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OPPORTUNISTIC SCAVENGING BY EASTERN AMERICAN TOAD (*BUFO AMERICANUS AMERICANUS*) TADPOLES ON A DEAD RED-SPOTTED NEWT (*NOTOPHTHALMUS VIRIDESCENS VIRIDESCENS*) – The diet of most tadpoles is assumed by many to consist of algae, detritus, and protozoa, but many tadpole species supplement this herbaceous diet with animal protein (Alford, 1999). On 14 April 2005 at 1800 h EDT, one of us (JDG) observed a feeding aggregation of Eastern American Toad (*Bufo americanus americanus*) tadpoles consuming a dead Red-spotted Newt (*Notophthalmus viridescens viridescens*). The shallow pond, located in White Oak Mountain Wildlife Management Area, Pittsylvania County, Virginia (36° 46' 43.1" N, 79° 19' 56.4" W, NAD 83), measured 17 m by 61 m. Water temperature was 25° C. The tadpoles appeared to be concentrated around two openings in the body wall of the newt. The two openings were located inferior to each forelimb. Abdominal organs were protruding out of one opening. Total length of this male newt was 84 mm. The death of the newt was likely the result of an aborted predation event. When examined, the newt showed no signs of ill health except for the two holes in its body. The newt was checked again four days later. All of its skin was completely stripped to the muscle. No tadpoles were observed feeding on the carcass at this time, although thousands of tadpoles were present in the pond. We could not find the newt the next day when the pond was last checked.

Fig. 1. American Toad tadpoles scavenging an adult male Red-spotted Newt in Pittsylvania County, Virginia.

Newts are known to have tetrodotoxin and other chemicals concentrated in granular glands in the skin (Brodie & Johnson, 1974; Duellman & Trueb, 1994). Tetrodotoxin is a potent neurotoxin and, along with other skin secretions, constitute a powerful emetic. Adult newts have one-tenth the toxicity of the juvenile eft stage (Brodie, 1968). This makes them less toxic but still unpalatable to many predators. Why were the American Toad tadpoles able to eat the skin of the dead adult Red-spotted Newt and not apparently be affected by the tetrodotoxin? Tadpole behavior was normal; no abnormal movements or swimming behavior were observed. *Bufo americanus* tadpoles themselves are toxic to predators at metamorphic stages of development, when they contain bufotoxin, but not during intermediate stages of growth (Brodie et al., 1978; Formanowicz & Brodie, 1982; Brodie & Formanowicz, 1987). Elucidation of the ability of *B. americanus* tadpoles to consume newt skin without apparent ill effects may reveal new physiological or pharmacological properties in these aquatic vertebrates. Tetrodotoxin may also simply decompose quickly after death allowing the tadpoles to freely consume the skin.

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