



# Advice for Beekeepers if their Hives are being Predated Upon by Asian Hornets

**The policy of Natural Environment is that the best way of protecting your beehives from predation by Asian hornets is to locate the hornet nest that is causing the predation and destroy it.**

A volunteer group in Jersey, the Jersey Asian Hornet Group (JAHG) have been honing the technique of tracking nests since 2017.

As a beekeeper who wishes to protect their beehives, if you have Asian hornets predating (hawking) your hives, you need to:

1. Report the sighting to the Asian Hornet Coordinator using the email [asianhornet@gov.je](mailto:asianhornet@gov.je). The coordinator will want to know where the hawking is taking place – house name, GPS coordinates, What3words and even a cross on a screenshot map are good ways to do this. Note also how many hornets were predating.
2. Do not kill the hornets, but observe the hornets to see which direction they fly off in. If a hornet takes a bee, it will fly to a nearby tree to butcher it, and then fly back to the nest with the thorax only.
3. Set up a few bait stations – this is a saucer, plant pot tray, takeaway meal container, with some kitchen towelling in, moistened with some attractant. You can obtain some attractant by contacting the coordinator, or use your own recipe – 1/3 brown beer, 1/3 white wine, 1/3 cassis syrup (the French mix) or fermented sugar mix (1kg sugar, 2 litres water, 50g of jam, some baker's yeast. Wait 15 mins until frothing). There should also be a few stones, leaves, sticks laid on the towelling. This helps avoid the hornet getting sticky feet as a hornet with sticky feet is likely to fly to a tree to clean itself and not go directly back to the nest.
4. Set the bait stations 25m away from the apiary, rather than actually in it, and ideally with an open aspect so that the direction that the hornet flies off in can be observed.
5. Periodically observe the bait stations to see if they have attracted a hornet. This can take 24 hours.
6. Observe the direction that any hornets fly off in. It is helpful to mark a few individual hornets so that they can be identified. A JAHG volunteer can do this for you. Please contact the coordinator to arrange this. The flight direction can be recorded as a compass bearing from the location of the bait station, or as a line drawn on a screenshot map.
7. It is useful to record return flight times – the time for the hornet to fly from the bait, to the nest and back again. This indicates a rough distance to the nest. In reality, times will be variable, but may be averaged after taking any wildly low or wildly high times out. Report the times and flight direction to the coordinator or other designated person.

8. A good rule of thumb is that for every minute that the hornet is away, the nest is approx. 100m away. Note that this rule does not work for the lower flight times as it does not take into account the time in or on the nest.
9. The flight direction line and distance to nest, as indicated by the return flight time, will be mapped. This informs the next stage of the tracking process. The next step is to move the bait station and set it up closer to the nest, and repeat the process of observing flight direction and return flight time.

If beekeepers, whose hives are being predated upon, can carry out the above actions it will considerably help to get the tracking of the nest underway, and support the efforts of the JAHG. Ideally as a beekeeper with a strong vested interest in protecting your hives, you would wish to continue to track the nest until it is located.

There may be members of the JAHG available to undertake the tracking, though they may be working on other tracking cases. They may also be beekeepers themselves, concerned about their own hives.

Clearly, the faster the tracking work is carried out, the sooner the nest will be found. The sooner the nest is found, the quicker it will be destroyed, and your bees will be protected.

If you can assist with the above, you will be informed when the nest is found and when it is destroyed. You should notice a fall-off in hornets predated. If not, it is possible that there is another nest nearby.



Examples of bait stations

#### Background

In 2022, we had record numbers of 174 nests. Only about 1/3 were reported by members of the public, with the remainder, 117 of them being actively tracked by the JAHG. We must prepare for these numbers to rise in 2023.

Last year, the Asian Hornet Coordinator also received many more reports of predation (hawking) at beehives. Many of these reports were from beekeepers who, for various reasons, have not engaged with the programme to control Asian Hornets. Only 20 of the 60 or so members of the Jersey Asian Hornet Group (the volunteer group who actively control Asian hornets), are beekeepers. That means that there are about 100 beekeepers in Jersey who are not engaged with the control programme at all.

The assistance of all beekeepers in controlling Asian hornets is needed.

Beekeepers are keepers of livestock, and they are responsible for the well-being of their bees, and indeed healthy, happy bees are likely to reward their keepers with a honey harvest. Beekeepers therefore have a vested interest in protecting their bees from the impacts of Asian hornets. These impacts are:

- Raised defensiveness leading to aggressive bees
- Foraging Paralysis – not bringing in nectar & pollen
- Reduction in the numbers of winter bees

All of these impacts lead to a stressed colony, which leads to a far greater risk that the colony will fail over the winter. We hear that in some areas of France as many as 50% of honeybee colonies are failing due to Asian hornet predation.

Despite these impacts, the programme to control Asian hornets is about protecting Jersey as a whole. In order to do this, when hornets are reported in an area by a member of the public or a beekeeper, the primary focus is to track down and destroy the nest.

The best way for beekeepers to protect their hives is to help track down the nest that is causing the predation.

#### Assistance of Beekeepers

The process of tracking nests is, in theory, fairly straightforward. In practice, depending on a number of factors, it can be drawn out and frustrating, but not always, with some nests found after just a few hours.

It is accepted that beekeepers do not necessarily have the time to spend hours to track nests. However, it has been proven by beekeepers who have normal, busy day-jobs, that a few hours in the evening, motivated by the knowledge that they are protecting their hives, can achieve significant progress.

It is hoped and will be strongly encouraged that beekeepers, who have a vested interest in protecting their hives, will at least get an initial flight direction line as described above, and be supportive of the efforts by any volunteer JAHG members (some of whom are beekeepers as well) to track down the nest that is affecting their bees.

Beekeepers can also help by monitoring a spring trap, designed to catch the queens from March to early June. Spring traps are not selective, so they do need to be monitored and any bycatch released, which takes just a couple of minutes each day. The bycatch includes queen wasps, flies, moths and small bumblebees.

It is also hoped that beekeepers will also report any sightings to the coordinator, whether involving predation at hives or not. This will facilitate prompt action.

## Mitigation Methods Within the Apiary

As stated, the primary aim of the Asian hornet control programme is to protect Jersey as a whole and to achieve this by tracking and destroying any nests.

However, there are some methods that beekeepers themselves can employ to help protect their hives within their apiary. Whilst these methods may mitigate the effects of predation on your hives, it must be recognised that they do NOTHING to control hornets in the wider community, or prevent the nests from producing the next generation.

It is outside the scope of the Asian hornet control programme to support beekeepers in these activities or even advise in detail what these methods are. There are plenty of resources online that beekeepers can research themselves. Some of the commonly used methods are:

- Not drawing attention to the apiary – good hygiene, not leaving honey & comb around
- Use solid floors or put board in under the OMF during peak predation times
- Obstacles - Grow grass in front of hive or place branches/twigs in front to impede hornet hawking. Put a cloth “skirt” on the hive stand so that hornets cannot fly under the hives
- Trapping – There are a variety of types available. Many are not selective. Some, e.g. the Jabeprod trap, may be more selective than others
- Install a muzzle (museliere) - 2 to 2.5cm mesh in front of the entrance. Research article - <https://link.springer.com/article/10.1007/s10340-019-01159-9>
- Electric harp – expensive, but works - [\(PDF\) Testing the selectiveness of electric harps: a mitigation method for reducing Asian hornet impact at beehives. \(researchgate.net\)](#)
- Badminton Racket – satisfying! Healthy!
- Chickens – La Poule Noire de Janzé - <https://www.neozone.org/innovation/un-veritable-exterminateur-voici-larme-ultime-et-naturelle-pour-eradiquer-les-frelons-asiatiques/>
- Aggregate hives or move them to a location with fewer hornets in the area

## Conclusion

It is vital that all resources are brought to bear to control Asian Hornets in Jersey. Beekeepers have a strong vested interest in seeing that Asian hornets are controlled, as they can impact heavily upon the health and productivity of honeybee colonies.

The current situation, where only a small proportion of beekeepers are doing the tracking work to locate the nests is unfair. Beekeepers should assist in protecting their own hives by helping to track down hornet nests that are the source of predation.

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