

The Wasp*-ABC – frequent questions, common misapprehensions



* This information also applies to hornets, our largest domestic wasp species. Therefore the term “wasp” is used here partly as an umbrella term, partly the hornet is mentioned separately. Please note that other species than mentioned in this guide may be found in countries other than Germany.

Wasps and hornets play an important role in the ecosystem. As they help to keep several pests at bay, you do yourself and nature a favour by tolerating nests at unproblematic places. Bear in mind that wasps find fewer and fewer nesting facilities. Regrettably – as they are very useful for us: A large wasp colony catches as many insects as 15 to 20 pairs of tits in the same period of time! A (smaller) hornet colony eats about half a kilogramme (!) of insects per day. Thus you will find very few pests such as flies and mosquitoes in the vicinity of the nest (hornets also eat other species of wasps).

Undoubtedly – these animals look dangerous. Especially hornets impress by their size and their loud hum. But they can only get dangerous if we do not behave appropriately. In this guide notes and tips are arranged by subjects, so you can easily find answers to your questions.

Important information and crucial rules of behaviour:

- In our latitudes, wasps only react aggressively when they feel threatened. Other than mosquitoes wasps only sting in defence, i.e. when they are squeezed or when they see their young / their nest threatened.
- Avoid fast movements near wasps. Wasps like looking at us a little closer. Do not thrash around wildly if a wasp flies towards you – they are often just curious and definitely do not want to harm us.
- Fit fly screens, bead curtains etc. to your windows/doors.
- Bear in mind that wasps might sit lethargically on the floor, especially early in the morning during cold weather (cold-stiffness) and from September on (exhaustion).
- Do not shake the nest or breathe on it (wasps feel threatened by carbon dioxide in the breathing air).
- Do not block the “flight approach path”, but under no circumstances clog the entrance hole! A short distance away from the “flight approach path”, you can watch them, especially hornets, safely. For children this is a very special experience of nature.

Simple measures to help avoid stings...

...First priority:

Do not thrash around wildly if a wasp flies towards you. The animals are simply curious on their way looking for food and do not want to harm us.

...Outdoors:

- Cover food and beverages. Wasps are attracted by the smell and learn where to find food.
- Cover glasses with saucers or beer mats or check the inside before drinking.
- Do not drink directly from cans or bottles, but use a straw (especially children).

- Essential oils can keep away wasps and also protect from mosquitoes, flies etc:
 - Pelargonium (scented geranium) as table decoration
 - Fragrance lamp with essential oils (preferably clove oil, also suitable eucalyptus, tea tree, cedar, lemon oils or a mixture)
 - Spray a mixture of essential oils
 - Stick cloves into lemon slices
- Use tight and self-closing waste containers.
- Caution near windfall – never go barefoot.
- Search hedges for hidden wasp nests before cutting them. Cut widely around the nest.
- Do not squeeze or hit wasps caught in your clothes. Do not panic and remove the insect cautiously.

... **Indoors** (also restaurants, bakeries):

- Put up flower pots with pelargonies.
- Fit insect protection door or bead curtains to entrance door or set up a container with essential oils.
- New construction or renovation: Get windows and doors equipped with built-in fly screen shutters.
- If a wasp/hornet gets lost inside your house, you can easily catch it:
Slowly put an empty glass over the insect and push paper or thin card between glass and base. This also works with other insects.
- Restaurants/bakeries:
 - Extraction hoods and air conditioning units can create a slight vacuum and thus prevent smells from spreading outside and attracting wasps.
 - Bead curtains at open door

Insect traps are useless

They do not provide relief as they attract even more wasps, which, again, land on our food. Moreover, other useful insects such as bees and butterflies are attracted and, like the wasps, die painfully. Instead, you should, at an early stage, draw the wasps to another part of your garden by offering them a saucer with overripe fruit or diluted honey. Since wasps need also protein for their young, you can also add, for example, a small piece of sausage. Once the wasps have learnt that there is always food available there, they will prefer this place.

Insect sprays and electric vaporizers can harm your health

For many years, the German Federal Environmental Agency has warned not to use these products as they are not as harmless as the manufacturers want us to believe. Many contain neurotoxins (pyrethroids) which also harm humans (children!) and domestic animals. These toxins are spread through the house dust, and as they decompose very slowly, they can be detected in the house for as long as a year (!). Symptoms of such poisoning are headaches, dizziness, tiredness, nausea, hot flushes, but of course, the cause of these symptoms is difficult to diagnose. When the products are used outside, birds, bees and other animals are poisoned when they eat, for example, poisoned insects.

By the way: Most wasp species (also the hornets) are not interested in our sweets. Only the two dark-nesting wasp species (Common wasp and European/German wasp) can be found at our coffee table. Furthermore, there are harmless hoverflies (Syrphidae) which are lookalikes of wasps, but are only bloom visitors and cannot sting (characteristics: do not hum, no wasp waist, very short feelers, often “stand” still in the air).

How can I avoid nests at my house?

- Move shutters once per day (starting in March). This seriously disturbs nest-building in narrow roller shutter boxes right from the beginning.
- Fix a cotton-wool ball with a few drops of essential oils on both ends of the shutter box (preferably clove oil, also suitable eucalyptus, tea tree, cedar, lemon oils or a mixture). However, once the queen has started nest-building, she will most likely not be driven away by this.
- Spray the shutter box with a mixture of one part essential oil (see above) and ten parts alcohol (you can get such mixture at the chemist's).
- New building/renovation:
Shutter boxes become insect-proof by fixing a brush strip or a profiled rubber seal to the shutter stopper (important: brush strip or seal must reach out to the guard rails)
- Do not remove old nests in narrow cavities. The wasps will not use old nests again, and due to lack of space, they cannot build a new one.

What do I do if there is a nest at my house or in my garden?

In addition to the rules of behaviour mentioned on page 1, the following measures can help:

- You can influence an awkward flight direction from/to the nest by putting up "screens" (e.g. cloths, boards). Thus the wasps will be rerouted.
- Underground nest:
 - Entrance holes can be secured by a wooden frame or a coarse wire (paper) basket turned upside down.
 - Mark underground nests (e.g. with a flag) and border the entrance within a radius of 2 m using warning tape. Do not use a lawn-mower in the area and avoid directing a jet of water straight on the entrance hole.
- To avoid danger to your and your children's health, do not use insecticides as they also harm inhabitants of the house.

Wasps are getting used to many circumstances and do not become alarmed anymore. There have been many cases of peaceful co-existence between humans and for example hornets: In the community of Backnang (Germany), the entrance hole of a hornet nest was located directly above the entrance of a school, i.e. 50 cm above the pupils' heads. Despite heavy "air traffic", there was not one single incident!

Please keep in mind: By the time you discover the nest, it has usually existed for many weeks (nest-building starts in April/May); the population of wasps decreases in September (of hornets even in August) and decrease rapidly in October (night frost).

How dangerous are stings of wasps and hornets?

Unfortunately, many people still believe an old tale: "Three hornet stings kill a human, seven a horse." But a bee sting has an effect four times stronger than the sting of a wasp. The truth is that stings of hornets hurt more than those of wasps or bees as their sting is considerably larger. However, hornets are so peaceful that very few people have ever been stung by a hornet.

A special case is, of course, an allergy sufferer. The body of allergic people overreacts to proteins injected by the insect through the sting (the term “poison” is not correct in the usual sense). An assumed allergy should be tested by a specialist doctor who can then do a desensitisation treatment. By the way: If you are allergic to bee stings, you are usually not allergic to wasp stings and vice versa as a combination of both is very rare.

What do I do when I have been stung?

- Cool it:
 - => Put ice cubes in a tea towel.
 - => Apply cooling poultice of 70% alcohol or acetic clay. Use rich cream to prevent skin from drying out through the alcohol.
- Some household remedies: Apply onion half; rub in salt; rub in spit.
- Stir cold curd cheese (quark), possibly mixed with healing clay or siliceous earth, until creamy. Apply generously and let sit until dry.
- BiteAway stick: Battery-operated stick with small heating surface which heats up to about 50 degree Celsius for a few seconds. Placed on the sting, it can deactivate the insect protein and thus minimize itching and swelling.
- If the sting is in the throat, consult doctor immediately (danger of suffocation).

Please note:

The body's natural defence system learns from every sting and this reduces the risk of an allergic reaction.

Children and wasps/hornets

In addition to the rules of behaviour already mentioned, the following simple measures can minimize the risk of your child of being stung:

- Place net or net curtain tightly over pram.
- Clean cheeks and mouth with a wet cloth after meals.

Avoid insect sprays and electric vaporizers as they can harm your child's health. If your child should nevertheless be stung, please remember that a sting also reduces the risk of developing an allergy later on in life.

What do I do if a wasp/hornet gets trapped in my house?

- Slowly put an empty glass over the insect and push paper or thin card between glass and base (don't worry – it won't sting you). This can work even with flies.
- Open the window/door wide – the insect will find its way out (draught)
- Hornets also fly during the night (whereas other wasp species only fly during the day):
 - If a hornet gets trapped in the house: Switch off the lights inside and open the window. The “brightness” outside is usually sufficient, but if available you can additionally switch on a lamp outside.
 - If lights inside are on, close the door.
 - No permanent outdoor lighting – install a motion sensor. Also protects moths and keeps your electricity bill low.

By the way: If a hornet flies towards the window pane at night, this is not out of “aggression”. It just flies, following its instinct, to the light where it finds its prey.

Do wasps/hornet damage fruits?

Often you can hear people say that wasps nibble at fruit at trees or vines. The following observation disproves this claim:

A bird net was put over a vine swarming with wasps (damaged fruit had been removed before). After a few days there was not a single wasp to be seen as the birds which had picked at the fruit did not have access any more. Wasps only nibble at fruit whose skin has been damaged by birds, osmosis or falling from a tree.

Therefore, it is important to remove fallen fruit if you wish to avoid swarms of wasps.

Bear in mind: Wasps are not only “pest controllers” in your garden; they also prevent spreading of mould fungus by eating rotten fruit. Wasps/hornets use sap for their own energy supply (“aviation fuel”), but they stay near fruit to catch other insects which they use as a source of protein for their young.

Common errors

“Hornet stings are very dangerous: Three stings kill a human, seven a horse.”

Nonsense. A bee sting has an effect four times stronger than a wasp’s/hornet’s. Find more information under **How dangerous are stings of wasps and hornets?**

“The nest would not be a problem for us. But what do we do if they extend it every year?”

In our climatic zone, wasp nests are annual only. In spring the queens which have survived the winter build a new nest. They do not use an old nest.

“There are always so many wasps when we eat outside. If we don’t remove the hornet nest, there will be hornets around when we are having dinner!”

Only European/German and Common wasps which usually nest in dark cavities will visit for example our coffee table. Hornets and wasps with freely suspended nests are not interested in cakes, sweets etc.

„I don’t want to kill the animals; I just don’t want them in my garden. I am sure it is fairly easy to just relocate the nest.“

Many people think it is as simple as that: Cut off the nest, put it in a carton and just place in the forest under a tree. A wasp population relocated in this way will, however, usually die after a short time.

We hope this information will contribute to a relaxed co-existence with your black and yellow guests or tenants.

Margit Eacott

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Please turn over for brief overview of wasps

For interested people: Brief overview of wasps

Wasps are best identified by looking at their nest and their way of life. The species-typical markings on the forehead are more difficult to identify.

The most common wasps to be found in residential areas:

Common wasp (*Vespula vulgaris*), **European or German wasp** (*Vespula germanica*):

- Nest is usually in the dark, e.g. dark attics, behind panels, in shutter boxes, mouse holes
- Nest shell with air pockets
 - Shell ochre and brittle as made from rotten wood – Common wasp
 - Shell grey as made from weathered wood – German/European wasp
- The only species which are a nuisance during meals.

You will hardly have any contact with the following wasps as they are not interested in our food. An exception is when they see their nest in danger (e.g. sudden vibration or shaking, petrol fumes from the lawn-mower in the garden shed):

Saxon wasp (*Dolichovespula saxonica*):

- Nest with grey shell, heart-shaped, rather small, always above ground, freely suspended
- Flower pollinator
- Very frequent

Tree wasp (*Dolichovespula sylvestris*):

- Nest with grey shell, shell layers lie flounce-like on top of another (layers outside are shorter), round or lemon-shaped, rather small, above or under ground
- Flower pollinator

Polistine wasp (*Polistinae*):

- Very small nest without shell, i.e. the cells are visible, only very few individuals
- Characteristic and easy to see: during flight they let their long hind legs hang
- Flower pollinator

Median wasp (*Dolichovespula media*):

- Nest is freely suspended in bushes or trees, but also at houses; grey, round with entrance nozzle
- Rather large animals
- Rare

Hornet:

- Nest is always in the dark, ochre/brown shell with air pockets
- Our largest wasps, but very peaceful

Except for the hornet, all other wasps only fly during the day.

All wasps mentioned here live in colonies. Apart from them, there are also solitary wasps, e.g. ichneumon wasps. All of them play an important role in the natural balance by keeping at bay other insects such as bark beetles and fruit tree pests.