month	Day air	Night	Bask/warm	UVI*	Light	RH day/night*	Misting / moisture	Food d/wk	Seasonal management
January	14-18 C	8-11 C	20-24 C	1.0-2.0	9.8 h	72-84 / 84-95%	Mist 3-4x/wk; ventilate well	2	Cool winter phase; courtship may begin late month
February	15-19 C	9-12 C	22-25 C	1.0-2.5	10.3 h	70-82 / 82-94%	Mist 3-4x/wk; foliage dries	2-3	Main courtship/mating; watch for persistent male pressure
March	16-20 C	10-13 C	23-26 C	1.5-2.5	11.2 h	68-80 / 80-92%	Mist 4x/wk	3	Main mating; gradual spring warm-up
April	17-21 C	11-14 C	24-27 C	1.5-3.0	12.3 h	66-80 / 78-92%	Mist 4-5x/wk	3	Established gestation; increase prey variety/calcium
May	18-22 C	12-15 C	25-28 C	2.0-3.0	13.4 h	65-78 / 78-90%	Mist 4-5x/wk	3-4	Active spring; dense foliage and bright basking
June	20-24 C	14-17 C	26-29 C	2.0-3.0	14.2 h	65-78 / 78-90%	Mist 4-5x/wk; good airflow	3-4	Summer activity; avoid whole-cage heating
July	21-25 C	15-18 C	27-30 C	2.0-3.0	14.5 h	64-77 / 77-89%	Mist 4-5x/wk; dry surfaces between	3-4	Peak summer; strict overheating prevention
August	20-24 C	14-17 C	26-29 C	2.0-3.0	14.0 h	65-78 / 78-90%	Mist 4-5x/wk	3-4	Late gestation; first births possible late month
September	19-23 C	13-16 C	25-28 C	1.5-3.0	13.0 h	67-80 / 80-92%	Mist 4-5x/wk	3-4	Main birth window; inspect foliage carefully for neonates
October	17-21 C	11-14 C	23-26 C	1.5-2.5	11.8 h	69-82 / 82-94%	Mist 4x/wk	2-3	Late births possible; gradual autumn cooling
November	15-19 C	9-12 C	21-24 C	1.0-2.0	10.7 h	71-84 / 84-95%	Mist 3-4x/wk	2	Cooling/rest transition; reduce food with activity
December	14-18 C	8-11 C	20-23 C	0.5-1.5	10.0 h	72-85 / 85-96%	Mist 3-4x/wk; strong airflow	1-2	Cool winter rest; frost-free; maintain hydration

* Calendar shown is for the Northern Hemisphere/Netherlands. Wild New Zealand dates are shifted by ~6 months. UVI is a keeper working target, not a published species-specific optimum: measure at the animal-accessible basking branches directly beneath the T5 UVB strip. Aim around UVI 2-3 through the active spring/summer period, lower in winter, while always providing dense foliage/shade down to near-zero UVI.

Housing, climate and nutrition

Enclosure and structure

NZHS green-gecko guidance recommends about 50 x 50 x 100 cm (L x W x H) minimum for adults; larger is preferable. Use a tall, secure, densely planted enclosure with fine/medium branches, living shrubs, elevated cork/bamboo retreats and multiple basking perches. Dense visual cover is essential even though the species likes to bask.

Social housing

Green geckos are naturally largely solitary. A compatible pair or one male with up to two females can work in large, structurally complex housing, but adult males should not be housed together. Never mix different *Naultinus* species because hybridisation risk is high.

Temperature strategy

Use cool ambient air plus a modest localized basking zone. In summer keep most of the enclosure around 20-25 C with a 27-30 C basking perch; animals must be able to leave it immediately. Winter should cool gradually to days in the mid-teens and routine nights around 8-11 C. Keep frost-free and avoid abrupt changes.

Overheating warning

This species tolerates cool conditions far better than prolonged heat. Do not let the whole enclosure sit in the upper 20s C. Provide deep shade, strong airflow and a cool retreat at all times, especially during warm Netherlands weather.

UVB / T5 target

Provide linear T5 UVB with the tube positioned so the gecko can choose exposure. At the main accessible basking branches directly beneath the T5, use approximately UVI 2.0-3.0 in spring/summer as a practical target; winter can fall to roughly UVI 0.5-2.0. These are evidence-informed keeper targets rather than measured wild species-specific requirements. Check with your UV meter at branch level, not at the lamp.

Photoperiod

Use a strong seasonal photoperiod, roughly 10 h in midwinter rising to about 14.5 h in midsummer. Bright visible light and seasonal day length help entrain behaviour and reproduction.

Humidity and water

Maintain moderate-high ambient RH with higher nights, but never continuously wet stagnant air. Mist mainly early morning/evening so leaves carry drinking droplets, then allow exposed surfaces to dry. Combine humidity with excellent ventilation.

Diet

Primarily insectivorous but naturally also takes nectar, small fruits and scale-insect honeydew. Offer a broad rotation of appropriately sized flies, moths, crickets, roaches and other safe live prey; provide modest nectar/fruit gecko food rather than making sweet foods the staple.

Supplements

Use well gut-loaded prey and a conservative calcium/mineral routine matched to UVB exposure and dietary variety. Avoid chronic heavy vitamin-D3 dosing when effective UVB is provided. Reproductive females need excellent calcium access without obesity.

Handling and welfare

Minimize handling. The prehensile tail is important for climbing and must never be used as a restraint point. Observe appetite, body condition, toes, eyes and shedding from outside the enclosure whenever possible.

Biosecurity

Quarantine new arrivals and use dedicated tools. Captive green geckos can acquire mites and other pathogens from other reptile species. Persistent eye swelling, dysecdysis, respiratory noise, skin lesions or weight loss warrant reptile-veterinary assessment.

Breeding, live young and records

Viviparity - no egg incubation

Naultinus elegans gives birth to fully formed live young. There is no egg incubation stage. Management therefore centres on a healthy seasonal cycle, good body condition, UVB/mineral support, controlled gestational warmth and a genuine winter cool period.

Breeding timing - Northern Hemisphere

The current NZHS species account reports wild New Zealand mating mainly July-September and births late February-April after around 7.5 months. For a Netherlands collection, shift the biological sequence about six months: courtship/mating mainly January-March and the main birth window late August-October. Historical literature reports broader population variation, so keep long-term individual records and do not force dates.

Winter cooling and mating

Cool December-February conditions are biologically appropriate. Warm and lengthen days gradually from late winter. Males may follow females persistently and mating can include neck/head biting; provide visual barriers and separate animals if courtship causes injury or chronic stress.

Gestation

Females should remain able to bask, feed and retreat normally. Avoid trying to accelerate pregnancy with high ambient temperatures. Maintain varied gut-loaded prey, sensible calcium provision and access to moderate UVB while allowing the female to self-regulate exposure.

Birth and litter size

Usually one or two live young are produced annually. Check dense foliage carefully during late August-October; small neonates can be easily overlooked. Some historical sources report wider timing, so continue observation beyond the core window.

Neonate management

A secure planted nursery makes monitoring easiest. Use very fine branches, dense cover, mild localized warmth, low-moderate UVB and the same seasonal photoperiod. Offer tiny live prey such as *Drosophila* and other small flying insects. Do not overheat neonates.

Growth and maturity

The NZHS species account gives sexual maturity at roughly 1.5-2 years. Breed only robust, well-grown animals in excellent condition; age alone is not sufficient.

Conservation status

New Zealand currently lists *N. elegans* as At Risk - Declining. Principal threats include habitat modification and introduced mammalian predators. Keep captive lineages accurately identified and never cross with other *Naultinus* species.

CITES / EU

Naultinus elegans is CITES Appendix II and EU Annex B. Retain legal-acquisition documents, breeder statements, parent IDs, dates of birth and transfer records. New Zealand native reptiles are strictly protected and wild export is not a normal legal source for the international hobby.

Record keeping

For each animal record unique ID, sex, origin/line, CITES/legal documentation, weights, winter minimum temperatures, mating dates, gestational observations, birth date, litter size, neonatal weight/SVL, feeding, sheds and medical events. For a viviparous species with low annual output, these records are especially valuable.

UVI beneath the optional T5 tube

Naultinus elegans

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	1.0-2.0
February	1.0-2.5
March	1.5-2.5
April	1.5-3.0
May	2.0-3.0
June	2.0-3.0
July	2.0-3.0
August	2.0-3.0
September	1.5-3.0
October	1.5-2.5
November	1.0-2.0
December	0.5-1.5

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](#).