

Mud Daubers—A Spider's Foe

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A black and yellow mud dauber showing off its colors. FWNC&R Staff Photo.

As a naturalist, I am filled with a renewed sense of wonder and excitement about what we may encounter on our hikes during the transition of one season to another. Not only will we see blooming wildflowers, we will enjoy the resurgence of activity by insects that do well in the warmer days of spring to feast and reproduce. We begin to notice elaborate mud nests formed under human-made structures at the park, such as the marsh boardwalk, June Stacey's bird blind, and eaves of the Hardwicke Interpretive Center. These pottery homes, a perfect formulation of clay and water, are made by often-seen but under-appreciated mud dauber wasps.

These solitary wasps are often encountered along the banks of the Riverbottom Trail, hard at work airlifting spheres of mud balls and constructing either pipe-shaped or globular nests depending on the species. The purpose of these hollow mud chambers is to provision each chamber with food, deposit an egg in it, and then seal it with a cap of mud to keep potential predators from eating the young. If you have arachnophobia, you may be happy to learn that these wasps provide their larvae with a particular

diet—spiders! Individual cells may contain several spiders to serve as food for a single wasp larva. Spiders are rendered immobile by the wasp's stinger before being placed in the nest by the female huntress. What comes next for the spider is unnerving. The spiders will be consumed alive one by one by the developing wasp larva. When the last spider is eaten, the larva pupates and later emerges as an adult ready to find a mate, build a mud nest, and capture more spiders. Several species of web-spinning and hunting spiders have been discovered stowed away in the nests of these mud daubers.

Two species of mud daubers are seen on the Refuge—the black and yellow mud dauber, *Sceliphron caementarium*, and the common blue mud dauber, *Chalybion californicum*. The latter has a preference for providing black widow spiders to their larva, a benefit to us humans. Though they are wasps and can sting if handled, they do not act aggressively in defending their nests as other social wasps do. Mud dauber nests may not be the type of outdoor décor desired, but they offer a non-toxic, organic, and natural spider control in the area.