

SIREN LACERTINA (Greater Siren). **AESTIVATION CHAMBER.** Detailed descriptions of the aestivation chamber and cocoon of aquatic salamanders in the family Sirenidae are known primarily from captive individuals of *Siren intermedia* (Reno et al. 1972. Copeia 1972:625–631) and *S. lacertina* (Etheridge 1990. Herpetologica 46:400–406) that were induced to aestivate in laboratory containers. However, observations of aestivating sirens in the field are limited. Carr (1940. Univ. Florida Publ., Biol. Sci. Ser. 3:1–118) found several *S. lacertina* aestivating beneath the surface of a dried wetland, each in a spherical chamber connected to the surface through a narrow vertical tunnel. Freeman (1958. Herpetologica 14:130) found two *S. lacertina* in a recently dried pond bottom buried in hard, moist mud under a mat of dead water hyacinth (*Eichhornia crassipes*); one individual in a vertical tunnel that extended to the surface and the other 10 cm below the surface in a horizontal chamber slightly longer than the body. Here I report an additional field observation of the aestivation chamber of *S. lacertina* along with associated environmental conditions.

On 2 December 1999 at the Megginis Arm of Lake Jackson, Leon Co., Tallahassee, Florida, USA, I discovered an adult *S. lacertina* (61 cm TL, 48 cm SVL, 700 g) in its aestivation chamber, which had been uncovered by a bulldozer during a sediment-dredging operation. The chamber was located 30 m from the waterline and ca. 15–20 cm below and parallel to the ground surface in moist organic/silt lake sediments under a dense growth of smart-

weed (*Polygonum densiflorum*) (Fig. 1). There are no previously published photographs of *Siren* in its aestivation chamber in nature, as the chamber is usually destroyed in the process of digging to find the animals. The siren was alive and inactive within a cocoon that consisted of a thin layer of dry skin that covered the body; the skin under the cocoon was moist and the gills were atrophied. The posterior half of the animal was curled back around so that the tail was in slight contact with the body (Fig. 2). This S-shaped body position and the spherical position observed by Carr (*op. cit.*) may help sirens minimize water loss during extended periods of aestivation.

During 1998 and 1999 northwest Florida experienced drought conditions (1999 rainfall 39.7 cm below normal average; NWS, Tallahassee, Florida) and lake waters had not covered the area above the aestivation chamber for 1–2 yr. Therefore, the individual uncovered in this operation was likely in aestivation for at least one year.

Previous observations of sirens in aestivation chambers are only from completely dried ponds where they apparently became trapped and were forced to aestivate (Carr, *op. cit.*; Freeman, *op. cit.*). In the present observation, the lake level was lower due to drought but a large area of open water (> 1 m deep) with a mud bottom and little aquatic vegetation was still available. This ob-



FIG. 1. Aestivation chamber of *Siren lacertina*.



FIG. 2. Aestivating *S. lacertina* encased in moisture-conserving cocoon. Note S-shaped body position.

ervation suggests sirens may aestivate far above drought-lowered waters in areas that were previously inundated, rather than moving with the slowly receding waters to remain active. Numerous other *S. lacertina* and *Amphiuma means* were uncovered in the same area.

Submitted by **MATTHEW J. ARESCO**, Department of Biological Science, Florida State University, Tallahassee, Florida 32306-1100, USA.