

## Squash Bees



Male *Peponapis pruinosa*. Photo courtesy of USDA-ARS Bee Biology and Systematics Lab.



*Xenoglossa* spp. Photo courtesy of USDA-ARS Bee Biology and Systematics Lab.

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Got squash? If so, you have the chance to see the most important floral specialists in agriculture, native solitary bees of two genera, *Peponapis* and *Xenoglossa*, the so-called "squash bees". Look at your squash's flowers during the first few hours after sunrise. Male squash bees will be darting between flowers, searching for mates. By noon, they will be fast asleep in the withered flowers.



Squash bee. Photo by Holly Prendeville at the University of Nebraska.

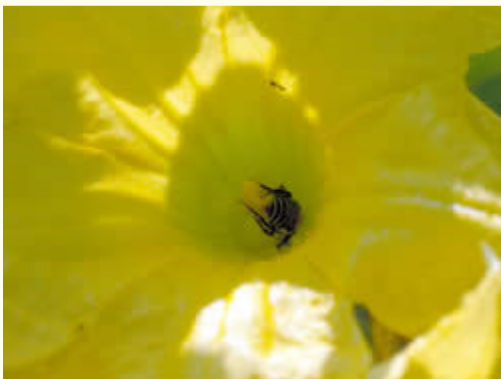
Females forage at the flowers of squashes, pumpkins and gourds, their sole pollen hosts. In contrast to like-sized honeybees, female squash bees carry their pollen dry in a brush of hairs on their hind legs. The most widespread species, *Peponapis pruinosa*, is found from Quebec southward into Mexico, wherever squashes are grown.

Squash bees are non-social but sometimes gregarious ground-nesters. Every female digs her own nest. The nest is a simple vertical tunnel terminated by a loose grouping of individual chambers a foot or two deep in the soil. Think of a pea in a thimble and you can envision the individual pollen ball (with a sausage-shaped bee egg) resting in the nest chamber.

Squash bees have been shown to be excellent pollinators of zucchini and butternut squashes, among others. If numerous, they thoroughly pollinate all available flowers, rendering later visits of honeybees superfluous. Before Europeans brought honeybees to the New World, squash bees were busy aiding the adoption, domestication, spread, and production of squashes and gourds by indigenous peoples throughout the Americas.



Male *Peponapis* bees in a squash flower. Photo courtesy of USDA-ARS Bee Biology and Systematics Lab.



Squash bee in a squash flower. Photo courtesy of USDA-ARS Bee Biology and Systematics Lab.