Chameleons or Anoles ?

By Roy W. Rings

When I was about twelve years old I saw my first "chameleon" at the Ringling Brothers Circus in Columbus, Ohio. The man selling the brilliant, green "chameleons" had a large display board, covered in bright green cloth, and a sign which said "Chameleons – 25c". On the board were a lot of small, green lizards held in place by a thread necklace and a small safety pin. My dad, a Columbus policeman, bought me one and I became the proud owner of really, exotic pet.

The next day I showed all my friends the latest addition to my personal pet collection of a dog, four white rats and a box turtle. Next, I made a small cage in which to keep the pulled off one wing so they could not fly away. My clumsy efforts to provide them with food were insufficient to meet their needs and they didn't survive very long. However, this experience honed my curiosity about lizards and other reptiles. I experimented with different background colors to watch the response of my new pet. I discovered that it could change from green to brown and gray and back to green to roughly match the shade upon which it was resting.

Nineteen years later I encountered my first wild *Anolis extremus* chameleon in Pascagoula, Mississippi, where I was stationed as an Army entomologist in World War II. My wife and I would occasionally see these tree lizards, hanging upside down, outside our kitchen window screen. Apparently, they were attracted to the kitchen screen by the flies which gathered there in hopes of sharing our dinner.

My next contact with these exotic creatures was on the West Indian island of the Dominican Republic, where I saw large populations of green tree lizards *Anolis extremus* on tree trunks in the Port Authority. This experience happened when I was on a cruise ship shore excursion to collect exotic butterflies, mostly Zebra Long Wings.

After retirement, Lorraine and I ended up at Sun City Center in central Florida where we found tree lizards abundant. I began to study these animals and found that they were really not chameleons but "anoles". The anoles belong to the family Polychrotidae and consist of *Anolis* species living in the southeastern United States, the West Indies, Central and South America Over 300 species of *Anolis* are currently recognized, making this one of the most extensive vertebrate radiations on earth, especially in the West Indies.. I also learned that real chameleons are members of the family Chamaeleonidae and are found in most of Africa, Madagascar and southern India. Color changes in true chameleons are used for communication. For example, male chameleons from Madagascar change rapidly from their normal green color to a pattern of red, orange and yellow when confronting other males in territorial matters. In the breeding season, females develop one set of colored markings to indicate they are receptive to mating and a different set to indicate they have mated are not receptive.

There are two species of *Anolis* here in the Tampa area: the native Northern Green Anole, *Anolis carolinensis*, and the introduced Brown Anole, *Anolis sagrei*. Their activity provided us with many hours of entertainment as we watched them through our porch screens. One of the first activities that intrigued us were the vigorous push-ups that the males of both species do in defense of their territory or to attract a mate. At the same time they inflate their dewlap, a large, pink fan on their throat. The Green Anole is native to Florida and has been a resident for thousands of years. The Brown Anole is a small

Caribbean lizard that colonized south Florida 50 or 60 years ago and is gradually expanding its range in the United States. The Brown Anole is thought to be responsible for a dramatic decline of previously stable populations of the Green Anole. The Green Anoles often undergo a habitat shift and disappear within a few years after the Brown Anole has invaded their territory. In the summer months we have seen hundreds of the Brown Anoles in our backyard but only two Green Anoles and they were mating on our down spouting at a height of seven feet. Apparently the green species is a true tree lizard, preferring areas of the trees that are above six feet while we see the brown form most often on the ground or in shrubs and trees below six feet.

We also observed the Brown Anoles perching on the sides of our downspouts. In the cool mornings, when the temperature is in the low seventies, the *Anolis conspersa* reptiles will bask on the sunny, eastern side of the downspout. As the temperature rises, they will move to the south side, and when the temperate reaches 85 degrees F they move to shaded side of the structure which is the coolest side. Since all reptiles are cold-blooded they move about in the environment to satisfy their temperature preferences. This is a good example of biological thermoregulation.

The Green Anole can reach a length of about nine inches. Females are slightly smaller, about six inches. These anoles may have a green or a brown body color, depending on mood, time of day, surroundings and temperature, with a white underbelly. Females have a white stripe along the backbone.

Anoles feed on various small insects, such as cockroaches, moths, and also slugs, spiders, earthworms, and other small animals. In captivity they can be fed on flies, crickets, wax worms, and mealworms. Captive anoles also enjoy a weekly treat of baby food offered in a shallow dish.

Left: Slender Anole, *Anolis punctatus*

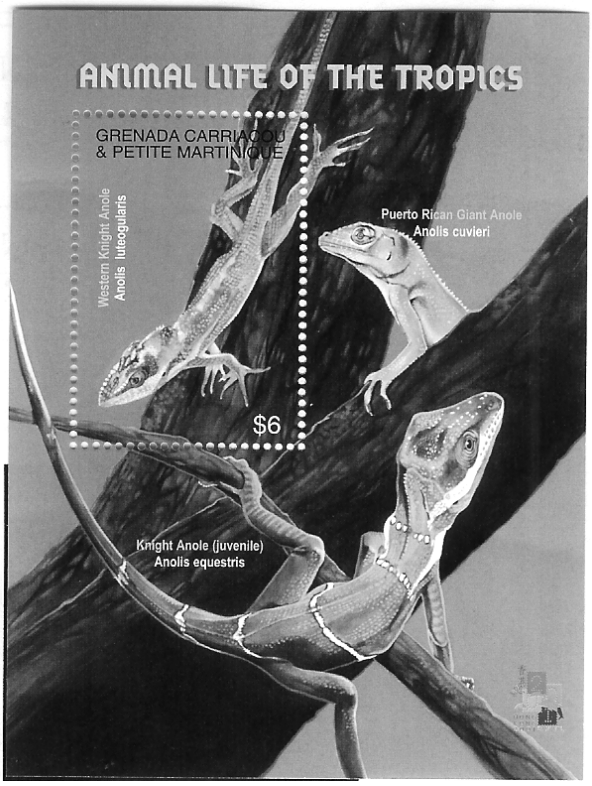
Taxonomic Status of the Northern Green Anole

Kingdom Animalia
Phylum Chordata
Class Reptilia
Order Squamata
Suborder Sauria
Family Polychrotidae
Genus *Anolis*
Species *carolinensis*
Subspecies *carolinensis*

Anoles on postage stamps. Anoles have appeared on about 29 postage stamps. The following species are illustrated on stamps of various countries in the West Indies, North, Central, and South America.

West Indian Anole, *Anolis gingivinus,* Anguilla #289
Two-spotted Anole, *Anolis bimaculatus* , Antigua, #1037

Bahamian Anole, *Anolis smargdinus*, Bahamas #875, #878a
Barbados Anole, *Anolis extremus,* Barbados #736, #1098-1101
Cayman Anole, *Anolis conspersa*, Cayman Islands #585
Townsends Anole, *Anolis townsendi*, Costa Rica #449
Knight Anole, *Anolis equestris,* Cuba #762, Grenada (Grenadines) #2293
Allison's Anole, *Anolis allisoni* Cuba #2522, #3957
Cuban Blue Anole, *Anolis baracoae,* Cuba #3617
Caribbean Anole, *Anolis ophiolepus* Cuba #3621
Water Anole, *Anolis vermiculatus* Cuba #3956
Mestre's Anole, *Anolis mestrei,* Cuba #3958
Dominican Anole *Anolis* sp., Dominica #1085o
Jamaican Giant Anole, *Anolis garmani,* Dominica #2313c
Green Anole, *Anolis carolinensis*, Grenada (Gren.) #2098g, Nicaragua #2267h
Porto Rican Giant Anole, *Anolis cuvieri,* Grenada Carriacou & Petite Martinique #2293
Western Knight Anole, *Anolis luteogularis* Grenada Cariacou & Petite Martinique #2293



Knight Anole, *Anolis equestris,* Grenada Cariacou & Petite Martinique #2293

Montserrat Anole, *Anolis lividus*, Montserrat #411

Antilles Lined Anole, *Anolis lineatus*, Netherlands Antilles #979

Cuban Green Anole, *Anolis biporcatus*, Nicaragua #1981c

Amazon Green Anole, *Anolis punctatus,* Peru #1129

Slender Anole, *Anolis fuscoauratus*, Peru #1269e

St. Lucia Anole, *Anolis luciae*, St. Lucia #1102

Left: Three species of *Anolis* lizards from the Grenadines. Upper left, Western Knight Anole; upper right, Puerto Rican Giant Anole; bottom, Knight Anole (juvenile).

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