MILLIPEDES

THE OLDEST KNOWN FOSSILS ARE FROM 428 MILLION YEARS AGO! THE MAORI NAME IS *WERI MANO*.

MILLIONS OF LEGS?

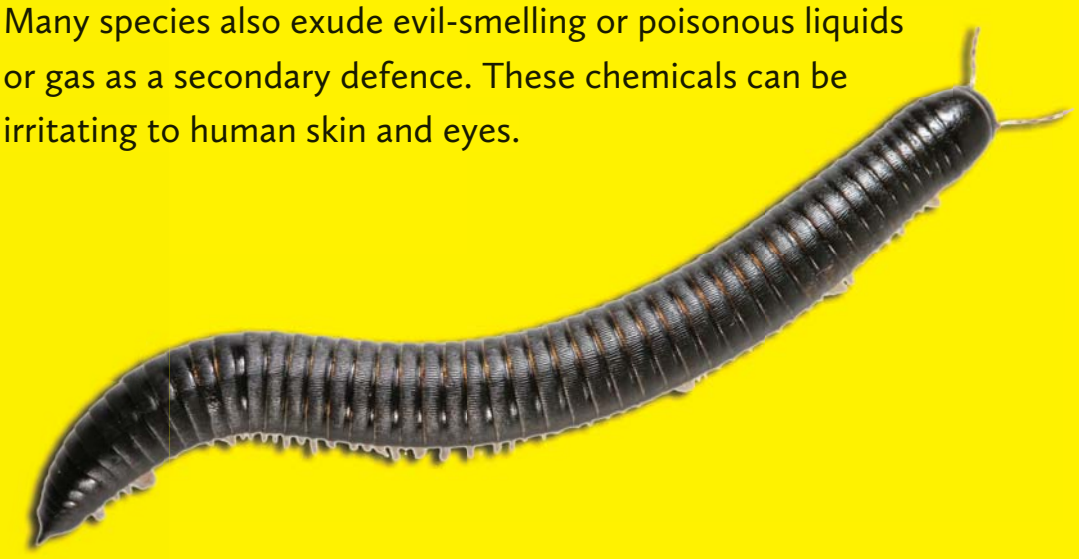
- No! Not even 1000 legs despite their name meaning this.
- Common species usually have 36-400 legs although one rare species has up to 710 (355 pairs) legs.
- Millipedes generally have long, segmented, rounded bodies although some may appear more flattened like centipedes. The have 2 pairs of short legs per body segment.
- Newly hatched millipedes typically have only 3 pairs of legs with several legless segments at the end of the body. As they grow, they add more segments and legs at each moult.
- Most millipedes are slow-moving compared to centipedes. However, they are powerful burrowers – the wave like ripples of so many legs and their body pushing forward means they can simply force themselves underground head first.

MILLIPEDE SENSES

- Most millipedes have eyes but some groups that live in dark places (such as deep in leaf litter or dark caves) have lost their eyes.
- Antennae and special sensory receptors at the base of the antennae are important for sensing vibrations, taste, touch and humidity.
- Most millipedes are nocturnal and avoid light.

DEFENCE

- Millipedes do not bite or sting.
- If threatened, they usually curl up tight with head and legs protected by the hard armoured plates of the body segments.
- Short 'pill millipedes' roll into a tight round ball.
- Many species also exude evil-smelling or poisonous liquids or gas as a secondary defence. These chemicals can be irritating to human skin and eyes.



MILLIPEDES ARE VERY IMPORTANT IN SOIL ECOSYSTEMS

- Most millipedes are fungivores or detritivores feeding on decomposing vegetation and the bacteria and fungi living in the rotting vegetation and wood.
- Millipedes have symbiotic micro-organisms living in their gut to break down and digest the plant cellulose. (Symbiotic means both the millipedes and the micro-organisms benefit from the relationship.)
- They are one of the few groups able to fragment dead wood and plant debris into smaller pieces, pre-processing the organic material and making it available for further decomposition by fungi, bacteria and micro-invertebrates. Millipedes play an important role in nutrient cycling.
- Some millipedes will scavenge, eating dead animal matter. A few species may prey on small insects and centipedes, or on earthworms.
- A few species have piercing mouth parts that allow them to feed on plant juices, roots and fallen fruit.

11,000 NAMED SPECIES WORLDWIDE BUT MANY THOUSANDS ARE STILL UNNAMED

- The greatest number of families and species (millipede diversity) live in the tropics.
- The largest millipede species lives in Africa; it can grow to well over 30 cm and is often kept as a pet.

ABOUT 60 NEW ZEALAND MILLIPEDE SPECIES DESCRIBED WITH MANY MORE STILL TO BE DISCOVERED

- They are most common and numerous, especially in forests.
- Very little is known about New Zealand millipedes.
- Millipedes lack a waxy layer on the cuticle so they are always at risk of drying out.
- The millipedes prefer damp, sheltered habitats such as under logs and rocks, in rotting wood, moss and leaf litter. In gardens, they also hide in and around compost heaps and under pot plants.
- 12 exotic species of millipedes from Europe are common in urban gardens and urban woodlands of New Zealand. Species from Australia have also been introduced.