

## Welcome back!

I trust you all enjoyed your well earned break and have returned to school totally refreshed and looking forward to another rewarding year.

Thank you to the hundreds of teachers who involved the Council in their programmes last year. Certainly the earthquake exercise titled New Zealand Shakeout enabled me to meet and work with many teachers I had never previously met. I hope they, plus the many teachers who regularly request support, continue to do so.

Once again this year we will be offering professional development sessions to teachers planning rocky shore or mountain based programmes. However, our switch in recent years to more direct support at syndicate or staff level appears to be working, with over thirty meetings held last year. I know many of you feel that the last thing you want is another meeting and I sympathise with that view, but I can assure you that these meetings are short, purposeful and from feedback received, valued by teachers. Many of the meetings are held early in the school year so teachers can see what level of support and what programmes we offer them. Please get in touch if you would like me to attend any meeting to assist with your planning.

Thank you to the many teachers who filled in the survey on New Zealand Shakeout. Your opinions, ideas and constructive comments were greatly valued and have been forwarded to our local Civil Defence Emergency Management and the Ministry of Civil Defence Emergency Management in Wellington. This exercise was a tremendous success, especially for the huge level of support from schools and early childhood centres right across the country.

Many educational institutions used the exercise as a catalyst to review their emergency management systems and in particular to look at how they would cater for the welfare of their students should an earthquake strike during school hours. It looks highly likely that this exercise will be repeated in the future. In the meantime our congratulations to all who took part.

Have a great term everyone.

**Kevin Archer**

## Pukeiti

encounter the mystery

Pukeiti is a wonderful asset for our region and this newsletter examines some of the activities that are available to schools during a visit there (see pages 2 and 3). Some activities are being tested for the first time and we hope to work with schools to test their suitability. With the feedback from teachers we hope to be able to improve the activities and include them in a mini unit on Pukeiti which will be available in hard copy and on line later this year.

Urenui students entering the large hollow inside the ancient Giant Rata during a recent visit to Pukeiti. They set a record for the number of students able to get into the space.

Students line up on the swing bridge. ▼



## Seaweek



Local Seaweek organisers decided to have a 'November Seaweek' instead of running one at the usual time in March. One of the reasons was to give teachers an early opportunity to have a look at the recently opened Department of Conservation marine education display which is situated very close to Chaddy's Charters near the lee breakwater in New Plymouth. Teachers attending the course looked at the marine plant and animal life at Kawaroa, visited the Marine Education Centre, viewed a DVD showing the plentiful marine life living in the marine reserve close to New Plymouth and were shown the Little Blue Penguin habitat nearby. Those who attended learned plenty in the space of three hours. I have the contacts if further information is required about any of these activities.



## Pukeiti welcomes school visits

Pukeiti is one of the world's largest rhododendron collections uniquely nestled in rainforest between Mt Taranaki and the coast, just south of New Plymouth. Thanks to the efforts of countless volunteers since it's creation 60 odd years ago, we all have the opportunity of experiencing its huge diversity and beauty. The Taranaki Regional Council assumed ownership and management of Pukeiti on 1 July 2010, to secure its future. The Council also owns and operates Tupare (New Plymouth) and Hollard Garden (Kaponga), on behalf of the people of the region.



### Information for schools

**Hours:** School visits are held between 10am and 2pm.

**Cost:** Entry to Pukeiti is free for all visitors.

**Weather:** Pukeiti is a rainforest so raincoats are essential.

**Adult:** Student ratio. The Council's policy states that a 1 to 5 adult - student ratio is required with school visits to any Council gardens.

**Group numbers:** In general groups of up to 40 can be catered for. Larger groups tend to be difficult to manage and much of the value of the visit is lost if students cannot hear what the group is being told.

**Risk Analysis Management (RAM) sheet:** This needs to be sighted by either the Council Education Officer, Kevin Archer or the Council officer in charge of the visit on any day preceding the visit.

**Road access:** The road has been improved in recent years, however, it is a winding road and should be taken very slowly and carefully.

**Months available:** School visits are welcomed in any month apart from October and the first half of November.

**Programme rotation:** Depending on group numbers and staff availability, it is possible to rotate groups doing similar activities or have different groups doing totally different programmes. The actual programme for the day needs to be decided on prior to the visit.

### Activities available to schools

With up to three and a half hours available, allowing time for morning tea and lunch, teachers need to consider carefully what activities will give the best value. Approximate times of the activities are shown.

#### Walks

There are three walks available and teachers need to take into account the age and fitness levels of their students and adults before deciding the most suitable one.

#### The Deep Rainforest Walk

One hour 15 minutes

This walk involves many stops to identify the structure of the forest, the forest ecosystem and the interdependence of the elements in it. Students will study a typical mountain stream, as well as some iconic Pukeiti plants and their uses, origin and history. The session includes the history of Pukeiti, its future and students will have a chance to break the record currently held by Urenui School for the Giant Rata and its temporary human inhabitants. Students will also be encouraged to look out for, and collect, certain seedlings for later plant potting.

#### The Light Rainforest Walk

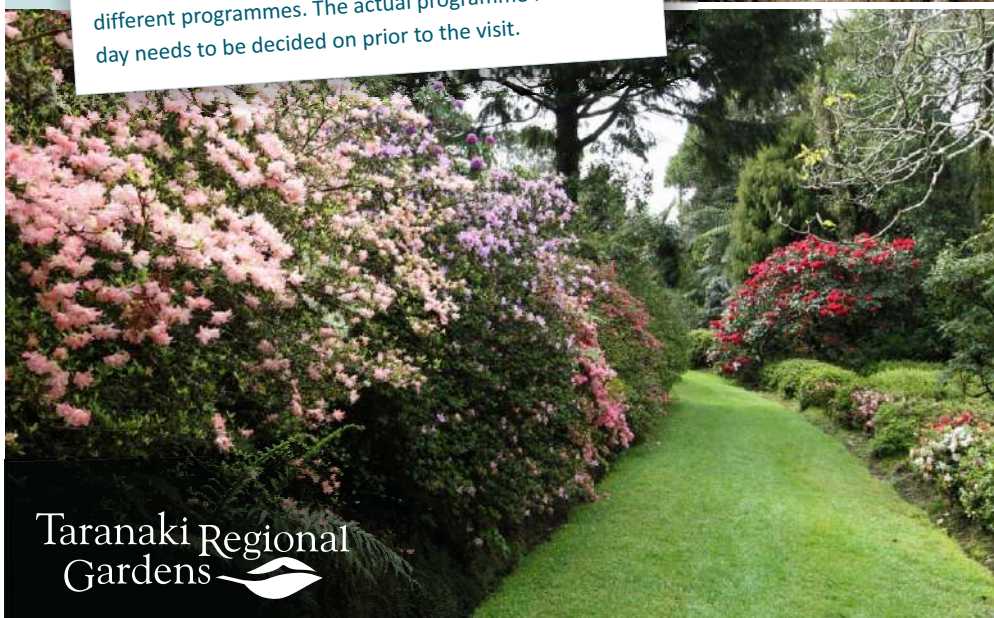
45-60 minutes

This is similar to the Deep Rainforest Walk. It is shorter, with fewer plants identified, but still provides an opportunity to break the Giant Rata record. As in the longer walk, students will be encouraged to look out for and collect seedlings for later plant potting.

#### The Wonderful Waterwheel

15-20 minutes

This short walk is best suited to very young students. It provides an opportunity to see some of the weird and wonderful plants in the Covered Exhibition Walks and to discover and learn about the historic waterwheel.





## Tall Tree Tales 40 minutes

This is a fun activity, using different manual methods to assess tree heights. Students will hear a story or two about some special trees at Pukeiti and around the world.

## Terrific Trees 40-60 minutes

Learn about plant life cycles, the parts and functions of trees, adaptations to their environment, the part trees play in the forest ecosystem and how humans and other organisms depend on trees for survival. The DOC website <http://bit.ly/11vEeGH> provides some terrific information for teachers and students before or after a trip to Pukeiti.

## Flowers and Rhododendrons

45-60 minutes

Learn about the life cycle of plants, the parts and functions of a flower and seed dispersal (where to/how/what for). Students are encouraged to bring their own unique recycled container to sow their own seed from Pukeiti in e.g. ice cream container, old boot, old teapot etc.

## Pukeiti - Encounter the Mystery

30 minutes

Students will learn the history and stories of Pukeiti - local iwi, pioneers, garden makers, plant-collectors, rhododendrons and other exotic plants, conservation and biodiversity, rainforest. Also learn about other special properties owned and managed by the Taranaki Regional Council - Tupare and Hollard Gardens.

## Creepy Crawlies 60 minutes

A chance to find out about the worms, slugs, spiders, bees, centipedes and weta that live at Pukeiti and the crucial role they play in the garden and rainforest ecosystem. Hear how you can encourage them to live at your place and assist your garden to grow well. You might even learn how to build a weta house for your school or home.



## Pot a Plant from Pukeiti

30 minutes

This activity usually follows one of the walks and often involves potting seedlings students have collected during their walk. Students will discover what is so wonderful about these plants, their place in the forest ecosystem, and how to look after them once they are taken back to school or home. Labelling will include the seedling's common, Maori and Latin names. Students will also learn about plant maintenance and the best time for planting.

## River Study

Discover the Invertebrates - One hour 15 minutes

There is an ideal site at Pukeiti for a river study in an unnamed stream not far from its source on the mountain. Students can discover and identify the invertebrates that live there and use their presence to assess the water quality. This data could be used to compare results recorded further down the stream's course or with another stream closer to the coast.

## Birds at Pukeiti 45 minutes

Long ago, many birds lived at Pukeiti and here is an opportunity to observe some of the ones that live there now. Find out about habitat restoration, biodiversity, seed dispersal, pollination and pest control at Pukeiti. Learn how to encourage birds to your garden at home.

## Pioneer Camp 60-90 minutes

Learn how the bush pioneers made shelter and fire, co-operated with each other and how they adapted to the environment. There will be an opportunity for students to try to emulate the bush pioneers themselves.

## Strange Plant Adaptations

40-60 minutes

Learn a little about the extraordinary lengths some plants go to to survive. Find out about some of the more unusual organisms at Pukeiti such as fungi, ferns, epiphytes, climbers and the largest moss in the world!



## Nocturnal Fish Observation

60 minutes

This night-time activity is best suited for classes involved in a school camp or for those studying freshwater native fish. Students will need torches to spot some of our native freshwater fish, including with luck, the banded kokopu which is regarded as one of New Zealand's most endangered freshwater fish species.

## Along the Way

There are many stories to tell as students take part in the various activities on offer. They are likely to hear interesting information about some of the weird and wonderful plants and animals that play a part in the ecosystem at Pukeiti, such as northern rata, hen and chicken fern, nikau, miro, giant himalayan lilies, king ferns, tree ferns, rhododendron and other exotic plants, filmy ferns, giant moss, widow makers, keruru, bellbirds, tui, skink, weta, puriri moths etc.

## Bookings

For initial enquiries please contact:  
**Kevin Archer** Ph 06 765 7127 or  
email: [kevin.archer@trc.govt.nz](mailto:kevin.archer@trc.govt.nz)





It's eyes down and looking as these Waitara High School students try to identify the invertebrates living in the Patea River, during a visit to Stratford last term. The students also looked at Council pest management programmes and were given an overview of Council functions. ▶



## Bits 'n' Pieces

### Environmental Awards 2013

Has your school or early childhood centre been involved with a special environmental project or perhaps your students have done some outstanding environmental activity? If so, you should consider making a nomination for a Taranaki Regional Council Environmental Award.

**Nominations close 31 March 2013**

For further details or a nomination form please contact:

**Rusty Ritchie**

Communications Manager

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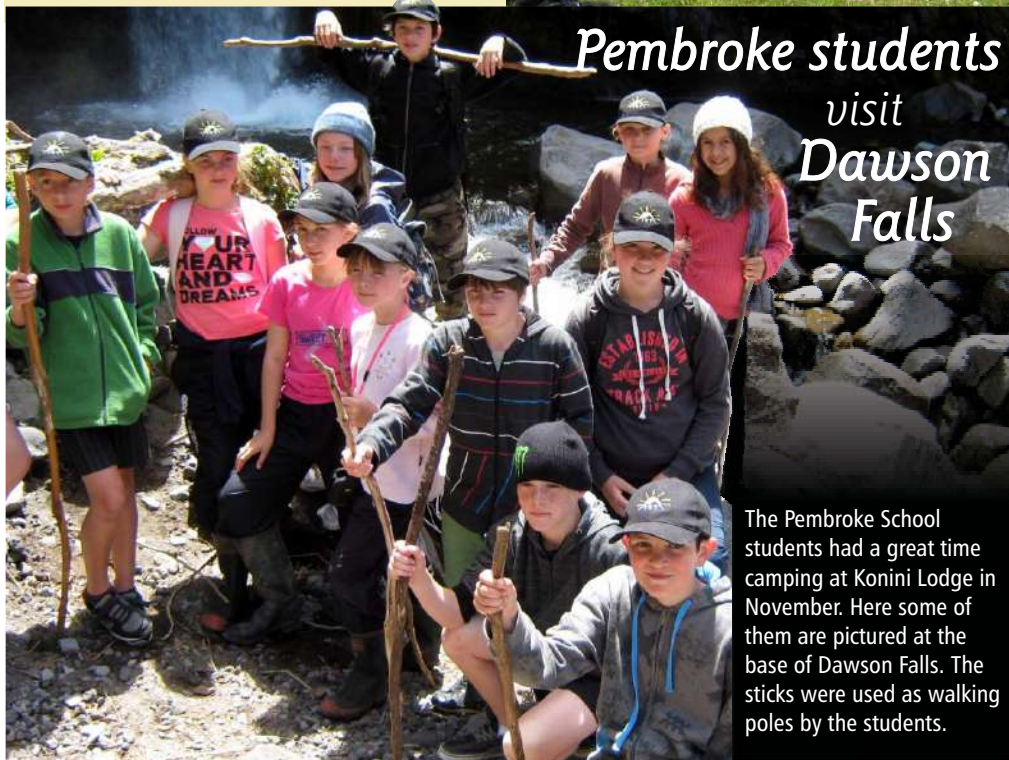
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### Apology

I apologise for the lack of a Junior Environmentalist Page in this newsletter. I know many of your students enjoy the activities on this page but in order to do justice to the topic of this SITE - Pukeiti we need to use both pages two and three. We are pleased to be able to offer schools a range of exciting educational activities at Pukeiti.



## Pembroke students visit Dawson Falls

The Pembroke School students had a great time camping at Konini Lodge in November. Here some of them are pictured at the base of Dawson Falls. The sticks were used as walking poles by the students.

## Teachers study the rock pools at Kawaroa

Teachers worked well during the recent teachers' professional development session at Kawaroa in New Plymouth.



## Eltham Primary juniors at Kawaroa

These young ladies from Eltham Primary and their parent leader look to be very happy in their work during their visit to the Kawaroa rock pools in October.



For assistance or information on environmental education contact:  
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