

Golf courses can play a significant role in protecting and promoting bee populations

Bee positive



PHOTOS: IDRIS EBANIS/COLIN WINTERTON



ATM's resident environmental expert Kate Torgersen looks at how golf courses can play an important role in protecting and enhancing local bee populations.



This time of year is when we see an increase in bee activity with the warmer weather and flowers in bloom. Throughout this article we look at what options can be done to reduce the risk to golfers without calling in the pest controller, how important bees are and the role that golf courses can play to help their survival.

In researching this article I was surprised to find very little information available about bees on Australian golf courses. That's compared to the wealth of literature that can be found on international courses where it almost seems common practice for clubs to have beehives on site.

Type 'bees on golf courses' into Google and you will see the results are plentiful, with international courses participating in beekeeping initiatives, managing beehives as part of their regular maintenance and providing out of play and wildflower areas to encourage bee populations. Even chemical company Syngenta has a dedicated initiative called Operation Pollinator which helps restore pollinators in agricultural, golf and other landscapes by creating essential habitats.

By contrast, scroll down through the list of search results and the first mention of bees on Australian golf courses is a forum asking about the ruling if your ball happens to come to rest under a swarm of bees!

Bees are vital to our existence as they help to pollinate most of the crops we eat and many that feed

When a hive or swarm has been located and is a threat, don't call in the pest controller. Contact a local beekeeper who can come and remove them

farm livestock. In fact, nearly two-thirds of Australia's agricultural production benefits from honey bee pollination. When we think of bees the majority of people instantly think of the European honey bee, but Australia also has over 1500 species of native bee with a small number of these (approximately 10) stinger-less.

Despite their prevalence, bee populations are always under threat whether it's through pests and diseases, intensive farming practices or the destruction of their natural habitat. And it's the latter where golf courses can play a significant role, especially in an urban environment where they are often some of the last remaining open green spaces.

To back up that very point, between 2012 and 2014 the AGCSA, in conjunction with the University of Melbourne, conducted a project which examined the biodiversity benefits of urban golf courses (see the article 'Green havens' which appeared in ATM Volume 16.5, Sept-Oct 2016, p6-12). As part of the study, researchers looked at native bee populations on 13 Melbourne golf courses and compared them to those found in nearby residential and park reserve settings.

Using a combination of sweep nets and coloured pan traps, researchers caught over 1000 individual bees and identified at least 30 different species of native bee. When compared to nearby residential areas and nature reserves, golf courses on average supported a greater number of different bee species.

Furthermore, researchers sampled these 'nature reserves' to see if more intact remnant habitats supported a greater number of bee species. Instead,

they found that golf courses provided the most important refuge habitat for native bees in the urban landscape. This is probably due to the wide variety of nectar-bearing plants found within golf courses and because of their greater levels of maintenance (e.g. irrigation) which may increase food resource availability.

THINK BEE-FORE YOU ACT

Increased bee activity this time of year obviously is a safety hazard for golf course superintendents and turf managers to consider. But before you grab the phone and call your nearest pest controller, think twice about your options. There are many alternatives you can choose that will not only save money but also contribute to promoting bees.

Posting information on your website or in a regular newsletter notifying members that there is a higher risk of bee activity at this time of year is a good way to raise awareness among the membership (especially those who may have allergies).

Usually when people see or hear bees they immediately think danger. However, bees are just like any other animal. They will only attack if they feel threatened. Swarming bees are very docile and are not inclined to sting provided they are left alone and a few common sense precautions are taken.

When a hive or swarm has been located and is a threat, rope the area off and place a sign informing people of the danger (you may have a similar



procedure in place already for other dangerous fauna) and contact your local beekeeper.

Beekeeping has become more popular these days and it is very likely that you will have one nearby that you can call upon. Where possible they will relocate the bees for you to add to their hives and, if you're lucky, may even supply you with a few jars of honey! If you are unsure of a local beekeeper, there are many websites that you can source this information from, such as:

- **Aussie Apiarists Online**
www.aussieapiaristsonline.net
- **Apiarist Association**
www.vicbeekeepers.com.au
- **Western Australian Apiarists' Association**
<https://waas.org.au>
- **The Beekeepers Club**
www.beekeepers.org.au

The Western Australian Golf Club has nine hives on course and is looking to expand that number heading into this summer

Just one of the many obvious benefits of having hives on your course. Many golf clubs that collect honey from their hives sell it in the pro shop or clubhouse bar



Colin Winterton has kept bees at Medway Golf Club for more than 25 years



It was through one of these that I came across my local beekeeper. He now comes out a few times a year to collect any swarms we have on the course and relocates them to one of his several hives. Instead of paying for a pest controller to come and kill the bees, the club is saving money and as a bonus I get a nice supply of honey.

HIVES OF ACTIVITY

There are a number of turf managers around Australia and New Zealand that have hives on site and who are actively encouraging bees through the promotion of their native habitat. You will be amazed at how many clubs are collecting honey from their hives and selling it in the pro shop or clubhouse bar!

Many might be reluctant to place hives on site due to potential safety concerns, but talking to long-serving Medway Golf Club superintendent and beekeeper extraordinaire Colin Winterton, if properly managed and with a bit of common sense they provide wonderful benefits.

Colin has been a beekeeper most of his life and for the past 25 years has had a varying number of hives on his course in Melbourne's inner west. He currently has seven active hives which are located well out of play. Honey that is produced by the hives

is sold to members who on a daily basis will ask him how his bees are when out on the course. Colin also has hives at various other locations around Melbourne, including the 5th floor of the Rialto Tower in the CBD. The honey collected from these hives is used for high teas in the tower's restaurant.

One important factor Colin stresses for those wanting to keep beehives on their course is the need to know what you are doing. Whether it's you, a fellow staff member or a club member, he recommends undertaking one of the many beginner beekeeping courses which are available nowadays. Managing beehives can be time consuming, especially during the honey season, but as Colin attests for him he is at his most relaxed and stress-free when interacting with the hives and becomes totally absorbed in their activity.

John Spraggs, director of agronomy at Royal Wellington Golf Club in New Zealand, has a total of 28 hives on his course and is currently looking to expand that number as results over the past 12 months have been very positive. The club provides the site while a local beekeeper provides his skills and the hives.

Idris Evans, superintendent at The Western Australian Golf Club in Perth, is also looking to expand the number of hives he has on his course. Evans currently has nine hives which were installed about five years ago after contacting a local beekeeper. To stop the bees from swarming heading into summer, Evans is looking at adding a few more hives in the coming months.

"I wanted the hives on course as I think it's important to show that the golf course is helping to improve the environment," says Evans. "We have a local beekeeper who maintains them and the honey produced by the hives is sold in the clubhouse. The lady members love it!" 🐝

A TO Z OF BEES

Bees are remarkable creatures. Ask any apiarist and they will happily regale you with facts and figures of these wonderfully industrious insects. Here are just a few;

- A standard-sized beehive typically contains between 10,000 and 60,000 bees.
- A queen bee, on her mating flights, will mate with a dozen or so drones (male bees), but then never mate again during her life. After mating, she is capable of producing up to 2000 fertilised eggs every day (in good conditions) for up to five years.
- The male bee (drone) hatches in spring, with its sole purpose being to mate with the queen on her mating flight at which point it dies. If still in the hive in autumn, it is expelled from the hive to die as it only consumes precious honey stores. It performs no tasks in the hive and needs to be fed by the worker bees.
- To make one kilogram of honey, a colony

of bees will collectively fly about 40,000 kilometres.

- Each worker bee (who are incidentally all female and perform all necessary tasks in the hive) can make around one teaspoon of honey in its lifetime (just six weeks). It is not all surplus, as it is used to feed the brood, regulate hive temperature and personal consumption. A productive hive on good conditions can store 20kg of surplus honey in a month. A good backyard hive may produce 30-50kg in a season.
- When worker bees are searching for food, they follow a meandering path. However, they are able to return to the hive in a straight line (hence the term 'bee-line') due to their unique navigating skills. When they reach the hive they perform a waggle dance on the combs to tell other worker bees how far and which direction to go.

If you are looking to keep hives on your course it is recommended to undertake a beginner beekeeping course

