

Pollinators

Bees are important pollinators.

Flowers make a huge effort to attract insects, because insects help pollinate them. They use bright colours and strong smells to show off their nectar, a sugary liquid that many insects like to eat. When an insect lands on a flower to feed, it is dusted in powdery pollen. This pollen is then carried to new flowers, allowing them to produce seeds.

Scented bugs

Male orchid bees, or euglossine bees, collect special oils from the orchids they visit and wear them as perfume. This is thought to help them attract mates.

Pollination partners

Fig plants and fig wasps need each other to survive. Each fig plant is pollinated by its own special type of fig wasp. In return, the wasp will spend most of its life living snugly inside the fig it pollinates.

Cacao plants, used to make chocolate, are pollinated by midges. Without them, we wouldn't have any chocolate.

Feeding time

Butterflies and moths have long, straw-like tongues, called proboscises, which they uncurl to suck up nectar from the flowers they visit.

Bee orchid flowers look enough like female bees to trick male bees into visiting and pollinating them!

Beetles have been pollinating flowers for over 150 million years.

Orchids

Orchid bee

Fig wasp

Fig plant

There are around 900 different types of fig plant.

Bumblebee

Antia checkerspot butterfly

Hummingbird hawk-moth

Bee orchid

Midge

Cacao plant

Flower beetle

Proboscis

Bugs that glow

Animals that create light are called "bioluminescent".

While other animals can do this, such as glowing ocean jellyfish, fireflies are the only glowing creatures that can fly. They dance through the air in search of a mate, lighting up the forest with their bioluminescence.

HOW THEY LIGHT UP

Fireflies make their glowing light by mixing oxygen and a fiery substance called luciferin, inside their bodies.



Adult male
photinus firefly

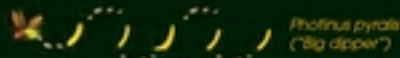
Dancing together

Synchronous fireflies can flash the same pattern at the same time. Millions of them come together in summer to put on a display.

Firefly glow is the world's most efficient light. It loses almost zero energy as heat.

Finding a mate

Males and females use their lights to talk to each other and find a mate.



Photinus pyralis
(“Big dipper”)

Photinus ignitus
(Ignited firefly)

Photinus consanguineus
(double cousin)

Photinus carolinus
(synchronous firefly)

Unique signals

Each species of firefly has its own pattern of lights. Some glow continuously, while others flicker and flash at regular intervals.

Helping bugs

Bugs deserve our love and care. After all, they work hard to keep our planet in tip top condition. Help them by building them a cosy new home.

BUILD A BUG HOTEL

Make space outside for your very own bug hotel – it's a great way to help bugs and recycle garden waste. Whether it's big or small, bugs will welcome a safe place to stay.

Fill a dish with pebbles and add water – your guests might like a drink!

Ask an adult to help you lift heavy materials and build a stable hotel.

Collect

Gather materials for your bug hotel. Almost anything can serve as a home for bugs, but natural materials are best. Look for rotting branches, bark, twigs, pinecones, dry leaves, bamboo canes, logs, hay, and straw – the list of things you can use is endless!

Build

Look outside for the perfect place to build your hotel on flat ground. Space bricks evenly on the ground, then stack some old wooden pallets on top – build carefully, you don't want your hotel to fall over!

Fill

Get creative and fill the gaps between your pallets. Start by adding larger materials like pots and branches, then gradually fill smaller spaces with things like pinecones and hollow plant stems. You can use straw and cut grass to fill very tiny gaps.

Decorate

Add the finishing touches to your hotel. Make a sign and plant nectar-rich flowers like daisies nearby – they're the perfect treat for bees and other pollinating guests. Then sit back and watch your tiny friends move in.

Some bugs will pop into your hotel for a short visit, while others may choose to hibernate there during the cold winter months.

Ant defenders

When wood ants feel their nest is threatened, they tuck their abdomens between their legs and spray out a **jet of acid** at their attacker. Some sneaky birds get wood ants to spray their feathers on purpose to get rid of itchy mites.

Using wood ant acid for cleaning feathers is called "anting".

Nests can contain over 300,000 ants.

Ants' nests have to stay at the right temperature for their babies to survive.

So ants line their nest with grass and pine needles to keep it warm.

Wood ants sunbathe outside their nest. It helps warm their home when they return.

Wood ants often eat other bugs, such as caterpillars.

When baby ants (larvae) grow big enough, they turn into silken cocoons.

Workers bring food to their queen.

Ant royalty

Some wood ant nests have only one queen, but sometimes they join together to form huge nests with many queens. The queen's only role is to lay eggs.

Worker ants

Almost all of the ants in the nest are female workers. They take care of the baby ants.

Larvae

Queen ant

Eggs