

# Te Whakatika



This Issue

Presentation to the public consultation panel for  
the Zero Carbon Bill in Christchurch

Speaking for the Planet

Sustainability

Navigating Eco Anxiety and Climate Justice



# Education Outdoors New Zealand

Commitment to fostering and advocating for quality outdoor learning experiences which can educate for a sustainable future

## Our mission

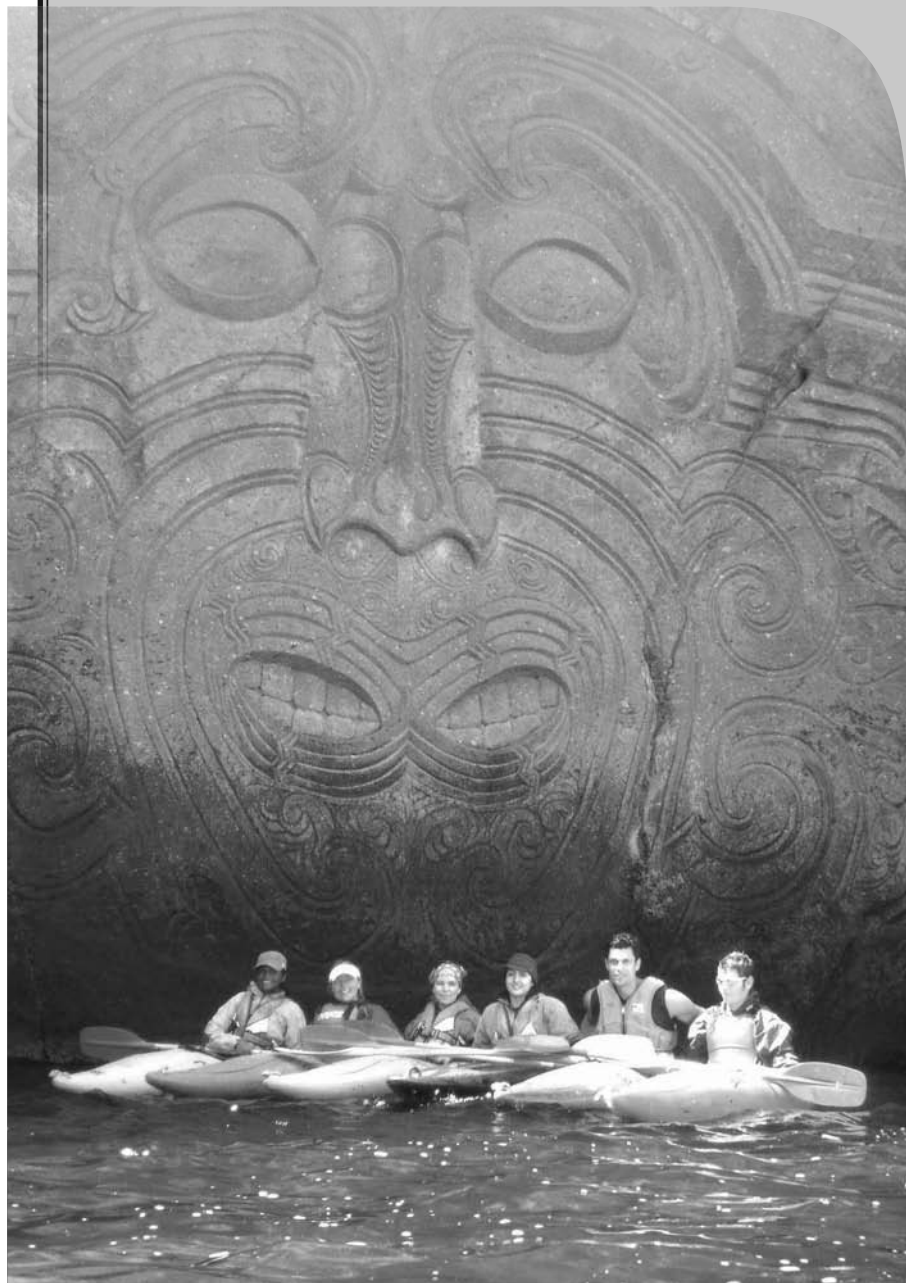
*To increase participation in quality outdoor learning experiences.*

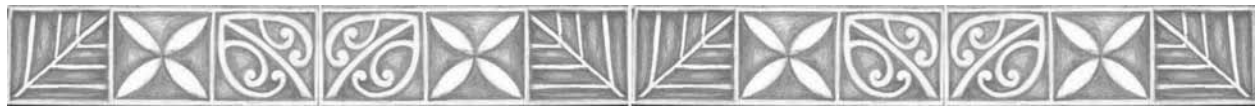
## Our goals

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*Education to build capability and improve practice*

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- **Membership Magazine**
- **Training**
- **Professional Development**
- **Publications**
- **National Body Representation**
- **Networking**
- **Regional Focus**





## Te Whakatika

(formerly known as Out and About)  
describes the start of a journey (to  
set out), but also means to make  
correct (to amend and prepare).

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# Editorial Spring 2020

by David Irwin

Kia ora and welcome to this spring edition of *Te Whakatika*, published by Education Outdoors New Zealand (EONZ). I hope you enjoy the reading, and if this is your first encounter with EONZ, I encourage you and/or your school to become a member of our community and to contribute to discussions about education outside the classroom into the future. As always, letters to the editor and both feature and minor articles are welcomed and can be sent to me via email.

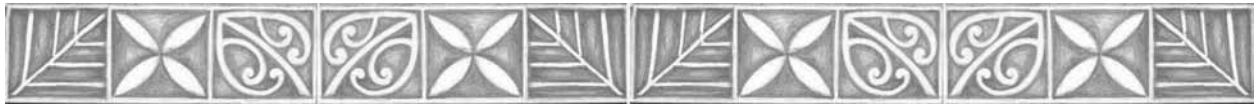
2020 has been an extraordinary year. As I write this editorial, Tamaki Makaurau/Auckland remains in lockdown level 2.5, while the rest of the country remains in lockdown level 2. Lockdown has required us to think and behave in new ways that have not been easy to accept. Across the country people are struggling with



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the multidimensional impacts of the lockdown including economic, social and cultural ramifications that will continue to be felt for some time. All over the world, Covid-19 has presented educators across the whole sector from early childhood education to tertiary education (and everything in-between) with a particular set of challenges we have not encountered before. EOTC has been especially hard to incorporate into classes in lockdown.

For our Sustainability and Outdoor Education programmes here at Ara, we had to take courses that were designed for face-to-face delivery and put as much of them as possible, online within a very short time frame. Of course, it goes without saying that staff worked very hard to achieve this. Not only did content have to be reconsidered, but new approaches to teaching and learning had to be understood, new delivery platforms had to be mastered, and new ways of interacting with students had to be adopted. These new learning environments were not easy for either staff or students, but there were many positive outcomes that we have attempted to integrate into our delivery as we moved out of lockdown. The experience I have just described is likely very similar in every school in the country and reflects the depth of skills and resilience within the sector. But it is easy to focus on Covid-19; for the virus continues to dictate our daily routines and dominate the news. However, the year 2020 will be remembered as significant for other reasons as well.

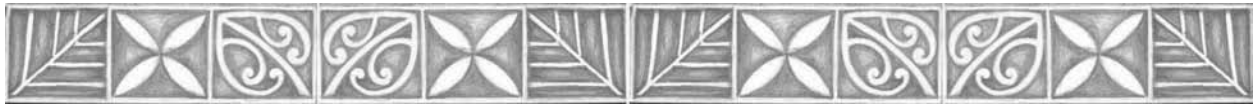
2020 will also be remembered for the devastating fires in Australia at

the end of our summer, and in the United States at the end of theirs, where they still burn out of control. The state of Oregon is currently experiencing a particularly bad fire season, with some of the largest fires on record driving the evacuation of hundreds of thousands of people. The cause of fires is aggressively debated and politicised in both countries, but this past summer in the Northern Hemisphere has been the hottest on record. Climate change is creating conditions we have not experienced before and may not be particularly well equipped to deal with. The changing conditions are also impacting on other species that also may not be well adapted to the warming temperatures and devastating fires, driving a loss of biological diversity.

Ten years ago, in Aichi, Japan, the international community committed to 20 targets aiming to slow the loss of biological diversity across the natural world. The *Global Biodiversity Outlook 5*; published by the United Nations in preparation for another summit this year on the issue found little progress had been made. The report found “despite progress in some areas, natural habitats have continued to disappear, vast numbers of species remain threatened by extinction from human activities, and \$500bn of environmentally damaging government subsidies [predominantly to oil and agriculture sectors] have not been eliminated.” (Greenfield, 2020a, para 2) Both land and ocean ecosystems are in peril; a result of land conversion for agriculture and resource exploitation to meet

the needs of consumption, and in the oceans a result of over fishing, pollution from plastics and other chemicals such as PCBs, and warming induced by climate change. A new documentary called *Extinction* (released by the BBC only one week ago) narrated by the quintessential Sir David Attenborough (see a review later in this issue) explores the nature of the loss of biological diversity, the impacts this is having on the health of the planet and humanity, and what the future might hold. Ironically, Covid-19 is highly likely to be a product of biological decline coupled with the encroachment of human populations into landscapes we have not traditionally lived in. This encroachment results in the exposure of humans to viruses normally limited to small mammals such as rats and bats; animals normally preyed by larger animals.

Biological diversity was also the focus of the *Living Planet Report 2020* published by WWF and the Zoological Society of London. The report found that “on average, global populations of mammals, birds, fish, amphibians and reptiles plunged by 68% between 1970 and 2016” (Greenfield, 2020b, para 2). This figure was up from 60% in the last report published 2018. The report notes that 75% of the planet’s land (excluding that land covered by ice) has been significantly modified by humans. This modification results in the loss of habitat and is the major driver of extinctions. Animals have literally no place to live. We are all often- unknowing participants in this through our consumption of



products such as coffee, soy, beef (particularly that grown in Brazil and predominantly consumed in China), and palm oil.

This issue focuses on the voice of young people speaking and writing about the planet they have inherited and their concerns for the future. *Speaking for the Planet* is a school arts-based competition that began in Australia and over the last two years included students here in Aotearoa New Zealand. Themes for speeches align with the United Nations world Environment Day, and last year the theme was pollution, and this year biological diversity. In this edition there are six of the winning entries from the past two years, with speeches from Ciara Foley, Henry Hood, Meya Donkers, Myro McKee, Samantha Dryden, and Zach Roberts. All of these students write (and speak) with passion and the kind of frankness that makes people of my generation somewhat uncomfortable when confronted. Tertiary student MJ Creswick prepared and presented an oral submission on the Zero Carbon Bill, now enacted, and her submission is particularly moving. Another tertiary student Mia Anderson wrote a wonderful essay on sustainability, followed by a reflection on how she feels about the topic and the future. The final article is by tertiary student Bre Ward who helps us to understand eco anxiety and climate justice from her enlightened perspective. The book review is on the incredible *Overstory* by Richard Powers; and there is a review of David Attenborough's very challenging documentary *Extinction* released

only a few weeks ago.

To end this editorial, I would like to share a Karakia our staff has used in lockdown but that also seems very appropriate in the face of the issues the young people express so clearly in the in the pages that follow.

<b>Ma te whakapono</b>	By believing and trusting
<b>Ma te Tumanako</b>	By having faith and hope
<b>Ma te Titiro</b>	By looking and searching
<b>Ma te whakarongo</b>	By listening and hearing
<b>Ma te mahitahi</b>	By working and striving together
<b>Ma te manawanui</b>	By patience and perseverance
<b>Ma te aroha</b>	By doing this with love and compassion
<b>Ka taea e mātou</b>	We can succeed

I hope you enjoy this edition of *Te Whakatika* and I wish you well for the coming summer months. Please consider sharing your own reflections on the issues facing EOTC through this forum.

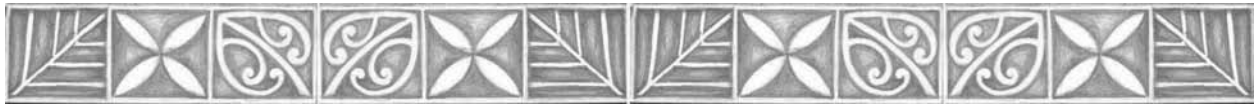
Noho ora mai rā, nā Dave

David Irwin, PhD

Sustainability and Outdoor Education  
Ara Institute of Canterbury

## References

- Greenfield, P. (2020a). World fails to meet a single target to stop destruction of nature – UN report. The Guardian. Retrieved 17/9/2020 from <https://www.theguardian.com/environment/2020/sep/15/every-global-target-to-stem-destruction-of-nature-by-2020-missed-un-report-aoe>
- Greenfield, P. (2020b). Humans exploiting and destroying nature on unprecedented scale – report. UK Guardian. Retrieved 17/9/2020 from <https://www.theguardian.com/environment/2020/sep/10/humans-exploiting-and-destroying-nature-on-unprecedented-scale-report-aoe>



# Presentation

## to the public consultation panel for the

# Zero Carbon Bill

## in Christchurch

*By MJ Creswick*

### **Tena Kotou**

My name is MJ Creswick, and I am currently working to complete a Bachelor of Sustainability and Outdoor Education. I am passionate about the natural environment, and enjoy spending my time outside, especially going bush. I could tell you lots about our native flora and fauna, but I could tell you very little about legislation, politics or how the government works. Yet here I am standing in front of all of you.

When my parents thought about the future, I'm sure they envisioned a life full of certainty, adventure and all the twists and turns life has to offer. How has it come to be that when I think of the future, I cannot imagine anything past 2050? I will be 53.

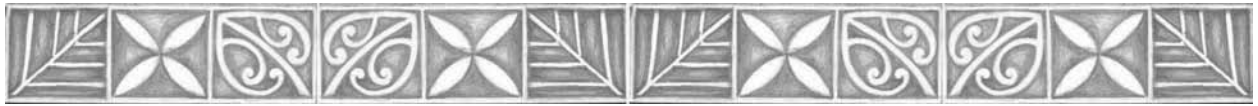
When I began my journey in tertiary education, I saw the world as my oyster. I was ready to gain a degree, meet new people, and begin my adult life. This may have included having kids, getting married, travelling overseas... I don't know if I can bare to ignore the world and do all of these things ... all I see is a fight for survival against some of the biggest totems of power in society.

All I wanted was a normal life! Learning about climate change and the looming environmental catastrophe has been surreal and scary, then coupled with the complete avoidance and lack of effort from governments around the globe was borderline crippling. I've bounced from disbelief, despair, anger, denial then back

again. I have never felt so helpless in my life. At one point last year I felt as though I was such a burden on the environment, I should have never been born in the first place. Simply because of the societal constraints that force me to burn fossil fuels in order to lead an ordinary life. My mum is here, and I am sure that is the hardest thing she has ever had to hear me say.

So here I am, attempting to cry out and do something about it.

I stand for a net-zero carbon future, in order to protect our native taonga that I love so much. I am here for the Kaki, Kauri, Whio, Kaka, Mekomoko, Wētā, Kahikatea, Piwakawaka, and other toanga that hold me in such awe and devotion for Aotearoa New Zealand.



We have seen *children* leaving school to take to the streets around the world to try and change the way we do things and literally save the planet. The science is there, and all we want is a future for ourselves. This shouldn't be a debate! I understand that it is going to be hard, but we are fully capable.

I personally bike to university every day, I have been vegetarian for 2 years, and an advocate for all things sustainability and conservation on my social media. But it still feels like it's not enough! It shouldn't be difficult to live harmoniously with the environment, I shouldn't have to feel like a hippy or tree hugger if I just want to preserve my own and my children's future.

I believe that Aotearoa New Zealand is capable of creating and leading global change towards a more sustainable future. For example, when the mosque shootings happened, the way that New Zealand reacted was visible on the world stage. We were world leaders against apartheid during the Springbok tour. We've banned the plastic bag in response to the plastic pollution crisis... so why is the transition away from the fossil fuel industry any different?

Fossil fuel companies have access to and are willing to extract sell and burn fossil fuels until there are none left. What this means is that if governments around the world permit this then there is a global commitment to put five times the amount of carbon in the atmosphere than what is deemed survivable, all for money and convenience. Five times. This is terrifying to me.

Not only do we have old habits to overcome but also big questions

relating to profitability, economy and global power to navigate.

There is no golden bullet in solving these global issues, however everything we need to change will impact other areas of our wellbeing as a society and individuals; such as mental health and poverty. I want my children to enjoy the environment as much as I do, having simple access to clean air and water. We have known about climate change for a significantly long time and although it is appalling that it has taken it so long to become as urgent as it is now for us to consider change, I am grateful that we are making steps.

As David Attenborough has said- "we cannot be radical enough!" We need to stop holding the looming climate crisis at arms-length. We can no longer claim ignorance!

Lets get to know it, join the biggest global movement ever, and lead by example; making the necessary but uncomfortable changes, together.

This is why I believe that we should be ambitious as a nation, driving back our fossil fuel consumption considerably. This bill is the first step of many needed towards a healthy planet. This cannot be a matter of choice. I hope that my submission to this bill contributes to this change, as we stand bravely together to do what isn't easy. We need to urgently change our behaviours as soon as possible, and I encourage the government to be bold. My future, and the future of all young people my age depends on it.

I'll finish with a poem [from Hieroglyphic Stairway by Drew Dellinger];

It's 3:23 in the morning and I'm awake...  
because my great great-grandchildren won't let me sleep.  
My great great-grandchildren ask me in dreams,  
What did you do while the planet was plundered?  
What did you do when the earth was unravelling?  
Surely you did something.  
When the seasons started failing?  
Surely you did something.  
As the mammals, reptiles, and birds were all dying?  
Surely you did something.  
Did you fill the streets with protest when democracy was stolen?  
What did you do once you knew?

### About the Author:

*MJ is a graduate of the Bachelor of Sustainability and Outdoor Education at Ara institute of Canterbury. She presented to the public consultation panel for the Zero Carbon Bill in Christchurch.*



## Speaking for the Planet

*By Jocelyn Papprell*

*Speaking 4 the Planet* is a school arts-based competition that was initiated by Australian environmental educator, Phil Smith seven years ago. Each year the competition uses as its theme the UN World Environment Day theme; this year it was biodiversity. The Christchurch competition is in its second year and is coordinated as a partnership between Sustainable Ōtautahi-Christchurch and the Canterbury Branch of NZAEE.

The 2020 competition involved

students participating in different categories: public speaking (prepared speech), spoken word poetry, and visual arts (posters and memes) related to the World Environment Day theme. Due to Covid-19 this year's competition was held entirely online but the hope is to return to a live competition for June 2021. Any schools or individuals in Canterbury keen to participate in 2021 are asked to contact Jocelyn, [chchnzaee@gmail.com](mailto:chchnzaee@gmail.com)

### Speaking for the Planet 2019:

## Pollution.

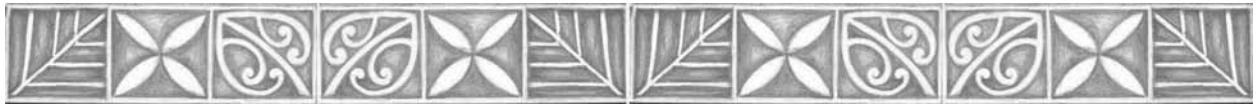


*Speech by Ciara Foley*

I'd like to pass on a message... one of a planet that needs our help. Not that this personified planet cannot send messages itself – It doesn't have much choice. You see, it is choking, starving, and drowning in plastic.

The stuff gets everywhere. It is like walking into the bedroom of a child who loves Lego. A complete nightmare, and pretty damn painful too. Except slightly different, as after a couple of agonising steps you can leave the room. You cannot really do that with a planet.





I am sure you have all seen, when wandering along our beaches, plastic intertwined with driftwood, as at home there as it is littering the shelves of our supermarkets. Plastic pollution scares me because we are taking far too long to act. Far too many people wait to be told what to do. To have bans put in place, to *make* them stop the damage.

This crisis is moving far too fast to concentrate on one issue at time. We need sweeping, habit changing action if we are to salvage what we can of our world. So instead of offering you a single focused solution; I would like to offer you a rather radical concept. I do hope it is innovative and quirky enough for your criteria, although at face value it seems pretty basic, the way we fail time and time again at it as a society makes it seem extreme.

I propose we all take responsibility for our actions. I know, I know I'm crazy and it's probably a stupid idea but bear with me: We all know there are more things that we could do reduce our plastic waste. As the tag line of this topic tells me; if you can't reuse it, refuse it; I would love to tell you that the solution to this problem is for everyone to simply stop buying plastic, and in the long term it probably is. But right now, a phrase like that is not only impractical, but unachievable for so many people.

Plastic pollution is like this massive messy knot. It is poverty, tied up with convenience, looped around a lack of education, knotted up with apathy, disinterest. It is all of that and more. And Just like climate change, plastic pollution is not waiting. It is in the seas, the soil, and the air. It is in our food and in our lungs. It is not waiting for us

to adjust at a leisurely pace. It is not waiting for corporations to gain a conscience. And it is not like we can afford to wait for our leaders to act. And yet, we cannot manage to stop it without them.

It comes down to the fact that we must take responsibility for ourselves. The science is here, and so are the solutions. If only we would stop waiting to be told what to do. Stop waiting for the plastic bag to be banned to stop using it. We all have more things we know we could be doing to lessen the damage. These are not going to be the same for everyone - and we should not expect them to be.

In our world fair is unfair. We cannot expect everyone to just cut all the plastic out of their lives. Some people just cannot afford to do this, but some can. We must learn to do what we can; to not take the easy way out, to not let it fall upon someone else's shoulders.

We need to stop looking to our neighbours and complaining that they are not doing the same amount as us - so why should we? We must learn to take responsibility for ourselves. To become more sustainable where possible and to help others along the way. To lead by example. To make change where changes can be made.

Take something like the humble butter container; why not switch back to paper? Sure, it is a little harder to spread, but boy are my butter spreading skills on fire! This is not exactly a widely done thing - there have not been popular campaigns to ban the plastic butter container.

But there should not need to be! These are the small changes we know we need to make, so why

don't we get going?

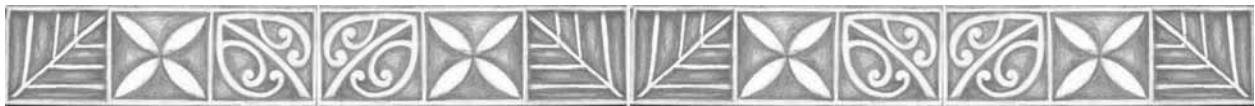
I will give you a few seconds to think; what is something in your life that you know causes problems for the environment? And what can you do to fix it? Perhaps something as simple as stopping using plastic straws. I am not only asking you to act, but to think. To not wait for the next eco-friendly fashion to come around, but to take responsibility and make the changes you know we must.

I want you to take the idea of responsibility home with you today and change one thing. Just one thing. Then in 2 weeks' time, I want you to think up another thing and change that. Change gets easier the more you do it.

So, take up the challenge - get the message out there; start discussions, to make changes where changes can be made, and society will move with us.

### **About the author:**

*My name is Ciara Foley, and I am a year 12 school student at AoTawhiti Unlimited. The subject I enjoy most (and has been the most helpful) is philosophy. It has helped guide me in many different fields of life, but particularly the School Strike 4 Climate movement, which I have been involved in for the past year. My passion for the environment comes partly from a place of social justice, and part from ecological justice - a tricky problem like climate change will never be truly solved unless we fix the system we are currently living. Speak for the Planet speech comp appealed to me for this reason; it plays a large role in education of youth around climate change, and uplifting voices that often do not get a chance to speak.*



## Speaking for the Planet 2020:

# Biodiversity.

*Speech by Henry Hood*

When you think of New Zealand what do you see? Most people may think of the clean perfect images they see on tourism websites showing glistening clean and thriving rivers, majestic mountains, hardly any people and very few cows, more about the cows later. This portrayal of New Zealand is mostly baloney and in my speech on biodiversity I will tell you why. Now here are some facts which shocked me. In 2019, the Ministry for the Environment's report estimated that 82 percent of waterways in farming areas such as Canterbury are not swimmable and 71 percent of rivers in these areas had nitrogen levels that could affect growth of sensitive aquatic animals and sometimes even kill fish. In my speech I will tell you

how and why we need to look after our freshwater before it's too late.

You might think what is so bad about nitrogen? And how did it get into rivers in the first place.

Nitrogen gets into rivers and waterways by cattle grazing in close proximity to waterways. Currently, New Zealand has over 10.1 million cows grazing on farmlands eating grass that has been treated by fertilizer and then urinating and defecating. Thousands of litres of cow urine filters down through the soil and into the waterways. This excess of nitrogen kills freshwater life because the chemical over stimulates growth in aquatic plants, and this, in turn, can suffocate fish, and other aquatic animals. 76% of all indigenous freshwater fish are classified threatened or at risk of

extinction. Excessive plants can also clog water intakes and take oxygen from rivers.

In March this year 3,500 ducks and goodness knows how many eels died in waterways in the Hauraki Gulf, this is heart-breaking and unfortunately this horrifying occurrence is going to happen more if we don't fix our rivers as soon as possible. New Zealand's precious biodiversity depends on it. So how can we solve this problem?

Freshwater ecologist Mike Joy says New Zealand farms have too many cows (yep over 10.1 million). Mike argues that NZ needs to reduce cows by 20%, then he says we will have a 40% reduction in nitrate pollution.

This is a great idea and do farmers really need all those cows when they are causing so much destruction to our rivers? But what about our beef and milk export profits? I hear the farmers cry, what about all that money? That money could be made differently using biodiversity.

NZ and the world needs farming diversity, for after all everything on earth is connected. Instead of sole dairy farms we could have fields of herbs, diverse grasses, seeds and legumes. These fields would be filled with trees and





amongst them there would be a range of animals (including cows) munching on the luscious green pastures of New Zealand.

Worldwide sales from plant-based food was higher than 3 billion in 2018. I believe world demand will increase for non-animal products because of Covid-19. This disease has been thought to have started in China in a wet market which is a market that sells animals for people to eat. Surely this incident will help reduce people's meat intake in the future.

Also, the health benefits of having a plant-based diet are immense and the environmental impact of this diet would be minimal compared to a diet of meat and dairy.

I hope from my speech you have learnt that NZ's waterways are in dire condition and we all need to protect our unique environment together. I believe for a start we need to stop intensive dairy farming practices to save our rivers. In the future we want rivers that are safe and clean for new generations to swim in. We want our native fish to thrive and not be killed off. We need to show New Zealanders and the world that biodiversity is the key in protecting our unique environment.

#### About the author:

*My name is Henry Hood and I go to Beckenham Te Kura o Pūroto school and am in year 8. I like to play most sports including rugby, basketball and cricket and I also like gaming.*



## Speaking for the Planet 2020:

# Our Earth, our home.

*Speech by Meya Donkers*

Everyday, the trees sway, to the gentle breezes from the west.

Everyday, the birds chirp, but what if their hearts didn't beat in their chest?

What if the air wasn't breathable no more? If the waves didn't lap up, onto the shore?

If the sea was only on the rise, being polluted by rubbish, as sea life from plastic, slowly dies.

Forest fires as frequent as the steps you take, animal species as rare as the trips to the recycling bin you make.

Ice from the North and South poles melting, and temperatures, FASTER, FASTER! upward pelting.

Every being living their own life, though some still live in

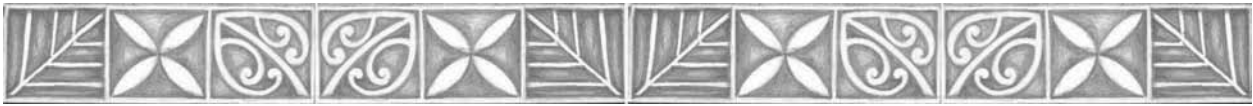
awful strife, because of all our wrongdoing, we need to get our act together, STOP pretending, STOP THE COOING!!!

The children too need to know what the problem is here, and we ALL need to only take our fair share...

The men, the women, and the children, NEED to help our source of birth. In her yearning and her pleading, we HAVE to help Mother Earth!

She has always been in our hearts, healing all of our ugly parts. And so we take that weight off her shoulders, becoming as strong as ancient boulders.

Replanting trees, helping the



bees, taking plastics off the beaches and out of the seas.

This is our duty, we are together, do not forget that, please.

Cut the carbon! QUIT IT! You do not need to see every corner of the globe! Instead enjoy your own country, share the love, with family, and friends.

And please don't get greedy, no, PLEASE don't get greedy! You'll be happy I told you in 2040, believe me!

Pick carefully what you eat, but watch out, not too much meat!

Switch the lights off when you go to sleep or leave your home. Bike

to close places, though not all the way to Rome!

And please just be kind to everything around you. The people. The plants. And of course, the animals.

Stand up for what you think is right, but don't forget what I've said today, I hope you'll take it away, with you inside your mind, and you will find, that this is a problem that can't be ignored. Think it through, help the planet, do the things you do. Have a boogie, have some fun, and just remember:

**Human and Earth, are one.**

### About the author:

*My name is Meya Donkers and I am in year 8 (13 years old). I go to Christchurch Rudolf Steiner School, in Opawa. I play flute and saxophone, and I dance; but my favourite thing to do is to perform and train circus skills and tricks. I train at the Christchurch Circus Trust. I like to draw, and sometimes write stories, or (as you also already know) poems.*

*I am very into stylish clothing, so when I'm older I would really like to design my own clothes and have my own clothing brand... - and I would really like the clothes to be made out of recycled materials, such as recycled plastic bottles, and some other fibres or things that I'm still figuring out.*

## Speaking for the Planet 2020:

# Biodiversity.

*Speech by Myro Mckee*

Think of Biodiversity as The Sum of Life on Planet Earth. It represents the total diversity of all life. That is a pretty big thing to sum up. So, let's take a moment to break that down. It is thousands of different world habitats, millions of different species, billions of different individuals and all the trillions of different characteristics that all living things on Earth have. The total equation of biodiversity on our planet is immense. Which is a good thing because the more diversity we have, the more secure all life on earth is, including ourselves.

This leads us to synchrony, which is how we are all linked and connected in nature through dependent relationships, like bees that pollinate plants, plants that feed mammals and mammals that feed mammals. These sequences or the fast destruction of these sequences, could literally affect the future of millions of species and ecosystems.

In the last 50 years our actions have dramatically reduced populations across the globe. We have snuffed out habitats, we've reduced populations of wild animals by 60% and 1,500 species have become extinct due to our careless acts. Biodiversity is dropping fast. More disconnection between animals and plants, could be catastrophic for nature and therefore for humans too.

We need to look no further than Polynesia, to answer some of these questions. Island species become extinct at a much faster rate than mainland species. Nowhere in the world, are species disappearing faster than in the Pacific. We have islands which are global case studies for scientific research on biodiversity. This is due to being severely affected by rising sea levels and warming temperatures, with limited space for species to adapt.

The key to moving forward is to continue rethinking the narrative around climate change and our perception of the future. In the past climate change



has been thought of as a far-away-concept or seen as a discussion only for scientists and academics. Even as a vicious cycle where the problem is so big that we are powerless to act, with no end in sight. The problem with this mindset is that it leaves no room for real action.

Reframing the way we look at climate change means putting our knowledge to use; create positive opportunities for co-operation and joint global action. WE need CLIMATE CHANGE JUSTICE, where those who use more emissions pay more to those who suffer the most or use the least.

We understand as teenagers that adults and people that have the power to influence change, have full knowledge of these problems, but we don't understand why there's still a lack of action and will power. However, Covid-19 has shown us a new path to how society can listen to good science. It has also shown us the power of each individual to beat the virus for the greater good.

We are learning in real time, that just because we are one person in a world with seven billion people, it doesn't mean that you can't make a difference. Now is the time to look at better ways we can contribute to climate change. If New Zealand moves into a four day working week, how about we give our home some love and use our time and all the extra people without jobs, to create a national business that plants native

trees on unused land?

The debate is over, climate change is real. It has become a question of survival. If we do not act boldly and leave it for the next generation to handle, it will be too late. The images of Antarctica turning green, pastures drying out, seas of rubbish and rainforests that have been incinerated will become our new reality. Many countries have come together but we still have a long way to go.

We are the last generation that can change the future of earth and all the beautiful creatures and life living within. Let us stand on the right side of history.

### About the author:

*My name is Myro Mckee and I am the winner of the year 11 speech competition. I attend AoTawhiti (Unlimited Discovery) but this is only my first year. So far, this school has been amazingly supportive, helping me achieve my aspirations. I've always had an interest in biodiversity and how it is affected by climate change. When I saw this speech competition, I felt the need to share my passion in this topic. I am a sports lover. I play hockey and won Most Valuable Player of the season, my favourite book series is The Red Queen and I've always loved writing and performing speeches even as a little kid, it's always been how I expressed myself. I also love story writing. It's where I can throw my passion, sadness, anger, happiness, all together into one text.*

## Speaking for the Planet 2020:

# Biological diversity.

*Speech by Samantha Dryden*

Last year I had the experience of a lifetime as I stayed on Oruawairua/Blumine Island for a week. Blumine is a predator free island in the middle of the Marlborough Sounds, so I do not

even need to tell you that it was teeming with biodiversity. I came away from that experience with a new appreciation for nature and excitement for the future, but the thing is, as much as Kiwis try to

sell their country as clean, green, biodiverse and beautiful, we all know that Blumine is only a small part of our intricate biodiversity map.

I, like most other people, live in a city. Infact, the UN estimates that by the year 2050 two thirds of us will be living in urban areas. Our cities currently account for around 3% of the Earth's surface but are responsible for around 75% of global resource consumption. This is because everything is currently connected to an economy which consumes nature. We extract from the environment to power the places we live, damaging



ecosystems and our climate in the process. Urban sprawl says that we must spread out, and in turn that means that we need to clear more land for agriculture and other things, so nature must get pushed to the side. Ultimately the needs of our resource consumption and living spaces come first in the world we live in. At least, they did in the world we lived in a few months ago.

Obviously Covid19 has had drastic and awful impacts. Many have died and many more have lost their jobs. This has to be acknowledged, yet at the same time, we have a massive, once in a lifetime opportunity to recover from this crisis in a way that is even better than before. We are undoubtedly facing a global, and national biodiversity crisis. Global biodiversity has declined by around 60% in the last 50 years. Around 4,000 of New Zealand's native species are at risk, two thirds of our ecosystems are in collapse, and 12 out of 13 habitat types in New Zealand have reduced in size between 2012 and 2018. So, what do we do about it?

First, we all realise the prominence and importance of biodiversity in our lives. We develop ecoliteracy in

our communities through schools, workplaces, and community projects. We develop and look after biodiverse spaces in our country. We realise the importance of these spaces on everyone's wellbeing, but at the same time, understand the issues that we are facing. In order to make change, our team of 5 million should connect to and have a comprehensive understanding of our environment so that we can protect nature like it provides for us.

As we recover economically from this crisis, not only will conservation jobs such as pest control be important, but all of us will need to show that we value nature. That way, as our government pumps billions into our economy to restart it, they will prioritise people, the planet, and our biodiversity. Nature should be given breathing room as we realise that every section of available land doesn't need to be used for farming or building. Conservation projects should continue to be funded and industries should be able to transition justly to be more sustainable. It's estimated that between 3,300 and 14,400 seabirds die by fishing boats each year.

This can and must change. Our tourism industry can also change, becoming more focused on giving domestic tourists meaningful experiences where they can even learn about and contribute to national biodiversity, rather than just trying to get as many people through a town as possible. Quality over quantity if you will. Our farmers in the agriculture industry should also be supported to transition justly to regenerative farming; using diversity to enrich our soil and becoming less reliant on fertilisers which ultimately pollute soil and water, harming biodiversity.

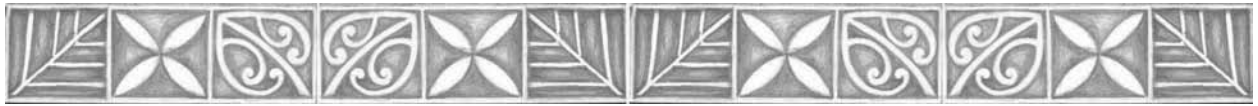
As for us city dwellers, we can bring biodiversity in and around our homes, because our country isn't and shouldn't be divided into reserves, farmland and urban areas. Everything on earth is connected after all. We can support biodiversity by backyard trapping, planting natives and leaving out sugar water.

So, we have a massive biodiversity problem in New Zealand and the world, but it's almost like Papatūānuku wanted to give us a second chance. Our world has changed, and it will continue to change. Yet it is now up to us what that change will look like.

### About the author:

*My name is Samantha and I am a year 12 student from Hillmorton High School and I'm really passionate about art, our environment, and how we can work together to combat climate change and restore biodiversity. I'm currently doing this by helping to lead my school environment group and going to regular working bees.*





**Speaking for the Planet 2020:**

# **A Conservation-based solution to save biodiversity.**

*Speech by Zack Roberts.*

The Holocene Extinction, a time period where the extinction rate is 100 to 1000 times greater than normal.

This is happening right now, and you bet it's our fault.

To stop this global extinction crisis, humanity will need to make some fundamental changes to the way it interacts with the environment.

But that's not what I'm going to talk to you about today.

In this speech, I'm interested in the species we have already steamrolled over – the ones whose survival now hinges upon human intervention.

To prevent biodiversity loss we need to focus on the species we have already harmed as well as those we are about to.

Because on Earth, everything is connected.

My name is Zach, and I present to you a conservation-based solution for reducing biodiversity loss.

In order to understand the larger picture of biodiversity, we need to treat nature like a system – a complex whole made up of many interconnected pieces.

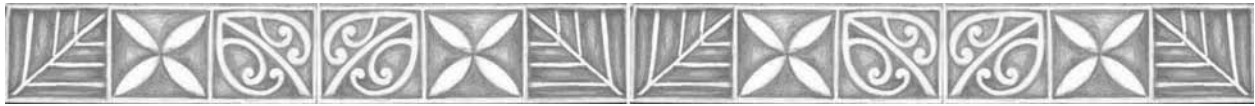
In an ecosystem then, these pieces are individual species, and just like with any other system, if you remove or damage one of those pieces, you risk the wellbeing of the system as a whole.

For example:

The sea otter hunts sea urchins along the Pacific coast of North America.

In the past, humans have hunted this species to local extinction, resulting in the urchin population growing out of control, which then overexploits the sea kelp in the environment, and eventually, we are left with a barren sea floor where once life prospered.

This demonstrates the ecological cascade effect, and this really shows how interdependent life is.



So why is it with conservation, we often prioritise individual species?

In New Zealand, one nationally recognised species is the kakapo – a flightless, distinct-smelling bird whose main defense mechanism when threatened is to stand still.

Guess why this species is critically endangered!

A television star and social media influencer, this species has more public interest than most.

But even with this extra support, the population has grown by a mere 160 individuals in the three decades the Kakapo Recovery Program has been active.

All we have to show for our efforts is a population so small it could be wiped out by a single freak natural event.

One hurricane!

One disease!

In one fell stroke, all of the conservation effort put in, that \$200,000 of annual funding, could all be for nothing.

This begs the question – is this really the best use of our limited conservation budget?

It's tempting to say that we should instead be allocating resources where they would have the greatest benefit to biodiversity as a whole – an approach some researchers predict could almost double biodiversity gains.

But it's never that simple.

What iconic, charismatic species can do is make people want to donate – I'm not sure how many people have fallen in love with the 'rough gecko', but you can't help but fawn over a funky looking parrot.

The solution I propose then, is to stop private funding of individual species.

A concept I came across is

the 'flagship fleet' – a group of individual endangered species with an iconic 'flagship' species as its figurehead. Funding would be directed towards these fleets, and then the money is distributed to all the species within them. Imagine: the new and improved 'kakapo fleet' -- you might give money for the sake of the kakapo, but it will also go towards the rock wren, the grand skink, and a handful of native plants as well.

Not only would this broader approach to conservation mean that more species receive more funding, but in the grand scheme of things conservation actions can benefit more than one species at once.

If we remove predators from one area, we also make neighbouring areas safer from predation.

If we perfect a technique on one project, it may be applicable across many more. So what can us ordinary folk do with this information?

The only thing I can ask is for each of you to gain an open mindset. While you may have a favourite endangered species – the kiwi, for instance – it is important that we avoid getting tunnel vision.

The fact of the matter is we do not have a large enough budget to rescue every single species out there, so we need to settle for preventing as much ecological collapse as we can.

The solution lies not in conserving one species, or one ecosystem - it lies in conserving our entire planet.

As my speech nears its conclusion, I hope you now understand some of the problems we face with conservation, and how flagship fleets may be able to address these.

Conservation efforts are inextricably linked to funding and garnering the interest of the public, and so a solution to let us more efficiently undo the effects of human expansion must seek to address all of these areas.

Admittedly, flagship fleets will not be able to solve all of our biodiversity problems, but they're another stone in the foundation.

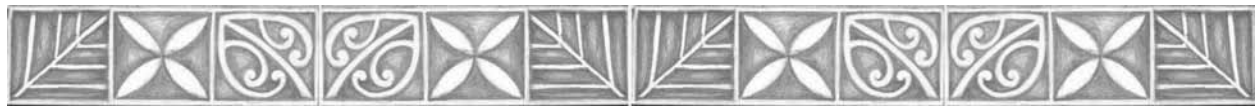
On Earth, everything is connected.

This is both a warning, and a gift. Let us not doom our world through careless squandering of biodiversity, and instead appreciate all the life we get to share it with.

### About the author:

*My name is Zach Roberts, and I am a year 13 at Rangiora High School. I have many passions, including archery, leadership (I am deputy head boy for 2020), and writing, but above all I am passionate about science and the world around me. For as long as I can remember, I've wanted to be a scientist, and as I've grown older that desire to understand the natural world has only grown stronger. I am currently at the point where I'm having to make the difficult decision of which areas of science I will continue to pursue, and those I will unfortunately have to drop as I move onto tertiary education – my next big adventure! I think the natural world has so much to teach us, and it constantly presents us with new and exciting questions, and so I believe it is our duty as a society to preserve its richness so that we may continue to learn and grow alongside nature.*





# Sustainability

*By Mia Anderson*

Sustainability as a contested concept is perhaps one of the most important terms regarding contemporary society. A cartoon by High Moon (see below) depicts the concept of living in the western world, highlighting how we live in a world of convenience and consumerism. If we have the money or means, everything we need is at our fingertips. We take

what we want and throw out what we no longer need. But do we consider the true cost of this? Since industrialisation Earth has been under unprecedented pressure and the future of the living and non-living environment that provides for us is threatened. Trajectories predict that the state of the planet is worsening at an alarming rate and unless we take urgent and

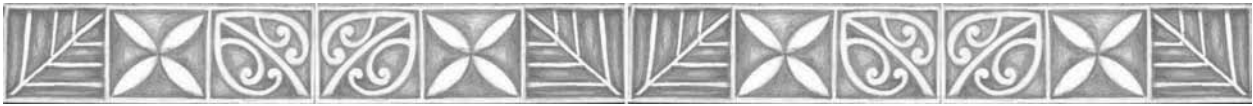
radical action we will reach a point of no return; a point where the environment we generate will unlikely support humanity. This sobering predicament has induced the expectation that sustainability will 'rescue civilisation' and 'save the planet' (Thiele, 2016). This essay seeks to define sustainability as a contested concept and explores the key principles



Image by Takatsuki, H. (n.d.).

Retrieved from <http://www.japanfs.org>

Note: Behind the scenes, what's actually happening?



that underpin it including the values that are imbedded within indigenous culture and how it is the critical element necessary for transformative societal change.

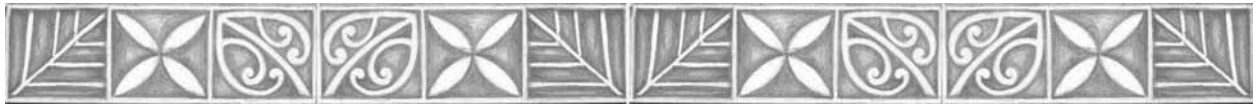
Sustainability is a broad concept which cannot be simply defined nor is it widely understood. Despite the common assumption, sustainability is about far more than just the environment. In the thirty years that the concept of sustainability has been prevalent in western culture it has generated positive change to numerous areas of society including lifestyle, business, design and agriculture and it is now advocated by a growing number of individuals and groups including educational institutions and corporations (Thiele, 2016). Sterling (2010) defines sustainability to be the survival, security and wellbeing of an entire system at a localised or global level. Sustainability also implies economic viability, ecological integrity and social cohesion and it must be resilient, meaning it can withstand disturbance (Sterling, 2010). Thiele (2016) suggests that sustainability is an ethical ideal founded on the obligations and responsibilities of individuals and organisations; a set of interrelated beliefs and values and a science based way of living in an overcrowded world of scarce resources. Thiele (2016) highlights how to live sustainably does not mean we must limit ourselves from meaningful and abundant choices but we must consider how generations to come deserve the same, if not more life enjoyment, autonomy and opportunities as we do.

In an effort to unite nations together to examine environmental dilemmas and appropriate responses to them, the Brundtland Report was published in 1987. The report integrated environmental protection and economic development through the establishment of the concept of sustainable development (Jacobs, 1999). According to Jacobs (1999) those who use the term 'sustainable development' are comfortable with one of two definitions which allow debate to unfold on how to achieve it in practice. The Brundtland Report defines sustainable development as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs' and the *'Caring for the Earth'* defines sustainable development as 'improving the quality of life while living within the carrying capacity of supporting ecosystems' (Jacobs, 1999, p. 23). However, many people, particularly policy makers and those unfamiliar with sustainability as a concept are uneasy with these definitions and demand clarification because of concern that lack of a clear definition can lead to anything being labelled as sustainable (Jacobs, 1999). Thiele (2016) suggests manipulation and abuse of the term is occurring through the act of 'greenwashing' whereby many corporations have latched on to the increased popularity and consumeristic attention sustainability has gained and convinced shoppers into believing they are acting in sustainable ways when in fact this is not the case. This challenges the concept of

sustainability as people question its power.

Technocratic scepticism hinders sustainable development as it is difficult to find one definition that specifies differing group and individual viewpoints, values, political preferences and assumptions (Jacobs, 1999). Due to this complexity Jacobs (1999) proposes that sustainable development has two levels of meaning. In the first level, definition clarity is achieved using a number of core values which are environmental-economy integration, futurity, environmental protection, equity, quality of life and participation. Alternative conceptions of the meaning of these core values bring about the second level which leads to contested debate and this is what requires attention (Jacobs, 1999). Despite contestation, we are at a point in time where we must take radical action meaning sustainability requires collaboration and 'cannot afford cynicism' (Thiele, 2016, p. 17). Sustainability will never be endorsed by all of humanity because there is 'money to be made and power to be gained from economic instability, social injustice, ecological degradation, and ignorance' (Thiele, 2016, p. 16). Change, especially radical change will always be met by opposition therefore induced conflict is inevitable but not a reason to cease urgent action for sustainability (Thiele, 2016).

Political and legal challenges are perhaps the largest contests that face sustainability and sustainable development (Thiele, 2016). Governments and businesses



across the globe verbally endorse sustainability however, this has not been sufficiently translated into policy or practice (Thiele, 2016). According to Jacobs (1999) governmental commitment towards sustainable development has been driven by public pressure which has resulted in a shift in the way policies are developed. However, inconsistency remains between government rhetoric and action (Jacobs, 1999). Jacobs (1999) outlines how weak sustainability provides commitment where possible whereas strong sustainability is living within the limits of the Earth's carrying capacities. Strong sustainability requires global commitment to participation which adopts a 'bottom up approach' and allows for accountability and the active involvement of the general public (Jacobs, 1999). However, this approach could lead to sustainability becoming whatever the majority of the general population perceive it to be and this could be catastrophic.

The current dominant socioeconomic system is based on high-carbon economic growth and exploitative resource use (Steffen et al., 2018). Despite the knowledge of sustainability which is imbedded within indigenous people, the western world continues to drive for exponential growth, luring catastrophic consequences of ecosystem collapse and climate breakdown (Raworth, 2018).

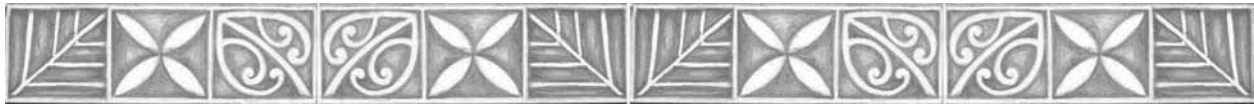
Steffen et al. (2018, p. 8253) propose that we are entering a new epoch called the Anthropocene which 'represents the beginning of a very rapid human-driven

trajectory of the Earth System'. This epoch defies the glacial-interglacial limit cycle, instead hosting much hotter climatic conditions and a profoundly different biosphere (Steffen et al., p. 2918). These conditions will put an immense amount of pressure on already fragile ecosystems. Due to the exponential growth of the economy, population and climate systems Steffen et al. (2018) suspects we are committed to reaching at least a 1.5°C temperature rise above pre-industrial levels by 2050 but with urgent action we can remain under 2°C. If we go beyond this we will enter a predicted 'Hothouse Earth' in which no amount of human action could reverse, control or slow the effect (Steffen et al., 2018). This outcome would also have a dramatic and disruptive impact on human societies and could lead to the collapse of civilisation as we know it (Steffen et al., 2018). Attempts to modify this system have been met with some success locally, but little success globally in reducing greenhouse gas emissions or building more effective stewardship of the biosphere (Steffen et al., 2018).

Raworth (2018) critiques exponential growth as the foundations of western society suggesting that we have been made to believe that 'we can choose sustainable growth, green growth, but we must choose growth'. It is evident that our current economic model, based on the continuation of exponential growth must change as we are reaching the limits to growth and risking total collapse of our modern society (Meadows et al., 1972). Raworth (2018) advises

us to look to nature, as indigenous people do, as nature shows us that nothing can grow forever, it grows so it can thrive for as long as possible. Raworth (2018) proposes that like the environment, a healthy economy should be designed to thrive not grow and the quicker we grasp this concept, especially those in power, the quicker we can dematerialise our economy and replace infinite growth with regenerative processes, processes that support sustainable development.

Māori and other indigenous cultures around the world are based upon sustainable practices. Values such as Kaitiakitanga (protection and stewardship of the environment) form the foundations of the Māori worldview (mātauranga) and provide concepts and principles required for societal living (Harmsworth & Awatere, 2013). Harmsworth and Awatere (2013) discuss how mātauranga acknowledges a natural order to the universe and when part of the system experiences a shift, the entire system is put out of balance. Like many indigenous people, Māori understand that everything is connected and that all living things are dependent on one and other to thrive. Māori seek to understand these interrelationships and the system as a whole, not just part of it (Harmsworth & Awatere, 2013). This holistic worldview and knowledge imbedded in the core values of indigenous cultures is crucial for moving forward towards a more sustainable future as it acknowledges dynamic balance and the interrelationships between humans and nature (Raworth,



2018). Western epistemology is beginning to recognise the significance of this. Indigenous knowledge may not hold the only answers but when combined with western knowledge, which successfully depicts the current world and trajectories through modelling, positive action towards a sustainable future through the implementation of informed policies may be possible (UN, 2019).

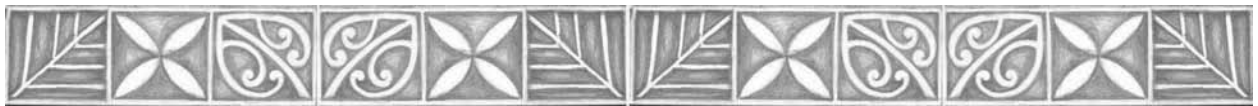
Knowledge and scientific evidence aside, sustainable development must incorporate the values of different cultures, and encompass equity. Western epistemology has a habit of suppressing indigenous practice such as *mātauranga*, leaving western epistemology dominant and viewed as the only logical framework (Broughten et al., 2015). However, it is important to note that in the same way that western epistemology is key for western culture, lifestyle and development; *mātauranga* as an example, is key for Māori living and developing as Māori (Broughten et al., 2015). These notions must be considered as we move forward with sustainable development.

To reduce the impacts of human induced climate change there must be radical, immediate and global changes to behaviour, technology and innovation, governance and values (Steffen et al., 2013). When realising that sustainable development requires radical and urgent action it is sobering to consider how large nations have leaders such as Donald Trump who put profit before people and the planet. However, Covid-19 has

demonstrated that many countries are willing to put people before profit which provides hope for the worldwide transformative change that must occur within our generation (Rockström, 2010). As Earth endures the pressure of sustaining the global population 'business as usual' is not an option, instead all 200 countries must move simultaneously from local to global transformative change (Rockström, 2010). The United Nations (UN) Global Sustainable Development Report (2019) highlights concrete areas where transformational and rapid change is possible. The production, distribution and waste management of food is an area which requires urgent attention but also provides opportunity for effective means of sustainable development. The 2019 UN report highlights how the projected food demand of the global population in 2050 will be incompatible with meeting the Paris Agreement and other sustainable development goals. Therefore, there must be an urgent transition to sustainable food systems which allow equitable global access to nutritional foods, reduction of food loss and waste and maximisation of produce quality (UN, 2019). Simultaneously, these sustainable food systems must aim to minimise climate and environmental impacts and increase resiliency meaning climate change, food security and human health are safeguarded (UN, 2019). Transitioning to sustainable food systems relies on technological innovation as a prerequisite but will only be possible if there are fundamental changes to governance, behaviour

and economic incentives (UN, 2019). These changes must occur in all areas of society.

Sustainability is an overwhelmingly immense and complex topic which requires urgent and collaborative global attention. For sustainability to be truly effective there needs to be both a fundamental shift in our societal practices and a sound understanding of what sustainability means. However, we have reached a point in time where we must translate policies, scientific evidence and indigenous knowledge into action and globally collaborate. As Covid-19 has demonstrated, making radical change to daily life is incomprehensible for most of the population until we have no choice. Therefore, it seems unlikely that our human nature will allow us to make the changes necessary to live sustainably unless catastrophe unfolds. It could be argued that the sooner we reach the tipping point and the sooner exponential growth collapses, the higher the chances are of the human race surviving as we are adaptable by nature and capable of finding solutions. However, we have an opportunity to choose a path of futurity and transformative change. Thiele (2016, p. 17) states that sustainability is best pursued when informed by principle, steadied by hope, directed by practical judgement, and is welcoming of all potential allies. We should take the opportunity which allows for a prosperous future and move forward with these words in mind.



## References

- Broughton, D., Te Aitanga-a-Hauiti, T., Porou, N., McBreen, K., Waitaha, K. M., & Tahu, N. (2015). Mātauranga Māori, tino rangatiratanga and the future of New Zealand science. *Journal of the Royal Society of New Zealand*, 45(2), 83-88.
- Harmsworth, G. R., & Awatere, S. (2013). Indigenous Māori knowledge and perspectives of ecosystems. *Ecosystem Services in New Zealand - Conditions and Trends*. Manaaki Whenua Press: Lincoln, New Zealand, 274-286.
- Jacobs, M. (1999). Sustainable development as a contested concept. In A. Dobson (Ed.), *Fairness and futurity: essays on environmental sustainability and social justice* (pp. 21-45). Oxford University Press.
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (1972). The limits to growth. *New York*, 102(1972), 27.
- Raworth, K. (2018). *A healthy economy should be designed to thrive, not grow*. TED. Retrieved from [https://www.ted.com/talks/kate\\_raworth\\_a\\_healthy\\_economy\\_should\\_be\\_designed\\_to\\_thrive\\_not\\_grow#t-931848](https://www.ted.com/talks/kate_raworth_a_healthy_economy_should_be_designed_to_thrive_not_grow#t-931848)
- Röckström, J. (2010). *Let the environment guide our development*. TED. Retrieved from [https://www.ted.com/talks/johan\\_rockstrom\\_let\\_the\\_environment\\_guide\\_our\\_development?language=en](https://www.ted.com/talks/johan_rockstrom_let_the_environment_guide_our_development?language=en)
- Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D., ... & Donges, J. F. (2018). Trajectories of the earth system in the anthropocene. *Proceedings of the National Academy of Sciences*, 115(33), 8252-8259.
- Sterling, S. (2010). Learning for resilience, or the resilient learner? Towards a necessary reconciliation in a paradigm of sustainable education. *Environmental Education Research*, 16(5-6), 511-528.
- Thiele, L. P. (2016). *Sustainability*. Retrieved from <https://ebookcentral.proquest.com>
- United Nations. (2019). *The future is now: Science for achieving sustainable development*. Retrieved from [https://sdgs.un.org/sites/default/files/2020-07/24797GSDR\\_report\\_2019.pdf](https://sdgs.un.org/sites/default/files/2020-07/24797GSDR_report_2019.pdf)

## About the author:

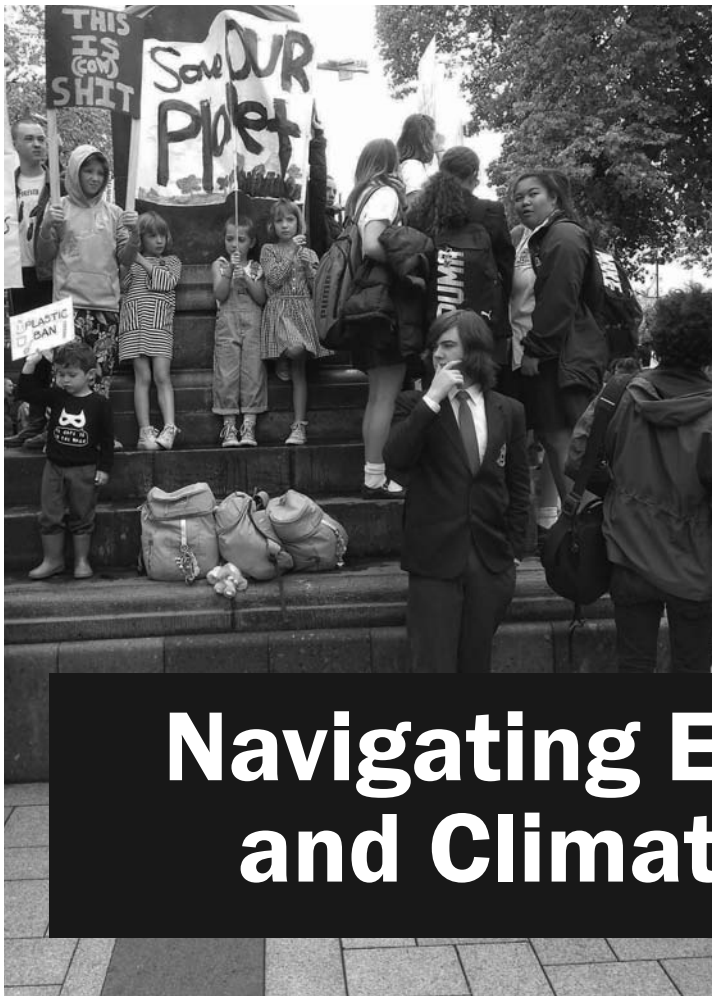
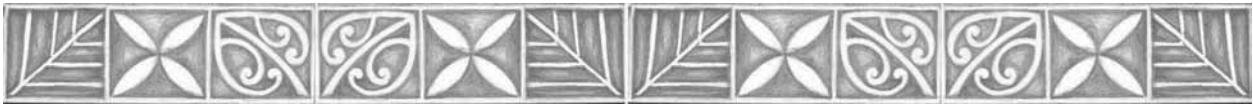
*My name is Mia and I am about to finish my second year of the Bachelor of Sustainability and Outdoor Education at Ara Institute of Canterbury.*

*After writing this essay on sustainability I was asked to answer the question "How do I feel about the topic of sustainability and what do I think my future might look like regarding this topic?" If I'm honest, I struggle to picture what my future might look like and gathering this knowledge is making me more uncertain as it seems we have reached a point in time where (whether we like it or not) radical change is on the horizon and this will no doubt change life as we know it. What I do know is that I'm passionate about the topic of sustainability and with the knowledge I have gained through my studies I wish to share this with others.*

*A few insights and tips I have learnt while studying sustainability:*

- *Taking in the science can be overwhelmingly grim at times but I have definitely found that sharing it with others lifts a weight off my shoulders*

- *Keep learning, researching, having conversations – listen to different ideas/perspectives – even the ones you may not agree with because they make you see things in a different way and consider alternative ways of looking at an issue.*
- *Getting outdoors and moving my body helps me to align my thoughts and prioritise what is important to me.*
- *It is not up to us as individuals to 'save the planet' – and if we think this way it places unnecessary pressure on us and it's unrealistic.*
- *We can do our small bit within the environment we are immersed in which can help make a difference – Our environment is often said to be what shapes our identity, but this relationship is reciprocal. We have influence on our environment and those who share life with us so with the knowledge we gain regarding sustainability we have the power to make positive change.*
- *Practice mindfulness and let go of feelings of guilt and helplessness – balance is important to me so my decisions are often based on what feels like the right thing to do at the time.*



# Navigating Eco Anxiety and Climate Justice

By Bre Ward

Last year I became increasingly aware of the ecological crisis our planet is in the midst of. I spent my winter ricocheting between burning myself out trying to make a difference and being paralyzed with fear. I woke up from nightmares most nights. Obsessive worrying took over my life.

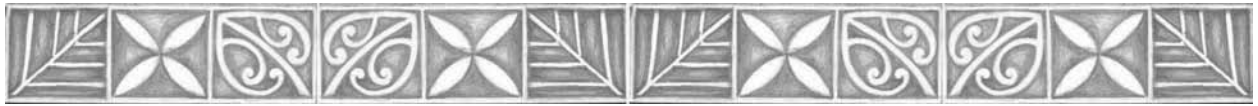
Young people all over the world are experiencing feelings such as these. Eco anxiety has been defined by the American Psychological Association as “watching the slow and seemingly irrevocable impacts of climate change unfold, and worrying about the future for oneself, children, and later generations”. Common reactions

include grief, guilt, shame, anger, frustration, helplessness, and fear.

It is important to acknowledge that these reactions are not unjustified. Caroline Hickman, a psychotherapist and lecturer at the University of Bath, states that eco-anxiety is “a healthy emotional response to the climate emergency.” Eco anxiety can also be channeled into urgency and action, which is what we desperately need.

However, chronic stress can be also debilitating, and harmful. As our futures become more uncertain, it is more important than ever to not just protect the environment, but also to safeguard our wellbeing.

At the peak of my climate anxiety, I was lucky enough to attend a workshop run by *Emerge Oceans Lab*. The workshop aimed to find ways to help restore the mauri (life force) of the Hauraki Gulf. The processes we used were very foreign to me. Instead of rushing in to find solutions, there was a focus on healing oneself first, and connecting to the environment. It relates to the old age idea of putting your seatbelt on before helping others. But also, much older indigenous wisdom: *Ko au te moana, ko te moana ko au* – I am the ocean, the ocean is me. Indigenous peoples are statistically the worlds’ best protectors of



forests, oceans and rivers. A big reason for this is that the environment is seen as inseparable from oneself. If we see ourselves as part of the environment, we can understand that caring for ourselves is also caring for the environment. We don't need to sacrifice our wellbeing to look after the planet – we are part of the planet! We all deserve to eat well, get enough sleep, spend time with our friends and family, be in nature, play, and look after our health.

I have also found compassion to be an important part of self-care. Becoming more aware of issues happening in the world can be overwhelming and scary. When we increase our awareness of the world around us, it is necessary to increase our compassion for ourselves.

Part of this means taking breaks. This can look like having personal goals and passions outside of sustainability. Achieving individual goals can bring a sense of light-heartedness and self-confidence back into our lives. It provides a chance to celebrate and feel in control. There can be a degree of trust involved in stepping back from these issues that we care about – trust that others will fill the spaces that we leave behind. A big part of this is accepting that our world's problems need to be solved collectively. This looks like waves of people coming and going. It looks like people taking breaks when they get tired, with new floods of people getting involved.

Thomas Merton said that “the frenzy of the activist undermines their work for peace”. This refers to how much we work, and the way that we approach that work.

Burnout is common amongst young people advocating for change, but also in our society as a whole. Rest is seen by many as a privilege, rather than a right. It doesn't help that for many of us our worth is defined by how much we achieve. *The Nap Ministry* is an organization that is focused on shifting this. It aims to reframe rest as a “form of resistance because it disrupts and pushes back against capitalism and white supremacy”.

Capitalism and white supremacy could arguably be some of the biggest causes of our ecological issues. For example, the white supremacist mindset throughout colonisation saw land become a commodity instead of part of one's identity. Today, areas that are majority black or indigenous populated are more likely to be chosen for dumping grounds for toxins or plants (for example, Cancer Alley in Louisiana). Humankind's capitalistic obsession with growth has driven us to pillage our planet's resources.

In short, rest is crucial for our wellbeing. But it is also a part of climate solutions. We can't solve these problems with the same grinding capitalist mindset that caused them.

A favourite whakataukī (Māori proverb) of mine is “*Ano me he wharepūngāwerewere*”. This translates to “behold, it is like a spider's web”. It is an expression of awe at the beautiful complexities of nature. It also demonstrates a holistic understanding that everything is connected. We cannot untangle ourselves from the environment. In the same vein, social issues and environmental issues are inexorably linked.

For example, climate change disproportionately affects Pacific nations, because of rising sea levels. Communities in Africa are struggling to grow crops under changing weather conditions, and indigenous people in Brazil are losing their homes to deforestation. Climate change also hits harder on those in poverty. People in poverty struggle to financially recover from climate disasters. Colonisation and systemic discrimination have resulted in people in poverty being more likely to be people of colour, indigenous people, and people with disabilities.

Climate Justice is the idea of treating climate change as an ethical and social issue. It means that those directly affected by climate change are involved and included in solutions. For decades powerful corporations have shifted blame onto consumers. Climate justice means holding those responsible for climate change accountable. Climate justice acknowledges the differences between groups' experiences of both climate change and eco-anxiety. As Kenyan climate activist Elizabeth Wathuti states, “people in African countries experience eco-anxiety differently because climate change for us is about the impacts we are already experiencing now, and the possibilities of the situation getting worse”.

Emotional health in general can be difficult, let alone in the face of ecological crisis. I believe that to navigate our wellbeing we need to have compassion for ourselves, each other, and the environment. We should seek to recognise the complex connections between humans and nature. Finding



communities to take action with can provide us with connection and solidarity. Taking action (especially in groups) can give us purpose and act as an antidote against anxiety. If you are struggling, asking for help is important. It can be easy to fall into destructive patterns of thinking about the world. Cognitive behavioural therapy can help to address this.

I sometimes still struggle with eco-anxiety. But I no longer feel consumed by it.

I have a lot of hope for our ability to adapt to change. 2020 has been a turbulent year but it has revealed that we can take drastic measures to save lives. It has proven that changing our society to adapt to and lessen climate change is not an impossibility. It is a matter of

political willpower. The Black Lives Matter movement has educated more people than ever on structural racism. COVID-19 has brought to light the riskiness of fossil fuel investment. As a result of this, 2020 saw huge increases in organisations divesting from fossil fuels. How we perceive the environment and mental health is changing. Behind these movements and changes, there are millions of ordinary people, rallying together to fight for a better future. All of these things give me hope.

#### About the author:

*Bre is studying the Bachelor of sustainability and outdoor education at Ara. She is passionate about protecting the environment, human rights, and mental wellbeing.*

#### Where to go to for help:

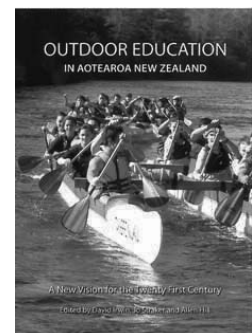
- 24/7 Anxiety Helpline info 0800 269 4389  
<https://www.anxiety.org.nz/>
- Depression Helpline – 0800 111 757 or free text 4202 (to talk to a trained counsellor about how you are feeling or to ask any questions)
- [www.depression.org.nz](http://www.depression.org.nz) – includes The Journal online help service
- SPARX.org.nz – online e-therapy tool provided by the University of Auckland that helps young people learn skills to deal with feeling down, depressed, or stressed
- Apps, e-therapy & guided self-help: <https://www.mentalhealth.org.nz/get-help/a-z/apps-e-therapy-and-guided-self-help/>

## Outdoor Education in Aotearoa New Zealand: A New Vision for the Twenty First Century

*Edited by: Dave Irwin, Jo Straker and Allen Hill*

**Outdoor education** in a variety of guises has a rich history in Aotearoa New Zealand, dating back more than 100 years. Outdoor learning experiences have a strong and often much-loved place in our collective education memories. However, the world in which we currently live is vastly different from the one which shaped those memories. What does that mean for education, and more specifically, what does that mean for outdoor learning experiences? This book attends to these questions from a forward looking position by providing a practical, insightful, and innovative reappraisal of outdoor education theory and practice. Embracing a critical socio-ecological perspective, the contributors celebrate aspects of creative practice and chart a direction for outdoor education which aspires to educate for a sustainable and more equitable future.

*This is essential reading for outdoor educators, teachers, guides, and students who want to expand the possibilities and practices of education, especially education which builds a deeper understanding of our relationship to the world we depend on.*



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## Review of BBC Documentary

# Extinction: The facts



*By Dave Irwin*

The BBC has just in the last few weeks, released a new documentary narrated by the quintessential Sir David Attenborough. Now well into his nineties, Attenborough is the familiar face of nature documentaries and movies capturing exotic animal life and wild places that most of us will never see. Compulsory viewing for many of us, *The Blue Planet* (2001), *Planet Earth* (2006), and *Frozen Planet* (2011) all included incredibly beautiful photography accompanied by the engaging style of Attenborough's narration celebrating the richness of the planet Earth. They were wonderful family viewing... but *Extinction* is different, and to be honest, is truly heart wrenching.

The hour-long documentary pulls no punches in describing the collapse of the natural world around us, and Attenborough is

under no illusion of the impact that will have on humanity. "We are facing a crisis. One that has consequences for us all. It threatens our ability to feed ourselves, to control our climate. It even puts us at greater risk of pandemic diseases such as Covid-19."

Presenting the latest data (a million species are at the risk of extinction) and imagery that does not hide or gloss over the carnage that extinction actually is, this documentary is unlike any other I have seen before. In fact, it signals a new and frank approach to the communication of impacts humans are having on the planet. BBC's Jack Bootle (head of science and natural history) reported to the UK Guardian that he was initially concerned that viewers would switch channels over the hour of transmission, but not only did viewers stay with the documentary,

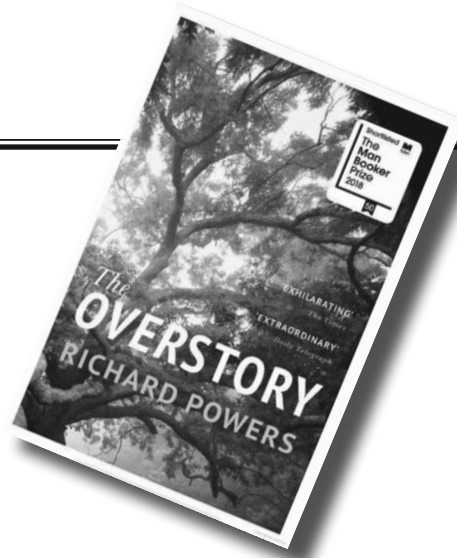
but an additional 600,000 views joined the show, which suggests the no-holds barred strategy has worked.

Attenborough has documented human impacts on the planet for most of his life, and the emotional toll this has taken is visible as he struggles to describe the last members of a species soon to be gone forever. For example, in a revealing conversation with the keeper of White Rhinos (down to the two last animals) it is acknowledged that humans have failed to ensure the survival of the species.

Not for the faint hearted, this documentary is compulsory viewing. Although we cannot access the BBC viewing, the documentary is available at <https://www.pscp.tv/w/1lPKqLdzYDnxb?q=extinction>



## Book review



### The Overstory

By Dave Irwin

The *Overstory* by Richard Powers won the 2019 Pulitzer Prize for fiction, and I enjoyed it immensely. The book is beautifully written, and Powers style is engaging and informative. The central theme of the book is about trees and old growth forests, and the human characters weave in and out of the story, each intersecting with each other as their individual engagement with trees and forests unfolds.

The story is set in the United States and traverses across a wide variety of biological and human landscapes. The unique character of trees endemic to the continent is explored on multiple levels and the detail is fascinating if you have an interest in the world in which we live. For example I have spent many years in the mountains of Colorado and Utah, and never realised that the iconic Aspen that we see above ground is not an individual tree, but rather a vast network of roots below ground that can cover huge areas, and the numerous trunks we see might well be from the same single plant.

The *Overstory* is also about the disconnect between humans and trees. Powers explores this

disconnect on a variety of levels including time. For example, Powers writes "...people have no idea what time is. They think it's a line, spinning out from three seconds behind them, then vanishing just as fast into the three seconds of fog just ahead. They can't see that time is one spreading ring wrapped around another, outward and outward until the thinnest skin of Now depends for its being on the enormous mass of everything that has already died."

The most profound disconnect is found in the way humans conceptualise trees as resources to be harvested and used, their worth only realised when they are milled and sold. The impact of this utilitarian approach to trees has seen the old growth forests of the United States decimated. Powers is particularly concerned with the plight of the West Coast Redwoods, and the human characters come together as activists in a fight against the powerful timber industry and political systems supporting the clear fell of old growth. One giant redwood "as old as Christ" features

in a lengthy discussion about the overstory, and the rich ecosystem found there 150 metres above the forest floor.

It is not spoiling the end to acknowledge the fruitless effort of the activists to stop the progress of the clear felling – for this is old news. Those readers who have driven the roads of northern California and Oregon will have witnessed the destruction (although in many places the corridor remnants along roads do hide the destruction that lies just out of view). Powers notes that once clear felled, the forest, although trees of commercial value may be replanted, will not recover the diversity of life that was present before harvest.

Never-the-less Powers maintains a tension until the final pages, even though the plight of the forest is perfectly clear. The message is that the value of trees is more than what they are worth as wood, and that "When you cut down a tree, what you make from it should be at least as miraculous as what you cut down."

**Powers, R. (2018).** *The Overstory*. London, U.K.:Penguin Random House.

## **1. Purpose (What we do)**

EONZ maintains that the primary purpose of EOTC is to engage with the New Zealand curriculum outside the classroom in order to enrich the learning of students in early childhood centres, and primary and secondary schools.

EONZ embraces all the principles of Te Whāriki He Whāriki Mātauranga mō ngā Mokopuna O Aotearoa / Early Childhood Curriculum (2017); Te Marautanga o Aotearoa (2008); and The New Zealand Curriculum (2007); including a commitment to the Treaty of Waitangi and cultural diversity, inclusive communities, coherence in learning across the curriculum, and future focussed issues such as sustainability, citizenship, enterprise and globalisation.

EONZ supports the values outlined in the above documents including excellence, innovation, diversity, equity, community, cultural and ecological sustainability, integrity, and respect.

## **2. Why we do it (benefits for individuals, communities, environments)**

EONZ is cognisant of research (for example see TKI website <http://eotc.tki.org.nz/eotc-home>) that supports well-structured EOTC experiences. Studies have shown that educationally sound EOTC experiences can enrich student learning across the curriculum. The establishment of positive relationships with teachers and peers in places of significance can foster a sense of belonging to communities and environments that is essential to on-going learning.

## **3. How we do it (Pedagogy/practice/partnerships)**

EOTC programme design should be informed by sound pedagogical principles as highlighted in the New Zealand Curriculum. EONZ maintains that EOTC should at all times occur within the framework of the EOTC Guidelines: Bringing the Curriculum Alive (2016).

EONZ actively supports partnerships with and between teachers, schools and the community. EONZ seeks to work collaboratively with other sector organisations with the goal to improve EOTC in Aotearoa New Zealand.

## **4. Where we do it (Place)**

EONZ supports place based and responsive approaches to EOTC that seek to: strengthen the understanding that students have of their local communities and environments (as well as those further afield), and engender a sense of obligation to care for those communities and environments. To achieve these goals, EONZ encourages action oriented experiential education that explores individual and collective relationships to places to foster vibrant communities and healthy environments.

## **5. Reducing our footprint**

EONZ is committed to reducing the impact it has on the planet. This commitment includes reducing the impacts of the executive board, and all outputs of the organisation including production of resources and professional development. For example, EONZ is committed to providing resources on-line to reduce the impact on forests, and increasing the provision of local opportunities for PD to reduce the need to travel.



## MEMBERSHIP

Your membership is important to us. Our job is to enhance the capability of educators working in education outside the classroom.

As important, your membership supports a strong EONZ voice at decision-making levels in the outdoors sector and government, critical in progressing quality outcomes for learners.

To join EONZ go to [www.eonz.org.nz](http://www.eonz.org.nz). Look for the **Membership** on the main menu.

<b>Organisation</b>	<b>\$110.00</b>	(all organisations, and Schools with rolls above 300)
<b>Small Organisation</b>	<b>\$75.00</b>	(Schools with rolls of less than 300)
<b>Individual</b>	<b>\$50.00</b>	(Not carried by school/organisation)
<b>Student</b>	<b>\$30.00</b>	
<b>Student Affiliate</b>	–	see criteria at <a href="http://www.eonz.org.nz">www.eonz.org.nz</a>

### Kaiārahi Support

The EONZ Kaiārahi is available to help members build capability and adaptive expertise through the provision of leadership, support, and guidance.

Contact [kaiarahi@eonz.org.nz](mailto:kaiarahi@eonz.org.nz)

### EOTC Management Support

A dedicated support pathway for EOTC management queries is available to all schools, nationwide. This expert advice is part of the National EOTC Coordinator Database initiative.

Contact [eotcsupport@eonz.org.nz](mailto:eotcsupport@eonz.org.nz)

### The National EOTC Coordinator Database

The EOTC Coordinator Database is identified as a critical mechanism supporting those with EOTC overview in schools to understand, implement and manage EOTC management processes. The database actively supports the role of the EOTC Coordinator and provides a direct line of communication with need-to know information.

Talk with your EOTC Coordinator and leadership team to ensure your school registers.

For full details and registration go to [www.eonz.org.nz](http://www.eonz.org.nz)



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