

## **HORSEFIELD TORTOISES**

*Testudo (Agrionemys horsefieldii)*

### **Introduction**

The horsefield tortoise or Central Asian Steppe Tortoise naturally inhabits dry hillside slopes from Russia through Afghanistan, Pakistan, India to China. This small tortoise seldom reaching more than 10cm in length is very well adapted to a dry arid habitat. Although very closely related to Mediterranean species, horsefield tortoises are very different and should really be classed as a tropical-temperate Asian tortoise.



Horsefields are small, dorsally compressed with an almost spherical carapace. Another common name for this species is the "four clawed" tortoise since it only has four claws on each foot.

This species is very diverse in colour, most however are a tan brown to olive green colour with darker brown to black areoles. Some specimens are very dark in colour and are chocolate brown to black, and yellow or golden ones are regularly encountered. This variation in colour is most probably encountered as a result of climate and altitude through the animals' range. At lower altitudes day time temperatures are higher and animals are therefore paler in colour; since they absorb less heat they can be active for longer periods. At higher altitudes temperatures are somewhat lower. Darker specimens absorb more heat and are active sooner and for longer.

Horsefields spend much of their time below ground either in disused rodent burrows or in burrows of their own making. Their dorsally compressed shells and round shape make them ideal for subterranean life. These tortoises are great diggers and care must be taken when designing and constructing an enclosure to prevent escape.

### **Feeding**

Horsefield tortoises are strictly herbivores and require a diet rich in fibre to thrive in captivity. Their diet in the wild could be said to more resemble the African leopard and sulcata tortoises than their Mediterranean cousins.

Wild flowers and plants should make up the bulk of a horsefield's diet, with access to short clipped grasses and chopped dry hay. Never feed large quantities of fruit to this species as this can cause digestive upset and make them more prone to parasitic infection.

A good diet we have found includes: Dandelion (leaves and flowers), sow thistle, plantain, clover,

bramble, rose petals, hawk weeds, watercress, curly kale, small amounts of cabbage (spring greens), access to short grasses and chopped hay. A good calcium supplement such as Nutrobal and calcium carbonate powder are added to their diet daily. Water is always available in small shallow trays just big enough for them to get into. These are changed and cleaned daily. Horsefields can also be soaked in shallow water once or twice a week.

## **Housing**

Horsefields should be treated more like a tropical species and must have access to a large heated indoor area, and good access to outdoors in suitable weather.

They are very tolerant of temperature but not very tolerant of damp. In fact this species above all others will quickly develop pneumonia and severe respiratory infections if not protected from damp conditions.

### **Indoor housing:**

I would suggest for one to two specimens to use a large open top container. The Hagen goldfish tub purchased from most good aquatic centres is ideal - approximately 45-50cm long, 30cm wide and about 20cm deep.

Provide a deep dry substrate of loamy top soil and play pit sand (about 25% soil and 75% sand). This should be at least as deep as the tortoises to allow for natural borrowing activity. Place a few pieces of flat rock (slate) and a few up turned terracotta plant pots for hiding in. Provide a shallow tray water.

Heating can easily be provided by suspending a 100-150 watt active UVB spot lamp above the end of the container. Hanging bulbs 20-30cm above the container should give you a good basking site temperature of at least 30C.



Heating need only be given for 12 hours a day. Horsefields should be allowed to cool to room temperature at night. In an average house night time heating would never be necessary for healthy horsefields.

UVB lighting is essential for these tortoises when kept indoors. Healthy shell and bone development depends on it. Fluorescent UVB lamps can be used but hang no more than 10-12 cm above the tortoises for maximum benefit and these must be replaced every 6-9 months. Fluorescents will need to be used alongside white spot lamps to provide basking facilities.

## **Outdoor housing:**

This should be as large as possible with good access to a dry shelter. Pens must be constructed out of tough material. We recommend the perimeter be constructed from concrete blocks with deep footings approx. 15-18cm deep.

Build pens in well drained areas and always in full sun positions. Small greenhouses and coldframes make ideal dry shelters since they remain warm and bright even on cooler days.

Make this environment as interesting as possible for them. Plant a few hardy nontoxic plants in the pen for cover. We use lavender, honeysuckle and wild plants such as dandelion and bramble.

The inside of a greenhouse or coldframe should be dug over with topsoil and sand to provide areas to burrow and for nesting. Shallow trays of clean water should always be provided.

## **Hibernation**

These animals need to hibernate and you should only prevent those in poor health from hibernating. In their natural range Horsefields are only active for short periods of time, in some cases as little as 3-4 months. Their summers are very hot and they must aestivate (pass the hot periods in a dormant or torpid state), winters are very cold and they must hibernate.

Healthy horsefields put weight on very easily and can grow very quickly. These are adaptations to living in an environment where you only get a chance to feed and grow during a short window of opportunity each year.

In captivity these tortoises are active for much of the year and are generally feeding throughout. The vast majority of horsefields in captivity are overweight and much bigger at a younger age than would be possible in the wild. We are only just beginning to understand the potential damage caused by this.

Hibernation is a break then giving these animals a rest period which will slow their growth and over-development. They should be hibernated at the same time as the related Mediterranean species.

Horsefields must always be hibernated in dry conditions.

## **Health problems**

These little tortoises are remarkably tough and very hardy. They are somewhat prone to eye infections and should be checked regularly for this. Care must be taken to protect them from damp conditions.



In general though they are ideal beginner's tortoises especially for people with limited space outdoors.

With a small amount of thought and care, Horsefield tortoises will live long and happy lives in captivity and bring a lot of joy to those who keep them.

The Norfolk and Coe tortoise Club seeks to ensure that information contained in these pages is accurate. However, no liability or responsibility is accepted arising from reliance upon the information contained in this care sheet.