DRAYTON RESERVE 101 RAMBLE Mt Pleasant School September 2017

1. START

   Did you know ….that New Zealand was covered in native plants and filled with native animals (birds, bats, seals, fish, lizards, frogs and insects) for millions of years…. until only a few hundred years ago?
   Most of these native plants were felled by our ancestors for timber or burnt or drained for farms or settlements.
   Most of the animals were hunted for food or killed by pollution or changes to their habitats.
   In addition to this, many foreign diseases, seeds, plants and animals have been, and continue to be brought into New Zealand, with insufficient thought given to potential damage to our native species and ecosystems.

   We are now realising just how much our unique resources and natural heritage have been damaged or lost and how this diminishes our quality of life, our economy and our pride as New Zealanders.

   Drayton Reserve also used to be a native forest full of native birds, insects, fish and reptiles. It was cleared for farming about 170 years ago and eventually left to be taken over by mainly introduced plants and animals.

   Our City Council made it a Reserve and started a programme of native planting about 20 years ago, but stopped several years ago because of insufficient money. I persuaded them last April, to let a group of local volunteers get involved and we are now regularly working to bring back the native forest and its animals, to this valley.

   Our group wants to ensure that our local native plants and animals don't die out, but instead return to our community and multiply, so that we can all enjoy them, learn more about them and learn how to live with them into the future.

2. MAIN/DRAYTON LANE TRACKS JUNCTION

What TREES are there?….There are 8 different ECOSYSTEMS within the Reserve, each distinguished by land features, such as how steep, how high above the sea, how far up a hillslope (bottom/plain, toe, foot, lower, upper and spur/top), how sunny (aspect), what soils or rocks and how close to the stream.

Above the main track from here, is the “hillside foot slope” ecosystem and the main trees are Totara, Matai (black pine) and Titoki.

Below the main track is the “hillside toe slope” ecosystem and the main trees are Wineberry (makomako) and Lacebark (houhere).

Along the stream edge (which flattens out further upstream from here) is the “floodplain” and the main trees are Kahikatea (White pine) and Tree fuchsia (kotukutuku).

There are hundreds of other types of native trees, shrubs, grasses, ferns and ground-covers which used to live together in our forest and we will gradually return all of these too.

TO DO:

Find each of the trees. Measure the Totara’s height and girth (around its trunk). If we do this each year we find it’s “growth rate”.

Our native plants are not just good to look at! Most of them can provide us with other needs such as food, timber, fibre and medicine. How many other uses can you think of?

Kahikatea and Totara were around at the time of the dinosaurs more than 100 million years ago and each tree can live for 1,000 years.

(Check out the “Bear Cave” on the way to the next station. This was started by some unknown kids after the earthquakes and is now full of bears!)

3. POOL DOWNSTREAM OF BRIDGE

What's in the STREAM?….we don't know yet, but it doesn't look good! In summer and autumn it can be mainly dry. We plan to measure and gradually improve the water quality for aquatic animals.

The big tree is an introduced Grey willow which will need to be cut out. We hope to reinforce the big rocks damming the stream to enlarge the pond a bit and ensure it holds water throughout the summer. This will provide a better habitat for aquatic animals and give us a reliable source of water for fire-fighting and watering seedlings.

There are a lot of fine soil and clay particles discolouring the water, which come from excessive storm-water seeping down the hillsides and we hope to get the Council to better control this.

We also need to encourage people living around the Reserve not to wash their cars on their drives or roadsides because the soapy wash-water ends up in the stream. If they wash their cars on a lawn the wash-water will soak in and be purified.
TO DO:
Take a sample of the water with a bottle and see if there are any organisms in it. Carry the water with you until you find a new seedling which needs a drink!

4. WATERFALL LOOKOUT
   What's in the SOIL?....We have started finding out by putting "logs" in different ecosystems and checking to see what starts hiding under them.

   You may see native beetles, slugs, centipedes, huhu grubs, spiders, snails, cockroaches, ground weta and earthworms, many of which break-down branches and leaves to form humus in the soil.

   There are also tiny mites, springtails etc. and masses of things too small to see including bacteria and fungi, which feed on sugars from plant roots and transfer minerals to the plants.

The Redcliffs Community Shed have been making “weta motels” for us to put up trees (hollow boxes with a small entry hole). We will soon be able to re-introduce Tree weta into the reserve and they will be safe from mice and rats if they live in the “motels”.
TO DO:
Lift the “log” to see what’s hiding under it. Dig a hole to see what is living in the soil. Check out the huhus and ground weta which we might have there for you to see.

5. ROCKY OUTCROP ECOSYSTEM
   We have just finished clearing and planting this area. Most of the plants are small-leaved shrubs which grow in thin soils on hot ,dry, rocky slopes. It might not look like it, but there are 20 different types (species) here! Some you may have heard of….silver tussock, meuhlenbeckia, hebe, native broom, mikimiki, prostrate kowhai, matagouri, spaniard and biddibiddi. Many of the species have small flowers and berries, so that’s great habitat for butterflies, moths, bees, flies, caterpillars, locusts, lizards and birds.

   When we planted we had some of the older school students helping and we shifted some of the rocks around to make safe crevasses and holes for lizards to live in. We hope to re-introduce geckos here one day, but in the meantime we have seen several common skinks.
   TO DO:
   Check out the names of the different types of plants. We may have a skink for you to look at. Some older students may be there to talk about their work and project.

6. MAIN/AVERY TRACKS JUNCTION
   What ANIMAL PESTS are here?.....many introduced animals which like to eat our birds and reptiles and don’t have enough predators to control them.
   We have wasps, mice, rats, hedgehogs, weasels, ferrets, stoats, possums and cats.

We have 1 stoat trap, 17 mouse/ rat/hedgehog traps and 8 possum traps along the main track and several neighbours are also trapping mice, rats and possums. We check them regularly and report monthly the numbers caught.

TO DO:

We can show you a rat trap and a possum trap and how they work. We may even have dead animals to show that the traps do work!

You could try and set a rat trap!

If you don't like dead animals! You may like to do a BIRD COUNT…

Try and stay quiet for 2 minutes and look and listen for birds and bird calls. How many of each of these did you see or hear…….

Bellbird…..Fantail…..Greywarbler…..Silvereye…..Swallow…..(Natives)

Blackbird…..Quail…..Sparrow…..Chaffinch…..Goldfinch……(Introduced)

7. TRACK AT STREAM BELOW WATERFALL

What PLANT PESTS are there?……lots of introduced plants which flourish here and don't have enough insects to eat them!

We have (at least) blackberry, Scottish broom, fennel, giant hogweed, hemlock, gorse, salt bush/bone seed, pride of Madeira (Echium), pigs ear (Cotyledon), nassella tussock, nightshade, and veldt grass.

Most of these weeds will die off once native trees grow above them and shade them, so we plant tree seedlings and clear a small area around them twice a year (so they don't get smothered) and in a few years they grow above the weeds and nature does the rest!

We also try and stop weeds seeding and spreading further by cutting out those which are flowering or at least cutting off seed heads. The branches we cut out need to be cut up into half-metre lengths or less and squashed down to ground level where they stay damp and the soil animals chew them up and fungi rot them. If they lie above the ground they stay dry and take many years to rot.

TO DO:

Try breaking some fennel off at ground-level or pulling out some nightshade or small broom or saltbush plants. Don't touch giant hogweed (also called wild parsnip because it looks like parsnip) as it can give a nasty rash, even blisters. Also don't touch hemlock (poisonous), gorse (prickles) or blackberry (thorns).

THANKS FOR COMING

Come again as often as you like. Did you know that spending a little time regularly in a natural environment like this Reserve, improves your happiness, health and creativity? (yes, scientifically proven!).

If you want to volunteer any time or resources to this long-term community project, contact Dave Bryce 021363498 or email: ecosolutions@xtra.co.nz to go on our mailing list.