SPECIES PROFILE:
Grand Cayman Blue Anole: *Anolis conspersus*

The more than 200 species in the genus *Anolis* differ in size but share a similar body plan variously modified to take advantage of specific habitats. With the exception of *A. carolinensis,* which ranges far into temperate parts of the southeastern United States, anoles are subtropical or tropical and are widely distributed throughout the Neotropics. Anoles occur on virtually all islands in the West Indies. Small islands may have just one species but large islands may have many: Cuba has over 50 and Hispaniola over 40. All anoles are arboreal to some degree and possess expanded subdigital lamellae (toe pads) that assist in climbing and variously colored dewlaps (throat fans) used in behavioral displays.

The Grand Cayman Blue Anole, *Anolis conspersus,* is restricted to Grand Cayman Island, where it is the only native anole. Inhabiting all but the most open habitats (including the walls of buildings), it is the island's most abundant and visible reptile. Adult males reach a maximum body length over 75 mm and exhibit at least three distinct color patterns, although some individuals have intermediate or mixed patterns. Those in most populations on the west end of the island are predominantly blue with white spots but, in some populations, they are green, and in some of the latter, the head is yellow. Males from the eastern half of the island are brown with black or dark brown vermiculations. In the dark phase, all color varieties become nearly black. In all populations, the dewlap is blue. Females are strikingly different in appearance; they are much smaller (maximum body length about 50 mm) and are, in all populations, light brown with a white middorsal stripe that is punctuated by black chevrons.

Adult female *Anolis conspersus* from near East End, Grand Cayman Island. *Photograph by A.C. Echternacht*

The Brown (or Cuban) Anole, *A. sagrei,* has recently been introduced on Grand Cayman, probably with foliage plants imported from Florida, and may pose a threat to native *A. conspersus* where the species co-exist. Adult *A. sagrei* will eat hatchling *A. conspersus.* Both species use many of the same habitats, but *A. sagrei* also will inhabit more open areas, whereas *A. conspersus* actively excludes *A. sagrei* from more shaded regions.

Pertinent Literature

Avery, R.A. 1988. Observations on habitat utilization by the lizard *Anolis conspersus* on the island of Grand Cayman, West Indies. *Amphibia-Reptilia* 9:417–420.

Gerber, G.P. 2000. Interactions between introduced and native *Anolis* lizards in Florida and Grand Cayman Island. Ph.D. Dissertation, University of Tennessee, Knoxville.

Gerber, G.P. and A.C. Echternacht. 2000. Evidence for asymmetrical intraguild predation between native and introduced *Anolis* lizards. *Oecologia* 124:599–607.

Grant, C. 1940. The herpetology of the Cayman Islands. *Science Series* 2:1–65.

Losos, J.B., J.C. Marks, and T.W. Schoener. 1993. Habitat use and ecological interactions of an introduced and a native species of *Anolis* lizard on Grand Cayman, with a review of the outcomes of anole introductions. *Oecologia* 95:525–532.

Schoener, T. W. 1967. The ecological significance of sexual dimorphism in size in the lizard *Anolis conspersus. Science* 155:474–477.

Schwartz, A. and R.W. Henderson. 1991. *Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History.* University of Florida Press, Gainesville.

Seidel, M.E. and R. Franz. 1994. Amphibians and reptiles (exclusive of marine turtles) of the Cayman Islands, pp. 407–433. In: M.A. Brunt and J.E. Davies (eds.), *The Cayman Islands Natural History and Biogeography.* Kluwer Academic Publishers, Dordrecht, The Netherlands.

Adult male *Anolis conspersus* from Georgetown, Grand Cayman Island. *Photograph by A.C. Echternacht*