DRAYTON RESERVE BIRDLIFE NOV 2018

HISTORY

This Reserve had been a native forest full of trees, birds, insects, fish, bats & reptiles for millions of years.

About 170 years ago early settlers felled trees for building timber and cleared and drained land to establish farms instead of forest. They also introduced many animals, insects, birds and plants from their homelands. Many of these have flourished without their natural predators and become pests in the NZ environment.

WHY RESTORE THE FOREST?

We have learnt many things from our history:

* most of our native species are found nowhere else in the world;
* we depend on nature and the environment for everything we have and eat;
* we must therefore care for the environment and not take from it without giving back to it, which is what all other organisms do;
* we have removed so much forest that many species are heading for extinction, species which may be able to help us somehow in the future, eg antibiotics.

By restoring this forest we repair past damage, we create a forest we can come to regularly to learn about and enjoy nature (without having to travel long distances and also damage the climate with vehicle emissions), we encourage native birds, insects and plants to spread throughout our community and we learn to live with and use and care for our unique NZ environment.

ECOSYSTEMS

 Ecosystems are parts of the environment which have mainly different soils, plants, animals and insects. In this Reserve we have 8 ecosystems ranging from sunny, dry, steep, shallow, rocky soils with small plants, butterflies and lizards, through to shady, damp, deep soils with tall trees and forest birds.

Ecology is the study of how the different species in an ecosystem relate to each other. They can be as food, competitors or predators and we will identify some of these.

Niches are different roles or functions that species have in an ecosystem and we will also look at the niches of birds in the food chain ie what different birds eat.

FOREST FLOOR

Take a look in the leaves and soil under your feet. You will find many different insects, worms, spiders, snails, etc **What birds eat these?**

Originallyit would have been: **Kiwi, Weka and Robins,** as well as lizards, tuatara and bats. All of these are adapted to feeding on the ground, especially having strong legs.

Now we have instead: **rats, mice and hedgehogs,** as well as lizards. These are bird competitors and can also be predators on bird eggs and chicks. There are also several introduced bird competitors in this niche including Blackbirds, Thrushes, Starlings, Dunnocks, Pheasants, Magpies, Quail, House Sparrows, Chaffinches and Pigeons.

We hope to significantly reduce the mammalian pests and thus increase lizards and later re-introduce **Robins and Bats**.

TREE TRUNKS

In and under the bark you can find huhu and other beetle grubs, spiders, termites, flies, caterpillars etc **What birds eat these?**

Originally it would have been: **Tomtits, Grey Warblers, Kaka, Brown Creepers, Shining Cuckoos, Riflemen & Yellowheads.** Apart from kaka, these are small birds with small slender beaks for prizing out insects.

Now we have: **rats and possums** (both bird competitors and bird egg andchick predators), along with **Grey Warblers and occasional Shining Cuckoos.**

We hope to reduce pests so that we could re-introduce **Tomtits, Riflemen and** **Brown Creepers.**

FLOWER NECTAR

There are numerous flowering plants in the reserve although most of them are still too young to have any or many flowers. The main ones at present are Harakeke (Flax), Manatu (Ribbonwood), Houhere ( Lacebark), Ngaio, Kohuhu (Black Matipo), Tarata (Lemonwood), Ti kouka (Cabbage Tree), Kapuka (Broadleaf), Five Finger, Mahoe, Mikimiki, Meuhlenbeckia, Koromiko (Hebe), Korokio (Corokia) and Karamu (Coprosma Robusta).

Originally, the birds drinking nectar (and in doing so pollinating for plant fruit), would have been **Bellbirds, Tui, S.I. Saddleback and Silvereyes.** Apart from Silvereyes, these have long beaks and long tongues to reach into flowers.

Now we have **Bellbirds and Silvereyes**, as well as competitor birds including Starlings, as well as competitor and predator **rats, mice and possums.**

Lizards, bees, wasps, butterflies and moths also drink nectar and pollinate fruit and introduced **wasps** are a major pest.

We will continue to trap pests and also plant flowering trees and hope to attract **Tui** soon.

Also, many types of flies, bees, wasps, beetles, weevils etc are attracted to flowers and originally the birds feeding on these would have been **Fantails, Welcome Swallows and Grey Warblers.** These are small birds, very agile in flight (sometimes even hovering) and catch flies on-the-wing, with their small beaks. **Bellbirds** also eat insects in tree bark and are surprisingly agile at catching flies in the air too.

These birds are still present in the Reserve and our pest controls and planting should result in higher numbers in future.

At night, **Bats** and **Morepork** would have fed on flies and moths.

FRUITS

The flowering trees above also produce fruit, from tiny berries to “small plum” sized fruit.

Originally, the birds eating fruit and also spreading seed (to grow into new plants), would have been **Tui, Kokako, Kereru, Kaka, Kakariki and Bellbirds.** These are generally large birds and only the Kereru has a beak large enough for Pigeonwood fruit. Kereru also eat whole flowers and leaf buds. Lizards eat fruits of the smaller plants like Mikimiki.

Now there are only **Bellbirds** and lizards, along with competitor and predator **rats, mice and possums** and competitor birds including Blackbirds, Thrushes and Starlings.

We hope to soon have enough fruit to attract **Kereru and Tui**, both of which may already have been here but not seen.

LEAVES

Originally there could have been **Moa** (now extinct) browsing on tree leaves, **Kereru** wouldalso eat some types of leaves as would Tree Weta. The caterpillars of many other insects, especially moths eat leaves too.

Now **possums** browse leaves, but we hope to significantly reduce these by trapping.

We also hope to re-introduce Tree Weta and have firstly put out some “Weta Motels” to see if there are any already here.

GRASSES & SEEDS

Originally there would not have been many grasses in this Reserve, but there could have been **Takahe** feeding on them as well as Locusts.

Now there are still Locusts, but also **mice and rats** and a wide range of introduced birds including Goldfinches, Chaffinches, Greenfinches, Redpolls, Yellow Hammers and Skylarks.

We plan to leave a small amount of grasses to retain a habitat for the Locusts.

CARNIVORES - APEX PREDATORS

Originally there could have been **Haasts Eagles, Karearea (Falcons), Kahu (Harrier), Ruru (Morepork), Kotare (Kingfisher) and Karoro (Black-backed Gull).** These are all at the top of the food chain, so not in such large numbers as other birds. They mainly soar high above the forest and swoop down on prey. Karearea take flying birds on the wing, sometimes within the forest and Ruru and Kotare use high perches to spot their prey.

Apart from Haasts Eagle (which is extinct) and Morepork, all these birds are still present now, with the addition of the introduced Little (German) Owl. In addition are the introduced mammalian predators: **Stoats, Weasels, Possums,** **Rats, Dogs and Cats.**

We hope to attract **Morepork** back to the Reserve by erecting a suitable nesting box. They mainly eat moths, weta and lizards, but hopefully could also catch mice and even rats!

NOTES FOR PARENTS/TEACHERS

You probably won’t see many birds because of disturbance from so many people in this group. It is best to stay still and quiet for a few minutes.

You won’t see any native birds on the ground, but may see lizards in open sunny spots.

Look at the bark of Cabbage Trees or Ngaio for grubs and look out and listen for Grey Warblers and Bellbirds in the trees.

Look out for flowers on Flaxes, Ngaio, Mahoe, Fivefingers, Broadleafs, Cabbage Trees & Ribbonwoods

Look out for fruit on Fivefingers, Lemonwoods and Black Matipo

Lookout for Silvereyes in the trees on small flowers & fruit

Lookout for Bellbirds on Flax flowers

Lookout for Fantails following you catching the insects you disturb

Lookout for Swallows swooping above and around trees, catching insects

Lookout for Harriers and Black-backed Gulls soaring high in the sky

Lookout for Kotare on high perches beside open areas.

 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.

Check out our website: [www.draytonreservevolunteers.org.nz](http://www.draytonreservevolunteers.org.nz)