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## SAURIA

*ANOLIS GINGIVINUS* (NCN). **NOCTURNAL ACTIVITY.** Schwartz and Henderson (1991. Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History. University of Florida Press, Gainesville, xvi + 720 pp.) reported nocturnal activity on or around structures for three Antillean anoles: *A. bimaculatus* (Antigua), *A. cristatellus* (Puerto Rico and the Dominican Republic) and *A. sagrei* (Bahamas). Similar observations have been made by RWH of *A. marmoratus* (Guadeloupe) and *A. sabanus* (Saba). The anoles were associated with hotels in all instances. During the week of 16–23 May 1992, five *Anolis gingivinus* were repeatedly observed by RP foraging for insects around lights on walls or on lamp posts as late as 2300 h in the Pelican Resort Complex at Simpson Baai, St. Maarten. In one instance, two individuals were active around the same light. All the lizards were subadult males. On the night of 20 May, a *Hemidactylus mabouia* was taken from a lamp post in the complex. The following night a sixth subadult male *A. gingivinus* was observed on the perch previously used by the gecko. These individuals were unusually sensitive to human disturbance at night, retreating into vegetation upon approach by an observer within <3 m. During the day, these lizards (although possibly not the same individuals) could easily be approached to within <25 cm.

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*BARISIA IMBRICATA IMBRICATA* (NCN). **PREDATION.** *Barisia imbricata imbricata* is an anguid lizard distributed in the Mexican Transvolcanic Belt (mountains of Distrito Federal, Hidalgo, Jalisco, México, Michoacan, Morelos, Oaxaca, Puebla, and Veracruz), and occurs at high elevations (2100-4000 m) in coniferous or pine-oak forest (Guillette and Smith 1982. Trans. Kansas Acad. Sci. 85:13-33). Few accounts of the biology of this species exist. Duellman (1961. Univ. Kansas Publ. Mus. Nat. Hist. 15:1-148) reported predation on *B. i. imbricata* by *Crotalus pusillus*, Guillette and Smith (*op. cit.*) reported distributional records, and Guillette and Casas-Andreu (1987. Herpetologica 43(1):29-38) studied its reproductive cycle. Here we report additional habitat descriptions and reptilian predators of this lizard.

On 7 June 1991, while observing *Sceloporus mucronatus* near km 24.5 on the Ajusco-Tianguistenco highway (Mexico Hwy 892, Distrito Federal), we captured a *Thamnophis scalaris* (wet body mass = 97 g). During handling, the snake regurgitated a partially digested adult *B. i. imbricata* (ca. 85 mm SVL). During early August, individual *S. mucronatus* were collected for stomach analyses. One male (JLE00040, SVL = 91 mm, wet body mass = 33 g) contained a young *B. i. imbricata* (ca. 45 mm SVL). *Barisia i. imbricata* is a common anguid lizard at this site. Most observations (n = 21) of this lizard were in grasses (*Festuca amolisima*) where *T. scalaris* was also observed (n = 2). *Barisia i. imbricata* was also observed on basaltic rocks and lava (n = 3 ) where *S. mucronatus* occurs. Another potential predator observed syntopically with *B. i. imbricata* is *Crotalus triseriatus*. This rattlesnake was also common in grasses (n = 17). These observations increase the number of predatory species of *B. i. imbricata* to include another lizard and at least one snake.

The preserved specimen (JLE00040) will be deposited in the vertebrate collection of Instituto Nacional de Investigaciones Forestales y Agropecuarias de México (Accession INIFAP#). A permit (412.2.1.2.0.06869 Direccion General de Conservacion Ecological de los Recursos Naturales) to collect specimens for research was kindly granted by Dr. Graciela de la Garza Garcia. John Rowe and Geoff Smith provided useful comments on an early draft of this manuscript. This research was supported by Instituto Nacional de Investigaciones Forestales y Agropecuarios de México (INIFAP), and Consejo Nacional de Ciencia y Tecnologia de México.

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*GAMBELIA SILA*. (Blunt-nosed Leopard Lizard). **REPRODUCTION.** The number of young that a female produces in her lifetime is an important life-history trait that affects her fitness. The number of eggs produced by oviparous lizards can be affected by the age, size, and physiological condition of the individual. Multiple clutches of eggs in a year is one way a female can increase her output beyond the physical limitations of her size.

From late April to the middle of July, 1992, we found several female *Gambelia sila* that produced two to four clutches of eggs at our permanent study plots on the Elkhorn Plain, San Luis Obispo County, California. Egg number and relative size can be accurately determined by palpation. We captured each female by pole and noose as often as found on a plot, and weighed each individual to the nearest 1 g using a 100 g Pesola scale. Leopard lizards deposit the entire clutch at one time (Montanucci 1967. Herpetologica 23:119-125), so we inferred that multiple clutches of eggs had been produced by changes in egg number and/or mass over a period of eleven weeks.

Changes indicative of production of at least a second clutch were seen in six females: number 18 (102 mm SVL) - 4 eggs, 38 g on 27 April to 3 small eggs, 36 g on 15 June; number 27 (107 mm SVL) - 3 eggs, 36 g on 1 May to 4 eggs, 30 g on 20 June; number 12 (117 mm SVL) - 5 eggs, 62 g on 6 May to 3 medium-sized eggs, 44 g on 22 June; number 18-2 (105 mm SVL) - 5 eggs, 42 g on 7 May to 4 eggs, 37 g on 19 May; number 16 (99 mm SVL) - 3 eggs, 31 g on 8 May to 0 eggs, 24 g on 22 May to 3 medium-sized eggs, 35 g on 19 June; number 31 (114 mm SVL) - 5 eggs, 55 g on 8 May to 3 eggs, 49 g on 23 June.

Changes indicative of production of at least a third clutch were seen in 3 females: number 13 (112 mm SVL) - 4 eggs, 46 g on 4 May to 5 small eggs, 44 g on 18 May to 4 medium-sized eggs, 44 g on 4 June; number 4 (104 mm SVL) - 2 eggs, 35 g on 8 May to 3 small eggs, 32 g on 18 May to 4 small eggs, 31 g on 23 June; number 6 (117 mm SVL) - 5 eggs, 56 g on 19 May to 3 medium-sized eggs, 45 g on 28 May to 4 medium-sized eggs, 41 g on 26 June.

Four clutches of eggs were seen in one female (112 mm SVL): 5 eggs, 50 g on 1 May to 4 eggs, 46 g on 15 May to 4 medium-sized eggs, 46 g on 16 June to 3 eggs, 45 g on 14 July. No data exist for the length of time eggs remain in the oviduct before oviposition.

Multiple clutches in *G. sila* have been suspected but not positively determined (Montanucci 1965. Herpetologica 21:270-283; Tollestrup 1982. Am. Midl. Nat. 108:1-20; Germano, Williams, and Tordoff, ms. in review). These are the first data that confirm the production of multiple clutches in *G. sila*. We also found a female (118 mm SVL, 58 g) carrying six eggs on 27 April. This is only the

second report of six eggs carried by *G. sila* (Montanucci 1970. Copeia 1970:104-123).

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*MICROLOPHUS BILINEATUS* (Galápagos Lava Lizard). **MORPHOLOGY.** A bifid-tailed adult male *Microlophus bilineatus* (Fig. 1) was observed on 28 May 1990 on San Cristobal, Galápagos, inhabiting a rock pile near the harbor. The animal was not captured for closer inspection. However, it was noted that the bifurcation occurred ca. 20-30 mm from the vent with the left branch of the tail originating ca. 5 mm anterior to the point of regeneration of the right branch. Reports of bifid- and even trifid-tailed lizards are relatively common in the literature (Scott 1982, Herpetol. Rev. 13(2):46). However, apparently this is the first report for *M. bilineatus*.

FIG. 1. Bifid-tailed *Microlophus bilineatus*.

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## SERPENTES

*CROTALUS ADAMANTEUS* (Eastern Diamondback Rattlesnake). **BEHAVIOR.** Many aspects of the life history of *Crotalus adamanteus* are not well known, and few observations have been documented. It has been suspected that this species may utilize the same refuge during consecutive seasons, but review of the literature did not reveal any reference to verify this behavior. This report describes the use of a refuge by *C. adamanteus* during three consecutive seasons.

On 17 March 1989, a juvenile male *C. adamanteus*, 60 cm TL, was observed in Jasper Co., South Carolina. The individual was found coiled in the entrance of a tunnel at the base of a decayed tree stump. The animal was sexed, measured, photographed for identification, and released. Sketches detailing head pattern were also recorded for identification. The location of this refuge was noted and the site was marked with a colored ribbon affixed to vegetation.

On 7 February 1990, this individual was again observed at the entrance to this refuge. Comparisons of photographs and head sketches verified identity. During the preceding eleven months, TL had increased by 16 cm, to 86 cm. At this time, a 1.5 x 0.5 cm red plastic tag, designed for marking fish, was attached to the basal rattle segment using monofilament line. This tag contained an individual identification number and an address for return of the tag in the event the snake was captured or killed.

On 10 May 1991, the specimen was observed for the third time at the site. The identification tag was still in place. Length had increased 23 cm during the preceding sixteen months to 109 cm TL. Unfortunately, no attempt was made to locate this animal during 1992.

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