

# PEST IDENTIFICATION

## RATS

### Appearance:

**Size and Shape:** Rats are generally larger than mice, with a more robust build. A brown rat's body length can range from 15-27 cm, and their tails are roughly the same length.

**Fur:** Their fur is typically a mix of brown and greyish-brown, often with a lighter underside.

**Head:** Rats have a pointed snout and relatively small ears. Their eyes are small and beady.

**Tail:** The tail is long and usually hairless or sparsely haired.

**Other Features:** Rats have a distinctive, stocky build and can be identified by their droppings, which are small, cylindrical, and about 15-20mm long

### Behaviour:

**Sociality and Hierarchy:** Rats live in social groups and exhibit complex social interactions, including communication, play fighting, and dominance displays.

**Nocturnal Activity:** Rats are most active at night, typically between sunset and sunrise.

**Exploration and Neophobia (fear of new things):** Rats usually display cautious behaviour.

**Foraging and Diet:** Rats are opportunistic feeders with a varied diet that includes grains, fruits, meats, and even non-food items.

**Nesting and Burrowing:** Rats are skilled nest builders, often preferring dark, secluded areas near food and water sources.

**Reproduction:** Rats reproduce rapidly, with females capable of producing multiple litters per year.

**Communication:** Rats communicate within their social groups through vocalisations, scent marking, and body language.

### Common cause of infestation:

#### Food and Water

**Food Waste:** Rats are attracted to food scraps, pet food left outside, birdseed, and any accessible food sources like overflowing bins or poorly stored garbage.

**Compost Heaps:** These can provide a readily available food source and a warm, sheltered place to nest.

**Water Sources:** Leaky pipes, bird baths, or even condensation can provide rats with a much-needed water source.

#### Access Points

**Structural Damage:** Cracks in foundations, holes in walls, and gaps around pipes and utility openings can provide rats with easy entry into buildings.

**Poorly Sealed Openings:** Gaps around doors and windows, damaged weather stripping, and poorly maintained garages can also allow rats access.

**Overhanging Vegetation:** Trees with branches reaching roofs or walls can provide access for rats to climb and enter buildings.

#### **Shelter**

**Warm, Dry Spaces:** Lofts, garages, sheds, and even under decking can provide rats with ideal nesting locations.

**Burrows:** Rats are burrowing animals and can create nests in gardens and around buildings, particularly near sources of food.

**Clutter:** Piles of debris, overgrown vegetation, and general clutter can provide rats with cover and nesting materials.

#### **Other Factors**

**Poor Sanitation:** Lack of proper waste management can exacerbate rat problems.

**Proximity to Other Infested Areas:** Rats can spread from neighboring properties or commercial premises if there are ample food and shelter opportunities

# PEST IDENTIFICATION

## MICE

### Appearance:

#### House Mouse

**Colour:** Uniformly light brown to greyish-brown.

**Size:** 2.5 to 3.75 inches (head and body), with a tail of similar length.

**Ears:** Large and round, with sparse hair.

**Tail:** Almost hairless, same length as the body.

**Other features:** Pointed snout, small feet, and a distinctive musky smell.

#### Wood Mouse/Field Mouse

**Colour:** Sandy brown fur with a lighter underside (often white or grey).

**Size:** Around 10cm (head and body), with a tail roughly the same length.

**Ears:** Large and prominent.

**Tail:** Long and hairless.

**Other features:** Strong back legs for jumping and climbing

### Behaviours:

#### Activity and Movement

**Nocturnal:** Mice are primarily active at night, with peak activity during dusk and dawn.

**Climbing and Jumping:** They are agile climbers, using cables, wires, and other vertical structures. They can jump up to 25cm.

**Thigmotaxis:** Mice tend to maintain contact with upright surfaces, finding open spaces stressful.

**Foraging and Exploration:** Mice explore their environment, seeking out food sources and potential hiding places.

#### Social Behaviour

**Territoriality:** Dominant males establish territories and interact with other males, often becoming aggressive if housed together.

**Social Structure:** Mice live in communities with a hierarchy, exhibiting both territorial and cooperative behaviors.

**Communication:** They communicate through sounds (including ultrasonic calls) and touch, forming strong bonds within their groups.

**Nesting:** Mice construct nests from soft materials like paper, fabric, and other available materials in sheltered areas.

#### Feeding and Diet

**Omnivorous:** Mice eat a variety of foods, including grains, seeds, insects, and even meat in urban environments.

**Feeding Patterns:** They prefer to feed in short, frequent bouts at multiple locations rather than a few large meals.

**Continuous Growth of Teeth:** Mice grind their teeth to keep them at a manageable length due to their continuous growth

## Common cause of infestation:

### Food Sources

**Food waste and crumbs:** Mice are scavengers and will readily feast on any food left out or improperly stored.

**Pet food:** Unattended pet food bowls and spilled kibble are a common attractant.

**Garden debris:** Overripe fruit, fallen vegetables, and decaying plant matter in gardens can draw mice.

**Kitchen cupboards:** Poorly sealed food containers and accessible food storage can attract mice.

### Shelter and Nesting Materials

**Gaps and cracks:** Mice can squeeze through surprisingly small openings (as little as 1/4 inch for house mice), making entry points like cracks in walls, gaps around pipes, and holes in foundations a major issue.

**Cluttered spaces:** Clutter provides hiding spots and nesting areas for mice, making it easier for them to establish a population.

**Lofts and underfloor spaces:** These areas often offer warmth, insulation, and easy access to other parts of the house.

**Nesting materials:** Mice use materials like shredded paper, insulation, fabric scraps, and even old newspapers to build nests.

### Access Points

**Cracks and holes in foundations:** Mice can easily enter through small gaps in the building's foundation.

**Gaps around pipes and utilities:** Pipes and utility lines often create entry points for mice to travel through walls and into the house.

**Doors and windows:** Mice can enter through gaps around poorly sealed doors and windows.

**Vents and chimneys:** Mice can also enter through vents and chimneys, especially if they are not properly screened.

### Other Factors

**Unkempt gardens:** Overgrown vegetation and debris can provide cover and access to the house.

**Proximity to other infested properties:** Mice can easily travel between properties, especially if there are gaps in shared walls or fences.

**Warmth and shelter:** Mice seek refuge from the cold, especially during the winter months.

# PEST IDENTIFICATION

## SQUIRRELS

### Grey squirrels

**Coat:** Silver-grey with a brownish face and feet, and pale underside.

**Tail:** Bushy tail.

**Size:** Larger than rats.

**Other:** Can vary in colour, sometimes appearing slightly ginger.

### Behaviour:

**Diurnal Activity:** squirrels are active during the day, with grey squirrels often seen foraging on the ground.

**Climbing and Jumping:** Squirrels are highly agile, using their sharp claws and strong hind legs to navigate trees with ease. They can leap between branches and even from tree to tree.

**Food Hoarding:** Squirrels bury nuts and seeds in caches, which helps them survive during food shortages, especially in winter.

**Vocalisation:** Squirrels use various calls and barks, including chattering and high-pitched squeaks, to communicate and express emotions like alarm or aggression.

**Nesting:** Squirrels build nests, called dreys, in trees using twigs, leaves, moss, and other materials.

**Social Interactions:** Squirrels can be solitary or social, with some amicable behaviors like grooming and nest sharing observed, particularly among close relatives.

**Territoriality:** Squirrels establish territories, and while they don't always engage in direct conflict, dominant individuals may hold higher-quality habitats.

**Adaptability:** Grey squirrels are highly adaptable and can thrive in various habitats, including urban areas.

**Stone Caching:** Some squirrels engage in the curious behavior of burying stones, though the exact reason for this is not fully understood

### Damage caused

**Gnawing:** Squirrels are notorious for their strong teeth and will gnaw on anything, including wood, electrical wires, and pipes.

**Structural Damage:** Chewed wires can lead to electrical faults or even fires, while damaged wooden structures can weaken the integrity of the building.

**Nesting:** Squirrels will build nests in lofts and walls, causing noise and potential health risks.

### Common cause of infestation:

#### Entry points

**Overhanging branches:** Branches touching or near the roof allow easy access to the roofline

**Missing or damaged roofing:** Damaged tiles or slates expose the roof space.

**Gaps in soffits and fascia boards:** Squirrels can gnaw through these to gain entry to the loft.

**Unscreened vents:** Open vents provide a direct path inside.

**Gaps in construction:** Gaps between the roof sheathing and fascia board are common entry points.

### Food Sources

In gardens, squirrels can damage ornamental plants, fruits, and vegetables, and they are also attracted to bird feeders

# PEST IDENTIFICATION

## MOLES

### Appearance:

**Fur:** Moles have dense, velvety fur, typically black or dark brown in colour.

**Paws:** Their most distinguishing feature is their large, shovel-shaped front paws, adapted for digging.

**Snout:** They have a long, pointed, fleshy nose or snout.

**Eyes and Ears:** Moles have very small eyes and ears, which are often hidden by the fur.

**Size:** They are typically 12-16 cm in length.

### Behaviour:

#### Habitat and tunneling:

- Moles live in a network of tunnels they dig and maintain, with some tunnels being permanent and others temporary.
- Permanent tunnels are typically 2 inches in diameter and 8 to 23 inches below the surface.
- Temporary tunnels are often closer to the surface, especially when they are actively foraging for food.
- Moles use their powerful, spade-like front paws to excavate tunnels.
- Their sense of smell is crucial for detecting prey (earthworms and grubs) and navigating their tunnels.

#### Activity Patterns:

- Moles are active both day and night, with activity peaks in the early morning and late evening.
- They are known to work in cycles, typically spending 4 hours digging and foraging, followed by 4 hours of rest.
- During the breeding season (spring), males expand their territories, increasing their tunneling activity.

#### Social Behavior:

- Moles are generally solitary animals, except during the breeding season.
- They are territorial and may fiercely defend their burrow systems against intruders.
- During the breeding season, males actively search for females, expanding their territories in the process.

#### Diet:

- Moles primarily feed on earthworms, but also consume other invertebrates like grubs and larvae.
- They need to consume a significant amount of food to sustain their energy levels.

#### Other Characteristics:

- Moles are not blind, but they are light-sensitive.

- They have well-developed senses of smell and hearing, which help them navigate and find food.
- Moles can be a nuisance to gardeners due to the molehills they create, but they also help aerate the soil and control populations of some garden pests.

### **Common cause of infestation:**

**Ideal Soil Conditions:** Moles prefer loose, well-drained soil with a high concentration of earthworms and other insects. This is because they need to dig tunnels for hunting and nesting, and moist soil makes digging easier.

**Food Source:** Earthworms are a staple in a mole's diet, and their presence is a key factor in attracting moles to a particular area.

**Location:** Gardens, lawns, and flowerbeds are common locations for mole infestations because they offer the ideal combination of food and soil conditions.

**Seasonality:** Mole activity tends to increase in the autumn, as the soil becomes cooler and more moist, attracting more worms and other invertebrates

# PEST IDENTIFICATION

## CLOTHES MOTH

### Appearance: Adult Clothes Moths

**Common Clothes Moth (Tineola bisselliella):** 6-7mm long, golden or buff-coloured, with a reddish-orange hair tuft on the head. They may have a few darker spots on their wings, but these can be hard to see.

**Case-bearing Clothes Moth (Tinea pellionella):** 8-10mm long, with pale greyish-brown wings and darker spots. They have an orangey-reddish-brown head.

Both are small and prefer dark

### Clothes Moth Larvae

- White or cream-coloured caterpillars with a brown or black head.
- They cause the damage by feeding on natural fibers like wool, silk, fur, and feathers.
- Common Clothes Moth larvae create silken tubes or mats as they feed, while case-bearing clothes moth larvae create portable silk cases that they drag with them.
- Larvae can be found in the same areas as adult moths, as well as along baseboards, under rugs, and in upholstered furniture

### Behaviour:

**Secretive:** They are often found in hidden areas, making infestations difficult to detect initially.

**Localised:** Infestations tend to be localised, as moths don't travel far, and are often transported through infested items.

**Seasonal Activity:** Moths are most active during spring and summer, with another wave of emergence in late summer and autumn.

### Common cause of infestation:

**Natural Fibers:** Clothes moths are attracted to and feed on natural fibers, especially those containing keratin, such as wool, cashmere, fur, silk, and leather.

**Dark, Undisturbed Areas:** They prefer dark, secluded spaces where they can lay their eggs and where the larvae can feed undisturbed.

**Soiled or Dirty Fabrics:** Clothes moths are more likely to infest garments that are soiled with food, perspiration, or urine, as these provide a source of nutrients.

**Warm, Humid Environments:** While they can tolerate a range of temperatures, warmer conditions can accelerate their lifecycle and lead to more generations per year.

**Transportation:** Clothes moths can be easily transported from one location to another through infested items, such as used clothing, carpets, or furniture.

**Second-hand Clothing:** Charity shops and even hand-me-downs can be sources of clothes moth infestations.

# PEST IDENTIFICATION

## CARPET BEETLE

### Appearance: Adult Carpet Beetles

**Size:** 2-4mm in length.

**Shape:** Oval.

**Colouration:** Mottled pattern of brown, grey, and cream.

### Carpet Beetle Larvae (Woolly Bears)

**Size:** Approximately 4-5mm long.

**Shape:** Cylindrical, with a hairy appearance.

**Key Feature:** Covered in dense tufts of bristles and hairs, particularly at the rear end.

**Movement:** Tend to roll up when disturbed.

### Common UK Species

**Varied Carpet Beetle:** Most common, with a varied pattern of spots or scales.

**Furniture Carpet Beetle:** Slightly larger, black with small patches of white hair.

**Black Carpet Beetle:** A rarer species

### Behaviour:

**Habitat:** They prefer undisturbed, dark places like under carpets, furniture, and in storage.

**Diet:** Larvae feed on natural fibers, including wool, silk, fur, leather, and feathers, occasionally attacking stored products like dried pet food and grains.

**Activity:** Adult beetles are attracted to light, especially in spring and summer, and may be seen near windows. Larvae are more active in October and are often found under carpets or skirting boards.

**Signs of Infestation:** Look for adult beetles near light sources, larvae crawling on floors, holes in fabrics, shed larval skins, and small droppings.

**Potential Harm:** While not dangerous, carpet beetles can cause allergic reactions in some individuals and can damage valuable items

### Common cause of infestation:

**Introduction of infested items:** Carpet beetles can easily hitchhike on items like secondhand clothing, furniture, or rugs, bringing the infestation into your home.

**Poor housekeeping:** Dust, lint, pet hair, and other debris create a food source for carpet beetle larvae, particularly in areas that are not regularly cleaned.

**Entry points:** Adult carpet beetles can fly into homes through open windows, doors, and cracks in the building structure.

**Undisturbed areas:** Areas under furniture, carpets, and in closets, especially those that are infrequently cleaned or disturbed, provide ideal breeding grounds for carpet beetles.

**Natural fibers:** Wool, silk, fur, and other natural fibers are attractive food sources for carpet beetle larvae.

**Dead animals and insects:** Carpet beetles can feed on the remains of dead insects and animals found in wall voids, attics, or other hidden spaces.

**Stored items:**

Infestations can also start in stored clothing, blankets, or other items made of natural fibers if they are not properly protected

# PEST IDENTIFICATION

## CLUSTER FLIES

### Appearance:

**Size:** Cluster flies are larger than common house flies, typically measuring 7-10mm in length.

**Colour:** They are dark grey with irregular light and dark grey areas on their abdomen.

**Hairs:** Short, golden-colored hairs on their thorax (the area behind the head).

**Wings:** Their wings are held flat over their bodies.

### Behaviour:

**Hibernation:** Cluster flies enter buildings in the autumn to hibernate, seeking warm, dry, and sheltered locations.

**Clustering:** They gather in large groups, often in roof voids, attics, and wall cavities, which is where they get their name.

**Sluggish movement:** Unlike house flies, cluster flies are slow and lethargic, often appearing listless.

**Light attraction:** They are attracted to light and may be found near windows and light fixtures.

**Return to the same locations:** They tend to return to the same buildings year after year for hibernation.

**Not a health hazard:** They do not bite, sting, or transmit diseases, and they don't lay eggs in food or waste.

### Common cause of infestation:

**Hibernation:** Cluster flies spend their summers outdoors, often in fields, where their larvae (maggots) parasitize earthworms. As temperatures drop in the fall, they seek shelter and warmth indoors, preferring dark, undisturbed areas.

**Entry Points:** They enter buildings through cracks and crevices around windows, doors, vents, and other openings.

**Preferred Locations:** Inside, they cluster in attics, wall cavities, and lofts, where they remain dormant until triggered by warmer temperatures or artificial heating.

**Activity:** On warmer winter days, or when tricked by central heating, they become active and may be seen buzzing around windows, drawn to the light.

**Not attracted to food:** Unlike house flies, cluster flies are not attracted to food or waste, so infestations are not linked to poor hygiene.

# PEST IDENTIFICATION

## COCKROACHES

### Appearance: German cockroach

**Size:** 10-15mm long.

**Colour:** Light brown with two dark stripes on the thorax.

**Habitat:** Prefers warm, humid areas like kitchens and bathrooms.

### Oriental Cockroach

**Size:** 20-30mm long.

**Colour:** Shiny black or dark brown.

**Habitat:** Prefers cooler, damp areas like basements and drains.

### General Cockroach Characteristics

**Antennae:** Long, whip-like, constantly moving.

**Legs:** Long, with visible spines for gripping.

**Body:** Flat, oval shape, and a tendency to move quickly and erratically.

**Egg Cases:** Brown, small, kidney-bean shaped, and may be found in areas of infestation.

**Droppings:** Small, black, resembling pepper or mouse droppings.

### Behaviour:

#### Nocturnal Activity:

Cockroaches are most active at night, venturing out to forage for food and water after sunset.

#### Diet:

Cockroaches are omnivores with a broad diet, including food scraps, decaying matter, and even soap.

#### Reproduction:

Female cockroaches produce egg cases (oothecae) that can contain many eggs, with nymphs emerging and maturing over several months.

#### Personality Traits:

Recent research suggests cockroaches exhibit behavioral traits like shyness or boldness, impacting their ability to adapt and survive

### Common cause of infestation:

#### Food Sources

- Cockroaches are scavengers and will eat almost anything, including crumbs, spills, pet food, and even glue and cardboard.
- Unattended rubbish bins and food scraps left out are a major attraction.
- Dirty dishes, spills, and crumbs on counters and floors are also appealing.

#### Moisture Sources

- Cockroaches need water to survive, making leaky faucets, dripping pipes, and condensation-prone areas ideal habitats.

- Damp areas like bathrooms and laundry rooms are particularly attractive.

#### **Shelter/Entry Points**

- Cockroaches can flatten their bodies to squeeze through tiny cracks and holes in walls, around pipes, and under doors and windows.
- They may also enter through dryer vents or openings in the walls and flooring.
- Areas like heating ducts, boiler rooms, and behind appliances like refrigerators and ovens are common hiding spots.
- Cluttered areas also provide ample hiding places.

#### **Other Contributing Factors**

**Poor hygiene:** While not the sole cause, inadequate sanitation makes a home more susceptible to infestation.

**Neighboring Infestations:** If a neighboring property has a cockroach problem, it's easier for them to spread to your home.

**Secondhand Goods:** Cockroaches can hitch a ride into your home on items like furniture, electronics, or even groceries from infested premise

# PEST IDENTIFICATION

## ANTS

### Appearance:

**Size and Color:** Varying from small and black to larger and reddish-brown.

**Body Shape:** Nipped-in waist is common in many species.

**Wings:** Flying ants have wings for mating and colony establishment.

**Hairs:** Some species, like the Southern Wood Ant, have hairy bodies and legs.

**Spines and Nodes:** Ant anatomy includes spines on the back and nodes on the petiole

*Petiole - constricted first (and sometimes second) metasomal (posterior) segment of members of the hymenopteran suborder Apocrita*

### Behaviour:

#### Foraging:

- Ants are highly organised, following scent trails to food sources.
- They are particularly attracted to sugary substances like spilled drinks and food crumbs.
- Black garden ants, for example, are often seen in kitchens searching for food.

#### Nesting:

- Black garden ants typically nest outdoors in soil, often near plants, patios, or under paving stones.
- Pharaoh ants are known for nesting indoors, making them more challenging to eradicate.
- Ant nests can be found in various locations, including under patios, in cracks in concrete, or in garden lawns.

#### Social Structure and Communication:

- Ant colonies are structured with a queen, workers, and sometimes males.
- Workers are responsible for foraging, nest maintenance, and caring for the young.
- Ants communicate through pheromones, which they use to mark trails and coordinate tasks.

#### Other Behaviors:

- Some ant species have mutualistic relationships with aphids, protecting them from predators in exchange for honeydew.
- Ants can be a nuisance when they invade homes, but they are generally harmless to humans.
- Ants may also nest in compost heaps or bins without causing significant damage

### Common cause of infestation:

#### Food Sources

#### Sugar and Sweets:

Ants are particularly attracted to sugary substances like spilled soda, syrup, and fruit.

#### Greasy Foods:

Cooking oils, butter, and greasy residues on countertops can also lure ants.

**Crumbs and Spills:**

Even tiny food particles left on floors, counters, or in sinks can be enough to attract ants.

**Open Food Containers:**

Flour, cereal, sugar, and other pantry items left in open containers are easy targets for ants.

**Pet Food:**

Pet food left out can also be a significant attractant.

**Rubbish:**

Open bins, particularly those with food waste, can draw ants into the home.

**Water Sources**

**Leaky Taps:** Dripping taps and leaky pipes can provide ants with a reliable water source.

**Damp Areas:** Any damp areas, such as around sinks or in bathrooms, can be attractive to ants.

**Standing Water:** Even small amounts of standing water can be enough to draw ants in.

**Shelter and Entry Points**

**Cracks and Gaps:**

Ants can enter homes through cracks in walls, around windows and doors, and even through tiny openings in foundations.

**Wall Voids:**

Ants may also nest in wall voids, under appliances, or inside wooden structures.

**Warm Environments:**

During colder months, ants may seek out warmer environments inside homes to nest.

**Potted Plants:**

Ants can also be brought into the home via infested potted plants