maculatum scattered around the periphery of a small, rain-filled pool. The pool (2 X 2.5 m, maximum depth = 1.0 m) was located in Blue Valley, on the southern escarpment of the Blue Ridge Mountains in the Nantahala National Forest, North Carolina at an altitude of 780 m. Rana sylvatica also breeds in this pool.

All carcasses consisted of only the pelvic girdle (including the hindlegs) and tail. Cloacal inspection allowed 18 of the carcasses to be sexed, of which 16 were female. Males of Ambystoma typically arrive at breeding ponds before females (Bishop 1941. Bull. New York State Mus. 324:1-365; Pfingsten and Downs 1989. Bull. Ohio Biol. Survey, New Ser. 7(2):1-315), I searched the pool using a dipnet, however, and found one female. The preponderance of females among the carcasses and the absence of males in the pool suggests that the females arrived first at this pool.

No sign of a predator was found in the vicinity of the pool. Short-tailed shrews are present locally and can prey upon salamanders. However, the large number of salamanders killed suggests that the predator may have been a larger mammal. Raccoons, opossums, weasels, and minks are present in the area and represent likely predators.

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Submitted by CHRISTOPHER KING BEACHY, Department of Biology, Western Carolina University, Cullowhee, North Carolina 28723, USA. Present address: Department of Biology, P.O. Box 42451, The University of Southwestern Louisiana, Lafayette, Louisiana 70504-2451, USA.

## **LIFE HISTORY NOTES**

## CAUDATA

AMBYSTOMA MACULATUM (Spotted Salamander). PREDATION. Overland migration exposes ambystomatid salamanders to risks not encountered in the underground habitat, e.g., desiccation (Holland et al. 1990. Southwest. Nat. 35:217-220). On 14 March 1988 at ca. 1500 h, I found 21 dead Ambystoma