

# OBSERVOLOGY: The STUDY of LOOKING

Scientists who study nature often go on field trips and expeditions. They can spend days, weeks or months on windswept islands or mountainsides, at sea, in jungles or in polar regions.

An observologist is someone who makes scientific expeditions every day, albeit very small ones. They notice interesting details in the world around them. They are expert at finding tiny creatures, plants and fungi.

They know that earthworms have bristles...



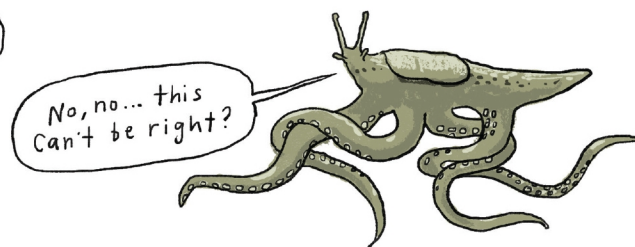
and that moths come out in the daytime.



They know EXACTLY where to find a wood louse when they need one...



and how many tentacles a slug has.



An observologist knows that there are fascinating things to be found in even the most ordinary places.

Many of these things are very, very small.



And others are easily overlooked.

# BORING SITUATIONS IMPROVED WITH OBSERVOLOGY



School



An adult bumps into someone they know



There's a power cut



It's lunchtime and your best friend is off school that day

I'll just be a minute.



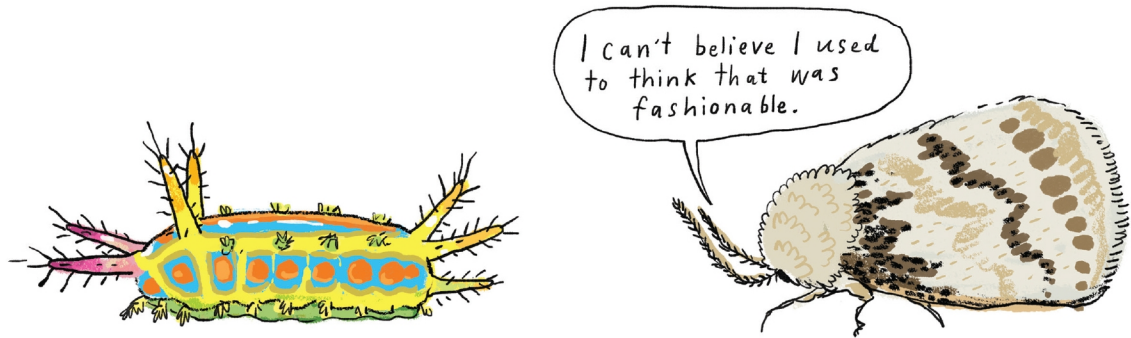
Indecision at the plant shop



Waiting for your turn

# CATERPILLARS

Caterpillars are the larvae of moths and butterflies. It's often easier to find the larvae than the adults because they tend to stay in one place, more or less. Isn't it amazing that these are the same animal?



I can't believe I used to think that was fashionable.

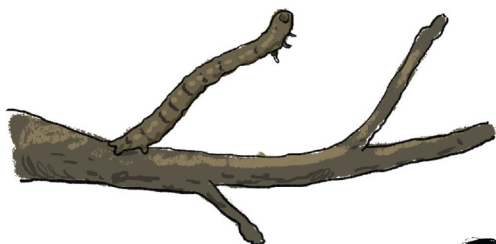
*Calcarifera ordinata* WATTLE CUP MOTH

Caterpillars can make silk and some of them use it like a bungee rope to get away quickly from predators. They drop off a leaf and dangle upside down in midair, hoping that by the time they've climbed back up their thread the danger has passed.

While some caterpillars have extravagantly bright skin that makes them look poisonous, others are masters of hide and seek.

## CLASSIC CATERPILLAR CAMOUFLAGE

TWIG IMPERSONATION



LEAF-VEIN MIMICRY



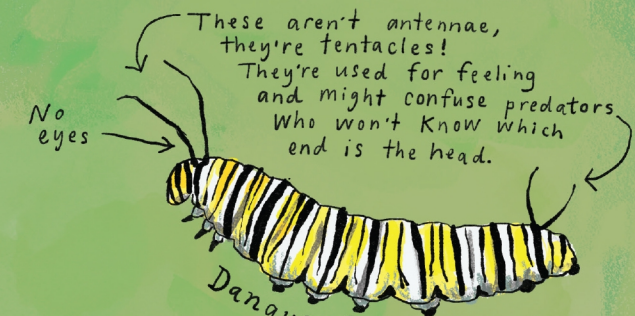
IN SOMEONE'S EYEBROWS (just kidding)

Caterpillars are fussy eaters, so if you find one crawling up your sleeve, see if you can put it back in the right spot.

If you don't want your broccoli, I'll have it.

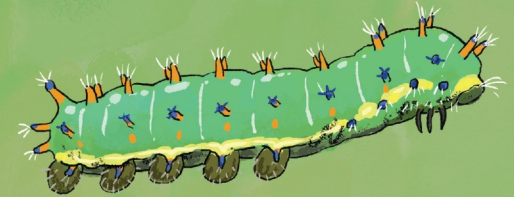


*Pieris rapae*  
WHITE CABBAGE BUTTERFLY  
Eats plants in the Brassicales order which includes cabbage, broccoli and nasturtium

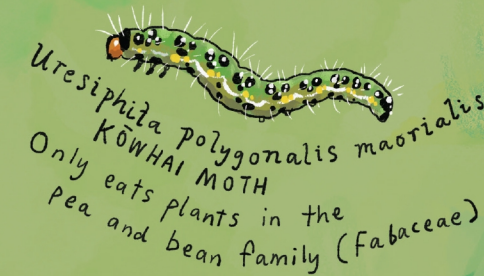


These aren't antennae, they're tentacles! They're used for feeling and might confuse predators who won't know which end is the head.

*Danaus plexippus*  
MONARCH BUTTERFLY  
Eats milkweed plants



*Opodiphthera eucalypti*  
GUM EMPEROR MOTH  
Usually found dining on eucalyptus tree leaves



*Uresiphiza polygonalis maoriensis*  
KŌWHAI MOTH  
Only eats plants in the pea and bean family (Fabaceae)

Caterpillars that make this shape with their bodies when they walk are called LOOPERS



LOOK FOR LITTLE HOOKED LEGS at the FRONT

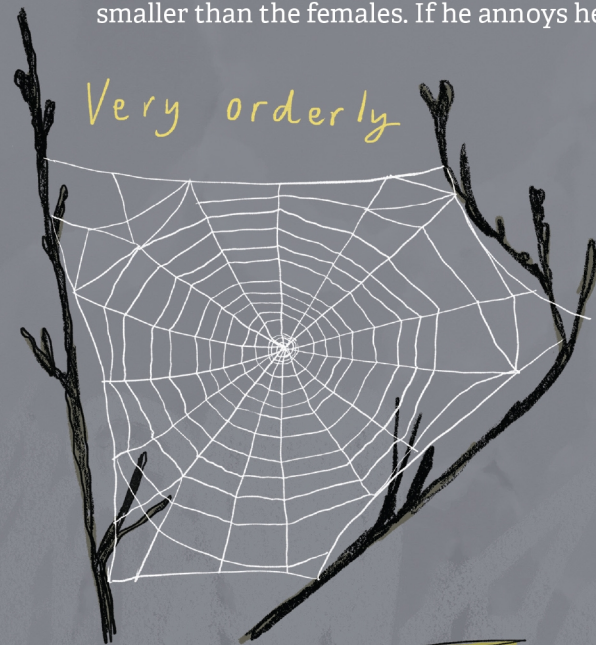
GRIPPY SUCTION-CUP FEET at the REAR

If you're hunting for caterpillars, you might first spot droppings in a pile at the base of a leaf. If the droppings are pale it means they're fresh and the caterpillar must be very close by.



# DIFFERENT WEBS FOR DIFFERENT SPIDERS

Spiders are wonderful engineers and build webs in lots of different forms. Here are just a few of them. It's usually only female spiders that build webs. Occasionally you'll see a male spider on a web, inching cautiously towards a female he'd like to mate with. He has to plan his approach carefully because in many cases male spiders are much smaller than the females. If he annoys her, she might eat him.



Very orderly

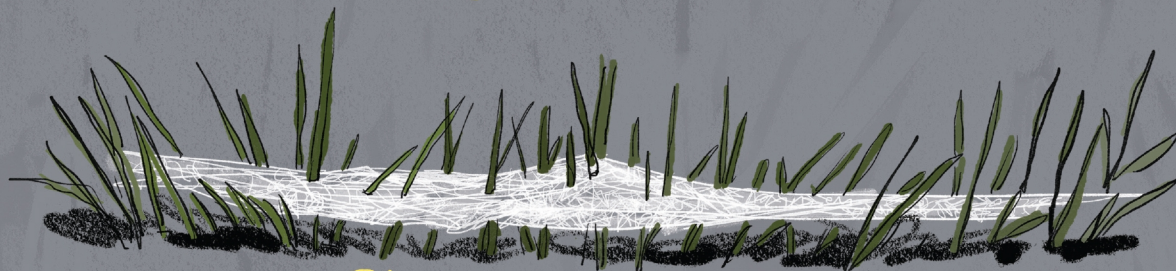


A snug home for the whole family

Young nursery web spiders



Messy but effective



Flat on the ground



A particularly good time to look at spider webs is on a dewy morning. Each silk thread hangs heavy with tiny, sparkling beads of water. It's very pretty.