

# Students taking environmental action

**NZASE Science Communicator Mike Stone follows our August article on the [theory of helping students to take environmental action with four examples from schools in the Auckland region](#).**

## Waiheke High School

Jared Howell, a chemistry teacher at Waiheke High School (WHS) is keen on conservation, having experience in the field both on Great Barrier and on Waiheke. He has been given an MMU to work with two student groups wanting to take action.

Student interest is sparked in the conservation units at each level in this year 7-13 school. As well, in 2018 a pair of dotterels nested on the school grounds, hatching one chick that fledged. From this interest a core group developed focused on conservation and wanting to help the dotterels.

## Links to the curriculum

NZ Curriculum: Education for sustainability at all levels and in achievement objectives for:

- *Health and Physical Education* - Healthy Communities and Environments
- *Science* - the Nature of Science; Participating and Contributing; Planet Earth and Beyond; Living World
- *Social Sciences* - Place and Environment
- *Technology* - Technological Knowledge; Technological Practice

Te Marautanga O Aotearoa:

- *Hauora* - Taiao (health and environment)
- *Pūtaiao* - Papatūānuku
- *Hangarau* - Concepts of hangarau
- *Pāngarau* - Using pāngarau
- *Tiakanga-a-iwi* - The changing world

*Dotterel parent on the cricket field at Waiheke High School. Below: The eggs. Photos: Katherine Cole and Tom Mulvey.*

They discussed the local issues – Waiheke has no possums to eat bird's eggs but does have many rat and stoat predators. Students have studied which pests are causing the problems and where.

The WHS Board of Trustees is paying for tracking tunnels and bait stations, and DoC has W200 traps which are more expensive but use no bait. As neighbouring Kennedy reserve is poison-free, students will use only tracking tunnels and traps, without bait.

Students are using the [TrapNZ app](#) which makes use of GPS to place and find tunnels. Karen Saunders from Native Bird Rescue and Hue Ross from Waiheke Forest & Bird are helping students set up a Dotterel Protection Plan.

Jared found the contacts for community partners – Rat Busters, [Native Bird Rescue](#), [Waiheke Resources Trust \(WRT\)](#), [Forest & Bird](#) and DoC. The students then decided what they needed, wrote emails and phoned the relevant people to set things up.

These partners came to the school, and helped students work out and implement the next steps in their plan. Some provided expertise and others equipment.

Students also rang community people to ask if they were interested in having bait stations on their properties. Students then delivered and sometimes loaded poisoned baits into the plastic traps. Poison is a complex issue on Waiheke – some on the island do not want to use



poisons, and others do not want to kill pests!

A second sustainability-focused WHS group is looking at the rubbish the school generates. They audited the rubbish by collecting all the bins, emptying them out on the field and grouping the rubbish. Their next action is to run a lunch-time Waste Station education session for students, with help from a WRT expert.

Three of the students are attending meetings of sustainability network Green Jam, as well as meetings of the environmental network The Waiheke Collective with the HoF, to tell them about student projects.

### Hobsonville Point Secondary

Hobsonville Point Secondary School (HPSS) runs Learning Projects for about three hours weekly for a whole year. Each teacher is responsible for guiding one project group, although it is largely student-led. The Learning Project must have community partners and must contribute to the community, which gives the project an authentic context.



Biology teacher Andrea Tritton is responsible for the Kaitiakitanga Learning Project, focussed on local conservation. This project has several community partners, but the biggest one is the Kaipataki Project.

Andrea starts by exposing students to many different things, such as a trip to Tiritiri Ma-

tangi, an island sanctuary in the Hauraki Gulf; exploring the local area with a conservation expert to get a different perspective on familiar places; and gathering secondary information by looking at other conservation projects.

Students then consider and plan the action they would like to take. This year her students are planting trees, maintaining a nursery, protecting a local endangered plant, tracking



## roots&shoots

Some schools have found Jane Goodall's [youth service program Roots & Shoots](#) useful. Its aims include inspiring individuals to take action to make the world a better place for people, animals and the environment, and developing leaders who will make the right choices to build a better world. Its toolkit, with different versions for younger and older students, enables participants to:

1. **Explore stories of change-makers** and their leadership traits and evaluate their own strengths and weaknesses.
2. **Map their local community**, identifying areas of need and resources for support for people, animals and the environment.
3. **Use this map to design a service** campaign that meets a community need.
4. **Reflect on their leadership traits** again to evaluate personal growth.



*Pest footprints from HPSS student traps. Photo: Andrea Tritton.*

and trapping pests, making weta hotels, and monitoring water quality and biodiversity.

They spend most of the year taking the action and then have to present their project outcome back to the school community at a 'showtime' event. Community, external partners and local primary schools are invited and all project groups must prepare an exhibition of their work.

This makes all students accountable, as they have to present regardless of the success of their project. Students can find and select assessments if they want to gain credits from their work. Education for Sustainability standards are well-aligned with the project process, and so can easily result from their project work.

When Jane Goodall was last in New Zealand, Kristin School ran a Compassionate Leadership day based on the Roots & Shoots

*HPSS students spread peanut butter on traps. Photo: Tia McNicholl*



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philosophy, and included some local schools running project-based learning. Some HPSS students were able to present their work to Jane and get advice on how to engage people in conservation, a great experience for them.

## Newmarket School

Newmarket School is a green-gold Enviro-school that has become involved in pasture painting, first at Highwic and recently on their own school grounds.

Three year 2/3 students first went to Highwic in 2017. They worked with Auckland-based community project [For the Love of Bees](#), discovering which flowers bees pollinated, when and how long they flowered, how tall they grew, and their colours.

Pasture painting involves preparing the beds and planting specific small colourful flowers to attract bees. The students selected the plants and designed the shapes of the beds. In an all-day working bee at Highwic, they spread soil and sowed and watered seeds.

Students from all classes volunteer for the school's Enviro team, which maintains the pasture paintings at Highwic and in the school, as well as other projects. Every three weeks, the 60-strong student Enviro teams spend their lunchtime weeding the Highwic plots.

Teachers and students were deciding what the gardens needed and future steps, and students have increasingly taken responsibility. Enviro student leaders work with their teams of younger students to maintain the gardens, weeding and making their own comfrey tea fertiliser.

### Ngā Kupu

**Hinonga** - Project

**Huamanu** - Bird's egg

**Momo tata korehāhā** - Endangered species

**Pī** - Chick

**Riha rāwaho** - Introduced pests

**Tārore** - Trap

**Tūturiwhatu** - NZ dotterel

**Waerenga** - Garden

**Whakauka** - Conservation

From Te Aka Maori Dictionary



Above: Three of the Enviro team leaders, Taylor, Ashvir and Jingqi, check an edible plant garden at Newmarket School with teacher Reubina Irshad. Photo: Mike Stone.  
Below: Newmarket School students composting at Highwic. Photo: [For the Love of Bees](#).



## Links

- [Backyard trapping](#) - Department of Conservation
- [Biodiversity inventory and monitoring toolbox](#) - Department of Conservation
- [Comparing online tools](#) to monitor traps - Predator Free NZ
- [Build a weta hotel](#) - Te Motu Kairangi
- [Investigating freshwater resource](#) - Whitebait Connection
- [Pasture painting](#) - For the Love of Bees
- [Trees for Survival](#) - Mid-North Island environmental school and community tree-planting programme.



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