

History of beekeeping

Humans have been harvesting honey for tens of thousands of years. This is a prehistoric cave painting showing honey being robbed from a colony of bees.

This painting is thought to be 8000 years old.



Over time humans found that instead of searching for wild colonies honeybees could be kept in beehives. The first recorded image of honeybees being managed is an ancient Egyptian tomb painting which dates to approximately 1500BC.

Ancient Egypt



Ancient Greece

The ancient Greeks kept honeybees in clay pots. This is a modern copy of a type of hive used in the 3rd century BC.



Little changed in the style of beehives until fairly modern times, although the type of material used often differed according to local tradition. Some made hives from hollowed logs while others used woven straw or reed.

In this type of hive the bees build natural honeycomb and attach it to the sides and/or the top of the hive. In Britain the traditional style of beehive was made of straw and called a skep. You can see a straw skep in the display opposite.

Traditional Hives



The major change in beehive construction came in the 19th century with various wooden box designs in Europe and America.

The key innovation was moveable frames for honeycomb building and separating honey frames from brood nest frames.

These advancements simplified management and honey harvesting, revolutionising beekeeping. The framed hive is now used worldwide, as seen in the display opposite.

19th Century



Modern Beekeeping and Honey Extraction

Before the invention of the honey extractor, honey harvesting was labour-intensive and inefficient. Honey was traditionally harvested, by destroying the entire hive or crushing the honeycomb, to squeeze out the honey.

1850



With the development in America by Langstroth of a box containing movable frames in the 1850s, modern beekeeping as we know it was born.

As the colony expands, more boxes can be added. The smaller, lighter boxes on top are for stored honey and are taken off for extraction.

1864



The first honey extractor was invented in Austria in 1864. It was cumbersome and time-consuming but successfully proved the concept of using centrifugal force, which is still the practice today.

While beekeepers were ecstatic at the brilliance of the invention, the general public was not so impressed. It allowed unscrupulous vendors to sell adulterated honey diluted with sugar.

Until food laws were introduced to counter this deceptive practice, consumers considered comb honey a mark of purity.

The most significant impact of the honey extractor was its effect on the scale and efficiency of honey production. It let beekeepers harvest honey without destroying the hives or the honeycombs.

This meant the bees could continue producing honey with minimal disruption, leading to increased yields.

1900



Early 20th-century extractors were made of zinc but later these were not considered hygienic and were replaced by stainless steel or plastic. See the zinc extractor in our exhibit.



Pollination

Pollination is the way plants reproduce. Fertilising pollen is spread from one plant to another to enable the production of seeds, which form more fruit and flowers. Pollination is often carried out by insects and plays an important role in food production – one in three bites of food we eat is pollinated by insects. In addition, many crops are pollinated by wind, including the major grains that we eat, for example maize, wheat, barley and oats.

Honeybee



Honeybees are important pollinators, as well as the only insect in the world to produce a foodstuff we can eat! But did you know there are around 250 species of solitary bee in the UK, and 24 species of bumblebee?

These are all important pollinators too, yet unlike the honey bee, many are in serious decline amidst the global biodiversity crisis.

Bumblebee



Bumblebees live in a colony like honeybees, but their nest is much smaller and can be found in dry, enclosed spaces – underground in old burrows, at ground level in thick grass or vegetation, or higher up in bird boxes or even roof cavities!

Here are some wild bees you can look out for:

Solitary bees, such as mining and mason bees, do not live in a colony but build individual nests which can be in hollow stalks, in cavities in masonry or in tubular holes, in the ground. Look carefully at bare soil, and you may see their holes, with a little patch of soil alongside! Each egg they lay is sealed in a cell with its own supply of pollen and nectar.



Red-tailed bumblebee – black with a big red tail, these are easy to spot and found in most habitats including gardens and parks.



Common carder bee – this fluffy orange and brown bumblebee is quite easy to spot and flies from early spring right up till November.

Southern cuckoo bumblebee - As the name suggests, this parasitic bumblebee takes over the nests of other bumblebees, killing the queen, laying their own eggs and leaving the host workers to look after its brood!



Red mason bee – a small gingery solitary bee, often seen in orchards where it is a very efficient pollinator.



Ashy mining bee – this early black and grey mining bee is quite easy to identify, like a tiny badger! You may see them on spring flowering trees and shrubs like blackthorn and willow, or on dandelions and buttercups.



Ivy mining bee – this solitary bee emerges quite late to take advantage of the ivy flowers – it looks quite like a honeybee, but with brighter black and yellow stripes on its abdomen. You will often see both types of bees on ivy flowers where you will be able to tell the difference!

Many of our wild bees are in trouble. We can help them by planting our gardens with pollinator-friendly plants, providing nesting habitats and not using pesticides.