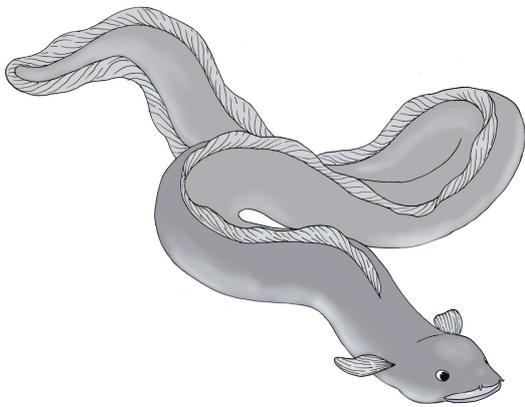
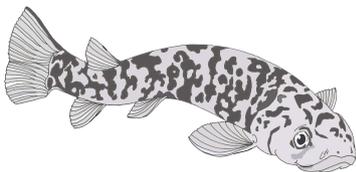


THE

WAIMĀRAMA KIDS CHRONICLE

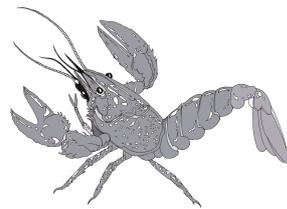


Kia ora Kids! I'm Tuna, one of the Kaitiaki of the awa here in the Waimārama Sanctuary. Us Long Finned Eels love it here in the shady Brook Stream, the water here is so clean (and cold!), and there is plenty of kai (food) for us to find. We're doing pretty well here in the sanctuary, which is lucky, because I'm an important guy (if I do say so myself). I share the stream with lots of other special native taonga (treasures), come upstream with me and I'll introduce you to some of them...

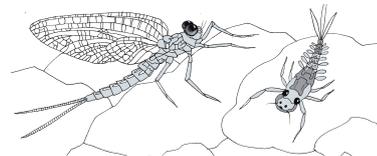


This is Kōaro, one of the best climbers I know! She belongs to a group of fish called "Galaxids", which were named because of their galaxy-like markings on their scales— she's a beauty don't you think!? The human-made dams throughout the sanctuary are no problem for Kōaro, she can shimmy and climb up them using her fins to grip onto surfaces.

Come on a journey upstream to discover the hidden life in, around, and above the crystal clear Waimārama waters!



Kōura here is a real character. He's always on at the rest of us about cleaning up after ourselves, constantly picking over dead leaves, and (ahem) other dead things. He also loves a good tasty snack of some of our smaller neighbours! Sheesh. It's like that here in the stream though (and as for me, I do find the odd Kōura pretty tasty to be honest).



We share the stream with some interesting little guys too... lots of insects and other invertebrates live out part (or all) of their lives on the stream bed, they're tiny, but have a big role to play in the health of our stream home. Some of them feed on algae and help out Kōura with his housework. And they ALL provide the link at the start of the food chain that leads to me having lots of tasty kai!

Can't wait to see you at the awa soon!

Love, *Tuna*

IN NATURE EVERYTHING IS CONNECTED, AND IT IS NO DIFFERENT IN A FRESHWATER ECOSYSTEM.

A FOOD WEB helps to show this connection in a our stream.

Can you add in some arrows to show the flow of energy (who eats what!)

KŌTARE/ SACRED KINGFISHER

Lives: Trees and banks near the awa
Eats: Kōura, Kōaro and other small fish



Kōtare are often heard (*kek kek kek*) before they are seen, and swoop down to catch small fish within the stream.

KŌARO

Lives: Stream Bed
Eats: Insects



Like other whitebait species, the Kōaro spend part of their lifecycle in the ocean, and then make their way upstream into freshwater.

TUNA/ EEL

Lives: Under the Stream Bank
Eats: Kōura, Insects, Kōaro



Eels are predators (they eat everything else), and mostly come out at night. They can live up to 80 years! Eels spend most of their lives in freshwater, but travel to the Pacific Ocean to lay their eggs.

KŌURA/ FRESHWATER CRAYFISH

Lives: Stream bed under rocks
Eats: Decaying plants and animals



Kōura are scavengers- they do an important job of cleaning up the ecosystem by eating plants and animals after they die.

INSECT (AND OTHER INVERTEBRATES)

Lives: Everywhere!
Eats: Each other, Algae



Though they are small, invertebrates are the most important part of the ecosystem! Why? Because they are eaten by nearly everything else and eat the smallest things in the ecosystem.

ALGAE

Lives: Grows on rocks
Eats: Sunlight and CO2 (through photosynthesis)



Algae are the drivers of the ecosystem, converting sunlight into energy, and carbon dioxide into oxygen.

I WONDER..?



THINK LIKE A SCIENTIST... WHAT DO YOU WONDER?

- If one of these living things is removed from the food web, what do you think would happen to the other living things?
- Can you create a food web of some creatures from a different type of ecosystem? The ocean? A forest?
- What do you think WE can do to make sure our awa/ rivers are healthy for all the living things within that rely on them?

JUNIOR RANGER'S IN ACTION!

Streams and Rivers provide a wonderful way to cool down on hot summer days, whether you're a fish or a human! Next time you're at an awa, take a closer look... move to a shallow area where the water is clear and flowing. Carefully lift up some rocks from the stream bed and look underneath... does anything skitter or move away? See if you can identify what you have found! Identification sheets can be found here... <https://www.landcareresearch.co.nz/tools-and-resources/identification/freshwater-invertebrates-guide/identification-guide-what-freshwater-invertebrate-is-this>

The Kiwi Conservation Club (KCC) have an excellent range of activities around freshwater- find them here... <https://kcc.org.nz/fresh-water/>

You can also access amazing resources from the Kids Greening Taupo website here...

<https://www.kidsgreeningtaupo.org.nz/online-nature-classroom/river-ecosystems>

Send through photos of your freshwater investigations to info@brooksanctuary.org.nz