

Tēnā koutou katoa

It has been an action packed first term for me and I have thoroughly enjoyed working with lots of awesome schools and learning groups from around the region. We've been out in the great outdoors, with lots of hands-on learning about rocky reefs, stream habitats, rainforests and wetlands.

This issue of SITE focuses on the Rainforest School at Pukeiti, featuring the activities we've been running with schools over this last term. If you're interested in booking a trip, it's worth having a look at the Pukeiti Rainforest School Study Unit to see the broad range of activities on offer (<https://www.trc.govt.nz/environment/working-together/schools-programme/rainforest-riverside-and-woodlands-schools/>).

These activities can be adapted to suit the learning focus of the class and so if you are interested in running something slightly different then feel free to get in touch. For example, we were able to adapt our existing stream study to suit a request from Sacred Heart Girls' College. Having seen whio (blue duck) on a fieldtrip to Turangi, students from the College were keen to investigate what whio feed on in Taranaki. Blue ducks don't occur in the streams that run through Pukeiti Rainforest at the moment, making it an ideal location to study whio food without disturbing the ducks. We found a diverse range of juicy bugs including some supersized stonefly, magnificent mayfly and chunky dobsonfly larvae. We also calculated macroinvertebrate community index (MCI) scores of over 130, indicating excellent water quality, as you'd expect for pristine rainforest streams.

To book a trip to Pukeiti Rainforest or any other field trips and lessons, email me on education@trc.govt.nz, the sooner the better to get your preferred dates. We are here to provide advice on any aspects of environmental education relevant to TRC responsibilities. Please feel free to call (06 765 7127) or email (education@trc.govt.nz) if you have any queries about how we can help out.

Nāku noa nā,

Dr Emily Roberts

Pukeiti Rainforest School

This issue of SITE focusses on Pukeiti, a flourishing New Zealand rainforest ecosystem nestled amongst the ranges of the Egmont National Park, providing an outstanding venue for environmental education. The area has been identified by the Taranaki Regional Council as a Key Native Ecosystem due to its high indigenous biodiversity values. Since 2013, the Council has been running the Rainforest School at Pukeiti, enabling students to experience first-hand the high diversity of native plants, birds and invertebrates. The rainforest provides an ideal setting to learn about ecological threats and how these threats can be managed to enhance native biodiversity values.



Pukeiti Rainforest covers 360 hectares, consisting almost entirely of indigenous forest but with approximately 25 hectares of cultivated gardens. The rainforest provides an important source of food and habitat for wildlife, enabling ecological linkages between the Kaitake and Pouakai Ranges.

Pukeiti

Rainforest School

Field trips to Pukeiti typically run between 10am to 2pm and incorporate a rainforest walk and one other activity of the school's choosing. Here are some of the activities run so far this year.



Busy potting plants with Woodleigh School



Sacred Heart Girls' College check what food who feed on during their stream study

Stream study

The streams that run through Pukeiti are pristine and shaded, providing great habitat for freshwater macroinvertebrates.

Students will learn:

- How to collect and identify stream macroinvertebrates
- What role these bugs play in the freshwater ecosystem
- How the species present indicate the health of the waterway.

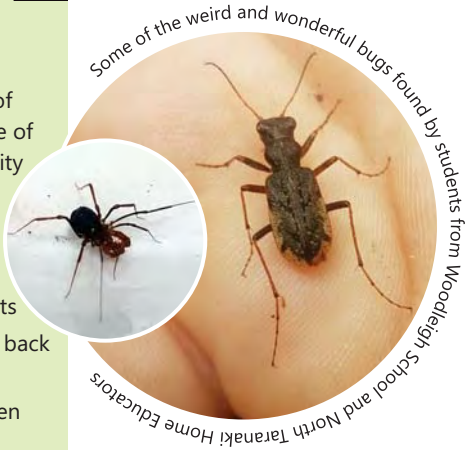


Pot a plant

This activity makes use of the abundance of native seedlings at Pukeiti by potting some of them up to grow and spread the biodiversity values to your school or backyard.

Students will learn:

- How to identify native seedlings
- How to transplant and pot up the plants
- How to care for the plants when taken back home or to school
- What wildlife the plants will attract when they are fully grown.



Some of the weird and wonderful bugs found by students from Woodleigh School and North Taranaki Home Educators

Creepy crawlies

Pukeiti provides home to an amazing diversity of invertebrates that play a crucial role in the rainforest ecosystem. They decompose leaves, pollinate plants and provide food for native birds, reptiles and other invertebrates. This activity involves hunting for bugs.

Students will learn:

- How to use pitfall traps to collect creepy crawlies
- How to identify invertebrates using NatureWatch NZ and other online guides
- The different roles that these species play at Pukeiti.



Exploring the rainforest with Sacred Heart Girls' College.

Rainforest walk

Students will learn about native animals and plants, and about how to control introduced predators that pose a threat to these species. The walk incorporates the following components:

- BioBlitz (identifying and photographing native species)
- Tree houses
- Northern rata
- Tree top walk
- Native fish.



BioBlitz Pukeiti Rainforest

We are working with schools to find and identify as many native species as possible in Pukeiti Rainforest, building a growing picture of biodiversity within the Key Native Ecosystem. Observations are being recorded in the BioBlitz Pukeiti Rainforest project on NatureWatch NZ where experts from around New Zealand help with the identification of the uploaded images.

From school visits during last term alone we managed to record 123 observations and 80 species including a flowering easter orchid, blooming scarlet rātā vines, a possible new species of cave wētā, a freshwater limpet that glows in the dark, bellbirds galore and New Zealand's smallest indigenous skink the copper skink.

We had help identifying species from a wētā evolutionary ecologist from Massey University, an orchid expert from Northland, an aquatic entomologist at NIWA and a botany curator at Museum of New Zealand Te Papa.



Stats

Totals	Most Observations	Most Species	Most Observed Species
217 Observations »	woodleigh_school 43 observations	emily_r 35 species	New Zealand Pigeon 5 observations
134 Species »	emily_r 41 observations	johnb-nz 30 species	Dawsonia superba 5 observations
17 People »	sacredheart 34 observations	fergus 30 species	Scarlet Rātā Vine 4 observations
	johnb-nz 34 observations	woodleigh_school 24 species	Fantail 4 observations
	fergus 30 observations	sacredheart 20 species	King Fern 4 observations



Scarlet rātā vine



Tomtit - miromiro



Freshwater limpet that glows in the dark



A possible new species of cave wētā



New Zealand's smallest indigenous skink the copper skink

Go and explore the site and see what fascinating species you can find
<http://naturewatch.org.nz/projects/bioblitz-pukeiti-rainforest>

Stunning starfish with Okato Learning Group

Okato Learning Group made the most of a couple of low spring tides at the beginning of March, exploring the reefs off Greenwood Road and Manihi Road. They came across many species they had not seen before including lots of massive seven-armed starfish and colourful ambush starfish. If your class wants to find out more about starfish and other extraordinary echinoderms it's well worth checking out this excellent interactive guide available on the NIWA website: <https://tinyurl.com/y8zujzsa>



Goblin forest with Central School

Central School had a great time exploring the Connett Loop Track up at North Egmont. They learnt about the hardy native species that live there and why it is so important to protect them from introduced predators. Find out more about what they found that day on the BioBlitz for Egmont National Park <http://naturewatch.org.nz/projects/bioblitz-egmont-national-park>



This and That

Rotokare Rocks!

We highly recommend a visit to Rotokare Scenic Reserve as a complementary field trip to the Pukeiti Rainforest School. At the Reserve students can experience first-hand how native wildlife flourishes in the absence of introduced predators. The Rotokare Scenic Reserve Trust offers a variety of environmental education programmes and supporting resource packs that provide a strong curriculum-linked experience for early childhood through to senior secondary school students.



See their website www.rotokare.org.nz and get in touch with environmental educator Ash Muralidhar educator@rotokare.org.nz to find out more.



For assistance or information on environmental education contact:

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