herpy

AGAMAS

Australian Water Dragon

Intellagama lesueurii

Intellagama lesueurii is a large, semi-aquatic agamid from the streams of eastern Australia with powerful crests, a long, compressed tail and a length of 60-100 cm. It is active by day, climbs and swims well and can live for more than 20 years, but it needs a very large enclosure, a deep water section, strong UVB and high humidity.

Family: Agamidae Former name: *Physignathus lesueurii; Istiurus lesueurii; Lophura lesueurii*

KEY FACTS

THE ANIMAL

Adult size	**60-100 cm** total length incl. tail
Lifespan	**10-25 years**
Active	**By day**
Lifestyle	**Arboreal and semi-aquatic**
Habitat	**Rainforest, wetland and temperate woodland and meadow**
Difficulty	**Intermediate**

CARE

Min. enclosure	**180 × 90 × 150 cm** L × W × H for 1 adult
Temperature, day	**24-30 °C**
Basking spot	**35-40 °C**
Temperature, night	**18-22 °C**
Humidity	**60-80%**
Water	**Water section** depth 15-30 cm
UVB	**Essential** Ferguson zone 3
Diet	**Insects, plants and vertebrates**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**6-20 eggs**
Clutches per year	**2**
Incubation	**90 days** at 26-29 °C

PROTECTION AND PAPERWORK

CITES	**Appendix III**
EU annex	**Annex C**
IUCN	**Least Concern (LC)**

About the species

Intellagama lesueurii is a powerful lizard with long, muscular legs, sharp claws and a nuchal crest that continues as a row of pointed scales down the back. The tail is compressed and makes up about two thirds of the total length; it is used as a rudder when the animal swims and as a counterweight in the trees. Females reach about 60 cm, and males slightly over 1 m and about 1 kg.

The ground colour is pale greenish grey with dark cross-bands over the back, tail and legs. The male has a larger head, stronger crests and stronger colours than the female, especially in the breeding season. The animals can slowly change colour and blend in with their surroundings.

The species has two subspecies. *I. l. lesueurii* has a dark band behind the eye, a pale throat without markings and, in adult males, a red belly and chest. *I. l. howittii* from Gippsland is more greenish blue, lacks the band behind the eye, has a yellow- or orange-striped throat and a blackish green belly; it is more adapted to cold and tolerates heat less well. In the trade it is rarely stated which subspecies an animal belongs to.

The species was formerly placed in the genus *Physignathus* together with *Physignathus cocincinus*, and the name *Physignathus lesueurii* is still seen. The species name honours the French naturalist Charles Alexandre Lesueur.

Distribution and habitat

Intellagama lesueurii lives in eastern Australia, from eastern Victoria through New South Wales to Cooktown in northern Queensland. The subspecies *I. l. howittii* is found in Gippsland in Victoria.

A small population in South Australia was probably released and is not part of the original range. The species has adapted to city parks and gardens and is common in, among other places, Brisbane and Sydney.

> **Native range:** Australia.

HABITAT

Intellagama lesueurii is tied to water and lives by creeks, rivers, lakes and other watercourses with basking sites on overhanging branches or rocks in full or filtered sun, in rainforest, open forest and parks.

The animals are active by day, fast and good climbers. If disturbed, they run into dense vegetation or drop from a branch into the water. They can swim completely underwater and lie on the bottom of shallow water for up to an hour and a half. In the cooler regions they hibernate from autumn and emerge again from late winter to mid spring. In the wild they are very shy, but in city parks they become used to people.

The males are territorial and threaten and fight each other. Both sexes wave their arms and bob their heads; rapid arm waving shows dominance, slow waving submission.

The food is mostly insects, but also spiders, worms, snails, crustaceans, frogs, fish and small mammals, and adults eat some fruit and flowers.

Care

THE ENCLOSURE

A single adult needs an enclosure of at least 180 × 90 × 150 cm (length × width × height). A large, active lizard of up to 1 m needs room to run, climb and swim, and a clear temperature gradient. Bigger is better. An enclosure this size usually has to be custom-built. Adults can be kept outdoors in an aviary during the warm part of the year.

Choose solid sides of wood or board with ventilation at the top and bottom. Large glass fronts make animals run into the pane and injure their snouts.

Furnish with a deep water section (see below), sturdy branches at different heights, a basking spot, stones or tiles that hold the heat, and hides of cork, plants or boxes. Both live and artificial plants can be used; live plants help with humidity.

The substrate must hold moisture, for example unfertilised soil mixed with coconut fibre or coarse bark. Remove droppings daily and clean the enclosure thoroughly once a month.

Read more: Heat and temperature Read more: Humidity, misting and ventilation

TEMPERATURE

During the day the enclosure should be 24-30 °C, with about 25 °C at the cool end and 35-40 °C at the basking spot. If the animal rarely uses the basking spot, it is too hot. The animal must be able to choose, so a clear gradient is important. Use heat bulbs over a sturdy branch or stone, and cover them with mesh so the animal cannot burn itself.

At night the temperature should drop to 18-22 °C, which suits a subtropical to temperate home range. If the enclosure is too cold, the animal does not eat; if it is too hot, it can overheat.

HUMIDITY AND WATER

The humidity should be about 60-80 %. The animals tolerate down to about 40 %, but persistently low humidity increases the risk of respiratory infection. Keep it up with a moist substrate, daily misting or a rain system and a large water section. Measure with a hygrometer, and provide ventilation so that the air does not become stagnant.

WATER AND WATER QUALITY

The water section must be large and deep enough for the animal to submerge completely: at least 15 cm deep, preferably more, and at least three quarters as long as the animal, with an easy way up onto land. The animals often defecate in the water, so change it often, and scrub the container clean. In large enclosures a filter helps.

An enclosure of melamine or wood must be made waterproof at the bottom.

LIGHTING AND UVB

Intellagama lesueurii is active by day and needs UVB corresponding to Ferguson zone 3. Use a UVB tube of about 10 % covering most of the enclosure, and have the light on 10-12 hours a day controlled by a timer. The tubes are mounted in the ceiling; mesh and glass dampen UVB. Replace the tubes according to the manufacturer's instructions, typically after 6-12 months.

Read more: Lighting and UVB

FEEDING

Intellagama lesueurii is omnivorous, but insects are the staple food. Use crickets, locusts, cockroaches and silkworms as the basic food, and give mealworms, giant mealworms and waxworms sparingly, because they are fatty. All insects should have been fed well before they are given.

Supplement with plant food, for example dandelion leaves, clover, green beans, squash and sweet potato. Some animals take fruit such as banana and strawberry, others do not. Large animals can occasionally be given small mice.

Young animals are fed daily; from about the age of three years, three feedings a week are enough. Dust the food alternately with calcium and a multivitamin supplement, and give only food that the animal can swallow.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

Intellagama lesueurii is shy in the wild, but quickly becomes used to people. Young animals are often nervous and jumpy, but most get used to handling when time is spent on it. Lift the animal from below, support the body, and let the tail hang. Leave the animal alone when it is restless.

The males are territorial and fight, so two males must not be kept together. A male and a female can be kept together, but they will breed, and the male can be rough with the female. Keeping them singly is the safest.

Breeding

SEXUAL MATURITY AND SEXING

The male is larger and has a larger head, stronger crests, stronger colours and visible femoral pores. The female is smaller and has a smaller head and more subdued colours. Age and size at sexual maturity are not documented.

MATING

In the wild, the animals mate from spring to early summer, after hibernation in the cooler regions. How a winter rest should be arranged in the enclosure is not documented. The male is rough with the female, so a pair must be able to be separated.

Read more: Brumation and the seasons

EGG-LAYING AND CLUTCHES

In spring (in Australia from September in the north to December in the south), the female digs a tunnel of 10-15 cm in sand or soft soil in a sunny spot above the waterline and lays 6-20 eggs. She covers the tunnel afterwards. She usually lays two clutches per season about a month apart. Give a gravid female a box with 15-30 cm of moist, loose soil.

INCUBATION

The species has temperature-dependent sex determination. In the wild the nest temperature is 22-32 °C, and the eggs hatch after about three months. At 26-28 °C most hatchlings are male, while both cooler and warmer nests produce more females.

Incubation in captivity has not been described in detail. Place the eggs in moist vermiculite in a closed container with a few small air holes, and keep a stable temperature of 26-29 °C, which matches the nest temperatures in the wild.

Read more: Incubating eggs

REARING THE YOUNG

The hatchlings are independent from hatching. In the wild, they stay near the nest tunnel for a time and then gather by themselves, away from the adults. In the enclosure, the hatchlings should have small crickets daily, dusted with calcium, and the same set-up as the adults: basking spot, UVB, water section and many hiding places. They grow fast and must be moved to larger enclosures in good time. Juveniles and adults must not be kept together.

Health and common mistakes

Most illnesses are caused by errors in husbandry. The species is hardy, but the typical problems are:

- Metabolic bone disease with too little UVB and calcium. Signs are lethargy, tremors and soft or crooked bones.
- Respiratory infection with humidity or temperature that is too low.
- Snout injuries in enclosures that are too small or against glass.
- Bacterial infections in a dirty enclosure and dirty water.
- Skin fungus (*Nannizziopsis*), which affects both wild populations and animals in captivity.
- Broken tails and limbs after fights between males.

See a vet with reptile experience if the animal stops eating, has swellings in the jaw or legs, skin changes or laboured breathing.

Read more: Common diseases and signs of illness

Always ask someone who knows

This guide is a good place to start, but it cannot replace experience. Animals differ, and much of what matters most is learned from people who have kept the species for years. Talk to a breeder, an experienced keeper or a vet who knows reptiles and amphibians before you get the animal - and again if anything looks wrong.