

MARCH MEETING

Beekeeping or Apiculture

Roger Knight

Reported by Alan Lee

Our 2nd speaker of the evening, Roger Knight began by posing the question, "Why Beekeeping?" He then explained that his interest was first aroused, at eleven years of age, while a pupil at Archers Court School where he learnt that there are nine types of global honey bee species in the world.

The next question was, "What will the future hold when the honey bee population declines?" Bees are essential pollinators, responsible for pollinating 70 of the 100 crop species that feed 90% of the world's population. They are key to maintaining a healthy ecosystem. Without bees, pollination would have to be carried out by people by hand. Certain countries of the world have already seen 99% of their bees disappear, including eight states in America.

Honeybees have existed for over 150 million years and are one of the oldest forms of animal life still in existence. Honey from

wild bees was harvested in the Neolithic Age, 7000 - 8000 BCE and in Ancient Greece and Ancient Egypt around 2400 BCE. In Spain, a 7,500-year-old cave painting depicts a honey hunter suspended over the side of the cliff, robbing a wild nest of bees. In Ancient Egypt there were about 270,000 beekeepers. They used pipe-shaped hives to attract the bees to nest and they discovered that smoke made bees more docile. The honey bee, found carved in stone, was a symbol of the kingship of Lower Egypt. In 800 BCE honey was so popular in Greece that all of their coinage carried an image of a bee.

Mead or honey wine, often dubbed the nectar of the gods, is one of the oldest alcoholic beverages, made by fermenting honey with water and yeast or a bacterial culture. For 4,000 years it has been common across cultures worldwide. The Vikings were particularly fond of mead.

During the Middle Ages, 500 to 1500 CE, ingenious monks re-established the use of beeswax from their apiaries to make beeswax candles, which are still made and in use today.

On January 14th 1779, the United States issued the forty-five dollar Continental Currency note, with an image of bee hives and bees. During World War I, the USA had a beekeeping program for honey to replace sugar for home use. In World War II they produced posters extolling the virtues of bees. Two were called "*Let the bees wax the way to victory*" and "*Uncle Sam says eat honey, save the sugar and help win the war.*"



Honeybees

A very well-known wide range of bee-related products, produced since 1984, are sold by a USA company called *Burt's Bees* and distributed in the UK.

Each beehive may hold up to 50,000 bees and have three types of bees.

The Queen – is the only fertile bee in the colony, she lays 2,000 to 3,000 eggs per day, up to a million in her lifetime. When ready to mate, the queen will then fly out of the hive to a congregation area where drones from other hives will also gather, waiting for her arrival. The queen will mate with up to twenty-four drones at each mating. Once the queen bee has mated, she returns to the hive and begins laying eggs. She can store enough sperm from a single mating flight to fertilize all the eggs she lays for the remainder of her life, which can be up to five years.

Drones – are male honey bees that develop from unfertilized eggs laid by the queen bee. Unlike female worker bees, drones do not have stingers and are larger in size than workers. They have beady eyes, a rounded body shape, and a louder buzzing sound. A drone is fully developed after five weeks. The colony may hold up to 300 drones at any one time, although during food shortages or overcrowding they may be expelled from the hive. Once they have mated the drone then dies. Although their life is a short one, they are fed and well looked after. They cannot feed themselves. While waiting to mate, they typically fly in a circuitous pattern near the hive in order to attract potential queen mates. Despite their importance, drones do not contribute to the labour force of the colony but play a role in regulating the hive temperature by vibrating their wings to produce heat or cooling the hive through fanning.

Workers – Are all females, but not fertile like the queen, and there up to 50,000 in each hive. These are the labour force of the hive and are responsible for running the hive. After twenty-four days they are fully

grown and only live for about six weeks in the summer. They do different jobs depending on their age. Each worker bee's life is a testament to selfless service, tirelessly contributing to the colony's success.

Housekeeper, 1-3 days old, cleaning out cells.

Undertaker, 3-16 days, removing dead bees.

Nurse, 4-12 days, feeding and caring for brood, feeding drones.

Queen attendant, 7-12 days, cleaning, feeding and protecting the queen.

Pollen packer, 12-18 days, packing pollen into cells.

Wax mason, 12-35 days, producing wax to build and maintain the hive.

Airflow controller, 12-18 days, beating wings to cool the hive.

Water carrier, 12-18 days, collecting water for hive needs.

Guard, 18-21 days, keeping unwanted visitors out of the hive.

Forager, 22-42 days, searching for and collecting pollen, nectar, and resin.

Scout, 22-42 days, searching for new hive locations and foraging areas.

A large number of tools are required by a beekeeper to care for the bees and produce honey, including the hive, the spinner and filters.

African hornets, now arriving in this country, pose a grave danger to honey bees. They are smaller than native hornets, have an orange head (from front), and an abdomen almost entirely dark, with fine yellow stripes and a yellow or orange 4th segment near the base. They have a black or brown thorax and legs with yellow tips. If seen they should be reported to the authorities or the Department for Environment, Food & Rural Affairs. An app is available for your phone.