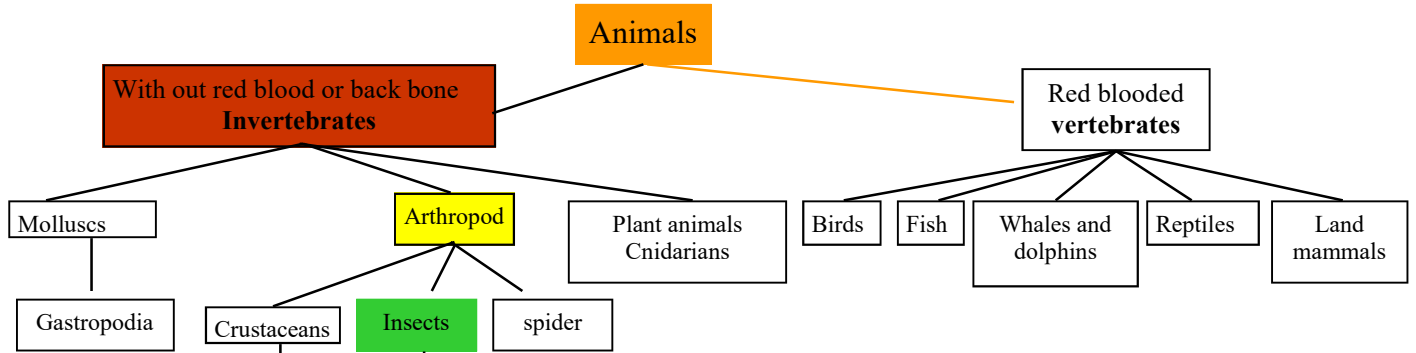


Glow Worms

To be used with the Tangihua lions lodge program



Glow worms are insects because they are the larval stage of a fly called *Arachnocampa luminosa* or Titiwai

All insects ? have these Characteristics

What do you think?

Just circle the answer

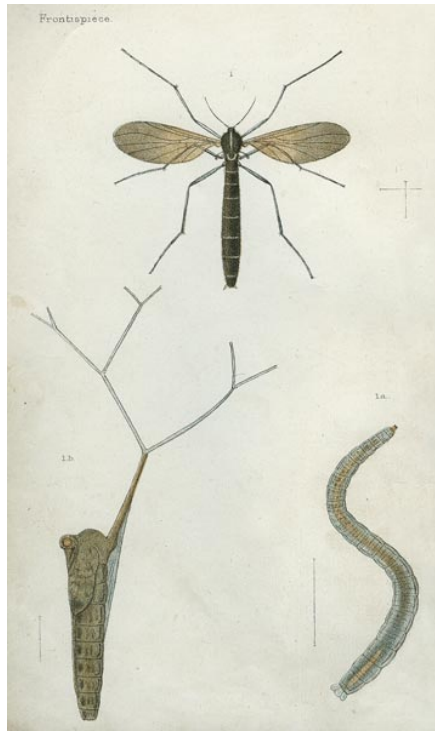
Body parts?
2
3

Legs?
6
8
More!

Eyes?
6 simple ones
8 simple ones
Usually 2 but sometimes 5

Mouthparts?
3 pairs
1 pair with fangs and poison

Wings?
Usually



This insect has these characteristics

6 legs
8 legs
More!
Wings
Or
No wings
A long thin body
or
well developed legs and long feelers

I am a
Beetle
Fly
Moth
Giant Weta
Cicada
Earwig
Stick insect

Now name one characteristic each of the other 6 bugs have, that I don't.

Why are Glow worms insects not worms

.....

.....

What do glow worms eat

Why do glow worms glow.....

.....

Where do glow worms live

Who eats earth worms

Glow worms

To be used with the Tangihua lions lodge program



What is a glow worm

Glow worms are common in the Tangihua's

Glow worms can be found on the side of overhanging banks by the streams around the lodge.

They need damp places where the air is still so they can catch their prey. Their lights resemble a star-filled night sky. Māori call them Titiwai, which refers to lights reflected in water.

Glow-worms are the larvae (maggots) of a special kind of fly known as a fungus gnat. Fungus gnats look rather like mosquitoes, and most feed on mushrooms and other fungi.

However, a small group of fungus gnats are carnivores, and the worm-like larvae of these species use their glowing lights to attract small flying insects into a snare of sticky threads. Flying insects see the glow-worm's light in the dark and fly towards it becoming trapped on the sticky threads. Their struggles alert the glow-worm, which pulls in the thread with its mouth. The prey is then killed and eaten. The insects target edare midges, mayflies, caddis flies and moths. Forest glow-worms may also trap spiders, plant hoppers and even millipedes. The glow-worm simply cuts free any prey that is too large, or unwanted.

Light display

Forest-dwelling glow-worms hang lines that are only 1–2 centimetres long, because they could get tangled in a breeze. In the still air of caves, lines can reach up to half a metre.

Each line is made of silk with droplets of sticky mucus – like beads on a string. The larva spends much of its time making and repairing the lines. Because of the flexible nature of its tube, the larva can push its head out to grab a line, ingesting it for re-use later.

A worm can make 15–25 lines a night, and will spend about 15 minutes producing each one. The first droplet of mucus is the biggest, then a short length of silk is added, followed by another droplet, then another length of silk. A large glow-worm that is nearly mature may have as many as 70 lines.

The glow-worm's tail-light shines from an organ which is the equivalent of a human kidney. All insects have this organ but the glow-worm has a unique ability to produce a blue-green light from it.

The chemical reaction that produces the light consumes a lot of oxygen. An airbag surrounds the light organ, providing it with oxygen and acting as a silvery reflector to concentrate the light.

A fungus gnat can glow at all stages of its life cycle (except as an egg), but the larva has the brightest light. Outdoor glow-worms start glowing shortly after dark and usually shine all night. Sometimes when a glow-worm is disturbed its light seems to go off suddenly. This is the larva slithering into a crevice, hiding its light. It actually takes several minutes for the larva to shut off the light.