

# Biodiversity metamorphosises learning

Moths and Butterflies of New Zealand Trust has launched the School Butterfly Habitat Award to encourage schools to include moth and butterfly education in their curriculum – in turn, getting ākongā excited about the small things that contribute to our unique environment and biodiversity.



Bianca Woyak with students at Burnside Primary School.

Just as we have a variety of native moths and butterflies in Aotearoa, there are also a variety of ways ākongā can engage and learn about them at any stage of their education journey.

The Moths and Butterflies of New Zealand Trust (MBNZT) has a vision to ensure that Aotearoa New Zealand's ecosystems support thriving moth and butterfly populations.

Jacqui Knight, on behalf of the MBNZT, explains how versatile a unit on butterflies can be, both inside and outside the classroom.

"In the past we have seen schools using butterflies as a theme for environmental education, science, maths, art and English," she says.

"The monarch butterfly can even be used as an example in units on migration – but it's more than the monarch. We are interested in how schools are designing learning around our other beautiful native species."

Bianca Woyak, winner of the 2021 Te Puiaki Kaiwhakaako Pūtaiao Prime Minister's Science Teacher award, agrees.

"As adults we often forget about the small things. Ākongā love learning about insects, and moths and butterflies are the perfect, non-threatening insect students can have hands-on learning with.

"The alien-like change that takes place during metamorphosis excites the young and old and gets learners to think more deeply and be curious about the world around them."

## More than the monarch

A "butterfly garden" is more than just a swan plant to encourage monarch butterflies. Many New Zealanders are not aware of our beautiful native species of butterflies and what can be planted to attract them and aid in their conservation.

It is estimated that there are over 2,000 species of New Zealand butterflies and moths. More than 90 percent are found nowhere else in the world – the highest proportion of unique butterflies and moths.

They range from the large pūriri moth (*Aenetus virescens*) in the forests of the North Island, with wingspans of up to 15 centimetres, to the tiny leaf-mining Nepticulidae moths which have wingspans of 2 millimetres.

Teaching ākongā about this rich biodiversity can be done in a multitude of ways.

"A simple step is to invite a local entomologist to the school and run a moth-trapping event, taking photos of what you attract and then recording them on iNaturalist for others to identify," says Jacqui.

## The nature of environmental education

Knowledge about which plants support our native species of butterflies and moths is not widespread, and many people are generally unaware of the conditions that make for an ideal butterfly habitat.

This is something the MBNZT is keen to address, through their new award for the best school butterfly garden or habitat.



Jacqui Knight (founding trustee of the Moths and Butterflies of New Zealand Trust) presents the plaque to KiNZ Mission Heights. Rahimah Milatu also pictured.



Rosalyn and Shahin are planting a mahoe sapling into the native garden at KiNZ Mission Heights. This would attract the green mahoe moth.

**“Skills were developed in science, maths, technology, art, and languages, as well as developing emotional and social competency. This led us to become interested in conservation actions, how to safely observe, identify change and discuss challenges.”**

Rahimah Milatu

“The Daltons School Butterfly Habitat Award was specifically created to encourage teachers who were using butterflies in their learning activities. Creating a butterfly garden can fuel children’s curiosity and help them understand the importance of biodiversity.

“With the right teacher, ākongā can engage in problem-solving skills and learn how they can improve the environment in their school. This learning can be transferred to the improvement of their own backyard and community,” explains Jacqui.

For example, she says if you have one swan plant and you end up with too many caterpillars on the host plant, ākongā soon learn about the need for planning.

“This is one of the basics of farming. Letting ākongā see the consequences of ‘too many caterpillars/not enough food’ teaches them about sustainability.”

The Daltons School Butterfly Habitat Award has been established to encourage schools to think outside the square when it comes to butterflies on school grounds.

The winner each term will receive a \$200 Daltons Product Prize Pack for their garden to help everything grow.

### Creating a sanctuary

The first winners of the award were KiNZ Mission Heights Early Learning Centre in Tāmaki Makaurau.

“In the past we have done much learning about monarch butterflies,” says Rahimah Milatu, a teacher at the centre.

“Last year we noticed many monarch caterpillars were dying and we were concerned about pesticide use. We chose to make a difference by creating a sanctuary for them. Everyone was fascinated by the metamorphosis, and we found it a great learning activity.

“Skills were developed in science, mathematics, technology, art, and languages, as well as developing emotional and social competency. This led us to become interested in conservation actions, and how to safely observe, identify change and discuss challenges.”

A school butterfly garden or habitat can open a world of opportunities. Jacqui says the habitat becomes an outdoor classroom, and environmental education promotes critical and creative thinking skills, inspiring ākongā to become more engaged with their communities.

“This is a great initiative of the MBNZT,” says Ian Milne, a retired primary school educator and science specialist.

“Teachers can use the context of nature to enhance their teaching across the curriculum when exploring, creating and testing explanations arising from a study related to butterflies.”

MBNZT say bringing moths and butterflies to the forefront of the learning doesn’t just create an environment to educate ākongā about biodiversity, it creates an environment for our at-risk endemic species to thrive alongside our rangatahi.



For more information on including moths and butterflies in the curriculum and how to enter the School Butterfly Habitat Award, head to the Moths and Butterflies of New Zealand Trust website

The endangered boulder copper (pepe parariki/mokarakare) at Burnside Primary School. Photo: June Walters.



At KiNZ Mission Heights, monarchs are raised in a predator-free environment and then released into the mara kai (edible garden).

All you want to know about NZ

# butterflies

[www.nzbutterflies.org.nz](http://www.nzbutterflies.org.nz)

Moths and Butterflies of New Zealand Trust  
Pūrehua Aotearoa