

Horsfield Tortoises

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The Horsfield or Russian tortoise (*Testudo horsfieldii*) originates from the steppes of Central Asia, especially the regions of Afghanistan and Pakistan. Although closely related, to the common Mediterranean tortoises there are some significant differences in husbandry, which potential owners should consider before getting a Horsfield.

Horsfields can be distinguished from other Testudo species by the presence of 4 claws on each foot, tubercles on the rear thighs and a small spike on the tip of the tail, in addition to their relatively round, flat shape.

Mixing tortoises of different species can never be recommended, due to the risk of disease transmission, and the differences in behaviour between different species. For example, the Horsfield tortoise male is a particularly aggressive specimen, which will often bite other tortoises, and mixing with more docile species will often result in injuries.

Scientific Classification

Horsfield tortoises belong to the Order Chelonia, Suborder Cryptodira, Family Testudinidae, Genus Testudo

Legal Requirements

The Testudo tortoises are all now listed on Appendix II of CITES (the Convention on International Trade in Endangered Species), which means that they may no longer be imported, sold, offered for sale or otherwise traded within Europe without a special licence. An unlicensed tortoise may be given away or kept as a private pet, but registration of all tortoises is compulsory before buying or selling and tortoises may be microchipped once they reach a sufficient size (over 100mm long). Trade collecting, import and sale of wild tortoises of these species is prohibited totally.

General care

Tortoises should have access to both an indoor heated area, and an outdoor area where they can forage and enjoy the natural sunlight in the summer.

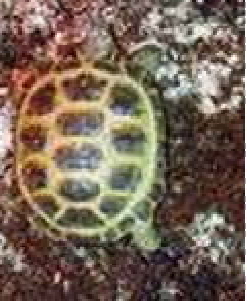
The indoor area should ideally be a purpose-built open-topped enclosure, and should be easy to clean, insulate and keep secure. Aquariums or vivariums will not provide suitable accommodation even for younger tortoises as ventilation is poor. The outdoor area may be an enclosed garden or purpose-built enclosure, but the soil should be well drained, and the area should also be secure and provide shade and places for tortoises to safely hide. Any ponds or waterways should be well fenced off.

The main difference between keeping Horsfield and Mediterranean tortoises is their lack of tolerance for rain and damp weather. In the wild, they are capable of surviving relative extremes of temperature by either hibernating (when too cold) or aestivating (when too hot), but generally live in fairly arid conditions, and in damp conditions are prone to severe respiratory, skin and shell infections. It is important therefore, that



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substrate is kept dry and well drained, and that tortoises are brought inside immediately if the weather turns wet or damp.

Hibernation is recommended for all Horsfield tortoises once they have reached a sufficient size and weight. They should however, be checked over by a vet to ensure they are healthy enough to hibernate in the autumn, and further information regarding hibernation can be discussed at this time.

Hygiene

The enclosure should be "spot-cleaned" daily to remove any droppings or uneaten greens. Once a week, the whole enclosure can be cleaned with a disinfectant suitable for reptiles (further details of suitable disinfectants can be obtained from your vet). It is important to always wash your hands thoroughly after handling reptiles as they can carry Salmonella.

Substrate

It is important to use a substrate that is easy to replace, and as similar to the tortoise's natural environment as possible. A mixture of 50% playsand and 50% loam (easily obtained from your local garden centre) will therefore make the ideal substrate, allowing your tortoise to exhibit natural burrowing behaviour.

Temperature

Reptiles are not capable of regulating their own temperature so it is very important to keep their environment at an appropriate temperature at all times. A temperature gradient should therefore be provided, giving your reptile a hot end where they can bask and a cooler end to which they can retreat.

There are several types of heat sources available including ceramic heaters (infra red light bulbs), tube heaters, reflector bulbs (incandescent spot lights) and heat mats. Incandescent spotlights will provide the ideal basking spot, whereas heat mats on the ground are not a natural way for tortoises to absorb heat. If a heat mat is used, it should be attached to the wall of the enclosure to provide background heat only.

It is important whichever form of heating is chosen, to always use some form of thermostat so that temperature can be accurately controlled. Heat sources should also be protected with a wire mesh guard or similar safety device if they are within a tortoise's reach.

The ideal temperature range at which to keep these tortoises would be **20-30°C (68-86°F)**, with a basking spot up to **40°C (104°F)** in the daytime, and temperatures falling no lower than **17°C (63°F)** at night.

Humidity

This should ideally be measured with a hygrometer and kept fairly low (30-35%) for tortoises that are used to an arid climate.

Lighting

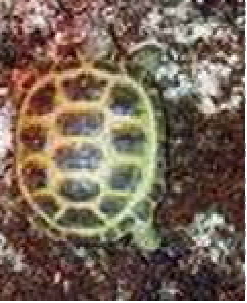
Ideally, tortoises will be exposed to as much natural sunlight as possible, but in our colder climate this is often not possible so it is necessary to provide supplementary lighting too. Tortoises need to have access to both UVA and UVB rays, which many supposedly "full spectrum" reptile bulbs do not supply, so it is important to check this before purchasing a bulb. UVB rays are very important to allow a reptile to produce Vitamin D, which is essential for the absorption and use of calcium. Without this reptiles are at risk of developing Metabolic Bone Disease, which can often be fatal.

Various different types of UVB lights are available. It is important to check the percentage of UV supplied by the bulb. Indoor tortoises require at least 5% UV output. UV lights should be left on for 10-14 hours daily and replaced every 6 months.



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Diet

Horsfield tortoises are naturally herbivores, browsing on up to 200 varieties of different plants, most of which we consider to be “weeds”. In captivity therefore, naturally grown pesticide free weeds should make up at least 75-80% diet, with the remaining 20-25% being certain palatable greens. The ideal diet should be high in fibre, low in protein and high in calcium to ensure good digestive tract function and smooth shell growth.

Suggested plants are listed on the attached diet sheet.

Fresh food and water should be supplied once daily, and bathing twice weekly is recommended to ensure adequate hydration.

It is also important to supplement the diet twice weekly with a calcium/vitamin powder, especially in those tortoises kept indoors. A simple calcium supplement such as cuttlefish may be supplied daily.

Lifespan

The maximum lifespan of a Horsfield tortoise is not known for sure, but these tortoises will often live to well over 100 years.

Signs of Health

A healthy tortoise will be bright and alert with clear open eyes and nostrils and a clean vent. The shell should be smooth and undamaged. Your tortoise should also be keen to eat, and pass faeces at least every 2-3 days. It is important to become familiar with your tortoise's normal appearance, movement and behaviour, in order that signs of illness can be noticed at an early stage.

It is advisable to take your tortoise to a vet who routinely deals with reptiles for a general health check and faecal sample at least once a year, preferably for a check before hibernation in the autumn.

Signs of Illness

Reptiles will often not show obvious signs of illness until they are very sick, but you should look out for any changes in appetite or faeces passed, as well as changes in behaviour or breathing. Other signs of illness include discharges from the eyes, nose or mouth.

If you have any concerns, do not hesitate to contact a reptile vet as soon as possible.

This caresheet is only intended as a general guideline, so please ask for further information.

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