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TORTOISES AND TURTLES

Home's Hinge-back Tortoise

Kinixys homeana

Kinixys homeana is a small West African tortoise with a low, angular shell and a movable hinge at the rear, which can close the shell over the hind legs and tail. The shell is just over 20 cm long. The species lives in moist forest and swampy areas, is most active at dusk and stresses easily. It is critically endangered in the wild, and little reliable information exists on its care.

Family: Testudinidae Former name: *Cinixys homeana; Kinixys belliana homeana*

KEY FACTS

THE ANIMAL

Adult size	**18-22 cm** total length incl. tail
Lifespan	**30-50 years**
Active	**At dusk**
Lifestyle	**Terrestrial**
Habitat	**Rainforest and wetland**
Difficulty	**Experienced**

CARE

Min. enclosure	**160 × 80 × 40 cm** L × W × H for 1 adult
Temperature, day	**28-30 °C**
Temperature, night	**22-24 °C**
Humidity	**70-90%**
Water	**Water dish**
UVB	**Recommended** Ferguson zone 2
Diet	**Insects, fruit, plants and worms/snails**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**3-7 eggs**
Incubation	**110-115 days** at 28-31 °C

PROTECTION AND PAPERWORK

CITES	**Appendix I**
EU annex	**Annex A**
IUCN	**Critically Endangered (CR)**

About the species

Kinixys homeana is a small tortoise of the genus *Kinixys*. Adults are just over 20 cm long, measured as shell length (carapace), and are among the smaller tortoises. The back is flat and angular, not evenly rounded as in *Kinixys belliana*. The fifth vertebral scute is tall and knobbly, and behind it the shell drops almost vertically. The rear edge is strongly serrated and curves slightly upwards. The colour is yellowish brown, often with pale edges around the scutes, and the plastron is brown. The head is triangular and yellowish, and the legs are heavily scaled. The forelobe projects far forward and covers the head well.

At the hinge in the rear third of the shell, the animal can close the shell at the back over the hind legs and tail. Young animals lack the hinge, and the shell margin is serrated. The male's head becomes strongly yellow in the breeding season.

The species was described by Thomas Bell in 1827 and is named after the English physician and naturalist Everard Home. It is a species in its own right, not a subspecies of *K. belliana*, as it was formerly regarded.

Distribution and habitat

Kinixys homeana lives in the tropical lowlands of West and Central Africa: Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Equatorial Guinea, the Central African Republic and South Sudan. Its occurrence in northern Democratic Republic of the Congo is uncertain, and the species does not occur in Gabon. The type locality is given as West Africa with no more precise site.

The species is critically endangered. It is hunted for food across much of its range, and deforestation is destroying its habitat. It is therefore important that animals in the trade are captive-bred.

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

> **Native range:** Liberia, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon, Equatorial Guinea, Central African Republic and South Sudan.

HABITAT

The species lives in moist tropical lowland forest, in swampy areas and along rivers, preferably in sunlit spots in the forest and in damp grassland. The climate is warm and humid, with rain for most of the year.

The animals are most active early in the morning and at dusk and stay hidden for the rest of the day in leaf litter, under roots and in damp soil. They are drawn to red and pink flowers. The species is omnivorous: plants, fruit and fungi, but also insects, snails and other small animals. Young animals eat mostly animal food.

Care

THE ENCLOSURE

Little reliable information exists on the care of *Kinixys homeana*. Care is based on its moist-forest habitat and on the genus *Kinixys* as a whole; the figures are borrowed from *Kinixys belliana* and *Kinixys erosa* where nothing else is stated.

Tortoises of the genus stress easily and have strict requirements for temperature, light level and humidity. They are also difficult to handle and treat. The species is therefore not for beginners, and wild-caught animals require a parasite treatment plan from the first day.

The enclosure must provide floor area: 8 times the shell length in length and 4 times in width, so 160 × 80 cm for an animal of 20 cm, and at least 40 cm high. Less space is often used successfully, but the general recommendation is 8 × 4 times the shell length. Use an enclosed vivarium so that humidity can be maintained. The substrate is 10-15 cm of a damp mixture of peat, bark mulch and soil, where the animal can burrow. Furnish with several hides at both ends, leaf litter and plants, a humid hide with moss and a large, shallow dish for drinking and bathing. The animal is kept singly. In a cool, temperate climate it can go outdoors only on the warmest summer days.

Read more: Humidity, misting and ventilation

TEMPERATURE

By day the temperature should be 28-30 °C in most of the enclosure, and at night 22-24 °C. The night temperature is not documented for the species but suits a tropical lowland climate. A mild heat lamp over one end gives a slightly warmer spot, but the species seeks shade and low light, so it must always be able to withdraw from the heat to a cooler, shaded end. Control the heat with a thermostat, and measure the temperature at both ends.

The species does not hibernate, and a dry season should not be imitated.

Read more: Heat and temperature

HUMIDITY AND WATER

As a forest species, *Kinixys homeana* needs more humidity than savanna species such as *Kinixys belliana*. Humidity should be 70-90 %, and newly imported or dehydrated animals need over 85 %. Mist the enclosure regularly, give a lukewarm bath at least twice a week, and provide a large, shallow dish of clean water for drinking and bathing. Change the water daily, because algae form easily.

Dehydrated animals need long baths in lukewarm water, only 15-20 mm deep, in subdued light. Young animals dry out quickly and need higher humidity than adults.

LIGHTING AND UVB

K. homeana is most active at dusk and stresses in bright light. Lighting should be subdued, with plants and hides where the animal can withdraw from the light. Sunlight is best, but in a temperate climate a weak UVB light is useful: a UV index of about 1.0-2.0 at the brightest spot (Ferguson zone 2, an estimate based on the habitat). The light follows the season, with about 12 hours a day. Glass and acrylic block UVB.

Read more: Lighting and UVB

FEEDING

K. homeana is omnivorous, and young animals are almost exclusively carnivorous. The diet is roughly half plant material and half animal food. The plant food is herbs such as dandelion and chicory, mixed salad, squash, cooked sweet potato, soft fruits such as banana, guava and watermelon, and fungi. The animal food is earthworms, snails, crickets, mealworms and occasionally a little fish.

Red and orange fruits are taken particularly readily, and they can get sick animals to eat. Feed on a flat dish or stone. Sprinkle a calcium and vitamin supplement over the food, and leave a cuttlebone available.

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

BEHAVIOUR AND HANDLING

The species is shy and withdraws into its shell or burrows when disturbed. It is most active early in the morning and late in the day and spends a lot of time buried in damp substrate. The hinge and the narrow opening between carapace and plastron make the animal hard to handle and examine. Lift it from below with two hands, and handle it as little as possible.

Social life and keeping several animals together are not documented for the species, and it is kept singly. Do not mix it with other tortoises, because parasites spread.

Breeding

SEXUAL MATURITY AND SEXING

The male's head becomes strongly yellow in the breeding season. Age and size at sexual maturity are not documented for the species. Lifespan is not documented either; 30-50 years in captivity is an estimate borrowed from other medium-sized tortoises.

MATING

The timing and course of mating are not documented for the species. In this genus the male pursues the female and mounts her. Give the female plenty of hides and the chance to get away from the male, and separate the animals if the female is injured.

EGG-LAYING AND CLUTCHES

The female lays 3-7 eggs in an earth burrow, which she carefully closes after laying. The eggs are about 4 cm long. The number of clutches per year is not documented. Give the female a box of deep, loose, damp soil where she can dig a nest.

INCUBATION

The incubation period is about 16 weeks, that is 110-115 days. The incubation temperature is not documented for the species; 28-31 °C suits tropical tortoises and is only a starting point. Place the eggs in an incubator with damp vermiculite, and do not turn them.

Read more: Incubating eggs

REARING THE YOUNG

The young are almost exclusively carnivorous, have no hinge and have a serrated shell margin. They dry out quickly and need high humidity, a humid hide, warmth and subdued light. Give small snails, earthworms and insects daily together with a little greenery. Further rearing data are not documented for the species.

Health and common mistakes

Kinixys homeana stresses easily, and newly imported animals are often emaciated and dehydrated and carry large burdens of intestinal parasites, especially single-celled organisms such as flagellates and ciliates, but also worms. The illness shows as diarrhoea with mucus and sometimes blood, undigested food in the faeces, loss of appetite, weight loss and lethargy.

Untreated, the parasites can destroy the intestinal wall and cause life-threatening blood poisoning.

- The first step is fluid: long baths in shallow, lukewarm water for several hours at a time, in subdued light, at about 28 °C and high humidity. Only then does the vet examine faecal samples and give treatment according to the findings.
- The hinge and the narrow opening at the front make it difficult to give medication, so treatment requires a vet with tortoise experience.
- Several of the parasites infect other reptiles, and some also humans. Wash your hands, and disinfect dishes and equipment thoroughly.
- Dehydration affects young animals in particular, and animals kept too dry.
- Respiratory infection with a runny nose and wheezing breathing is most often caused by cold or air that is too dry.

Follow a new animal closely for at least a year with weighing, checks of fluid balance and faecal samples, and keep it in quarantine before it comes near other tortoises. Contact a vet if the animal does not eat, loses weight or has loose faeces.

Read more: Quarantine and hygiene

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.