

**DENNIS A. GRAVATT**, Department of Biology, Stephen F. Austin State University, Box 13003, Nacogdoches, Texas 75962, USA; e-mail: dgravatt@sfasu.edu.

**ANOLIS NEBULOSUS (Clouded Anole). LIFE EXPECTANCY.** Mortality and body size in lizards of the genus *Anolis* have been well-studied (Losos 2009. *Lizards in an Evolutionary Tree. Ecology and Adaptive Radiation of Anoles*. University of California Press, Berkeley. 527 pp.). A study on the coast of Jalisco, Mexico suggested that female *A. nebulosus* do not survive to the second reproductive season, based on capture-recapture data, although data on males was not available (Ramírez-Bautista and Vitt 1997. *Herpetologica* 53:423–431). The study also suggested that males reached sexual maturity at 7 months of age (at snout-vent length [SVL] = 32 mm) and females at 9 months of age (SVL = 35 mm). It follows that females would die before the age of 21 months (9 months at the first reproductive season + 12 months to the next one). Here we report survivorship data for *A. nebulosus* at two sites in Mexico, shedding some doubt on the idea that females are annual species.

We studied *A. nebulosus* at the Chamela Biological Station in Jalisco, Mexico (19.4966°N, 105.0405°W, WGS 84; elev. 78 m); and on San Agustín Island (19.5347°N, 105.0883°W, WGS 84; elev. 15 m), situated 5 km from Chamela Biological Station. We measured mortality rate in both anole populations every two months, from October 2010 to September 2012 (ten samples in total per site). For this we established three quadrants (20 × 20 m), and we marked individuals by toe clipping. We calculated the mortality rate for each site by using the software Mark®.

We marked 60 males and 40 females on the mainland, of which only 15% and 7.5% were recaptured, respectively. On average, the monthly rate of recapture for continental males and females was 0.048 and 0.022, respectively. We recaptured two males (3.3% of all males marked) on four occasions over 9 months (October 2010 to June 2011). The body sizes (SVL) for these two lizards during the first capture were 25.5 mm and 29 mm, respectively, whereas their size at last capture was 35 mm and 38 mm respectively, meaning that the first lizard grew 9.5 mm and the second lizard grew 9 mm. The largest body size recorded in males was 41.2 mm. One female grew 8 mm from February 2010 (first capture, SVL = 25 mm) to September 2011 (SVL = 33 mm); she had not reached maturity based on size. The largest body size registered in females was 40.4 mm.

We marked 157 males and 159 females on the island, but we recaptured only 33.8% and 26.1% individuals, respectively. On average, the monthly recapture rate for insular males and females was 0.098 and 0.094, respectively. In contrast with the mainland, 8.2% and 4.4% of insular males and females were recaptured on more than four occasions (over a 9-month period). We recorded two males (1.2% of males marked), which were recaptured on 10 occasions (over 21 months; October 2010 to June 2012). In both cases, their body size at first capture was 37 mm (at reproductive stage), whereas at their SVLs were 50.5 mm and 53.2 mm at their last capture. The largest body size recorded in males was 55.4 mm SVL. We also recaptured two females (1.2% of females marked) on 10 occasions over a 21-month period (December 2010 to August 2012). Both females were at reproductive stage (37.6 mm and 37 mm SVL) during their first capture, whereas during their last capture they were 47.1 mm and 49 mm, respectively. The highest body size recorded for insular females was 51.1 mm SVL. We found no significant differences in mortality rate between sites (unpubl. data). However, a detailed analysis of our data shows

some differences between sites in lifespan and maximum body size reached by the individuals. Growth rate was higher in males (0.066 mm/d) than females (0.049) from the island and from the mainland (males = 0.036, females = 0.022) (unpubl. data), and body sizes were higher on the island.

Our findings suggest that at least some lizards in both the island and the mainland populations can live for > 1 yr, and can have more than one reproductive event during their lifetime. In particular, our results from the island indicated that *A. nebulosus* might not be an annual species and might live > 20 months, allowing at least two reproductive events.

We thank Posgrado en Ciencias Biológicas, UNAM, the Estación de Biología Chamela, and Katherine Renton.

**HÉCTOR HUGO SILICEO-CANTERO**, Posgrado en Ciencias Biológicas, Instituto de Biología, Universidad Nacional Autónoma de México, Apdo. Ppostal 70-233, Copilco, Coyoacán, Distrito Federal, Mexico, 04510 (e-mail: hehusic@gmail.com); **ANDRÉS GARCÍA**, Estación de Biología Chamela, Instituto de Biología, Universidad Nacional Autónoma de México, Apdo. Postal 21, San Patricio, Melaque, Jalisco, Mexico, 48980 (e-mail: chano@ib.unam.mx).

**ANOLIS ROQUET (Martinique's Anole). COLORATION.** *Anolis roquet* specimens from coastal habitats along the northeast of Martinique are classically referred to as *A. roquet majorigris* (Lazell 1972. *Bull. Mus. Comp. Zool. Harvard* 143:1–115) and in more recent work considered to represent an eastern littoral ecotype of *A. roquet* (Thorpe et al. 2012. *Mol. Ecol.* 21:5299–5308). Lazell (1972, *op. cit.*) reported that this form tends to exhibit a grey-green to brown base coloration with males being noted to occasionally exhibit whitish blotches on the head and anterior trunk (Fig. 1A), while females are said to lack white patches altogether (Fig. 1B).

On 5 December 2015, on the coast between Sainte-Marie and Le Marigot, Martinique, an adult female *A. roquet* with aberrant



FIG. 1. Images of (A) male and (B) female *Anolis roquet majorigris* with typical coloration.



FIG. 2. Images of aberrantly colored female *Anolis roquet majoigris* photographed (A) *in situ* and (B, C) showing normal scale formation.

coloration was captured (Fig. 2A). The individual had a mottled brown base coloration, with white patches concentrated toward the anterior. These white patches predominated the surface of the head, neck and anterior trunk, and contained scales of normal appearance, although devoid of any pigmentation (Figs. 2B, C). Over the course of photographing this individual, her base coloration darkened from that when she was first observed, however no color change was observed in the white areas. Although limited amounts of whitish blotches on the head have been noted in males of this form, it was previously unknown in females. Further, to the best of our knowledge, the extent of hypopigmentation, or partial leucism, observed in this individual does not appear to be documented previously in *A. roquet*.

Fieldwork associated with this note was funded by National Science Foundation grants IOS 1354620 and 1354289 (to Jonathan B. Losos and Thomas J. Roberts, respectively) and performed under Direction de l'Environnement de l'Aménagement et du Logement de la Martinique permit N°201507-0015.

**CHRISTOPHER V. ANDERSON\***, Brown University, Department of Ecology and Evolutionary Biology, 34 Olive Street – BMC 204, Providence, Rhode Island, USA; **ANNE-CLAIRE FABRE** (e-mail: acfabre@mnhn.fr) and **ANTHONY HERREL**, UMR 7179 C.N.R.S./M.N.H.N., Département d'Ecologie et de Gestion de la Biodiversité, Paris, France (e-mail: Anthony.Herrel@mnhn.fr). \*Current address: University of South Dakota, Department of Biology, 414 E. Clark Street, Vermillion, South Dakota 57069, USA (e-mail: Christopher.v.Anders@usd.edu).

**ASPIDOSCELIS GULARIS** (Texas Spotted Whiptail/Common Spotted Whiptail). **SCAVENGING**. Like the rest of the *Aspidoscelis* genus, the diet of *A. gularis* consists primarily of small arthropods, including insects such as termites, grasshoppers, crickets, moth larvae, beetles and ants, and arachnids such as spiders and scorpions (Leavitt and Leavitt 2009. In Jones and Lovich [eds.], *Lizards of the American Southwest*, pp. 346–349. Rio Nuevo Publishers, Tucson, Arizona). As it grows, *A. gularis* consumes a wider variety of arthropod prey, but eats more grasshoppers when this prey item is in abundance (Lemos-Espinal and Smith 2008. *Anfibios y Reptiles del Estado de Coahuila, México*. UNAM.

México D.F.). Here we record an observation of scavenging behavior of *A. gularis* on a dead ant, *Atta mexicana*.

At 1242 h on 11 June 2016, we observed an *A. gularis* foraging 2.15 km NE of the junction of Mexican Highway 57, at the slopes of Cerro Gordo in the locality of La Esperanza in the municipality of Villa de Zaragoza, San Luis Potosí, México (21.97811°N, 100.79841°W, WGS 84; 1877 m elev.). The lizard, which was 2 m from us, noticed our presence but continued foraging while maintaining a safe distance. The locality was dominated by patches of Bilberry Cactus (*Myrtillocactus geometrizans*); the substrate was humid due to recent rains but held a temperature of 36°C. While foraging, the lizard discovered the carcass of a reproductive male ant, *Atta mexicana*, which was part of the nocturnal reproductive swarm that we observed the night before, in response to the rainy season. The lizard began picking up, shaking and biting pieces off the corpse. However, it became aware of our presence and abandoned the carcass, quickly fleeing to nearby bushes.

This opportunistic behavior is relevant due to the nature of the lizard and the season it was recorded in. Whiptail lizards are active foragers, consuming live prey including the rapid pursuit of fast-moving species. June is part of the rainy season at this locality, a time of great abundance of arthropods. Although many insect prey present a challenge for *A. gularis* to capture (e.g., grasshoppers, moths, and some small wasps), many others like beetles and ants are fairly easy to capture for this remarkably fast lizard. It is possible that dead or dying reproductive ants, appearing in the morning after their nocturnal swarm, provide an important source of energy for *A. gularis*.

**DANIEL MONTOYA FERRER** (e-mail: daniel.tapaja@gmail.com) and **DAVID LAZCANO**, Universidad Autónoma de Nuevo León, Facultad de Ciencias Biológicas, Laboratorio de Herpetología, Apartado Postal 513, San Nicolás de los Garza, Nuevo León, C.P. 66450, México (e-mail: iman-todes52@hotmail.com).

**ASPIDOSCELIS SEXLINEATA** (Six-lined Racerunner). **SYMBIOSIS**. On 14 July 2014, in Okaloosa County, Florida, USA, a leaf-cutting bee (Megachilidae) was observed entering a sandy burrow that had been constructed and actively used by an adult *Aspidoscelis sexlineata* as recently as 10 July. Prior to this observation, leaf-cutting bees were observed actively cutting leaves and constructing nest cells in other cavities nearby, but this was the first cavity used by the bees that was created by another animal. After recognizing this, we continued to watch the bee return six additional times with curled leaf cuttings. The bee only remained in the burrow for a few seconds before exiting and flying out of the burrow without pausing at the entrance. It was difficult to track exactly where the bee was going for the cuttings, but we did locate a Common Persimmon (*Diospyros virginiana*) in the general direction of travel that had many freshly cut leaves. We continued to monitor the burrow following these observations but never documented the return of the lizard. The opening of the burrow eventually closed, presumably due to lack of maintenance following rain events. We made no attempt to determine if adult bees successfully emerged the following spring.

The use of burrows excavated by other species by *A. sexlineata*, including the Gopher Tortoise (*Gopherus polyphemus*) (Alexy et al. 2003. *Wildl. Soc. Bull.* 31:1240–1243) and small mammals (Gentry and Smith 1968. *J. Mammal.* 49:562–565; Funderburg and Lee 1968. *J. Herpetol.* 1:99–100) has been documented, as has use of racerunner burrows by several groups of insects,