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Asian Big Headed Turtle (*Platysternon megacephalum*)

Burly “Big Heads”

The Asian, or Chinese big headed turtle is a species of large, unusually shaped, aquatic to semi-aquatic turtle of southern to southeastern Asia. A primitive species of turtle, it bears a resemblance to the snapping turtles (*Chelydra spp.*) and mud and musk turtles of North America, but is in a family and genus of its own. These largely aquatic turtles occupy streams, rivers, and other clear, permanent bodies of water, where they spend much of their time concealed or burrowed in their gravelly or sandy substrate. These turtles are also surprisingly skilled climbers, and are able to use their strong claws and feet to climb amongst their rocky shorelines and even into trees or low vegetation. As their common name implies, this species has a very large, triangular “logger-like” head with powerful jaws for catching and consuming smaller aquatic prey, and a long tail nearly the length of their carapace. The rectangular carapace is noticeably flattened as well, and can range in color from yellowish, brown, olive-brown, to yellowish-brown, and the reduced plastron is yellowish in color. Young turtles also are more vibrantly colored than adults, and have more serrated rear marginal scutes. As with many species of Asian turtles, the Asian big headed turtle is an endangered species in the wild due to many threats including overharvesting and overexploitation. However, for the more advanced enthusiast with experience in handling and keeping similar, large turtles with powerful bites, the Asian big headed turtle can make for a surprisingly personable, hardy and enjoyable turtle species to maintain given consideration for its conservation status in the wild.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Reptilia

Order: Testudines

Suborder: Cryptodira

Family: Platysternidae

Genus: Platysternon

Species: *Platysternon megacephalum**

**Taxonomy subject to change and revision.*

Lifespan and Longevity

Asian big headed turtles may attain potential longevity of at least 30 to 40 years or more under proper care and conditions.

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Distribution and Habitat

Asian big headed turtles are a largely aquatic to semi aquatic species, being found in clear, fast moving, rocky mountain streams, rivers, and other riparian or permanent bodies of water of southern to southeastern Asia. This species occurs in southern China, southwest into northern Vietnam, Laos, Kampuchea, and into northern Thailand and southern Burma/Myanmar.

Conservation Status

IUCN Red List Endangered (EN).

Legal and Regulatory Status(*Subject to Change)

Platysternidae spp. are CITES Appendix I as of October 2017. Turtles and tortoises under 4 inches are regulated by the U.S. Food and Drug Administration (FDA). Also consult with your local, municipal, and state ordinances and regulations for any ownership restrictions.

Experience Level Required

Advanced.

Size

Adult Asian big headed turtles can reach carapace lengths of 5 ½ to 7 ½ inches, with some being reported at larger sizes.

Housing and Enclosure

Any enclosure that is provided must be secure and escape proof. One to several hatchling Asian big headed turtles under 4" can be adequately housed in a 10 gallon aquarium or similar sized tub or enclosure, but will quickly outgrow these accommodations, and larger accommodations should be provided accordingly. Asian big headed turtles are not strong swimmers, and should be provided water that is at most 1 ½ to 2 times the turtle's height in depth to allow for complete submersion while still allowing their nostrils to reach the surface, and at least two to three times the carapace length for adequate swimming and movement. Once an individual reaches their adult size of 5 ½ to 7 ½ inches in carapace length or more, housing and accommodations for this species can become more difficult. At minimum, a 55 gallon, or two foot by four foot enclosure or larger should be provided for an adult big headed turtle, although appropriately sized plastic or galvanized totes, troughs, or some forms of commercially available turtle tubs may be more suitable and easier to clean and maintain. A high power pump and water filtration canister system must also be set up and installed to maintain enclosure clarity and quality. These turtles may also bask out of the water, or often opt to float near the surface. A small area of dry land in the enclosure can and may be utilized as well. Substrates that can be utilized can include bare bottomed enclosures, or non-abrasive aquarium sand or gravel that cannot be easily ingested. Substrate should be agitated weekly to clear out lodged debris. Additional furnishings and accessories can also be provided in the enclosure for added safety and security including commercially available hides or slabs, live or artificial plants, which should be planted firmly to prevent uprooting, rocks, or other similar furnishings.

Temperature, Lighting, and Humidity

Providing the correct amounts of UVA/UVB overhead incandescent and florescent lighting, and calcium-to-phosphorus ratios is essential for ensuring the health and overall well-being of Asian big headed turtles in captivity. Without UVA/UVB, or adequate amounts of it, they can be susceptible to the abnormal bone and shell growth and development known as Metabolic Bone Disease (MBD), and other health and development maladies. Pyramiding of the scutes and shell can also occur due to poor or improper diet, lighting, or heating. Always be sure to spot clean the enclosure for urates, feces, or uneaten food at least twice per week. Be sure to periodically

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replace any substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months. These turtles require a thermal gradient using a ceramic or radiant heat emitter, UTH (or under tank heating pad), submersible water heater, and/or UVA/UVB overhead lighting. A 12 to 14 hour day/night cycle can be provided using a quality UVB bulb for proper calcium, vitamin D, and D3 processing and basking opportunities. Water temperatures should be maintained at around 55 to 72 degrees F with an ambient air temperature of about the same in degrees F and basking area temperature around 85 to 90 degrees F. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Feeding, Diet, and Nutrition

Omnivorous to Mostly Carnivorous; In the wild, Asian big headed turtles are largely carnivorous. They will use their large, powerful jaws to consume and prey upon small amounts of algae, fruits, and other aquatic plant matter as well as aquatic insects, crustaceans, mollusks, and carrion, or otherwise dead or decaying plant and animal matter. They will also commonly eat many smaller vertebrates including small fish, smaller reptiles and amphibians, and even sometimes small mammals or birds. In captivity, variety is important, and these turtles can be given commercially available aquatic turtle or omnivore mix diets, as well as appropriately sized feeder fish of appropriate nutritional value. Avoid feeding them goldfish, which are not nutritionally staple. They can also be given crickets, roaches, waxworms, superworms, mealworms, nightcrawlers, red worms, earthworms, or crayfish. Frozen-thawed rodents of appropriate size, and other forms of fresh meats such as chicken, turkey, fish slabs, and/or beef can also be given, but any foods that are high in protein and fat should be given sparingly, if at all. Feeding frequency depends on the age, size, and overall health of your turtle, but in most cases, they can typically be fed two to three times weekly. They must feed and ingest food underwater, as with many other turtles, and any excess or uneaten food should be cleaned and removed to prevent fouling. These turtles also require regular calcium and multi vitamin and vitamin D3 supplementation two to three times per week for optimal health and well-being. Without the proper diet and supplementation, they can be susceptible to Metabolic Bone Disease (or MBD), and other bone, shell, and growth maladies. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

Asian big headed turtles are by no means an appropriate beginner's turtle and are best maintained by the more advanced turtle or reptile enthusiast able to provide the proper amount of space and housing for this species. Asian big headed turtles can become very docile, personable, and handleable pets if acquired and handled or interacted with on a regular and frequent basis from very early ages (such as from hatchlings). However, this species has very strong jaws and may inflict a serious bite if threatened or improperly handled, and should therefore be handled with care. In general these turtles are not suitable "pet" species for most individuals without significant prior turtle experience.

Due to their weight and bulk, any big headed turtle over 3 to 4" must be handled correctly to prevent injury to the animal and/or individual handling them. These turtles should never be solely picked up or carried by their tails, as this is likely to cause spinal (or vertebral) injury. Many big headed turtles can also be handled by firmly gripping their rear portion of their plastron and carapace between their tail and hind limbs.

Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens

Contact

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact the Madison Area Herpetological Society at info@madisonherps.org

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