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## A NEW ENEMY OF THE BLACK SPRUCE, ABIES NIGRA.

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An enemy of *Abies nigra* sent to me by Mr. C. S. Sargent, from the Arboretum of Harvard University, induced me to compare the literature about the enemies of this tree. To my surprise, all that is published consists of two very excellent papers by Mr. Ch. H. Peck, Albany. One, "The Black Spruce," read before the Albany Institute, May 4, 1875, 8v., pp. 21; the other in the New York State Museum's Report of the Botanist, No. 30. I do not remember to have seen these papers recorded in entomological serials. There are noted two vegetable parasites, *Arceuthobium pusillum* and *Peridermium decolorans*. Of insects are recorded a plant-louse near *Adelges coccineus*, and some Hemipterous gall insect; also, two beetles, *Hylurgus rufipennis* and *Apate rufipennis*.

The twigs sent to me contained numerous pale spots, the consequence of some dead leaves, three or more, one near the other. The examination of those leaves showed on every one at the base, sideways, a small round hole. The interior of the leaf was hollow, in some cases only the lower half, where the enemy had not yet finished the work. I discovered directly a small caterpillar, belonging to Tineidæ and probably to the *Argyresthians*, as the destructive enemy. The biological collection contains no enemy of the Black Spruce, and no similar destruction of Pines, except a somewhat related twig of *Pinus Canadensis*, quoted also as probably done by an *Argyresthian* larva. In Mr. Chambers' valuable list no Tineid living on Spruce is recorded.

The European literature contains only one fact similar to the American. It is recorded that *Cedestis farinatella* hollows the leaves of Pines. But until now no American species of *Cedestis* is known. Probably the moth will be raised and the mystery solved; at all events, I desire to draw the attention of entomologists to this enemy. Perhaps it may be more common than is supposed, Prof. Peck stating as a fact that the Spruce trees in some parts were said to be dying at an unusual rate, as if affected by some fatal disease. To judge by analogies, the attack made by *Hylurgus* and *Apate* is only a consequence of the previous attacks by other enemies.