Green Anoles (American Chameleons)

Background

Green anoles, sometimes called American chameleons, are found in the southern states, from Texas eastward along the Gulf of Mexico and north through part of North Carolina. However, these small, attractive lizards are so readily available through pet stores and biological supply companies and appear so often as pets in elementary school classrooms that they deserve consideration as a representative lizard. This is especially true since, in spite of the best intentions of the keeper, many anoles die because inappropriate information about them leads to improper care. For example, at one time it was popular to recommend sugar water as adequate food for these insectivorous animals. Of course, anoles fed in this way would soon die of malnutrition.

Characteristics

As the erroneously applied common name "chameleon" suggests, these small, slender lizards, 5 to 8 inches (13–20 cm) long, have the ability to change their color. (True chameleons, the masters of color change, are native to Africa.) Green anoles are usually solid green on top, but the color can change to mottled green-brown or solid brown, depending on the animal's

mood and the environmental temperature. The lizard's chin and underparts are white (this does not change), and adult males have a pink throat, which can be expanded into a "throat fan" to signal other anoles.

In nature, anoles live among the twigs and leaves of shrubs and small trees, where they pursue their insect prey and obtain water by licking raindrops or dew from the foliage. Anoles appear to adjust readily to the presence of humans and are as likely to be found among landscape plantings around homes, even in cities, as in more undisturbed areas. Since anoles obtain both their food and water from foliage, they are inclined to spend most of their time in the vegetation, but they are also seen on the ground.

Male anoles are territorial, which means they defend a certain area of their habitat from intrusion by other males of the species. However, the males rarely fight. Rather, an anole signals "ownership" of a certain area by extending its pink throat into a fan-shaped structure, then raising and lowering its head. The rate of this movement indicates the intensity of the anole's feelings, and this behavior usually results in the retreat of the intruder to another area without further interaction between the two males.

Reproduction

The throat fan is also used as a signal between male and female anoles as part of the mating ritual. After mating, the female deposits two to four eggs in leaf litter, under pieces of bark, or in cracks and crevices. The eggs hatch in a few weeks, and the young take up an existence among the vegetation similar to that of the adults.

Green Anoles in the the Classroom

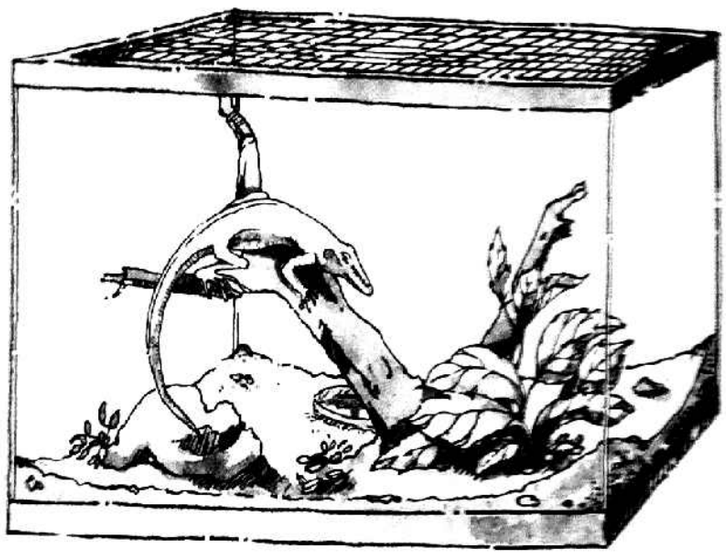
Apart from being easy to care for, green anoles are especially interesting because of their ability to change color. They demonstrate a variety of biological and ecological concepts, such as camouflage and predation, as they hide among the vegetation and capture their insect prey. Since they show the typical lizard characteristics and are interesting and innocuous, they are nice representative reptiles for classroom studies.

How to Obtain

In regions where they occur in nature, green anoles can be found and captured among or around the vegetation where they normally live. Otherwise, they are commonly available through pet stores and from some biological supply companies (see Resources, page 226).

Caring for Green Anoles

Housing Green anoles can be kept in a sterile terrarium with a branching twig on which they can climb. However, a planted terrarium or a modified terrarium (see pages 15 and 16) will provide a much more natural environment for them, since they normally climb and hide among vegetation. A 10-



Green anole in a planted terrarium

gallon aquarium (or larger) makes an ideal-sized enclosure for an anole or two, but it should be provided with a tight-fitting screen cover to prevent escapes and allow for ventilation. For a planted terrarium, 1 to 2 inches (2.5–5 cm) of soil in the bottom of the aquarium will provide a medium in which any houseplant that is appropriate in size—except for cacti—can be planted to give the anoles a perch and hiding area. A sturdy, branching twig should also be supplied for perching, basking, and displaying. Finally, while not necessary, a piece of bark, a rock or two, and some moss will add to the attractiveness of the anoles' quarters.

Once established, the anoles and their terrarium will be easy to maintain. In general, an environment that supports the plants will be satisfactory for the anoles. Sprinkling enough water over the plants every day or two to sustain them will provide enough water for the anoles, since they drink directly from the water droplets on the leaves. Of course, the terrarium should be kept where the light is adequate for plant growth.

Diet Anoles are insect eaters and will accept only live, moving insects of an appropriate size. Mealworms are an excellent food and are easy to obtain, but because the exoskeleton is indigestible, a sustained diet of them may cause digestive problems. However, the white mealworm larvae, which have just shed their skins, are ideal and can be used whenever they are available. Mealworm larvae can also be raised in the classroom (see page 66). Anoles will also accept flies, small crickets, and other soft-bodied insects, including small caterpillars and insect larvae that climb on twigs and leaves. The food can simply be placed in the terrarium, where the anoles will find it, but most anoles will also learn to accept wiggling insects from forceps.

One should not have to clean the anoles' terrarium often. Their small, dry fecal pellets will not be objectionable and will decompose in the soil. Of course, any dead insects should be removed, as these will not be consumed and are slow to decay.

Anoles do not hibernate; they simply become lethargic during cool periods. They are reasonably tolerant of changes in temperature and can

therefore, be kept in classrooms with fluctuating weekend temperatures. Finally, although daily feeding is recommended, anoles can go without food for a day or two. A few extra live insects left in the terrarium will provide weekend forage for them.

A Note on Handling

When first captured or handled, anoles will attempt to escape, so they must be grasped quickly. They are fragile, however, so care must be exercised not to harm them. To capture an anole, quickly place one hand over it and curl the fingers around its body. Take care not to catch it by the tail if it attempts to dart away, and never pick one up by the tail.

When the Project Is Over

See page 10 in Chapter 1 for suggestions on what to do with animals that are no longer wanted or needed in the classroom.

Observations, Activities, and Questions

- Observe and describe an anole. What color is it? Is it the same color all over? How many toes does it have on the front and hind feet? Describe the toes.
- Describe how an anole moves its eyes. Do the eyes move together or independently?
- Describe how anoles catch and eat their prey.
- Place an anole in the dark for about an hour. What color does it become? Does it change color when it is returned to the light? How long does this take?