



## GRASS-CARRYING WASP

*Isodontia mexicana* (Sphecidae)

Grass-carrying wasp cocoons and nesting material are frequently discovered by homeowners in the autumn. This discovery occurs when window screens are replaced with storm windows in preparation for winter. Many homeowners may not realize that these nests, frequently found in storm window tracks, are created by a wasp to provide a nest for her young. Blades of dry or drying grass and similar material that are found in window tracks are probably caused by the grass-carrying wasp, *Isodontia mexicana*.

Several species of *Isodontia*, the grass-carrying wasps, are found in the United States. The most frequently encountered by Pennsylvania homeowners is *Isodontia mexicana*, although *Isodontia auripes* is also found. The *Isodontia* spp. wasps are one of the thread-waisted wasps in the family Sphecidae and use pre-existing cavities to provision a nest for brood. Nest sites include abandoned carpenter bee holes, hollowed branches, and occasionally, holes in soil banks and between rocks. Around homes, they commonly nest in the tracking for aluminum storm windows.

## LIFE HISTORY

The adult wasps emerge from their cocoons in early summer, mate, and the females locate a suitable nest site. She collects blades of grass and grass and hay stems to line the nest cavity. The wasp can be seen flying through the air with the blades trailing beneath her. She lands at the hole and enters, pulling the blade in behind her. After the nest is prepared, she hunts for tree crickets (i.e., *Oecanthus* sp.), captures and paralyzes them with her sting, and transports them to the nest. She deposits eggs in the nest and the emerging larvae will feed on the living, but immobile crickets. When the larvae reach the appropriate size (in 4–6 days at 70–75° F.), they spin a cocoon and pupate. The adult wasps emerge in 2–3 weeks. In Pennsylvania, *Isodontia mexicana* typically produce two generations per year.

A closely related species, *Isodontia auripes*, has a similar life cycle and habits. The principal difference is that this wasp will not partition the nest limiting one larva per section, while *Isodontia mexicana* creates either a partitioned or a communal nest site for the larvae.

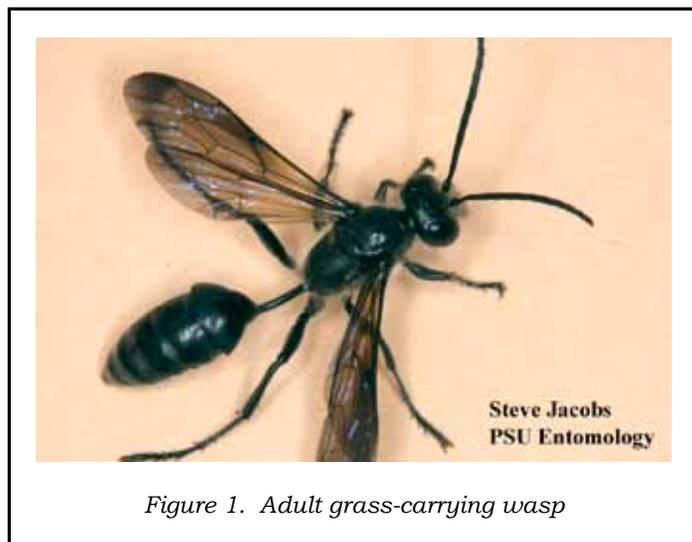


Figure 1. Adult grass-carrying wasp

## DESCRIPTION

On average these wasps are 18 mm long. The wings are tinted a smoky, red-brown color. The body is black with a shiny abdomen positioned on a long, thin pedicel (Fig. 1). Long, white hairs appear on the thorax. The cocoons are elongate/ovoid and yellow-brown with a papery texture. Inside, the larvae are grub-like, with no legs, and are a yellow-cream color. The nest entrance is typically plugged with blades of grass, which may extend out of the opening for up to 2 inches.

## MANAGEMENT

Grass-carrying wasps are an oddity, or at the very worst, a minor nuisance. Although the wasps can sting if handled, they are not aggressive and do not actively defend their nests. Simply remove the nest and cocoons from the storm window frame tracks before installing storm windows. There is no need to use pesticides since the only way to prevent their return is to close the opening of the storm window tracks.

## WARNING

Pesticides are poisonous. Read and follow directions and safety precautions on labels. Handle carefully and store in original labeled containers out of the reach of children, pets, and livestock. Dispose of empty containers right away, in a safe manner and place. Do not contaminate forage, streams, or ponds.

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