

Black-breasted Leaf Turtle – *Geoemyda spengleri* (Gmelin 1789), Paula Morris and Chris Tabaka DVM
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ORIGINAL NAME: *Testudo spengleri* (Gmelin 1789), by original designation - Type species, changed to *Geoemyda* by Gray in 1834.

COMMON NAME: Black-breasted hill turtle, Black-breasted leaf turtle



This care sheet is intended only to cover the general care of this species. Further research to best develop a maintenance plan for whichever species/subspecies you are caring for is essential.

The diminutive Spengler's turtle, with its owl-like eyes and strongly serrated marginals, is one of the most engaging, animated and agile of the Asian species. You have to turn it over to see its most distinguishing feature, a dark, unpatterned plastron with a yellow lateral border. The shell is flattened instead of domy, and the toes of both front and rear legs are partially webbed. A yellow head stripe runs from near the tympanum down the neck on the females, but is less prominent on the males.

The natural range is from Kwangsi, Kwangtung, and Hainan Islands in southern China through Vietnam to the islands of Sumatra, Borneo, and Okinawa (Ernst and Barbour). It's primarily terrestrial but has been observed at the edge of freshwater streams. Peter Pritchard has seen *G. spengleri* roosting in eroded pockets of limestone hillsides and has reported seeing eggs in some of these tiny caves as well.




There's a paucity of information on the Spengler's wild routine, but those who keep them in captivity in any number report there is strong territoriality on the part of both males and females. So keepers either provide generous accommodation for multiple males or house them with one or more females and no other male. Their group dynamics are subtle but powerful and a less assertive male (or even female) may stop eating and drinking and eventually die from being intimidated.

Stress, as always, is an underrated but important consideration in the housing of any chelonian species.

If you acquire a new turtle, quarantine for a minimum of six months prior to introduction to the others and get a complete health examination from a veterinarian conversant with reptiles. Chelonians are experts at appearing healthy, even if they're not. A single diseased animal can infect and kill your collection. It should be noted that drug dosage and administration

Black-breasted Leaf Turtle - *Geoemyda spengleri*

- **Location** - Hainan Island, Southern China and Vietnam
- **Habitat** - mountainous regions, cool habitats with low light levels
- **Size** - 11.5 cm (4.5 inches)
- **Diet** - omnivorous - fruits, vegetables, greens, insects, earthworms and slugs
- **Conservation Status** - No CITES designation
- **Threats** - habitat loss, food markets, pet trade
- **Alternate Names** - Black-breasted Leaf Turtle, Chinese Leaf Turtle, Vietnamese wood turtle, Spengler's turtle



information available on the Internet or in hobbyist books is often dated and possibly dangerous, please leave drug advice to trained professionals.

If you purchase a wild-caught *G. spengleri*, be sure to examine it for ticks under a magnifier. Swab any you find with a dab of Vaseline petroleum jelly, wait a few minutes, and carefully pick them off with tweezers.

HOUSING SPENGLER'S TURTLES INDOORS - Expert climbers, *G. spengleri* will need to be housed in a habitat with either an inward-facing lip or a mesh covering to prevent climb-outs. Avoid placing any shelter, rock or plants flush with the sides of a pen; *spengleri* will make use of them! But to keep your *spengleri* active and interested in his habitat, you must provide contour in various forms.



Contrary to what some references say about *spengleri* not being fond of water, I and other keepers have found that they're quite happy to sit in their water for periods of time. Again, given the territoriality of these turtles, I advise having at least one water dish more than the number of turtles you are keeping in the pen. The alpha female at one zoo has to be temporarily removed from the display's only water source (a pool beneath a trickling waterfall) so that the other turtles can drink and soak. Even something as small as a plastic Rubbermaid® sandwich container that each turtle can immerse itself in and soak in peace will be welcomed. I have seen the alphas in my groups try to chase away others from their favorite dishes. Having small, multiple water sources in addition to one large communal dish will allow all to stay hydrated, especially important for this species.

Breaking up the "vista" in an enclosure with plants, rocks and shelters gives each turtle a chance to feel safe from the others, provides interesting contour, and a chance to wear down the claws. Males like to be 'lookouts', taking the highest position available in a habitat. Alpha females may do this also. Providing an especially elevated spot will be much appreciated by your *spengleri*.

I use terra cotta roof tiles for shelters (see photo). These can be laid side-by-side and partially covered with a substrate of sterile potting soil (no perlite or vermiculite) and orchid bark. A third roof tile can be added atop the other two after filling in the crevice with substrate. Plants of a vine-y nature provide additional shelter and pleasant greenery.

The *G. spengleri* favor subdued light (those owl eyes of theirs) and do not like to be too warm a temperature; they must be allowed to retreat to a dark, unheated area of their containment. They can tolerate temperatures between 68-80F. Humidity can come from their water dishes and spritzing with a plant mister a couple of times a day. But they do like a bit of basking heat, so have available during daylight hours a low-wattage basking heat lamp (40-Watt) for thermoregulation.

You can always make a *spengleri* happy by offering a variety of invertebrates, foremost among which are the night crawlers; they love to hunt anything that moves. Snails and calcium dusted crickets are also favorites. Offer mealworms, but in moderation; they're not that nutritious and their chitinous exoskeletons could lead to impaction.

After having my group for three years I'm now able to give them fruit and vegetables. They favor red fruit like strawberries, red grapes, plums and tomatoes, but I've managed to slide in finely chopped ruby yam, diced cucumber and shreds of zucchini. I add calcium powder, vitamins and finely snipped orchard grass (fiber) to this mix and all of them love it. Start offering a variety of fruit and minced vegetables in addition to the live foods and perservere; they'll eventually come around, particularly drawn by anything red.

Diet:

- Invertebrates, especially earthworms
- Fruit and vegetables

Medical

Primary pathology with the *G. spengleri* is entamoeba leading to secondary infections leading to sepsis leading to death. Once *G. spengleri* start to go downhill, they are nearly impossible to recover but are so tough that they hold out for a long time even when their organs are well beyond repair. It is not unusual for necropsy pictures to show classic sepsis lesions loss of functional liver due to abscessation.

Metronidazole is an extremely important aspect of any medical protocols with Asian market chelonia. In holding areas and shipping, terrestrial chelonia are mixed with aquatics which carry entamoeba. This then infects the terrestrials who have little resistance to it leading to mucosal GI erosions. These erosions lead to bacteria in the bloodstream which leads to liver, lung, renal abscesses and subsequently death. Please note: Any administration of drugs should be under qualified veterinary guidance.

Males are weaker than females in this species.

Shell lesions are fairly common in this species. Many shell lesions appear to be the result of being kept at temperatures that are too high. While it seems odd keeping a reptile at cool temps, (68 - 72 F except for the basking area) they thrive in this type of microhabitat.

Turtle and tortoise care research is ongoing. As new information becomes available we share this on the World Chelonian Trust web site at www.chelonia.org. Serious keepers find it to be a benefit to have the support of others who keep these species. Care is discussed in our free online email community, which may be joined from the web address above. Please contact us about the many benefits of becoming a member of the World Chelonian Trust.

World Chelonian Trust
www.chelonia.org
685 Bridge Street Plaza PMB# 292
Owatonna, MN
55060