

*Banisteria*, Number 31, pages 54-56  
© 2008 by the Virginia Natural History Society

**PREDATION STALEMATE: RED-TAILED HAWK (*BUTEO JAMAICENSIS*) VERSUS EASTERN RATSNAKE (*PANTHEROPHIS ALLEGHANIENSIS*).**- Raptor predation on snakes has been well documented in the avian and herpetological literature (e.g., Guthrie, 1932; Fitch et al., 1946; Knight & Erickson, 1976; Brugger, 1989; Palmer & Braswell, 1995; Greene, 1997). Ernst (1992) and Ernst & Ernst (2003) noted 50 species of snakes in North America that had been killed

by raptors. Only three species of snakes (*Agkistrodon contortrix*, *Pantherophis [Elaphe] alleghaniensis*, and *Nerodia erythrogaster*) have been documented as prey of hawks in the Virginia literature (Tupacz, 1985; Mitchell, 1994). We report here an observation of attempted predation by a raptor on a ratsnake in which the outcome did not result in death of the snake.

One of us (Fischer) observed such an encounter between a one year-old Red-tailed Hawk (*Buteo jamaicensis*) and an adult Eastern Ratsnake (*Pantherophis alleghaniensis*) on 6 March 2008 at the Norfolk Botanical Garden (NBG), Norfolk, Virginia. Her attention was drawn to a small clearing by a number of birds flying and diving at a hawk on the ground. The hawk's left wing was stretched out because the snake was wrapped around both of the hawk's legs and part of its body, and was pulling the hawk off balance. Both remained motionless while being photographed (Fig. 1). Fischer moved away to minimize disturbance and returned 36 min later to find that the snake had coiled itself around the hawk's neck and shoulder. The hawk had injured the snake behind its right jaw from which blood was dripping. Two NBG staff members arrived at that time and worked to release the hawk from the snake. The hawk was untangled and flew away, apparently uninjured. The snake was also released, apparently unharmed except for the injury to its head. During the attempted predation by the hawk, the snake was able to wrap itself around the predator enough to immobilize it and keep it from causing serious injury and death. Release of the

hawk from the snake by NBG staff prevented us from knowing whether the snake would have eventually been killed or if the hawk would have been constricted and killed.

Although predatory strikes on snakes by hawks are usually fatal to the snake, some predation attempts result in fatality or immobilization of the predator instead of the intended prey. Several publications substantiate this observation. A Western Ratsnake (*Pantherophis [Elaphe] obsoleta*) wrapped its coils around the neck of a Red-shouldered Hawk (*Buteo lineatus*) in Texas and nearly killed the predator instead (Williams, 1951). In separate events in Florida and Massachusetts, Eastern Ratsnakes incapacitated Great Horned Owls (*Bubo virginianus*) by coiling around them (Forbush, 1927; Grimes, 1936). Perry et al. (2001) described mutual mortality of a Great Horned Owl and a Southern Black Racer (*Coluber constrictor priapus*) in Arkansas. Alynda Angstadt (pers. comm.) observed a *C. constrictor* incapacitate a Red-shouldered Hawk in Gloucester County, Virginia, on 1 September 2001, but in this case, the rangers at the park killed the snake to free the hawk. The Red-tailed Hawk in the predatory encounter documented here was an immature animal (B. Watts, pers. comm.). Its lack of experience as a snake predator undoubtedly contributed to its being overpowered by the ratsnake. Our observation in the Norfolk Botanical Gardens is the first published record in the Virginia literature of attempted predation resulting in an apparent stalemate for both predator and prey.



Fig. 1. Attempted predation by an immature Red-tailed Hawk (*Buteo jamaicensis*) on an adult Eastern Ratsnake (*Pantherophis alleghaniensis*) in the City of Norfolk, Virginia (photograph by G. Fischer).

## ACKNOWLEDGMENTS

JCM thanks Bryan Watts for drawing the original web posting of the photographs to his attention and for confirming the bird identification. We also thank Alynda and Kory Angstadt for sharing their observations.

Williams, G. G. 1951. Rat snake overpowers red-shouldered hawk. *Auk* 68: 372.

Joseph C. Mitchell  
Mitchell Ecological Research Service, LLC  
P.O. Box 5638  
Gainesville, Florida 32627

## LITERATURE CITED

Brugger, K. E. 1989. Red-tailed hawk dies with coral snake in talons. *Copeia* 1989: 508-510.

Gayle Fischer  
527 Spring Lake Crescent #301  
Virginia Beach, Virginia 23451

Ernst, C. H. 1992. *Venomous Reptiles of North America*. Smithsonian Institution Press, Washington, DC. 236 pp.

Ernst, C. H., & E. M. Ernst. 2003. *Snakes of the United States and Canada*. Smithsonian Institution Press, Washington, DC. 668 pp.

Forbush, E. H. 1927. *Birds of Massachusetts and Other New England States*. Massachusetts Department of Agriculture, Springfield, MA. 461 pp.

Greene, H. W. 1997. *Snake, The Evolution of Mystery in Nature*. University of California Press, Berkeley, CA. 351 pp.

Grimes, G. A. 1936. Great horned owl and common blacksnake in mortal combat. *Florida Scientist* 9: 77-78.

Guthrie, J. E. 1932. Snake versus birds, birds versus snakes. *Wilson Bulletin* 44: 88-113.

Knight, R. L., & A. W. Erickson. 1976. High incidence of snakes in the diet of red-tailed hawks. *Raptor Research* 10: 108-111.

Mitchell, J. C. 1994. *The Reptiles of Virginia*. Smithsonian Institution Press, Washington, DC. 352 pp.

Palmer, W. M., & A. L. Braswell. 1995. *Reptiles of North Carolina*. University of North Carolina Press, Chapel Hill, NC. 412 pp.

Perry, P. W., R. W. Brown, & D. C. Rudolph. 2001. Mutual mortality of great horned owl and southern black racer: a potential risk of raptors preying on snakes. *Wilson Bulletin* 113: 345-347.

Tupacz, E. G. 1985. Field notes: *Nerodia erythrogaster* (redbelly watersnake) and *Buteo lineatus* (red-shouldered hawk). *Catesbeiana* 5: 15.