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Looking to alternative pollinators to support apiarists and industry

As the bushfire crisis across Australia continues, so too does the threat to wildlife including bees which are crucial for successful pollination.

Early assessment has indicated that more than 10,000 honey bee hives have been destroyed across the Australian mainland and around 800 hives and 115 nucleus hives of the unique Ligurian subspecies of honey bee on Kangaroo Island.

The island is renowned for its floral diversity and distinctive tasting honey, being home to the only population of Ligurian bees in the world free of major diseases and biosecurity threats.

Hort Innovation Research and Development Manager for Pollination, Ashley Zamek, said the RDC was working with several research institutions across the country to assess the viability of alternative or complementary insect pollinators to ease the pressure on honey bees and their keepers.

“This research is now more important than ever considering the loss of such a significant number of hives during this catastrophic bush fire season,” she said.

Ms. Zamek said promising preliminary findings had already been made in areas of alternative pollination where native stingless bees were successfully introduced into protected cropping environments.

She said researchers are also working to diversify landscapes to promote other supporting native insects such as wasps, beetles, birds and the like.

“And in a national first research project, we have partnered with the Department of Primary Industry and Regional Development in Western Australia to trial the use of flies for pollination,” she said.

Professor James Cook from Western Sydney University, who leads several pollination focused projects for Hort Innovation, said these projects are looking to understand what the natural pollinators are doing and how that can be strengthened to better support industry.

“Moving forward we’ll see an increasing recognition of the role of wild pollinators and pollinators other than honeybees,” he said.

“What our studies are showing at the moment is that insects such as native bees, wasps, flies and more are already playing quite a big role in pollination, but now we’re starting to get reliable data that demonstrates just what kind of contribution they are making.”

“If you put together all the pollination work we’re doing around the country, what we’re looking to do is to be able to provide information for resilient pollination services that don’t rely too much on any one situation or one species – leading to a better understanding of all the different options and how we can manage the landscape or the protected cropping environment so that we can harness these natural pollinators and get good pollination for crop production.”

ENDS

View Hort Innovation projects related to pollination here:

<https://www.horticulture.com.au/hort-innovation/our-work/hort-frontiers-strategic-partnership-initiative/pollination-fund/>

Some key projects are listed below:

- [Strengthening and enabling effective pollination for Australia \(PH15000\)](#) – This investment is delivering sustainable pollination services for Australian crops by improving the understanding of pollination requirements. It is also looking at key threats to honeybees and provide crop-specific resources to encourage growers to improve their pollination practices.
- [Healthy bee populations for sustainable pollination in horticulture \(PH15001\)](#) – This investment is addressing key knowledge gaps and delivering education to support healthy pollinator populations and to boost on-farm pollination.
- [Managing flies for crop pollination \(PH16002\)](#) – This investment is looking into the potential of using flies as alternative crop pollinators, including looking at the effectiveness of specific species in pollinating avocado, berry (blueberry, raspberry and strawberry), hybrid carrot seed and brassica seed crops.
- [Stingless bees as effective managed pollinators for Australian horticulture \(PH16000\)](#) – This is a project is examining Australia's native stingless bees for their suitability as alternative pollinators to honeybees in horticulture crops.
- Podcast: Growing Matters Series 2 "Abuzz with pollination"
<https://www.horticulture.com.au/growers/help-your-business-grow/research-reports-publications-fact-sheets-and-more/abuzz-with-pollination/>