

Speckled dwarf tortoise (*Chersobius signatus*)

Version 9

The following information is based on experience gathered within the studbooks coordinated by the Homopus Research Foundation.

Enclosure

The speckled dwarf tortoise (*Chersobius signatus*) is successfully kept and bred in enclosures measuring approximately 1 m² for two to three adult specimens. Single adult individuals require 0.5 m². Males have been reported to show aggression amongst each other, but in some cases they did not. Regardless, it is recommended not to keep multiple males in breeding groups, as this would obscure genetic parent-offspring relationships.

Males and females can be housed together year-round. Studbook terrariums are decorated to imitate the natural habitat of the tortoises, with a sandy soil containing loam to avoid sand being ingested (i.e., the sand should be mixed with loam and compacted to form a firm layer), wood stumps and (real or artificial) rocks, and sometimes (live or artificial) plants. It is essential that enclosures are well-structured and that multiple hiding places are present, in which the tortoises can retreat. The animals show a preference for hiding places that are slightly higher than tortoise shell height, between rocks, but may also shelter at other sites. For adult females, an egg-laying site with a soil layer of at least 8-10 cm deep should be provided to allow nesting. The nesting site should provide cover by an overhanging plant, rock, wood, or other structure, because *C. signatus* will not nest in an open space. Enclosures need to be sprayed from time to time, preferably more often in winter (for instance twice weekly) than in summer (for instance once weekly very lightly), to simulate the natural climatic cycle.

Juveniles are successfully kept in simple enclosures, starting at approximately 0.15 m² for two to three hatchlings. These enclosures are decorated with the same soil substrate as the adult enclosures and a (natural or artificial) hiding place. Hatchlings can be kept on newspaper substrate for the first week. Small and simple enclosures allow better observation and therefore increase the chance of survival of the tortoises.

Juvenile tortoises are sensitive to dehydration. In order to avoid this, they need to be sprayed more and with higher intensity than adults. A frequency of every three times weekly for the first year, at least twice weekly for the second, and thereafter as for the adult tortoises is recommended. Soaking the hatchlings once weekly may help to prevent dehydration. The soil substrate for hatchlings should be relatively dry and the top layer should completely dry out between sprayings.

Chersobius signatus should not be kept in outdoor enclosures in Europe. The majority of attempts to keep *C. signatus* outdoor in Europe during summer has led to deteriorating body conditions (sometimes in the course of several years) and even deaths. Moreover, (particularly adult) *C. signatus* do not respond well to transfers among enclosures, and are better off when kept long-term the same enclosure.

Illumination/temperature

The enclosures described here are illuminated by means of daylight, tube lights, CDM/HQI, HID and incandescent (including halogen) light bulbs. Illumination may provide UV radiation, but this is not essential (if it is not provided, sufficient vitamin D has to be added to the diet). Since the light intensity in the natural distribution range is extremely high, bright illumination should be provided. At least one tube light or other lamp that emits a high light intensity should be installed, or natural daylight should be provided. The sole use of incandescent bulbs does not suffice.

The photoperiod needs to be adjusted to the natural distribution range. This means 13-14 hours in summer and 9-10 hours in winter, with a gradual shift between these two limits. Climatic cycle can be adjusted to northern or southern hemisphere.

Studbook terrariums contain light bulbs for heating, sometimes in combination with sun or soil heating. The day temperatures need to fluctuate with the season, for instance 30-32°C in summer and 20-25°C in winter. Night temperature should be lower than day temperature. There is no minimum night temperature, as long as the temperature remains above 0°C. The day temperature under a (standard or halogen) spot light or in sun needs to be higher, for instance 40°C or higher, to allow basking. This spot may be switched off for a week or so during winter.

Diet

The adult tortoises are mostly fed with green plant material (*Taraxacum*, *Plantago*, endive, chicory, et cetera), supplemented with a fiber-rich component such as chopped hay, Agrobs, or (soaked) Heucobs. In addition, the food should be supplemented with a commercial calcium/vitamin additive at all feedings. Food can be provided three times weekly. Once weekly, a nitrogen-rich vegetable component such as sprouted beans may be added, particularly in winter and spring. Provision of fruit is not recommended.

When the tortoises are inactive during warm episodes in summer or at low temperatures in winter, frequency of feeding may be reduced, although it is recommended to continue to offer food as some tortoises will become active now and then. Hatchlings need food more often, such as daily or every other day during the first months.

It is extremely important that food items are provided in a feeding dish or flat rock, and not directly on the soil substrate. If food is provided on the soil substrate, too much soil may be ingested and lead to death of the tortoise. In the studbook, this has been the primary death cause for *C. signatus*.

Clean drinking water should be provided for all life stages at all times, as the tortoises drink infrequently.

Parasites

Wild and captive *C. signatus* often carry significant loads of nematodes in the intestines, particularly after stressful events such as transfers. Because several captive tortoises have died from enteritis caused by nematode infestations, faecal examinations can help monitor nematode infestations. Fenbendazole (e.g., Panacur) has been successfully used to suppress nematode populations in *C. signatus*, upon diagnosed infestations or in routine administrations (e.g., annually at the end of summer).

Situation in the wild and in captivity

Chersobius signatus is uncommon in captivity and threatened in the wild. Therefore, it is of importance to gather life-history information on the species (both in the wild and in captivity), allowing formulation of wildlife management plans if necessary. The vast majority of the European captive population of this species is registered in the studbook. The aims and methods of the studbook have been described in a [studbook management plan](#).

Literature

A detailed bibliography can be found at the [website of the Homopus Research Foundation](#).

Additional information

This caresheet was drawn up in December 2017. Husbandry and caring methods are dynamic and therefore it is recommended to [check for updates](#).