



FrontiersEcoPics

An unexpected visitor

Inside each long and narrow flower spur of the round-leaved orchid (*Platanthera orbiculata*), a little bit of sweet nectar lures insects. On July 9 at the Hubbard Brook Experimental Forest in New Hampshire, a geranium plume moth (*Amblyptilia pica*) was seen visiting a *P orbiculata*. The slender moth was first found embedded in the floral orifice. The moth then flew to a nearby flower and latched onto its dorsal sepal and column with spurred legs.

The plume moth could have been pollinating the flower or merely stealing nectar, since several flowers showed signs of already being pollinated, such as swollen ovaries and missing pollinia (when a pollinator uses its long proboscis to extract a flower's nectar, pollen sticks to its eyes to ensure dispersal). Although there is no empirical evidence, it has been speculated that some noctuid moths are the pollinators of *P orbiculata* based on the size of their mouthparts. While plume moth species have been recorded as likely pollinators for a closely related orchid (*Platanthera sparsiflora*) that bears similar flowers, to date there has been no evidence to suggest that they could be pollinators for *P orbiculata*.

Geranium plume moths are also known as flower and seed feeders of several horticultural plants. However, it is uncertain whether *P*



orbiculata could be a larval host because the photographed moth appears to be male. So, is *A pica* a newfound pollinator, a nectar thief, or a seed predator of *P orbiculata*?

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