

Whangarei Intermediate School Drains to Harbour Instream Experience – the Waiarohia Stream

DTH – Camellia Neilson



A photograph of a garden pond. The pond is filled with dark, still water that reflects the sky and the surrounding greenery. The pond is bordered by lush vegetation, including various green plants and some with reddish-brown stems in the foreground. In the background, a dark brown wooden fence runs along the top of the garden. The overall scene is a quiet, somewhat somber garden setting.

The scene of the crime...

DTH - Camellia Neilson

**It was a rainy day but we
didn't mind that much 😊**



We got our briefing and then started to test the health of the stream...





We collected a water sample...

DTH – Camellia Neilson

**So we could
test the water
clarity...**



**OK the clarity
tube is full...**



Now let's take a measurement.....

82cm clarity – that's pretty good!



**Getting some quality
control...**



DTH – Camellia Neilson

**Then we tested
the streams
temperature...a
nice cool 14
degrees celcius –
that's pretty good
too.**



DTH – Camellia Neilson

**Followed by
the pH...it
was 6.5.
That's a little
acidic but OK.**



More quality control of that water clarity...



Now to test the flow...



DTH – Camellia Neilson

Here it comes!!



It took 35 seconds for the ball to travel 10 metres

That's a velocity of 0.3 m/s which is OK



Then Kim explained how to find the invertebrates...



Meanwhile...the quality control continues!!



Now for the really fun part ... let's see what we can find!



DTH - Camellia Neilson

Let's take a look at some of the creatures we found




**Freshwater
Shrimps –
they get a
score of 5**



**Water
Boatman –
they also get
a score of 5**



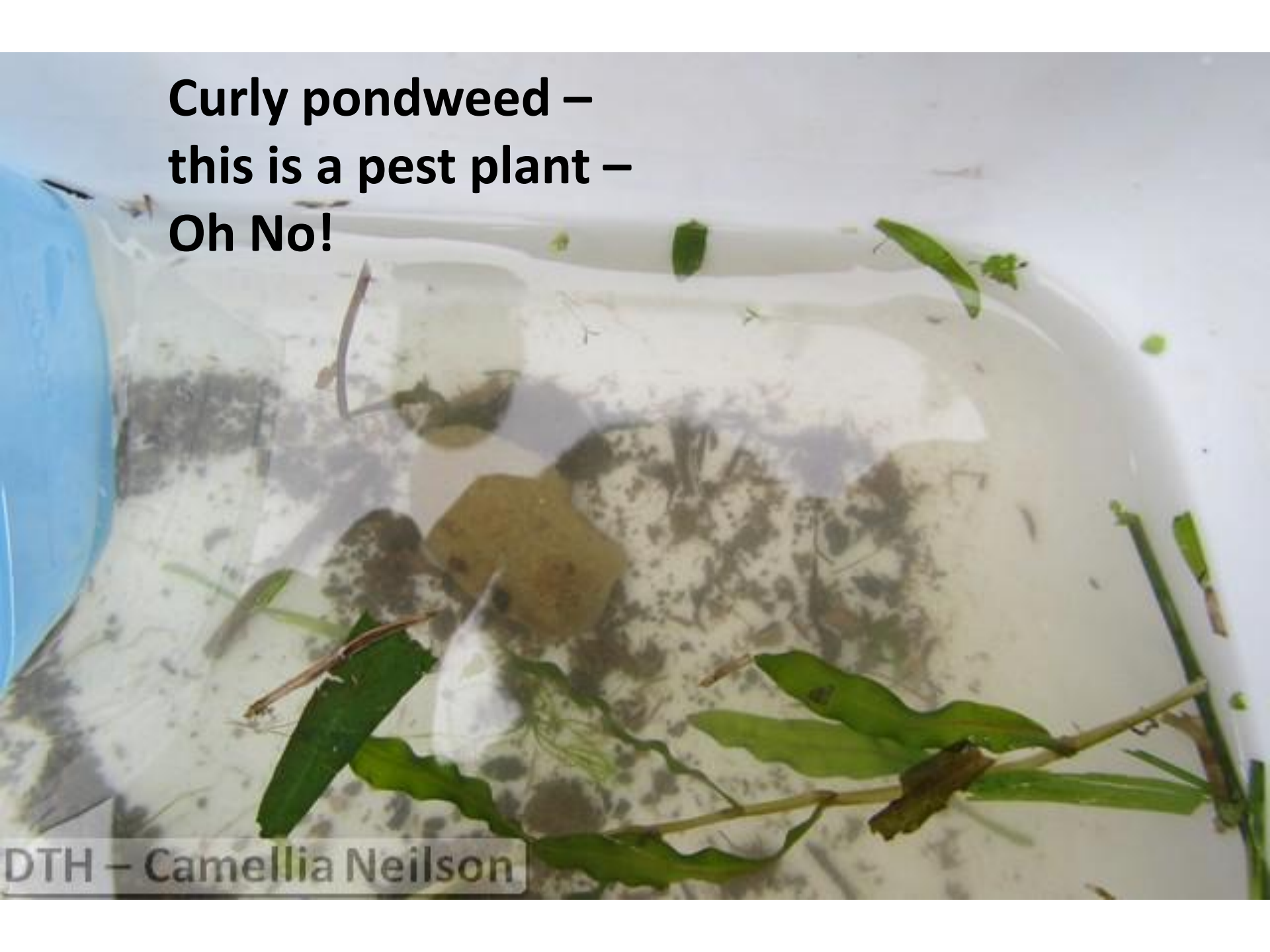
A close-up photograph of a freshwater snail resting on a large, green, heart-shaped leaf. The snail has a brown, conical shell and its body is extended. The leaf is part of a plant in a clear container, with other green leaves and stems visible in the background. The lighting is bright, creating some reflections on the water surface.

**Freshwater
Snails – they
get a score of 3**

DTH – Camellia Neilson

**Curly pondweed –
this is a pest plant –
Oh No!**

DTH – Camellia Neilson



**Time to pack up
now...don't
forget to Check,
Clean and Dry
that equipment
so we don't
spread any of
those pest plants
around!**



DTH – Camellia Neilson

**And time for a quick debrief...so how healthy is the
Waiarohia Stream??**



DTH – Camellia Neilson

Test	Result	What this means
Clarity	82cm	Good
pH	6.5	Good but slightly acidic
Temperature	14 degrees Celcius	Good
Flow	0.3 m/s	Good
Macroinvertebrate sampling:		Good
Backswimmer	1	5
Amphipods	7	5
Flat Mayflies	23	8
Water Spider	1	5
Water Boatman	4	5
Rounded Snails	10	3
Worms	3	1
Shrimps	16	5
Dytiscid Beetle	1	6
Free-living Caddisflies	1	5
Fish Present:		
Mosquitofish (Gambusia – pest fish)	3	Not good

The Waiarohia Stream needs your help!! Over the summer it's temperature spikes to up to 25 degrees celcius in places – that's the warmest stream in the whole of Northland!

The stream also receives a lot of stormwater runoff including pollution from roads, runoff from farms and houses and rubbish which eventually ends up out in our harbour.

The Waiarohia Stream has lots of water weeds in it including Oxygen Weed, Curly Pondweed and Parrot's Feather.