



Handle with care

African spurred or sulcata tortoise

Species: African spurred tortoise
Scientific names: *Geochelone sulcata*

Description

The African spurred or sulcata tortoise must not be confused with the far smaller and widely kept spur-thighed or Greek tortoise (*Testudo graeca*). The African spurred tortoise is a giant in comparison – being the largest tortoise found in Africa – with the largest on record being 83cm long and weighing 105.5kg. This tortoise gets its name from the ‘spurs’ – enlarged bony scales – on its hind legs. African spurred tortoises have a uniform pale brown or yellow upper shell. The head is brown with darker coloured jaws. Hatchlings are between 4–5 centimetres long and weigh 25–30 grams, but within 15–20 years will reach their large adult size. This species of tortoise can live for more than 50 years.

Life in the wild

They are found from Ethiopia and Sudan, then westwards through the dry savannah and desert fringes of Chad, Niger, Mali, Mauritania and Senegal. The areas where these tortoises live often have no standing water and may have no rain for several years. These tortoises depend on succulent plants for food and water. This species does not hibernate in the wild. Unlike the Mediterranean tortoises, this species does not shut its body functions down (hibernate) to survive prolonged periods of cold weather and scarce food sources. However, this arid species does burrow into the ground to avoid the more extreme periods of heat.

Source of animals

Since 2001, the export quota of wild-caught animals has been set to zero to stop the commercial trade in the wild populations that are now listed as being vulnerable. Most African spurred tortoises on sale through the pet trade in the UK are therefore now likely to be captive-bred, and the animals on sale, if young, are tiny compared to their future adult size.

Prior knowledge and preparation

Before acquiring a tortoise, it is crucial that any potential keeper finds out about the animal – including how to provide for the animal’s needs when kept in captivity, how big it gets and how long it lives. Only then can the keeper make an informed decision about whether s/he can provide the specialist care and captive environment required, and has the facilities, time, financial means and long-term commitment to maintain a good standard of care. The keeper can then acquire suitable accommodation, food and the necessary accessories, and prepare the enclosure to ensure the captive environment is stable before taking the animal home. This also gives the novice keeper time to locate and talk to relevant experienced keepers and professionals for further advice such as a vet with experience of treating such species and specialist organisations that keep this species in the UK.

Vet care/costs/holiday cover

These tortoises need specialist handling and treatment. A veterinary surgeon experienced in their care will advise on the costs of consultations. Holiday cover may be expensive and difficult to arrange, but your tortoise will need to be looked after properly every day by someone who understands its complex needs.

Unhealthy/healthy animal signs

A healthy tortoise should have a hard shell and walk with its undershell (plastron) lifted off the ground. Shell weakness and deformities can be caused by a lack of calcium and/or vitamin D₃ and UV light exposure. It should be alert, with bright shiny eyes, and withdraw its head and legs into its shell if disturbed. A healthy tortoise would also attempt to right itself if it was on its back. A tortoise’s skin should not have any sores or fungal patches. Skin hanging in folds around its legs and neck are signs of too much vitamin A. It should be breathing easily with no signs of nasal discharge, mucus around its mouth, open-mouth breathing or wheezing, which can all be signs of respiratory disease. Its faeces should be firm, so any sign of diarrhoea could have occurred due to a poor diet, roundworm or other internal parasite, or even following the stress of excessive handling.

Health issues to find out about

- Metabolic bone disease – calcium deficiency.
- Vitamin D₃ deficiency.
- Excess of vitamin A.
- Bladder stones.
- Burns from incorrect or contact with light and heat sources.
- Respiratory infections.
- Internal parasites.
- External parasites.
- Mouth rot.
- Dehydration.
- Anorexia.
- Shell rot (following oiling, painting or damage to the shell).
- Fungal infections.

Why are these tortoises vulnerable in captivity?

African spurred tortoises are completely dependent upon their owners to provide the correct accommodation, heating, humidity, lighting and food, all of which must replicate as closely as possible that found in their wild habitat. Without correct care they will suffer with painful diseases like mouth rot and bone disease and eventually die. UV light is required to aid calcium metabolism. Adequate ventilation and a low humidity are important to stop them developing respiratory problems.

These giants of the tortoise world have complex needs in captivity that make them very difficult to keep. They require a lot of space, the opportunity to dig and heating all year round, and they do not hibernate. As these tortoises are often on sale when young and sometimes confused with the smaller Mediterranean species, this species is vulnerable when the new owners discover their size potential and are unprepared for the space needed to keep them as they get bigger. The life span of an African spurred tortoise can also exceed 50 years, so keeping these tortoises requires a long-term commitment to provide the space and warm environment they need. This species, which is not adapted for prolonged periods of inactivity without feeding, is also vulnerable if put into a box in the cold without food for hibernation.

Handling/transporting the animal home

Before and after handling reptiles or cleaning their enclosure, hands should always be washed to reduce the risk of picking up and spreading bacteria such as *Salmonella*. Smaller African spurred tortoises can be picked up by their shells, with a hand put underneath to ensure they are supported and not dropped. Once fully grown, they are far too large to be lifted by one person inexperienced with the species. They can be transported in an insulated wooden box lined with shredded newspaper. The box should be well ventilated, but have a tight-fitting lid to stop the tortoise climbing out. Care should be taken to secure the box during transportation to prevent it sliding and causing injury to the tortoise inside. During transport the tortoise should be kept out of draughts and not allowed to get cold or overheat.

Needs: grouping, diet, accommodation and environment

African spurred tortoises are solitary in the wild and should therefore be kept alone in captivity. Both sexes, even when young, can be quite aggressive to other tortoises. All housing should be set up a week or more before the tortoise is moved in, and checked regularly to make sure that the temperature and humidity are correct. An African spurred tortoise needs a large indoor enclosure that is 10 times the length of the tortoise's shell; a width five times the shell's length and a height twice the shell's length. An adult that is 75cm long could therefore require an enclosure that is at least 7.5m long, 4m wide and 1.5m high, but the larger the better. The tortoise should also have a large, escape-proof outside run during mild dry weather, with a sheltered refuge to give protection from the sun.

The enclosure floor should be covered with newspaper, paper towels, artificial turf or alfalfa pellets that is spot cleaned daily and replaced regularly. Do not use gravel, wood shavings or cat litter which can all be picked up and eaten with food and can block the gut. Hiding places and a bedding area with enough shredded paper or leaves in which the tortoise can bury itself completely are important. Larger animals should be provided with rocks and branches to scramble over, as long as they are fixed and the tortoise cannot fall off them. The scrambling area will also help to wear their nails down to keep them short. A deep sand pit, filled with silver, calci or coral sand, for burrowing, should also be included to allow the tortoise to dig and bury itself completely, as this tortoise will dig deep burrows in the wild to take refuge from the hot sun.

The enclosure's temperature should be kept at 26–30°C during the day, decreasing to 21–24°C at night. Thermometers are used to monitor the temperature in the warmer and cooler areas of the enclosure. A basking site at a temperature of 35–38°C is provided using a heat lamp that has wire guards to reduce the risk of the tortoise having contact with the heat source. A heat mat buried under the substrate is an unsuitable heat source, as this species will burrow into the substrate to cool down. The African spurred tortoise needs a low humidity to reflect the dry environment it inhabits in the wild. Several full spectrum (including UVB 5.0) lights located across the enclosure and no more than 25cm away from the animal should be on during a variable equatorial light period of 12 hours in the winter, 14 hours in the spring and autumn, and 16 hours in the summer. The UV bulb should be replaced as recommended by the manufacturer, usually every 6 months. Hatchlings and juveniles should be soaked in shallow, tepid water 2–3 times a week for 15 minutes to stimulate defecation and avoid dehydration.

These tortoises do not hibernate and will need to be fed all year round. The diet should be low in fats and protein, rich in minerals and vitamins, high in fibre and contain adequate water. Adults need daily access to alfalfa, mixed grasses and weeds like dandelions, supplemented with vegetables twice a week such as broccoli, carrots and squash. Tortoises less than one year old need daily feeding. Small amounts of fruit like apples, melons, avocados and apricots can also be given occasionally. All food should be washed to remove traces of fertiliser etc. A cuttle bone is needed in the enclosure, with a calcium-only additive and a suitable mineral and vitamin supplement added to the food every day. A heavy bowl of clean water should be available at all times, as this tortoise does not have access to the succulent plants that provide fluid in the wild.

THIS IS BASIC INFORMATION ONLY.

If you still believe that you could care for this animal then you must obtain further specialist information prior to taking on the responsibility.