canthus rostralis on this specimen was evident, although the typical dark border was absent. The eyes were pale yellow with a red horizontal line through the center and the pupils were red instead of black (Fig. 1B). The specimen was photographed and left *in situ*.

Albinism has been reported for larval *G. porphyriticus* (Brandon and Rutherford 1967. Am. Midl. Nat. 78[2]:537–540), however, to our knowledge this is the first documentation of albinism in a post-metamorphic specimen.

We thank Danté B. Fenolio and Joseph R. Mendelson, III for editorial assistance.

ROBERT L. HILL, Department of Research and Conservation, Atlanta Botanical Garden, Atlanta, Georgia 30309, USA (e-mail: rhill@zooatlanta.org); **DANIEL PERELLA** and **RENATA IBELLI VAZ,** Setor de Répteis, Fundação Parque Zoológico de São Paulo, São Paulo, Brazil, 04301-905.

ANURA — FROGS

***ACRIS CREPITANS* (Northern Cricket Frog). FIRE ANT ENVENOMATION.** Red Imported Fire Ants (*Solenopsis invicta*) are an aggressive invasive species that have spread throughout much of the southeastern United States after being accidentally introduced into the port of Mobile, Alabama in the 1930s (Wojcik et al. 2001. Am. Entomol. 47:16–23). A growing number of studies have reported both direct and indirect negative effects of *S. invicta* on native amphibians and reptiles (Allen et al. 1997. J. Herpetol. 31:318–321; Diffie et al. 2010. J. Herpetol. 44:294–296; Todd et al. 2008. Biol. Invasions 10:539–546). However, it is not known how frequently or to what extent *S. invicta* actively prey upon native herpetofauna, highlighting the importance of reporting anecdotal observations. Here I describe a natural agonistic encounter between a fire ant and a Northern Cricket Frog.

At ca. 0915 h on 9 June 2011,100 m S of Rome Pond, 150 m N of U.S. Hwy. 29, Covington Co., Alabama, USA (31.142559°N, 86.673418°W; WGS 84), I observed a Red Imported Fire Ant stinging an adult *Acris crepitans*. The ant had pierced the skin of the frog's right forelimb with its mandibles and was seen inserting its stinger repeatedly. This attack was observed more than 5 m away from the closest fire ant mound, in an open grassy area. I removed the ant to examine the frog for species identification. Upon identification, the frog was released at its point of capture. To the best of my knowledge, this is the first account of a *S. invicta* envenomating *A. crepitans*.

NICOLE A. FREIDENFELDS, Pennsylvania State University, 208 Mueller Laboratory, University Park, Pennsylvania 16802, USA; e-mail: nicole.freidenfelds@gmail.com.

***ANAXYRUS AMERICANUS CHARLESMITHI* (Dwarf American Toad). NEMATODE PARASITE.** Several parasites have been reported from the Dwarf American Toad. Herein we report a new host record for a nematode parasite of *Anaxyrus* (=*Bufo*) *americanus charlesmithi*.

A single *A. a. charlesmithi* was collected on 29 May 1994 from 3.2 km SW Shannon Hills, Saline Co., Arkansas (34.608622°N, 92.433261°W) and examined for helminths. It was killed with a dilute chloretone solution and a midventral incision was made to expose the entire length of the digestive tract. Two nematodes were removed from the rectum and cleared on glass slides with undiluted glycerol. These were identified as a male and female *Cosmocercoides variabilis* (Harwood 1930) Travassos, 1931. Voucher specimens were deposited in the United States National Parasite Collection (USNPC), Beltsville, Maryland as USNPC 84402. A host voucher is deposited in the Arkansas State University Herpetological Collection (ASUMZ), State University, Arkansas as ASUMZ 19701.

Previous bufonid hosts of *C. variabilis* include *A. americanus americanus* (Vanderburgh and Anderson 1987. Can. J. Zool. 65:1666–1667), *A. boreas* (Goldberg et al. 1999. Bull. S. California Acad. Sci. 98:39–44), *A. debilis debilis* (McAllister et al. 1989. Proc. Helminthol. Soc. Washington 56:162–167), *A. hemiophrys* (Bursey and Goldberg 1998. J. Parasitol. 84:617–618.), *A. quercicus* (Goldberg and Bursey 1996. Alytes 14:122–126); *A. terrestris* (Harwood 1932. Proc. U.S. Nat. Mus. 81:1–71), and *A. woodhousii woodhousii* (McAllister et al., *op. cit.*).

This nematode has an extensive range and has been reported previously from Arizona, Arkansas, California, Florida, Idaho, Illinois, Iowa, Louisiana, Massachusetts, Michigan, Nebraska, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Alberta, British Columbia, New Brunswick and Quebec, Canada , Baja California Norte, Mexico, Costa Rica, and Panama (Bursey et al. 2007. Comp. Parasitol. 74:108–140).

CHRIS T. McALLISTER, Science and Mathematics Division, Eastern Oklahoma State College, Idabel, Oklahoma 74745, USA (e-mail: cmcallister@se.edu); **CHARLES R. BURSEY**, Department of Biology, Pennsylvania State University, Shenango Campus, Sharon, Pennsylvania 16146, USA (e-mail: cxb13@psu.edu).

***BUFO* (= *ANAXYRUS*) *HOUSTONENSIS* (Houston Toad). HEAD-START JUVENILE DISPERSAL.** The Houston Toad is a federally endangered amphibian endemic to east-central Texas. A head-starting program was initiated in 2007 as a population recovery strategy for *Bufo houstonensis*. As part of the program, wild laid eggs are collected, reared at the Houston Zoo and post-metamorphosed juveniles are released to their natal pond. A genetic mark-recapture technique was developed to monitor the success of the head-starting program. Microsatellite markers were used to reconstruct family relationships based on the probability of individuals sharing alleles identical by descent. A small sample of tadpoles per egg strand (between 8 and 80) was sacrificed to obtain a genotypic "fingerprint" for 29 head-started egg strands. This mark-recapture technique accurately assigned 94–97% of all family members to their appropriate egg cohort (Vandewege 2011. Unpubl. MS. thesis, Texas State Univ. San Marcos, Texas. 84 pp.). A tissue sample was collected from any adult or juvenile captured after the release of head-starts to assess the frequency of captive-reared *B. houstonensis* on the landscape.

During a *B. houstonensis* reproduction survey conducted on 18 April 2010, an egg strand was harvested from a temporary pond on the Griffith League Ranch, Bastrop County, Texas, USA. Post-metamorphosed juveniles from this egg strand (N = 1908) with a mean weight of 0.09 g were released at their natal pond on 21 May 2010. On 23 June 2010 a juvenile *B. houstonensis* weighing 3.8 g was collected from a pitfall trap 1.34 km from the release point. This juvenile had a DNA genotype 100% consistent with the head-started individuals released five weeks prior. This is the longest confirmed distance a juvenile *B. houstonensis* has moved. Prior to this record, *B. houstonensis* had been monitored up to 50 m (Greuter 2004. Unpubl. MS. thesis, Texas State Univ. San Marcos, Texas 80 pp.) and 100 m (Hillis et al. 1984. J. Herpetol. 18:56–72) from their natal pond. A previous technique using fluorescent pigment proved successful for tracking daily movement patterns (Swannack et al. 2006. Herpetol. Rev. 37[2]:199–200), whereas this new technique allowed juvenile

B. houstonensis to be monitored over long distances and time periods. This record illustrates that juvenile *B. houstonensis* are capable of moving long distances in a short period of time. Although it remains unclear how far *B. houstonensis* typically disperse between metamorphosis and adulthood, this observation highlights the importance of increasing habitat connectivity in a highly fragmented environment for the conservation and recovery of this endangered species.

MICHAEL W. VANDEWEGE, Department of Biochemistry and Molecular Biology, Mississippi State University, Starkville, Mississippi 79539, USA (e-mail: mike.vandewege@gmail.com); **DONALD J. BROWN** and **MICHAEL R. J. FORSTNER** (e-mail: mf@txstate.edu), Department of Biology, Texas State University, San Marcos, Texas 78666, USA.

***GASTROPHRYNE CAROLINENSIS* (Eastern Narrow-mouthed Toad). PREDATION.** A series of strong scattered thunderstorms passed through the Central Savannah River Area (CSRA) in Georgia and South Carolina, USA on 28 June 2011 from ca. 1400–2100 h and filled a few patchily-distributed depression wetlands with a few centimeters of standing water. One small (ca. 20 m × 10 m) wetland (Risher Pond Sloughs, Barnwell Co., South Carolina) hosted an anuran breeding assemblage of ca. 30 *Hyla femoralis*, 20 *H. squirella*, 20 *Gastrophryne carolinensis*, 6 *Pseudacris ocularis*, and 10 *H. chrysoscelis* by 2138 h. At 0016 h, an adult (499 mm SVL; 32.6 g) female *Thamnophis s. sauritus* was found ca. 1.7 m above the surface of the water in a stand of dead *Panicum hemitomon*. The *T. s. sauritus* was in the process of swallowing a gravid female *G. carolinensis* (32 mm SVL; 2.25 g) and moved slowly around in the *Panicum* with the front of the toad hanging out of the right side of its mouth. After observing the snake for four minutes, we captured it and removed the *G. carolinensis* from its mouth. Both animals were returned to the lab for measurements. The *G. carolinensis* was dead by 0800 h the next morning and the *T. s. sauritus* was released unharmed post-processing without any noticeable ill effects from exposure to the *G. carolinensis*. *Gastrophryne carolinensis* are toxic to many predators, which will often refuse to eat them (Garton and Mushinsky 1979. Can. J. Zool. 57:1965–1973), and few firsthand accounts of *G. carolinensis* predation exist, possibly because of this toxicity. *Thamnophis s. sauritus* is a generalist amphibian predator that is known to consume a wide variety of prey (Brown 1979. Brimleyana 1:113–124; Carpenter 1952. Ecol. Monogr. 4:235–258). Only one account of a *T. sauritus* eating a *G. carolinensis* exists as a personal communication from R. W. Gaul Jr. in North Carolina (Palmer and Braswell 1995. Reptiles of North Carolina. Univ. North Carolina Press, Chapel Hill, North Carolina), but to our knowledge, this is the first confirmed firsthand observation of a *T. s. sauritus* depredating a *G. carolinensis*.

Animals were captured under scientific research permit G-11-03 from the South Carolina Department of Natural Resources. Funding for this research was provided by the National Science Foundation (Awards DEB-0242874 and DBI-0139572) and the Savannah River Ecology Laboratory under Financial Assistance Award DE-FC09-96SR18-546 between the University of Georgia and the U.S. Department of Energy.

THOMAS M. LUHRING, Savannah River Ecology Laboratory, Drawer E, Aiken, South Carolina 29802, USA. Current address: University of Missouri, Division of Biological Sciences, 105 Tucker Hall, Columbia, Missouri 65211, USA (e-mail: tmlhwb@mail.missouri.edu); **ZACHARY D. ROSS,** Savannah River Ecology Laboratory, Drawer E, Aiken, South Carolina 29802, USA. Current address: New York University Abu Dhabi, Abu Dhabi, United Arab Emirates.

***HYALINOBATRACHIUM ORIENTALE* (Oriental Glass Frog). MALE PARENTAL CARE.** One clade of glass frogs, the Hyalinobatrachinae, is distributed in tropical Central America, the tropical Andes, the coastal ranges of Venezuela, the island of Tobago, the upper Amazon Basin, and the Guiana Shield. Males of all species of *Hyalinobatrachium* call from the underside of leaves and females deposit their eggs on the underside of leaves; at least seven species have been reported to have males guard the eggs, a behavior that is considered a primary homology of the genus (Guayasamin et al. 2009. Zootaxa 2100:1–97; Kubicki 2007. Ranas de Vidrio de Costa Rica /Glass Frogs of Costa Rica. Editorial INBio, Santo Domingo de Heredia). Here we report the first observations of male *Hyalinobatrachium orientale* attending eggs. On the evenings of 4 and 5 June 2011 we detected the calls of male *H. orientale* along several of the streams that drain Tobago's Main Ridge, and on the evening of 5 June we observed and photographed males next to egg masses (Fig. 1), males covering egg masses with their bodies (Fig. 2), and guardian males calling. Calling males were 1–10 m above the stream and minimally separated by 2–3 m; usually the separation distance was greater.

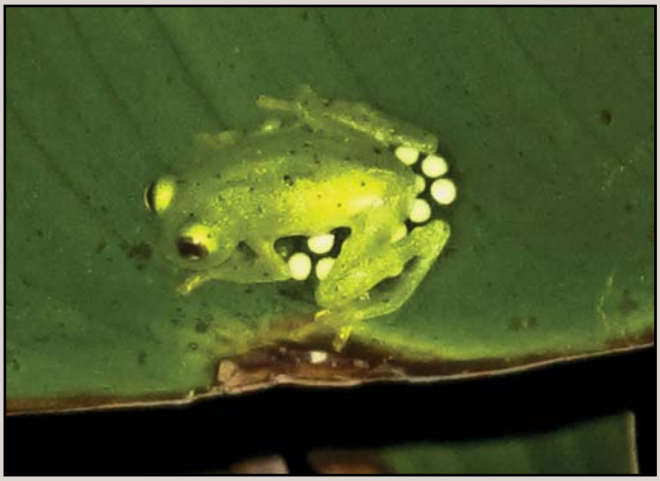

FIG 1. A male *Hyalinobatrachium orientale* covering an egg mass with its body, behavior that may reduce desiccation or deter predators. The leaf was about 4 m above the stream.

FIG 2. A male *Hyalinobatrachium orientale* calling from the underside of a leaf.