

## **Asian Hornet Trap**

### **When to hang out monitoring traps?**

Reports from France suggest that in areas where spring trapping has been used, subsequent numbers of Asian hornet nests are reduced by as much as 90% (2 or 3 nests in trapping areas versus >70 nests where no traps have been hung). Monitoring should begin in early spring when queen hornets emerge from hibernation and search for food to begin constructing a small cup-shaped primary nest and raise the first cycle of brood. Weather conditions allowing for foraging activities and founder nest establishment will vary but typically, this will probably be between late February and early April; however this could be later or even earlier due to erratic behaviours in regional climatic conditions. Adult hornets will be on the wing throughout the beekeeping season, so monitoring should continue right into the autumn.

In areas where Asian hornets are established the demand for food to rear the rapidly expanding hornet population increases as the season progresses and predation on honey bee colonies can be very severe from late summer into autumn. Simple traps without mesh may be a useful way of reducing the stress on the colonies. Traps will need to be regularly changed as they can become full very quickly where high hornet activity is experienced. In the autumn, it is a good idea to hang traps near favourable hibernation sites, such as wood piles, stones, tiles etc.

### **What bait should I use?**

At the end of hibernation emergent queens have a raised energy requirement and show a preference for sweet foods. In early spring such food resources are comparatively rare in the environment, so this means that sweet baits are highly attractive for the early capture of Asian hornet queens. There are many variations of sugar baits, all of which appear to be reasonably effective. These include mixes of sugar and various types of dark beer, various types of alcohol and even simple sugary baits such as apple juice. French beekeepers have also used a mixture of dark beer, mixed with 25ml of strawberry dessert sauce and 25ml of orange liqueur.

At the height of the beekeeping season, when predatory worker hornets are seeking high protein foods to feed the larvae, consider creating a protein bait by adding raw meat or fish to water. In the field we have found that a protein bait of mashed fish e.g. prawns or trout, diluted to 25% is highly attractive. However, if you use protein bait, it will need changing after 3 days due to decay and an unpleasant aroma.

Additionally, you can buy proprietary brands of hornet (wasp) trap bait from many garden centres, DIY stores and beekeeping suppliers, some of which have a tested and proven efficacy against the Asian hornet.

### **Where should I hang traps?**

Traps should be hung in sunny areas, avoiding deep shade where hornets are unlikely to forage. Traps can be hung in trees and on hive stands, in and around affected apiaries, at the height of a person.

### **How to empty the trap**

Release all other live insects. In order to preserve as many non-target species as possible traps should be visited and emptied regularly; ideally daily. As stated above, it is very important that damage to native hornets, wasps and any other insects is kept to an absolute minimum. If your trap is adapted from an off the shelf design and you think you have caught an Asian hornet, then you may find it helpful to place the whole trap, unopened, into a freezer bag that you can seal tightly; place the bag containing the trap into a domestic freezer for 12 hours before opening, to avoid losing your suspect specimen.

## **How do I know if I have caught an Asian hornet?**

The Asian hornet is not easily confused with any other species. Superficially similar to our native European hornet (*Vespa crabro*), it has a characteristically brown or black velvety body with a dark abdomen and yellow tipped legs. Only the fourth abdominal segment is yellow. In spite of its fearsome reputation, the Asian hornet is smaller than *V. crabro*. For further guidance on identification, there is an ID sheet for the Asian hornet:

<http://www.nonnativespecies.org/alerts/index.cfm?id=4>

## **How do I report captures?**

You need to alert the relevant authorities as soon as possible. It is important to note the location as accurately as possible as well as obtain a photograph, to allow experts to confirm identification of the specimen. Please report the sighting immediately (sending a photograph if possible) to: [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk), the NBU office and your Regional Bee Inspector

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