

*frigidum* has the more graceful shape of the *scrutator* group, it is quite black, and bears three rows of small bronzed or greenish punctures, which are, however, much less conspicuous than those of *calidum*.

As an evidence of the rapid increase of *frigidum* during the recent infestation of Canker Worms, it need only be mentioned that my first capture of this beetle was on 23rd May, 1883, on an island about three miles below the city, and that no other specimen was taken by me until 28th June, 1891. During these eight years a careful watch had been kept for this species, and many additions of less conspicuous beetles had been made to my local lists, so that I was forced to the conclusion that it was one of our rarest species. In 1892, however, as recorded in *Ottawa Naturalist* (Vol. VI., p. 150), I found several specimens in a locality where the Canker Worms were very numerous upon ash trees, and also took two specimens in the city. This spring the beetles were found to be quite abundant under stones, etc., in the infested localities, and later when the worms made their appearance on the foliage they were soon attacked and greedily devoured by the beetles. Numerous examples of *frigidum* were seen ascending the trunks of the basswoods and extending their investigation as high as they could be watched. The worms seemed to be easily disturbed by the marauders, and when a beetle ran out on a leaf they would drop down a few inches to elude it. One of the less alert, or newly moulted worms, would, however, be captured, and it took a very few seconds for the beetle to devour the juicy body of its prey and to recommence the hunt. Enormous numbers of the worms must have been thus devoured by this beneficial beetle. At the Experimental Farm, the beetle was also found in some numbers on infested basswoods, showing that its range was becoming more extended.

The Canker Worms were also attacked by parasitic hymenoptera, which, though less conspicuous, may not have been less destructive than the beetles. One of these which I have bred is apparently *Apanteles paleacritæ*, a Braconid, described by Prof. Riley, (Trans. St. Louis Acad. Science, Vol. IV., p. 313), from 3 females, 1 male, bred from the larvæ of *Paleacrita vernata*, found at Villa Ridge, Southern Illinois, the flies appearing May 10th, and from 2 females bred from Canker Worm larvæ, probably of the same species, received from Mr. J. Pettit, Canada West. This *Apanteles* differs from *A. congregatus* and other common allied species, in that the host only supports a single larva, which, however, seems to so exhaust its vitality that it does not reach maturity. Dr. Riley says that: "The greenish white cocoons are spun singly on the under side of a leaf," but I have often found that the parasitic grub, when satiated with the juice of the unfortunate Canker Worm, emerges from its back and spins its cocoon thereon; the emaciated worm bearing this upright burden, like a tower on his back, wanders feebly about until death claims and relieves him.

On the hickories I found numbers of the Canker Worms which had succumbed to a different internal parasite, and had become mere contracted and stiffened shells, attached to the leaves and stems on which they had died. Such a condition results with some caterpillars from the attacks of species of the Ophionid genus *Limneria*, and perhaps may have so resulted in this instance, but from a number of specimens collected I bred invariably a species of *Hemiteles*, the members of which genus are considered secondary or hyper-parasites. I have not yet had time to thoroughly identify the pretty little species bred from the Canker Worms, but it resembles *H. sessilis*, Prov., in having two well defined bands on the wings, although evidently a distinct species, and closely related to *H. melitææ*, Ashm., if not identical with that species, which occurs in California. Another ichneumon which was quite common about the infested hickories was the handsome *Mesostenus thoracicus*, Cress, usually a rare insect, and I supposed from its unusual abundance that it was parasitic on the Canker-worms. After closely watching their movements, however, I ascertained that they were searching for the rough cases made by a species of leaf-folding caterpillar, and that they perhaps confined their attention to this species which was somewhat abundant. I collected some of the folded leaves and bred from them both the parasite and the moth, the latter a pretty little species, which Mr. Moffat has kindly identified for me, and of which he says: "The name of the moth is *Ambesa Walsinghami*, Rag, as identified for me by Prof. Fernald from a single specimen taken at Hamilton several years ago, and I have never met with another. It belongs to