A NOTE ON THE HUNTING HABITS OF AN AMERICAN AMMOPHILA.

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Fabre found that the Ammophilas studied by him stored their nests with caterpillars which they dug out of the ground. The published results of American students of these wasps seem to indicate that our native Ammophilas have a different habit. Carl Hartman[1] found that the large *Ammophila procera* stores its nest with the tomato caterpillar, and the Peckhams[2] say that *Ammophila urnaria* never digs for her prey. A chance observation, made this fall, shows that some American Ammophilas dig in the ground for caterpillars with which to stock their nests. It was about eleven o'clock on the morning of September 17th, 1910. The day was warm and the sun was shining brightly. In sauntering along a narrow foot-path on the top of a hill at Edgemont, Ill., I noticed an *Ammophila* sp. digging in the barren pathway.

Thinking that she was digging a nest, I dropped upon the ground to observe her method of work. After biting out a bit of earth with her mandibles, she would retreat a distance of about three times her length, then flirt broadcast, the dirt and return for another load. Her movements were so quick and jerky that one is tempted to call them nervous. Twice she left the spot and flew away, only to return and continue the excavation. After she had dug just deep enough for her prothorax to be hidden from view, she suddenly disappeared into the ground. This was my first intimation that the wasp was not digging an original burrow. Even then I did not grasp the full significance of her behavior, for I immediately concluded that she had uncovered a burrow which had been made by her earlier in the morning.

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[1]Observations on the Solitary Wasp of Texas, 1905, p. 13.
[2]The Solitary Wasp, 1898, p. 9.

After the lapse of a few minutes, the wasp slowly emerged from the burrow until her two posterior pairs of legs and all of her body, except the prothrorax and head, were outside of the hole. Bracing herself with her legs and straining every muscle of her body, the Ammophila spent fully five minutes tugging and pulling at something in the burrow. And at what? Presently a portion of a caterpillar became visible in the mouth of the burrow. A few more minutes of tugging and pulling and a large caterpillar was dragged to the surface and to a short distance from the burrow. The Ammophila had been digging for prey!

After dragging the caterpillar a short distance from the hole, the Ammophila held it, with her mandibles, by the back of the neck and, curving her abdomen around to the ventral side of the caterpillar, stung it several times. Although the stinging was done deliberately, yet it was done so quickly that, from my position, it was impossible to determine into which somites the sting was thrust. Having completed the stinging, the Ammophila proceeded to malaxate the neck. Fully five minutes were occupied in this procedure. All of this time the caterpillar had been resting with its ventral side towards the ground. The Ammophila now rolled the caterpillar over upon its back, straddled it, and, grasping it by the throat with her mandibles, walked rapidly away, trailing the limp insect beneath her body. At about two yards from the spot where the caterpillar was captured, the wasp placed it on a lower twig of a bush, made an orienting flight and flew away.

A pressing engagement forced me to leave at this stage and prevented me from seeing what disposition the wasp made of the caterpillar; but, although I did not see this wasp place that caterpillar in a burrow, yet I did see a wasp of the same species carry a caterpillar of the same kind into a burrow; and a friend of mine, who was waiting for me in a different portion of the field, saw an Ammophila of the same species place a similar caterpillar in a burrow and seal it. Evidently some of our American Ammophilas resemble those studied by Fabre in storing their nests with subterranean caterpillars.