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# Mercia Marinas Bee group Newsletter

## A BEE OR NOT A BEE, THAT IS THE QUESTION

At the moment, you may well see what you think is a bee or even a wasp but is it? These insects have what are commonly called mimics. In fact, many are hover flies.

Although these brightly-coloured insects look like bees or wasps, they are in fact true flies and do not sting. Hoverflies are excellent examples of Batesian mimicry (named after H W Bates who first described it in 1862). They generally mimic bees and wasps – insects that sting and also taste unpleasant, so are avoided by predators. Drone-flies mimic honey bees, *Volucella bombylans* has several different forms mimicking bumblebees, while other species are very convincing wasp mimics. It is notable that hoverflies also mimic in behaviour the patterns and habits of their models. *Volucella bombylans* var *plumata* imitates the common garden bumblebee. The hoverfly larva of this species go one step further and actually live in the nests of bumblebees, eating the rubbish produced, being both detritivores and larval predators and possibly the bees' larvae as well.

The bee beetle (*Trichius fasciatus*) looks and sounds a lot like a bumblebee, and there are even wasp-like moths: many of the clearwing moths have black and yellow markings, transparent wings and also tend to buzz in flight. Again, they rely on the disguise working, as they have no other form of defence. The wasp beetle, an insect that breeds in dead deciduous wood, takes wasp mimicry a step further. As well as having the markings we know so well, it even behaves like a wasp, walking jerkily and tapping the surface it is on with its antennae in a waspish way

Of course, not every strategy is infallible. The drone fly (*Eristalis tenax*) is a hoverfly that looks very much like a honeybee. While many animals are fooled, the spotted flycatcher, a woodland-dwelling bird, is undeterred and eats them readily.

So, can you tell the difference?



This the real bumble bee



this is the mimic



Real wasp



mimic

Many hoverflies have evolved these black and yellow 'don't mess with me' markings, but are just bluffing - they are completely harmless. The ruse is very effective however, and even humans who have never encountered hoverflies before are sometimes very nervous in their presence!

What fascinating creatures and with over 250 species of hoverfly in the UK you are bound to encounter them somewhere along the line. Just do not be afraid of them. They have their place in the scheme of things.