GIANT PILL MILLIPEDE
Procyliosoma spp.

If you stumble upon a giant pill millipede in the Sanctuary, you could be forgiven for thinking the dark shiny cherry-sized ball is some sort of nut from a large tree. Giant pill millipedes curl so tightly and neatly, that it is impossible to see their head, underside and many legs. In this position, they are protected from most predators. In addition to curling up when threatened, they maintain this position while asleep through the day. At night, they unfurl and go about their business feeding on decaying organic matter such as dead leaves and wood, thus contributing to the important ecological role of returning nutrients to the soil.

The giant pill millipedes found in New Zealand belong to the order Sphaerotheriida. Sphaerotheriida originated in Gondwana and are now distributed across South Africa, Madagascar, Australasia and New Zealand. Species within Sphaerotheriida have 13 body segments or somites behind their head: the collum, analogous to a neck; thoracic shield; 10 ordinary body somites and a terminal somite called a pygidium. They also have 21 pairs of legs. The order is divided into four families, the most basal of which, Procyliosomatidae, lives in New Zealand and Australia. Within this family, there is only one genus, Procyliosoma, of which five species/subspecies are endemic to New Zealand: *P. tuberculatum tuberculatum*, *P. tuberculatum westlandicum*, *P. delacyi delacyi*, *P. delacyi striolatum and P. leiosomum*.

Either to confound or impress, the act of an animal curling into a ball goes by several names: enrollment, volvation and, my personal favourite, conglobation. The back and sides of each somite are protected by a hard shield or plate called a tergite. Each tergite overlaps the one behind it. The tergite at the caboose, sorry, pygidium is a large semi-circular anal shield. Giant pill millipedes can maintain conglobation without the need to engage their muscles as the tips of the tergites fit perfectly into a groove on the thoracic shield, locking them in place.

The origins of the term pill millipede comes either from their spherical form during volvation or the long-abandoned European practice of rolling the poor hapless creatures in sugar and selling them under the pretence that their ingestion had therapeutic benefits.

Compiled by Katherine Chamberlain

Procyliosoma sp. - Reiner Richter

Procyliosoma delacyi - Damien Brouste

Procyliosoma delacyi - Aman Hunt

Procyliosoma delacyi - Sebastian Doak

Above and below
Procyliosoma striolatum
Pill millipede - Neil Fitzgerald Photography

Above
Millipede - Procyliosoma delacyi - Shaun Lee

MILLIPEDE vs CENTIPEDE

What is the difference between millipedes and centipedes?

Millipedes and centipedes both have bodies composed of a head and long trunk with lots of leg-bearing segments and are usually found among leaf litter, soil, bark and stones, however, they differ in significant ways.

Millipedes (class Diplopoda) have two pairs of legs positioned underneath each body segment. (Each segment of a millipede is derived from the fusion of two originally separate somites, thus they have two pairs of legs and all other organs contained within a somite). The majority are detritivores, feeding on dead leaves and decaying wood.

Centipedes (class Chilopoda) have one pair of legs per segment, each leg projecting from the side of the segment. Centipedes are predacious and have a venomous bite, dangerous to invertebrates and small vertebrates, but not to humans.

Below
New Zealand Giant Centipede -
Cormocephalus rubriceps - Saryu Mae