

## NATURAL HISTORY RESEARCH REPORTS

### A Unique Insular Crevice- and Litter-dwelling Assemblage of Reptiles

The slopes above Chatham Bay on Union Island, St. Vincent and the Grenadines, support one of the last mature secondary forests in the Grenadines. The characteristics of the forest allow it to support a unique herpetofauna that includes four small crevice- and litter-dwelling reptilian species (*Gonatodes daudini*, *Bachia heteropa*, *Sphaerodactylus kirbyi*, and *Typhlops tasymicris*). BENTZ ET AL. (2011. *Herpetological Conservation and Biology* 6:40–50) examined population sizes and densities, activity periods, microhabitat use, thermal biology, and water loss rates of these four presumably syntopic species to better understand these poorly known species and the unique ecological system of the forest floor on which they depend (see also Quinn et al. 2010. *Reptiles & Amphibians* 17:222–233). Their findings show that *G. daudini*, *S. kirbyi*, and *B. heteropa* are present in the ~37-ha area of forest above Chatham Bay at a ratio of approximately 2:1:12, respectively, and tentatively estimated total population sizes are about 6,600 *G. daudini*, 3,200 *S. kirbyi*, and 39,000 *B. heteropa*. Each of the four species was found to exploit separate microhabitats based on specific needs for cover, moisture, and thermal environments. The conditions necessary



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A population of endangered San Francisco Garter Snakes (*Thamnophis sirtalis tetrataenia*) in a coastal prairie in San Mateo County appears to be stable or even increasing — at least in the short term. However, long-term studies of the status of San Francisco Garter Snakes at other sites are required to estimate population trends for this threatened snake.

for these species to thrive apparently are available only in relatively mature forest situated to receive and hold moisture. This unique assemblage and the forest that supports it are under severe and imminent threat from exotic mammals and development, and the preservation of the area above Chatham Bay should be a high conservation priority for regional governmental agencies and non-governmental organizations.

### San Francisco Gartersnake Demography

The San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*) has been federally listed as endangered since 1967, but little demographic information exists for this species. HALSTEAD ET AL. (2011. *Journal of Fish and Wildlife Management* 2:41–48) examined the demography of a San Francisco Garter Snake population on approximately 213 ha of California coastal prairie in San Mateo County, California, from 2007 to 2010. The best-supported mark-recapture model indicated annual variation in daily

capture probabilities and annual survival rates. Abundance increased throughout the study period, with a mean total population from 2008 to 2010 of 443 (95% CI = 313–646) individuals. Annual survival was slightly greater than that of most other garter snakes, with an annual probability of survival of 0.78 (0.55–0.95) in 2008–2009 and 0.75 (0.49–0.93) in 2009–2010. Mean annual per capita recruitment rates were 0.73 (0.02–2.50) in 2008–2009 and 0.47 (0.02–1.42) in 2009–2010. From 2008 to 2010, the probability of an increase in abundance at this site was 0.873, with an estimated increase of 115 (282–326) individuals. The estimated population growth rate in 2008–2009 was 1.52 (0.73–3.29) and in 2009–2010 was 1.21 (0.70–2.17). Although this population is probably stable or increasing in the short term, long-term studies of the status of the San Francisco Garter Snake at other sites are required to estimate population trends and to elucidate mechanisms that promote the recovery of this charismatic member of our native herpetofauna.



MEL J. RIVERA RODRIGUEZ

The Grenadine Sphaero (*Sphaerodactylus kirbyi*) was not known from Union Island until encountered by Joe Burgess in 2010. It is one of four species of small reptiles found together only on the forested slopes above Chatham Bay on Union Island.

## NEWS BRIEFS

### Blue Iguana Rebounds from Near-extinction

One Caribbean species, the Blue Iguana of Grand Cayman Island, found nowhere else in the world, is looking like that rarest of things, a threatened species roaring back from the brink. Once down to perhaps fewer than a dozen animals, the long-tailed lizards, some growing to five feet and weighing 30 pounds, now number about 500, suggests a tally from a weeklong health screening that ended July 3.

“They are striking animals, turquoise blue with red eyes; they have an almost noble way they hold themselves,” says conservation biologist Fred Burton, head of the Blue Iguana Recovery Program, “but they were almost a forgotten animal.” Biologists knew about the animal, with an Oxford University expedition first describing them scientifically in 1938. But they had disappeared from the island as farmers planted more land and roads stretched across the island as well. Farmers’ dogs killed the lizards

and cars ran them over as they basked on the asphalt. “Cats, feral cats, were really the problem, we have them everywhere and these are very hungry animals,” Burton says. The cats ate young iguanas in droves.

Biologists didn’t know how bad things had gotten for the Blue Iguana until 2002, when Burton implored his colleagues, meeting that year on the island for discussions of iguana conservation across the Caribbean, to stay and craft a conservation plan for Grand Cayman’s own