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SNAKES

False Water Cobra

Hydrodynastes gigas

Hydrodynastes gigas is a large, fast and inquisitive diurnal colubrid from South American wetlands that can grow to over two metres long. When threatened it flattens its neck like a cobra but keeps its body horizontal. It is rear-fanged and mildly venomous: most bites cause only local pain and swelling, but a few cause a strong reaction. It needs a very large terrarium.

Family: Colubridae Former name: *Cyclagras gigas; Hydrodynastes melanogigas*

KEY FACTS

THE ANIMAL

Adult size	**150-250 cm** total length incl. tail
Weight	**1,000-4,500 g**
Lifespan	**15-20 years**
Active	**By day**
Lifestyle	**Terrestrial and semi-aquatic**
Habitat	**Savanna and wetland**
Difficulty	**Experienced**

CARE

Min. enclosure	**240 × 90 × 60 cm** L × W × H for 1 adult
Temperature, day	**24-27 °C**
Basking spot	**30-33 °C**
Temperature, night	**20-23 °C**
Humidity	**30-60%**
Water	**Water section**
UVB	**Recommended** Ferguson zone 2
Winter rest	**15-21 °C** 6-10 weeks
Diet	**Vertebrates**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**6-42 eggs**
Clutches per year	**1-2**
Incubation	**75 days** at 27-28 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Least Concern (LC)**

About the species

Hydrodynastes gigas is a heavily built colubrid with a smooth, matt body, large eyes with round pupils and a black tongue. The ground colour is olive green to brown with dark spots and crossbands that darken towards the tail. The belly is yellow or brown with dark spots that form three dotted lines. Young animals are far darker than the adults, lack the adults' dark eyes and look more like a garter snake or a water snake. Pale forms have been bred in captivity. A black population in Tocantins in central Brazil was described as a species of its own, *Hydrodynastes melanogigas*, but is today regarded as a black variant of *H. gigas*.

It typically reaches 150-250 cm in length including the tail, and a few animals can exceed three metres. Females are clearly larger than males. The average weight is about 1.6 kg, and large animals can weigh up to 4.5 kg.

The species' best-known feature is its defensive posture. When threatened, the snake bends its neck and body sideways and spreads them, so it seems larger. It resembles a cobra but does not rear up, and it can also flatten the body further down, which a true cobra cannot. The name *gigas* is Greek for giant.

The snake has enlarged teeth at the back of the upper jaw, without a groove, and glands that produce a mild venom. It is not dangerous like a true cobra, but not harmless either; see the section on behaviour. Temperament varies greatly: some animals are calm, others defend themselves hard. The species is fast and active and requires an experienced keeper with space.

Distribution and habitat

Hydrodynastes gigas is found in eastern South America east of the Andes. Most of the range lies in Brazil, from Amazonas and Pará in the north to Rio Grande do Sul in the south, and on into eastern Bolivia, Paraguay and northern Argentina. In the north it is found along the coast in French Guiana and Suriname and in Guyana, and there are a few records in southern Venezuela. It has not been found in Ecuador or Uruguay.

The type locality is Corrientes in Argentina. Animals in captivity come especially from Paraguay and Bolivia, and today most are captive-bred.

Read more: Buying animals: captive-bred, wild-caught and transport

> **Native range:** Brazil, Bolivia, Paraguay, Argentina, French Guiana, Suriname, Guyana and Venezuela.

HABITAT

The species prefers open wetlands and scrub and is seldom seen in untouched, dense rainforest. It has also been observed in drier areas. It is diurnal and spends the day patrolling, swimming, climbing and occasionally digging in loose soil. It hides under logs, in tall vegetation and under debris.

In Paraguay, where many captive animals originate, the summer (November to March) is hot with daytime temperatures around 33 °C and nights around 22 °C. The winter (May to July) is cooler, with 23-25 °C by day and 11-16 °C at night. Humidity varies from up to 85% in summer to very low values in winter. Day length varies from about 14 hours in summer to 10 hours in midwinter. The species also eats in winter, but far less.

In the wild the diet consists mostly of amphibians, fish and reptiles, and only a little of birds and mammals. The species eats often, and many animals have food in the stomach when caught.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

An adult animal needs a terrarium of at least 240 × 90 × 60 cm (length × width × height), and more is always better. *Hydrodynastes gigas* is active and patrols all day, so floor area is what matters most. A terrarium 120 cm long is too small for an adult animal. Keep only one adult per terrarium.

The terrarium must be solid and completely escape-proof with a lid that can be locked. The species is strong, fast and good at finding gaps. PVC enclosures are light, durable and easy to keep clean, and they must have good ventilation.

A layer of 10-15 cm of bark mulch mixed with wood pellets, leaf litter and sphagnum works as substrate. It absorbs droppings, so dirt can be removed locally, and keeps a moderate humidity. The snake occasionally digs. Furnish with at least two hides, one at the warm end and one at the cool end, and preferably a humid hide. Bark slabs, roots and logs give extra cover and climbing opportunities.

A large water container where the whole snake can lie submerged is a fixed part of the setup. It is used all year round, also in winter. Keep the water clean and change it often.

Juveniles are kept in small boxes with hides, a water dish and a bark mulch substrate, because they need calm and security. They are moved to a larger terrarium when they eat well and have taken about ten meals. The transition works best gradually by mixing old and new substrate. Animals that are stressed and refuse food are put back in the small box and moved more slowly.

TEMPERATURE

H. gigas requires a distinct temperature gradient. By day the background temperature should be 24-27 °C, and the basking spot should be 30-33 °C. At night the temperature falls to 20-23 °C. Use a thermostat for all heating, and measure with digital thermometers at both ends.

The year is divided into two seasons. From February to mid-October the warm rhythm above applies, with 13 hours of light. From mid-November to January there is a cool rest period: the background falls to about 21 °C, the basking spot to 25 °C and the night to 15 °C, and the light is reduced to 10-11 hours. The transitions between the two seasons happen gradually. The snake eats little or nothing in the rest period. The rest period is also used as a lead-up to breeding. Give a rest only to animals in good condition.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be moderate, 30-60%, all year. *Hydrodynastes gigas* is not a rainforest species and does poorly in constantly wet surroundings, but a damp layer in the substrate and a humid hide help during shedding. The large water container raises the humidity a little. Keep the surface of the substrate dry, and replace it if it becomes wet and dirty. A hygrometer shows whether the level holds.

LIGHTING AND UVB

The species is diurnal and spends a lot of time patrolling and basking. Strong light and UVB give more natural behaviour, and the snake prefers to go under a UVB source rather than under a heat lamp of the same temperature. UVB corresponding to Ferguson zone 2 is recommended, for example a T5 tube or an LED source over one side of the terrarium, so there is shade in the rest.

The light rhythm follows the seasons. In summer there are 13 hours of light and 11 hours of darkness, and in the rest period 10-11 hours of light. Use a timer. At night it must be dark.

Read more: Lighting and UVB

FEEDING

In the wild *Hydrodynastes gigas* eats mostly amphibians, fish and reptiles, and only a little birds and mammals. In captivity the staple is frozen and thawed rodents, supplemented with frogs' legs, trout and chicks or quail for variety. Prey is always given dead.

Adults are fed twice a week: one meal is a large prey item (a medium or large rat), the other a small one (an adult mouse or a small rat). Juveniles get two to three small prey items a week. The species eats often in the wild and digests quickly; the prey is usually out of the body again within 72 hours. The prey must not be thicker than the thickest part of the snake.

In the rest period little or no food is given. Females that are to be bred are fed generously for the last three weeks before the rest. There must always be fresh water in the large container.

BEHAVIOUR AND HANDLING

H. gigas is inquisitive, clever and active, and it spends the day patrolling, swimming, digging and climbing. It needs a lot of space. Animals that do not get enough space may begin to pace back and forth along the glass. This usually stops quickly when they get more space and more to occupy them, for example a trip in a safe, furnished room under supervision.

When the snake spreads its neck, it is stressed and needs to be left in peace. Handling must be sparing and calm, and the snake must have settled first. Wash your hands after touching feeder animals and before handling the snake, so it does not mistake a hand for food.

The species is rear-fanged and produces a mild venom from glands at the back of the upper jaw. Many bites have been reported, but only a few with a strong reaction. Most cause only local pain and slight swelling. The serious cases have caused heavy swelling, bruising, numbness, itching and dizziness. A bite in which the snake hangs on and chews puts more venom into the wound than a quick strike. Release the snake calmly rather than tearing it off. Clean the wound with soap and water, and see a doctor in the event of heavy swelling or other symptoms. The terrarium must stand where children and unauthorised people cannot reach it.

Keep the animals singly, except in the breeding season.

Read more: Feeder animals: keeping and breeding

Breeding

SEXUAL MATURITY AND SEXING

Age and size at sexual maturity are not documented. Females are clearly larger than males. Give both males and females plenty of time to grow before they are bred. Young animals grow quickly: with feeding all year round, females can weigh about 2 kg after a year, but that does not mean they are ready to breed.

MATING

Breeding follows the seasonal rhythm. The animals are fed generously in the summer half of the year and get a cool rest period from mid-November to January. After the rest the temperature is raised, and the male is introduced to the female for 48 hours at a time with 48 hours' pause in between. This is repeated until about five matings have been seen or the male loses interest.

The male does not bite the female but chases her aggressively and persistently. Courtship lasts several hours and most often takes place in the morning. Always keep watch so the female is not injured. The female is fed normally while the eggs develop, and is also offered food after the shed before laying, until she no longer wants to eat.

EGG-LAYING AND CLUTCHES

The female lays eggs from early summer and through the summer, most often at the beginning of the season. Clutches vary greatly, from 6 to 42 eggs, and average about 23 eggs, more than in most colubrids. The female can lay two clutches in a season, even without having been with the male again in between.

Place a laying box with moist sphagnum in the terrarium. After laying she is fed normally so she recovers, and she is put with a male again only the following spring.

INCUBATION

The eggs are moved carefully, without being turned, to a box of moist substrate such as vermiculite or perlite, and the box is placed in an incubator at 27-28 °C. At 28 °C hatching takes about 75 days. Eggs that go mouldy or collapse are usually infertile. Remove them only once they are clearly dead.

Read more: Incubating eggs

REARING THE YOUNG

The young shed their skin shortly after hatching, and most begin to eat within two weeks. Offer small prey items two to three times a week. The young need calm and cover. They are moved to a larger terrarium when they eat well and have taken about ten meals, preferably gradually by mixing old and new substrate. Animals that refuse food after the move are put back in the box and moved more slowly.

Weigh them regularly: steady weight gain shows that everything is working.

Health and common mistakes

Hydrodynastes gigas is hardy, but most problems stem from stress and incorrect husbandry. The typical faults are:

- Too little space. Animals that pace back and forth along the glass, refuse food or keep spreading the neck are stressed. More space and more hides usually solve it.
- No temperature gradient. The species needs both a warm basking spot and cool zones as well as a water container.
- A one-sided diet. A varied diet with rodents, frogs' legs and trout best matches the species' natural food.
- Prey that is too large, which can cause regurgitation. The prey must not be thicker than the thickest part of the snake.
- Dirty water and a wet substrate. Change the water often, and remove droppings continually.
- Retained skin after shedding and mites. Provide a humid hide, and get advice from a vet on treating mites.

A healthy animal is active, gains weight steadily, has clear eyes and eats willingly. See a vet with reptile experience if the snake loses weight, will not eat for several weeks, has an open mouth or changed droppings.

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.