

## Reptiles

The word reptile elicits many thoughts and attitudes. Some are positive but, unfortunately, many are negative. Some people fear and hate reptiles; others describe them as slimy or creepy. Reptiles are probably the most misunderstood of all the world's creatures. The opportunity to correct some of the misconceptions may be reason enough to study them, but reptiles are also fascinating in their own right. Knowledge of living reptiles, (their biology and adaptations) can be the basis for sound ecological understandings, and nothing can help to alleviate fears or remove misconceptions associated with reptiles more than a close-up study of them.

Reptiles are covered with scales and their toes have claws (with the exception of one species of sea turtle). Some scales are modified into plates and other types of shields. Usually the juvenile reptile looks much like the adult and does not go through the larval stage.

### **Turtles**

Turtles are the oldest living reptiles, and are the most interesting to observe with their peculiar skeletons and bony shells. They are found in every environment, from the ocean to the desert. All have scaly skin, and all control body temperature by behavior, so they are often seen basking. Turtles exhibit a wide variety of color and pattern, even within species, and accurate identification often requires close observation

All turtles lay eggs, some as few as two and some as many as several hundred. All bury their eggs in cavities dug out by the female, and the hatchlings must dig their way out.

Turtles can be kept in a semi-aquatic aquarium if the water is well filtered. Turtles must be able to leave the water and completely dry. Keep them at a favorite temperature (70°-85° F) by using an incandescent hood or by placing a 40-60-watt incandescent light near the aquarium. This will provide enough light and heat to keep the turtles healthy. Turtles eat live insects and some fruits and vegetables. Occasionally supplement their diets with raw meat, fish or all-meat dog food.

Keep the tank, and especially the water, clean at all times to prevent the buildup of wastes and spread of disease. Always wash hands after handling turtles.

### **Snakes**

King, bull, pythons, corn, rat and milk snakes are great for classroom pets. Handle all snakes with care. The best cage for holding snakes is a glass aquarium; however, a cage can be made of wood with a glass front. Good ventilation is a must. Cover the bottom of the cage with a layer of sand or newspaper. Some snakes like to hide in a cave-like structure and some snakes like to climb, so a stick strong enough for climbing would be sufficient. Provide water in a small bowl at all times because snakes drink by sucking the water between their lips.

Snakes molt (or shed their skin) several times a year. A few days before molting, the eyes of the snake turn a milky color because of changes in the eye shields, which are discarded along with the skin. After two or three days the eyes clear again, and a branch, rock or some other rough edge must be provided so the snake can rub against it and begin the molting process. It is best to leave the snakes undisturbed as much as possible during the molting period.

Keep snakes at temperatures between 70° - 85° F. Temperatures can be controlled placing a lamp near the cage or by using an incandescent hood. Snakes with a balanced diet do not need sunshine.

Overexposure to the sun can kill a snake by raising its body temperature too high.

Depending on what type of snake you have will determine what is needed for its diet.

## Reptiles (cont)

### Reptile Skin:

Another interesting feature of reptiles is their skin, which is generally thick, tough, dry, and covered or partially covered with scales. While often considered to be slimy, reptile skin does not even have the glands that could moisten it. In fact, reptile skin is impervious to water, which prevents water loss and helps make it possible for reptiles to live under exceptionally dry conditions. The amount of skin covered by scales depends on the kind of reptile. Snakes, lizards and crocodiles are almost completely covered by scales. Turtles' skin is less scaly, with much of the flexible skin around the legs being relatively free from scales. Most reptiles shed their skin as they grow. Many people are familiar with the shed skin of a snake. This is not the complete skin but rather just the outermost layer, or *cuticle*. An examination of a shed skin will reveal the details of the underlying skin including scales.

It is this layer, (the cuticle), that is water resistant and therefore dry.

Some other reptile features worthy of note are that reptiles breathe through lungs, most have a three-chamber heart (crocodiles have a four-chamber heart), and their eggs are internally fertilized.

### Is it Poisonous?

The first question that is often asked about a snake - Is it poisonous? - may reflect the basis for much of the negative feeling toward reptiles. Actually, not many North American reptile species are poisonous. Those that are include four kinds of snakes (rattlesnakes, water moccasins or cottonmouths, coral snakes and copperheads) and two lizards (Gila monster and beaded lizards). Bites from the poisonous lizards are rare, but serious. Venomous snakebites do occur but are usually not fatal if appropriate action is taken. Even though venomous snakebites are infrequent and the survival rate is high, poisonous snakebites can result in severe tissue and muscle damage. At the very best, venomous snakebites can cause extremely painful, slow healing wounds.

### Selecting Reptiles for the Classroom:

The first point to be made about selecting reptiles for the classroom is that *poisonous reptiles should not be kept at school*. The risk is simply too high. Venomous reptiles are truly fascinating, and the temptation to keep one can sometimes be great. But even with the best of care and intentions, accidents can occur. Even a locked cage must be open for feeding and cleaning, and this presents a potential danger to the keeper. Also, snakes are notorious escape artists.

Many snakes, turtles and lizards are easy to keep in captivity, but others are less practical to keep in the classroom because of their size, temperament, feeding requirements or other special needs. Some kinds of snakes-for example, bull snakes, pine snakes and rat snakes-tend to be fairly docile, but most water snakes and racers have rather nasty dispositions and are more difficult to handle. The food of some snakes is readily available and easy to provide, while other snakes have more specialized diets. Most garter snakes, for example, can be maintained on a diet of earthworms and minnows, both of which can be collected locally or purchased from a fish-bait shop. Queen snakes, on the other hand, which closely resemble garter snakes and are often mistaken for them, feed almost exclusively on soft-shelled (newly molted) crayfish, and Eastern hognose snakes feed almost exclusively on toads. These specialized diets make both of these snakes difficult to maintain in captivity.

Smaller reptiles that are easy to handle and maintain are more appropriate as classroom animals.

Virtually all the reptilian characteristics and behavioral patterns can be easily observed in the smaller reptile species. Also, smaller reptiles tend to be less threatening to those who feel uncertain about them. In any case, it is important to identify a prospective classroom reptile accurately in order to eliminate any venomous specimens and to ensure that the captive receives proper care.