

Insect and Minibeasts Facts

What are Invertebrates?

- Invertebrates are animals that **do not have backbones**.
- Marine Invertebrates include **sponges, corals, jellyfish, anemones, and starfish**.
- **Mollusks** have a soft body that is covered by an outer layer called a mantle. Some examples of mollusks include **squid, snails, slugs, octopuses, and oysters**.
- **Crustaceans** are a type of arthropod and include **crabs, lobster, shrimp, and barnacles**.
- **Insects** are part of the Earth's largest animal phylum, the arthropods and include such animals as the **grasshopper, dragonfly, butterfly, and praying mantis**.
- **Spiders, Centipedes and Scorpions** are all part of the arthropod phylum.



Invertebrate Facts

- The **largest** of the invertebrates is the **colossal squid**. It can grow to over 12m long and weigh over 450kg.
- The **longest** invertebrate is the **ribbon worm** which can grow to 50m long.
- The **smallest** invertebrate is the **rotifer**, or wheel animal, which can be as small as 50um.
- Around **23%** of all marine organisms are **mollusks**.
- Some invertebrates, such as echinoderms, **do not have heads**.
- There are likely **millions** of invertebrates **living in your house** right now. They are called dust mites and you can't see them.
- Some **scorpion mothers** protect their young by carrying them on their backs.
- **Centipedes are carnivores** which eat insects and worms. They have a poisonous bite to help them kill their prey.
- **Millipedes are herbivores** who eat plants and rotting material.

Insect Facts

- They are the **most successful** creatures. Insects make up about two thirds of all the species ever discovered.
- **Beetles** are the **most biodiverse** group of creatures known, with more than 380,000 species described to date, making up 40 percent of all insect species.
- Around **10 quadrillion ants** live on the planet at any given moment. That's about 1.4 million ants per human.
- They live on **every continent**.
- Insects **breathe through their sides**. Insects do not breathe through their mouths. They inhale oxygen and exhale carbon dioxide via holes called spiracles in their exoskeletons.
- Insects have an **open circulatory system**, in which their blood, called "hemolymph," bathes the organs.
- Insects have **ears all over the place**, yet rarely on their actual heads. Lacewings have ears at the base of their wings. Crickets have thin sound-sensitive membranes on their legs. Grasshoppers' ears appear on their abdomens.
- The oldest insect fossil goes back **400 million years**, suggesting insects were among the first animals to transition from sea to land.
- The **largest** insect ever known to have terrorized the skies is *Meganeuropsis*, or the **Griffinfly**, which was an ancient dragonfly with a wingspan of up to 0.8 meters.
- The heftiest insect found today is New Zealand's **Giant Weta**, a cricket-like beast that can weigh more than **1.5kg**.
- The **longest** insect, meanwhile, is **Chan's Megastick**, native to the island of Borneo and stretching over **66 cm**.
- The **smallest** insects are fairyflies from Costa Rica. In one of these wasp species the male is a mere **0.014 cm** long.
- The **strongest** insect on the planet is the **Horned Dung Beetle**, which can **pull 1,141 times** its own body weight.

Threats to Invertebrates

A review of more than 12,000 invertebrates suggests that one fifth of them are at risk of extinction, with freshwater species facing the greatest threat. And if they disappear, humans could soon follow.

- habitat loss
- pesticides
- insecticides
- invasive species
- run-off from farms
- industrial waste
- domestic sewage
- damning or removal of water sources
- climate change, which causes coral bleaching and ocean acidification

