

Bird-Nest Wasps

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Several people have complained of insects damaging their windows and have either described or sent me samples of grass that they found in it. When asked when they first encountered this, I was told that this was not new from the winter but had occurred last summer or fall. When the samples were carefully examined, tree crickets were found amongst the grass. People never noticed any other insects.



Bird-nest wasp. Jeff Hahn

However, the tree crickets are not responsible for the grass. The actual culprit is a sphecid wasp known as *Isodontia*. This insect is called bird-nest wasp or grass carrying wasp. It belongs to a group of sphecid wasps known as thread-waisted wasps. They have a very thin stalk or waist (actually part of the abdomen) connecting the thorax with the abdomen. The most common species in Minnesota is *Isodontia apicalis*. It measures 1/2 - 3/4 inch long, is dull black in color, and is active from July to September.

A bird-nest wasp uses a preexisting cavity to construct its nest. Worldwide, they have been known to use hollow plant stems, rolled leaves, abandoned bee nests, and even crevices between stones. In Minnesota, home residents occasionally find them inside window cases. The bird-nest wasp flies to her nest site, carrying grass, sometimes several inches long. This grass is used to form cells in her nest. She provisions her nest with insects to feed her young. *Isodontia* prefers katydids or crickets - a particular species will prefer a specific insect as its prey.



Grass and tree crickets. Jeff Hahn

Although the activity of a bird-nest wasp can be a little alarming or disconcerting, they are not actually damaging anything. Just remove the grass and insects you find. It is unlikely you will have an ongoing problem with this wasp. If you saw it one year, you probably will not see it the next. This is fortunate as it would be very difficult to exclude them or otherwise control them.

University of Iowa factsheet

An unusual insect that few people get to see in Iowa is the "grass-carrier" wasp of the genus *Isodontia*. The name refers to the nesting habits of the female wasp. The wasps fill nest cavities with grass and occasionally other plant fibers till the nest resembles a loose pile of brown grass clippings stuffed into a protected opening.

In nature the nests are located in, hollow stalks or stems of plants, galleries in wood, abandoned bee galleries and in vertical clay banks or bluffs. However, most people who observe grass-carrier wasp nests find them in the sliding tracks of windows or in the space that is left between the screen or storm window and the house window frame.

A nest is made when the female wasp gathers and carries grass or plant fibers to the chosen cavity and provisions it with tree crickets (*Oecanthus* sp.). The tree crickets are the 1-inch long, slender, light green dead insects found mixed into the grass-clipping nest. The wasp lays eggs on or near the tree crickets and the larvae feed on the paralyzed prey. Full-grown larvae spin papery cocoons when mature. There is one generation per year and the overwintering stage is the prepupal larva within the cocoon.

Grass-carrier wasps are solitary. That means each nest is the effort of an individual female. There are no workers to help with nest construction and larval rearing. As a rule solitary wasps do not aggressively defend their nests. They are capable of stinging but will do so only if harassed or handled.

No special controls for grass-carrier wasps are necessary. Discard the nests as they are discovered (usually when cleaning windows or changing screen windows). Chemical treatment is not necessary. Prevent future nesting in the area by installing tighter fitting windows and screens or by plugging gaps and openings leading to interior cavities.