

The Common Cockchafer - *Melolontha melolontha*

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When starting to read up on the Common Cockchafer it seems to be one of those creatures that get a very bad press. Right from medieval times up to the modern tabloids, the humble Cockchafer takes a bashing. Headlines of “*Gruesome Creatures*”, “*Insects terrorising Britain’s backyards*”, and “*No garden is safe*” were recent examples. For a relatively harmless beetle this seems to be very harsh. It is one of the Scarabaeidae, with about 20,000 known species worldwide, and around 300 European species. There are about 80 British species which can be split into two main groups, the dung beetles and the plant-eating chafers, which are divided into several subfamilies.



01. Male Common cockchafer *Melolontha melolontha*. H Green



02. Male Common cockchafer *Melolontha melolontha*. H Green

The Cockchafer is our best-known chafer, and it did not take long to find a host of regional names for this species. May-bug is widespread, but others include, Spang beetle, Billy witch, Chovy, Bummler, Maybittle, Mitchamador, Oak-wib, Kitty witch, Humbuz, Snortlegog, Doodlebug, Dorrs, Tom beedel, Dumbledarey, and the Welsh-Chwilen y bwm. The larvae have the names of Rook worms, Cob-worms or White grubs. The adults emerge from the soil usually at the end of April or early May depending on temperatures, with warm muggy conditions favoured. The adults feed on the leaves of various trees, particularly oaks. Interestingly the males antennal club consists of seven plates (01, 02), and the females is shorter and consists of six plates only. Mating occurs a few days after emergence, but the eggs are not ready for deposition until three weeks later. The larva hatch in 3-4 weeks and live in the soil for 3-4 years, depending on the climate, feeding on plant roots. Pupation takes place underground, and the adult emerges from the pupa in October but remains in the pupal cell until the following spring. In 1800, Markwick’s gardener digging six inches down found two of these adult insects perfectly formed on the 24th of March.

Because of its history of mass emergence in some years, it has become infamous over the centuries. In 1320 an Avignon court sentenced the Cockchafers to a special woodland reserve on pain of death. In 1574 Cockchafers emerged in such numbers in the Severn Valley that the volume of drowned bodies disabled watermills. Presumably the adults would have been drowned in the mill ponds and then been funnelled into the water wheels. I have tried to find the original source of this record, but without success so far. In 1688 a plague of Cockchafers emerged in the west of Ireland defoliating areas making them look like a winter landscape, and again in 1868 blackening the skies over Galway. Rev. Gilbert White writing in the late 1700’s wrote “*Cockchaffers seldom abound oftener than once in three or four years; when they swarm, they deface the trees and hedges. Whole woods of oak are stripped bare by them.*” His Selborne Naturalist’s calendar from the years 1768 to 1793 gives his first Cockchafer sighting on May 2nd and the last on 26th of May. William Markwick from Sussex at the same period, has 2nd of May as a first date, and 7th of July as a last date. In 1911 some 20 million were collected in an 18 square kilometre continental woodland. Apparently, both larvae and adults have been considered a delicacy at times and are still eaten in some countries.

A 1931 British agricultural entomology book (Smith 1931) states that the Cockchafer is a difficult pest to control. Pigs and poultry turned onto infested land after deep ploughing is suggested. Collecting the adults preferably before oviposition is also recommended. F.V.Theobald found that steam-rolling infested pasture in October was a very successful control method, but possibly not very practical! Naphthalene was recommended against attacks by the larvae on grassland, used at the rate of 2 cwt. per acre. The fumigant insecticide Paradichlor-benzene was also worth trying, applying at 1 gramme per hole, in holes a foot apart. In America some success had been achieved using lead arsenate applied at 5 lbs. to each 1000 sq.ft. of turf. At this time lead arsenate was frequently prepared by farmers at home, by reacting lead salts with sodium arsenate. DDT insecticide was introduced in the late 1940’s in the UK. Surprisingly, the environmentally damaging organochloride was not banned in the UK until 1984. Combined with agricultural intensification it is not surprising that Cockchafer numbers have drastically declined.

While moth recording in my garden at Norchard since 1999, I have made a casual record of Cockchafers arriving at my moth trap. While not trapping every night, the trap has been run at least three nights a week. My records confirm that on average emergence begins at the end of April or early May and peaks around the middle of May. Sightings then decline towards the end of May with just occasional singletons in June. I have only one July record 8/7/2017. The earliest emergence I have is for 2011 when three were recorded on 16th of April. Over fourteen years of records 651 Cockchafers have been seen, giving an average of 46 per year. 2002 totalled 29, rising to 111 in 2003. 2004 was the most abundant year starting with 18 on the 3rd of March and rising to a peak of 44 Cockchafers on the 12th of March. This led to a total of 168 over the flight season, which ended with a straggler on June the 15th. The following year, 2005, the total recorded fell to just 18 for the entire season. Numbers then rose to 40 in 2006, and then 74 in 2007, before falling again in 2008 to only two. Numbers then rose to 17 in 2009, and again in 2010 to 36. This trend is indicating a three-year cycle of peaking and then falling. Some sources suggest a thirty-year swarm cycle. Sadly, I have managed to lose some of my more recent records, which would have added to this data.

It is worth being aware of *Melolontha hippocastani*, the only other *Melolontha* species resident in the UK. Its English name is the Forest or Northern chafer, which reflects its distribution. There is one record on the NBA Database for Oswestry in 1935, which is the closest to Worcestershire. This rare insect is very similar to the Common Cockchafer but differs in the tail end or pygidium which is shorter and ends in a knob shape in the male. This species was recently rediscovered in 2015, in North Antrim during a bioblitz, after an absence of more than a hundred years, so it may be being overlooked here.

References

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Images

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