

‘Bringing the Golden Pea Bee back to the burbs’

In 2022-23, bee specialist Dr Katja Hogendoorn is leading a project to get the Golden Pea bee back to the burbs. The Golden Pea Bee is an iconic, specialist bee species that relies for its reproduction on pollen from certain native pea species (Fabaceae). Bees that specialise on a few plant species for pollen and nectar are particularly vulnerable to habitat loss and extinction.

The Golden Pea Bee is a case in point: these bees still occur in areas with sufficient native peas in the Adelaide Hills, but are largely absent from suburban gardens and parks, where the plant species that the bees require are in short supply.



Figure 1. Female (left) and male (right) golden pea bee, *Trichocolletes venustus*.

Background

The Golden Pea Bee (*Trichocolletes venustus*) is a local native bee that uses pollen from only a few species of native peas to produce its offspring. The Golden Pea Bee nests in the ground. Adult males and females are only seen end of September and October, when the suitable species of native peas are flowering. The bees are nearly as large as a honeybee, but much faster flying. The female has beautiful golden bands, the male has abundant red hair (Fig.1).

These bees are important pollinators, not only for the pea species they visit, but also for donkey orchids, which are food mimics of peas. The orchids do not offer any rewards to the bees, but the bees mistake them for peas, and as a consequence of these mistakes, visit and pollinate the orchids. Pea bees are regularly observed carrying the pollen packages (‘pollinia’) of donkey orchids (Fig. 2).

In the Adelaide Hills, the Golden Pea Bee still occurs locally, in conservation areas with sufficient densities of the appropriate native pea species. However, the pea bee has disappeared from the leafy green suburbs in the foothills, probably due to a lack of food plants.

***Together, we can help this bee survive and thrive,
simply by growing the food plants it depends on***



Figure 2. A donkey orchid (*Diuris orientis*) and a male pea bee carrying orchid pollinia.

To raise awareness of the importance of this bee, and its specialised food requirements, Green Adelaide is funding a community project:

'Bringing the golden pea bee back to the burbs'.

The project includes demonstration plantings, information sessions for community groups and high school projects.

One demonstration site with an information board will be at Eden Hills railway station, where the bee has not yet been seen, but travellers have time to read and look. This will be done in collaboration with the volunteers that work in the stations gardens.

The other demonstration site will be in Belair NP, where the bee still occurs, and visitors will be able to observe the bee in October

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This project is seeded by Green Adelaide.