

Insects

To be used with the Tangihua lions lodge program



What is an insect

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

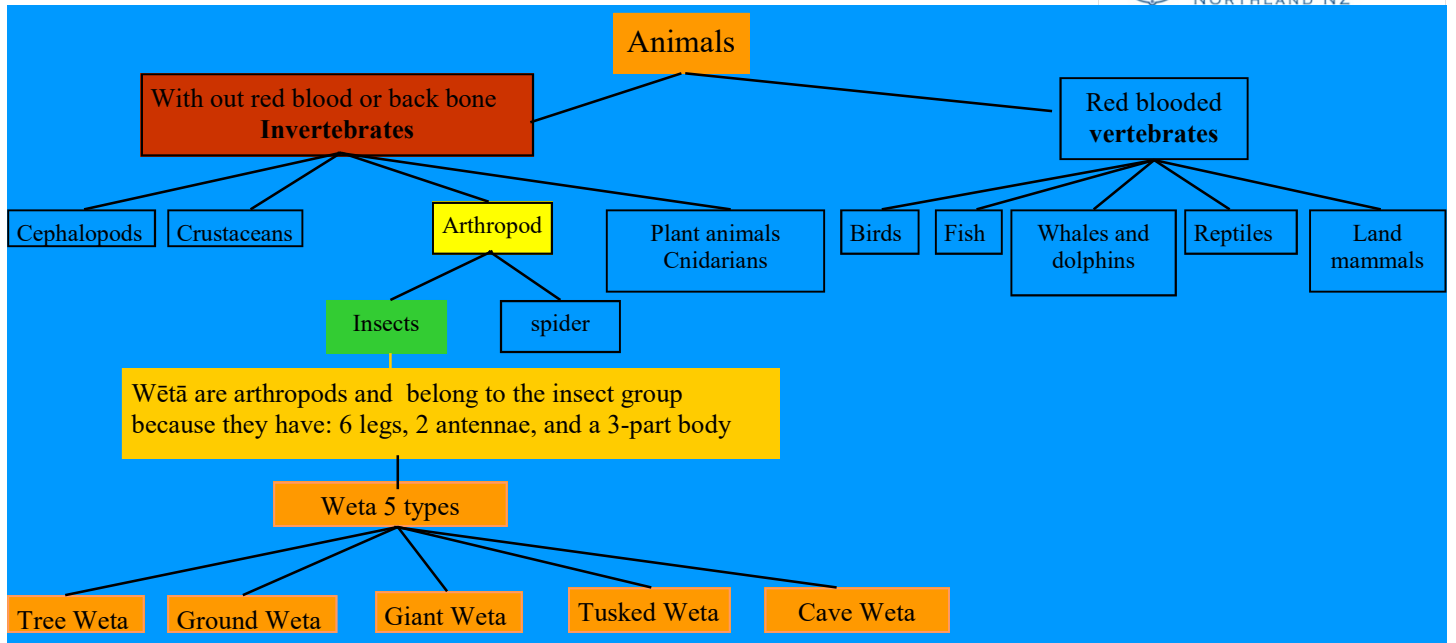
**Now name one
characteristic each
of the other 6 bugs**

Draw a line showing who relates to what

What habitats do you find insects in

Weta

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Weta ?
have these

- Antenna
- Femur
- Hind leg
- Front leg
- Ear
- Ovipositor
- Spiracles
- Palps
- Middle leg



Draw a line showing who relates to what

two compound eyes for close-up sight and three little eyes called ocelli to sense light and dark

short tail-pieces called cerci to detect vibrations

females have a long ovipositor at the-back to deposit eggs into the soil

an ear on each front leg knee joint

palps alongside the jaws for tasting and smelling (like our tongue and nose)

spikey back legs that kick into the air for defence and make a rasping sound as they come back down.

Why might Weta become extinct?

.....

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.....

.....

Is there any thing we can do to protect them

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.....

Weta

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Habitat - where they live

Weta prefer to live in the bush where it is dark and damp. They are often found in Manuka, Kanuka and Mahoe.

Weta are seldom found alone and often share space in holes in trees during the day, These holes are formed by beetles, moth larvae or where rot has set in after a twig has broken off. The hole, called a gallery, is maintained by the male weta who chews away any bark growing over the opening.

The larger male weta's set themselves up in the best galleries by fighting to remove lesser individuals. The fights are not to kill – although legs and antennae, or parts of them, may be lost in the process.

The victorious male accepts females to live in the gallery and accumulates a harem – five or more females where there is room.

Tree wētā communicate by stridulation

Weta stridulating is when a rasping sound is made by rubbing pegs on the inside of their hind legs across a row of ridges on their abdomen.

It is thought that males are territorial and that they stridulate at night to let other males know where they are and to call females to them.

Significance to Moari

weta carapaces were prized by the Maori, who used them as food pouches when going on long journeys. Although incredibly tough, they could be softened by boiling them for several days in the acidic water of volcanic springs, creating a leathery container which could be used to store food and other items. Weta flesh was regarded as a delicacy by the Maori,

Threats and conservation plan

Wētā have evolved alongside native predators such as birds, reptiles, and bats. The introduction of predators such as rats, mustelids, cats, and hedgehogs has resulted in a sharp increase in the rate of predation.

solution

good pest control



This male weta hung around my back door and would pay an occasional visit. The male Weta's pincers are used for fighting other Weta's but they can nip, as this one taught me when I tried to tidy him up. The female weta jumped out at me from the beside the water tank at the lodge

Weta

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Weta filled the role of rodents before land mammals came to New Zealand. When rats and mice started living here most wētā species couldn't compete. Their food was eaten and they became food for rodents. Numbers plummeted.

Giant Weta have been around for 190 million years and are older than tuatara. This means they were around with the dinosaurs.

Weta are large by insect standards but harmless

Weta can be found along most of the tracks and the nature trail but prefer to avoid being seen. They prefer to hide from people but they can bite with their powerful mandibles. Tree weta bites are painful but not particularly common. Their defence displays consist of looking large, spiky and scary they will retreat if given a chance. If wetas really feel threatened they will hiss and bite.

The Maori call the giant weta *wetapunga* translated this means "a God of ugly things".

Weta at the Tangihua lions lodge are found.....

We are in the process of building Weta motels and will state where they are once they are completed. Weta can be found along most of the tracks and the nature trail but prefer to avoid being seen.

There were lots in the water filter shed but I think the rats got them.

Tangihua Weta description

Wētā are related to grasshoppers, locusts, crickets and katydids (all members of the order Orthoptera) and, like their relatives, have powerful hind legs for jumping.

The New Zealand wētā species is divided into two families: the Anostostomatidae and the Rhaphidophoridae.

Anostostomatids are large-bodied wētā with heavy legs.

There are five groups:

1. Tree wētā
2. Cave wētā
3. Giant wētā
4. Tusked wētā.
5. Ground wētā

Tree wetas are up to 40 - 60mm long when full grown, nocturnal and flightless. The male tree wētā have enlarged heads – up to twice the length of the female's head – with oversized jaws for fighting. The female weta looks as if she has a stinger, but it is an ovipositor for laying eggs.

Like grasshoppers Weta have ears on their front legs!

Weta diet - tree weta

Most weta are omnivores preying on small insects. The tree weta eat mostly lichens, leaves, flowers, seed-heads, and fruit. They will eat small insects and will occasionally eat other small weta.

Reproduction

The female weta has an ovipositor, which enables her to lay eggs inside rotting wood or soil. The females will lay eggs throughout their adult life, generally producing between 100 to 300 cigar-shaped eggs in the autumn. They can hatch after a month or in the following spring. The little weta look just like the adults, only smaller.

A tree weta takes between one and two years to reach adulthood, and over this time will have to shed its skin around ten times as it grows. Shedding or moulting their hard outer skin is called an instar. Moulting is necessary for them to grow in size.

Once they reach adulthood, tree wētā survive for six to ten months in lowland situations.