

## MOLES

There are a lot of moles at Bovisand and their presence is noticeable on all of the greens.



There are estimated to be 35-40 million moles in the UK and the mole that lives with us is known as the common or European mole. The correct or Latin name is *Talpa europaea*.

It is the only mammal to live solely underground and they achieve this because they have a greater proportion of red blood cells than other mammals and can tolerate much larger amounts of carbon dioxide. This helps them live in an environment where oxygen levels are low, typically 7%.

They are phenomenal diggers and can shift 540 times their own body weight of earth and tunnel up to 200 metres per day. Since they are rarely more than 150mm in length, weighing in at between 110-120 grams, this is one mean feat.

Moles are industrious hard workers. Typically they work in patterns of 4-hour shift cycles. This means 4 hours working, 4 hours sleeping; all day every day. So, within a 24-hour period, they will work 3 shifts of 4 hours respectively.

There is a common misconception that moles are blind. They are not; they have very tiny eyes, typically only 1mm in diameter; that prevents them from clogging from the underground soil caused by their constant burrowing. They can see, but they have very poor eyesight and cannot tell the difference between white and red. They can only detect daylight, darkness, and moving objects. However, moles have strong detectors around the small snout – a pink area covered in tiny pores that helps them in finding food and other animals hidden under the earth as they dig through the dirt. Moles do not have strong smelling or hearing senses, but they are quite sensitive to touch. They sense vibrations in the earth and the surroundings. They have sensitive hairs and whiskers on their noses that help in detecting food in the soil. Sensory hairs strategically placed on their body also help moles to navigate in the darkness.

Moles measure between 13cm and 15cm long. They do not grow into big creatures and usually weigh about 120g. Male moles are however slightly larger than their female counterparts. They have pinkish, plump, forearms with large front paws and pointed long claws strong enough to aid the animal with digging through soil and tunnel its way forward as it scavenges for food with muscular

claws that enable it to burrow intensely in the earth. Their bodies generally take a cylindrical shape, devoid of a neck and are covered in dark, thick, fur.

Moles do not feed on plants and general vegetation they are carnivore's animals. They feed on worms, grubs larvae and small rats, shrews and mice that accidentally pass through their tunnels. When you spot a mole be careful not to touch it as it has a nasty bite. A mole's saliva is toxic; this means it can paralyze earthworms, but not kill them. Moles stock them up in a secured burrow or larder to feast on later; up to 370 worms have been found in one larder. Moles do not eat dirt because it clogs up their internal systems. A mole will carefully remove soil and dirt from the dugout worms before ingesting or storing them to consume later.

A male mole is called a boar, a female a sow and their young are pups.

Moles live a solitary lifestyle. They only come together with other moles for the purpose of mating, and are willing to fight aggressively to protect an area they have claimed as their own. While territories do overlap, this usually does not matter because the tunnels make for layers of territory as well. However, when a tunnel system encourages upon another mole, fighting is bound to begin.

Moles will breed between February and May. A high pitched squeal by the male lets the female know that they are available, and the males will also tunnel into areas that are not familiar to them in search of a female partner. Once impregnated, the gestation period lasts about seven weeks. Three to five young are born in a litter at one time, which usually occurs between March and April, but has been known to occur as late as July. After 30-45 days the pups will leave the nest to find areas of their own to live. They are usually able to fend for food and to tunnel by about three weeks.

Molehills crop up in moist, free earth where moles can easily find earthworms and insects to feed on. When tunnelling, the underground animal excavates materials and loose soil, piling it up in mounds measuring approximately 10-20 inches wide and 2-10 inches high above the ground. The opening burrow is often next to the molehill, plugged in neatly but lacks any significance. The creatures produce these mounds when looking for food as they muscle forward in swimming style, pushing the soil aside to build tunnels. While on the last stretch of digging, moles toss out the ground, towards the surface forming molehills or mounds. They rarely come out of the ground and will turn around and continue tunnelling endlessly in search of food.

Moles live on average two to three years but have been known to live up to six. Deaths are caused mainly by persecution from humans, although cats, dogs, stoats and predatory birds will take moles when above ground and some are killed by traffic.

They build both permanent and temporary tunnels in different circumstances. Permanent tunnels can be used by many generations of mole, are built deep underground and can stretch for hundreds of metres. Temporary tunnels are generally short-lived and found where their prey is concentrated near the surface. Moles are both territorial and solitary, except during the mating season in spring, when males will extend their tunnel systems in the search for females. A female mole will give birth to between three to four pups; these will stay with her for around five to six weeks before leaving to start their own independent lives.

Moles, or rather their tunnels and molehills, are sometimes considered a pest in the UK. Despite this reputation, moles do contribute to the quality and fertility of the soil by enabling the mixing of

oxygen and water ('aeration'). They also prey on various insects harmful to agriculture and can contribute to pesticide-free farming. Moles have been killed in large numbers for many years. At the beginning of the 20th century they were killed for their fur. Nowadays, they are still persecuted and killed as 'pests'.

Because of the velvety texture of moles many fur traders find their pelts to be a hot commodity. The skin layer under the fur makes for quite good leather. The fur is found to be in such high demand because there is no real clear forward or back to the fur lining. This is because moles are just as adept at moving backwards as they are forward, and cannot have their fur limiting their ability to move quickly. In fact, their fur is one of the things that give them greater agility, as the slick feeling allows them to move more quickly through tunnels.

