

Mountains To Sea Wellington Trust Experiencing Marine Reserves. 2019-2020 Season Report.

AT A GLANCE

The past season has been a busy time for the Mountains To Sea Wellington team – regional providers of the Experiencing Marine Reserves (EMR) programme in Wellington.

Over 1400 students and adults from 22 different schools and groups have taken part in marine experiences through our summer education programmes across the region.

Our community snorkel days have also drawn a record 500 participants, offering guided in-water tours with the team in Taputeranga, Kāpiti Marine Reserves and the waters of Te Awarua o Porirua.

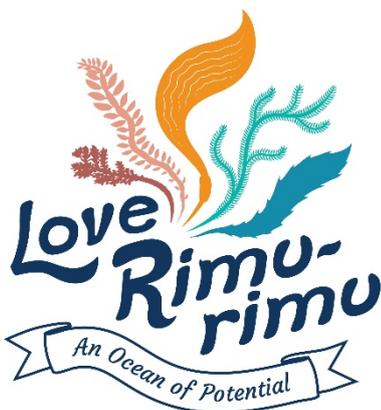
Marine conservation action and awareness-raising events have engaged a further 829 people who have helped with coastal clean-up's, citizen science or been part of celebrations and advocacy.

Our educators have spent hundreds of contact hours sharing their knowledge and expertise with students, families and the public over the past year. However, none of our programmes would be possible without the support of the community who gave 283 days of volunteer time to supporting marine education, events and action projects. We are humbled to be a part of a network of so many different people and organisations. Thank you for your support and partnership.



Students from Seventh Day Adventist School excited for the snorkel at Princess Bay, Taputeranga Marine Reserve.

SEASON HIGHLIGHTS



Launching the Love Rimurimu Project

This year Mountains to Sea Wellington launched the Love Rimurimu project. Our long-term vision aims to see our communities developing a much greater understanding of the vital ecosystem services provided by rimurimu (seaweed) and to work together to pilot seaweed forests restoration activities in Wellington's marine area. The project has been supported enthusiastically by an active group of technical experts from NIWA, Victoria University, Department of Conservation and the Wellington Underwater Club. Numerous new resources have been developed, and the project has been a focus across our Community Snorkel Days, gaining wide community support and interest.

Record Attendance at Our Community Snorkels

This season MTSW delivered five Community Snorkel Events across the greater Wellington region. These were located at Taputeranga Marine Reserve, Kāpiti Island Marine Reserve and Whitireia Park. These attracted a record number of participants at four of five events, with a total of 500 participants throughout the season. Volunteers continue to be crucial to ensuring the success of these events. This season our dedicated team of volunteers committed 381 hours to guide participants on snorkel adventures.



Left: Participants ready for their guided snorkel at Taputeranga Marine Reserve community snorkel day. Right: Participants are guided through seagrass beds at our Whitireia Park Community Snorkel.

"Kāpiti Island is an Amazing place and I'm super stoked to have had the opportunity to snorkel there. Day was well run and well organised. I love that all the guides and helpers are so friendly, enthusiastic and approachable. I felt complete comfortable on the water and enjoyed duck diving down, something I've not done before" Kāpiti Island Community snorkel participant.

"Today was such a great event to be around like-minded ocean conservationist who are so passionate about the ocean. It is so inspiring, and is such a cool community. Thank you for all that you do." Whitireia Park Community snorkel participant.



National Seaweed expert Wendy Nelson (NIWA) shares knowledge her of seaweed with participants.

Our community snorkel events this year have had a seaweed focus to them to align with the Love Rimurimu Project. We invited volunteer seaweed experts from NIWA, VUCEL, Wellington Underwater Club and the Friends of Taputeranga Marine Reserve Trust to support these events. Experts provided participants with the opportunity to engage with seaweed samples, ID guides and other interactive materials, including a virtual reality headset when onshore. The addition of more land-based activities at our events added a great deal of value and will be something we strive to implement at future snorkel events.

"[It has been a highlight to see] the enthusiasm within community and increased profile and understanding for macroalgae" Wendy Nelson, National seaweed expert from NIWA.

Our Volunteers and Team:

We have had another epic season with a passionate crew of committed volunteers. We kicked off the season with two in-water training sessions. These gave volunteers a chance to upskill and learn valuable techniques for supporting participants in the water and also going through safety skills. Together 25 volunteers have given 587 hours to support the delivery of our school and community snorkel days.

"It was great to see how many participants showed up for joining the community snorkels. To offer those moments for free can give back a lot. We never know who joins when and where and what MTSW can give back to those participants. I'm so grateful for living in Aotearoa" MTSW volunteer



Left: Volunteers ready for their snorkel skills training session. Right: Volunteer guides participants at Kāpiti Island snorkel event.

This year we were also excited to expand our team further and welcome Roni Mohan and Joe Warmington who are now fully endorsed EMR coordinators. They have just completed their first term of delivery and we look forward to developing their skills further for next season. We have also been lucky to have Liam Hopkinson work alongside our team putting his science communication and design skills to good use producing some fantastic resources for the Love Rimurimu project and other areas of work.



Our team from left: Roni Mohan, Jorge Jimenez, Sarah Kachwalla, Zoe Studd, Liz Gibson, Joe Warmington, and Liam Hopkinson.

EXPERIENCING MARINE RESERVES IN THE MEDIA

Media Articles & Outreach

This year our media outreach and storytelling range from radio interviews and Facebook Notes/posts to Blogs posted on a new Social Outreach platform, Make Ripples. Many of the articles posted on the MTSW Facebook page were also shared by other organisations and Councilors that attended our events.

Fish Hook – Blog post about seaweed

[Beyond sushi: Is seaweed our big next climate saviour?](#)

MTSW Facebook Note – Porirua Guardians Celebration

[Ngā Kaitiaki o Te Awarua o Porirua - Kāpiti Adventure](#)

Make Ripples – Blog post about Community Snorkel

[Making Ripples for Mountains to Sea](#)

Radio NZ – article about Kāpiti Island Marine protection:
Video mentions MTSW/EMR role in this important job.

Taken at our annual Community Snorkel Event

[Kāpiti Island webcams catch large number of poachers](#)

Councilor Josh van Lier joins Whitieria Park Community Snorkel

[Cr John Van Lier - GWRC](#)

Councilor Penny Gaylor joins Kāpiti Island Community Snorkel

[Councilor Penny Gaylor post](#)

[Penny Gaylor's Newspaper article](#)

The Settlement – blog post: Mountains to Sea Wellington residents

[Meet our Residents: Mountains to Sea](#)



SUMMARY OF SCHOOL PROGRAMMES

A total of 1064 students across the Wellington region experienced their local marine environment through 'fins-on' snorkel experiences. Over 630 of these students snorkeled in a fully protected marine reserve, allowing them an opportunity to see for themselves the benefits that marine reserves create for local biodiversity. These experiences are not possible without the support of teachers and parents who have supported students on snorkel experiences with 1036 hours of their time. Below is a summary of what schools have been involved and the actions they have taken.

Schools involved.

Hutt Valley	Year level	Students	Parents/Teachers
Konini Primary School	4-6	90	22
Heretaunga College	12	42	9
Wellesley College	8	60	16
Koraunui School	4-6	145	49

Wellington City	Year level	Students	Parents/Teachers
Queen Margaret's College	7	77	20
Berhampore School	5-8	52	14
Wellington East Girls College	10	35	5
St Francis De Sales	5-6	73	10
Evens Bay Intermediate	7-8	16	8
Scots College	11	59	5
Te Kura Kaupapa Maori o Nga Mokopuna	7-13	14	5
Lyll Bay School	5-6	121	37
HECUA international students	University	13	2

Porirua City	Year level	Students	Parents/Teachers
Papakowhai School class and pool session (no snorkel due to weather)	5-6	110	4
Newlands Intermediate	7-8	46	12
Ngati Toa School	5-6	19	8
Mana College (year 10)	10	9	3
Titahi Bay North School	6-8	21	8
Mana College (year 12)	12	14	2
Paremata School	5-8	79	54
Seventh Day Adventist School	5-8	30	7
Mana College - Papa Taiao programme	10-12	20	2

Kāpiti Coast	Year level	Students	Parents/Teachers
Kāpiti College	9	29	8



Student quotes:

"In the class room you get lots done, out here you learn so much!" Student - Mana College year 10

"I now take more notice of litter and where gutters or drains flow to. I am also constantly aware of my water usage, and have quicker showers, as well as using less water when cleaning." Student - Wellington East Girls College

"I feel it's important at a young age to be educated of marine life and the problems that come with it and to also understand and want to help our marine life and to be inspired by role models so that we can begin a long needed change to the way we treat and look after our marine life" Student - St Francis De Sales School

"I feel like we really need to get rid of plastic so the next generation can experience seeing our marine life." Student - Konini Primary



Students from Queen Margaret's College explore the rockpools of Taputeranga Marine Reserve.

"I care more for the environment now because I know what is going on with the Marine life because I have seen it up close and that why I give more respect now then I used to." Student Wellesley College.

"The thing I mostly enjoyed was learning about how bad our waters are getting and that we can do something about it." Student - Seventh Day Adventist School

Teacher quotes:

"Exploring our local place and accessing it in a way that many students can't has been invaluable. We had some children who were terrified, and then remarked that the snorkelling day was the best day they had ever had at school." Teacher - Lyall Bay School

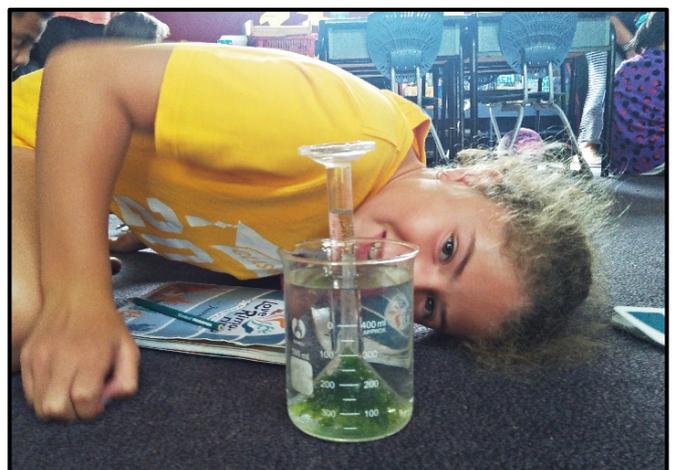
"Students were highly engaged through the majority of the programme and loved having a practical element to support the classroom learning." Teacher - Wellesley College

"An awesome day snorkelling at Taputeranga Marine Reserve. Thank you to the amazing team from Mountains to Sea and parent helpers who made the day possible. Snorkelling was a hit and we now have many enthusiastic future ocean explorers!" Teacher - Konini Primary School

"It was a first time for many of our children to experience snorkelling. Listening to our children talk about their experience is absolutely amazing." Teacher Koraunui School

Love Rimurimu Project

This project has three components: education (with the 2020 pilot programme funded by Curious Minds), community outreach and environmental outcomes and advocacy. Technical experts from NIWA, Victoria University, Department of Conservation and the Wellington Underwater Club who have provided vital support for many of the learning activities and community events described below.



Left: Student at Scots College takes photo of seaweed cover in quadrat sample. Right: Student from Koraunui School closely observes their seaweed oxygen producing experiment as part of the Love Rimurimu education programme.



Scots Collegestudent checks for oxygen bubbles after testing seaweed's ability to photosynthesize.

Four schools – Mana College, Te Kura Kaupapa Māori o Ngā Mokopuna, Scot's College and Koraunui School - are engaged in the year-long Love Rimurimu programme. A range of rich learning experiences and classroom resources have been developed to excite students about the project. In Term One, the classroom sessions and field trips focused on building local biodiversity knowledge, an awareness of ecosystem services provided by algae and exploring the underwater forests of Taputeranga Marine Reserve and local sites. Students also collected seaweed and made presses to preserve a record of common local species to build ID knowledge.

The use of newly developed classroom experiments allowed students to observe seaweed producing oxygen, and to measure seaweeds ability to absorb CO₂ from water. These experiences have increased understanding of the vital ecosystem services provided by seaweed and will provide a strong knowledge base for Term Two.

Term Two's programme focus will turn to a deeper investigation of human impacts, including climate change, and the potential effects on seaweed and algae species - and resulting outcomes for marine environments. Whilst exploring the impacts, students will also be learning about innovative research and the implementation of potential solutions to re-building habitats, restoring food-chains, absorbing carbon, protecting coastlines and for food and other innovations. Students will also work with NIWA and Victoria University scientists to learn how to grow seaweed from spores in the classroom for potential restoration efforts later in the year.



Left: Scot's College lay transect survey line during snorkel at Taputeranga Marine Reserve. Right: Students from Te Kura Kaupapa Māori o Ngā Mokopuna unveiling seaweed pressings.

Highlights of the Rimurimu Project so far: "A completely new kaupapa for us. This is exciting for me as a teacher to be doing new learning and the excitement and enthusiasm rubs off on our rangatahi. The engagement of whanau in the learning. Not just immediate family but wider community from both our kura and wider Stokes Valley. Dianne Christenson, Teacher at Koraunui School

"The parents are impressed that the students come home talking about school work." Nick Sinnamon, Teacher at Scot's College.

Practical, hands-on activities (seaweed pressing, snorkelling); involvement of external experts; sharing of knowledge and passion! - Te Kura Māori o Ngā Mokopuna

Student lead action outcomes:

Only a few schools have managed to take action this season. Term Four proves to be a difficult time for action as programme delivery tends to end close to the end of term leaving little time for action planning. Our Term One schools have been impacted by school closures resulting from nation-wide lockdown in response to Covid-19. Teachers have since been in touch to express their interest and intentions to carry out action with their student once schools return and utilising on-line resources. Our educators are busy planning ways to support teachers with online content during this time to encourage students to take action while in isolation. Below is a summary of actions that have occurred.



Students from Berhampore School with their puppets.

Berhampore School:

Students from Berhampore School got creative with their action component of the programme. Creating puppet shows, theatre plays, dioramas and YouTube videos. These were presented to their wider school community and were a fantastic way to share the messages they had been learning about during their marine reserve experiences.

Wellington East Girls College:

Students spent a day out maintaining a stream side restoration site at Karori Cemetery. This site was planted the previous year by students from the same course who kick started their restoration project. 400 liters of rubbish and 500 liters of pest plants were removed from the site. Students also took part in other actions including painting school stormwater drains to increase student's awareness of the connect to the ocean and sharing the impacts with their friends and family.

Ngāti Toa School:

Ngāti Toa students have been involved in ongoing action for both Te Awarua o Porirua and the marine environment through a school initiative to restore a small section of the Hukarito Stream behind their local school with rubbish removal and native riparian planting. Bringing further context for this restoration through 2019, the program allowed students to gain a broader understanding of how their actions are supporting their coastlines and experiencing first-hand the species which benefit from their support. Feeling inspired following their snorkel experiences, students shared more ideas during a planning session. It is clear that these students were thinking broadly for ways to make a difference. Students reported the following action ideas:

- Planting more native trees near their local stream to reduce sediment reaching their harbour
- Creating a local fashion show with clothing made from recycled plastics
- Rubbish clean ups - with targets for how much to be collected over holiday period
- Share the messages of sustainable fish catch rules through whanau and community: The first of any species caught goes back to Tangaroa



Students from Ngāti Toa School enjoy their snorkel experience at Titahi Bay.

Mana College - year 10

Waste Free Initiative - Lily Rogers and Jack Chapman presented their project called 'Mana Goes Green' at the Porirua Guardians event (organised by MTSW each year for the Porirua catchment). As part of their project, they carried out a waste audit at Mana College and looked at a system to reduce waste and be carbon free by 2020.

Mana College, Te Kura Kaupapa Māori o Ngā Mokopuna, Scot's College and Koraunui School are all engaged in the long-term Love Rimurimu project and will continue learning about the benefits of seaweed and the human impacts affecting them through online delivery (during Covid 19 rahui). This knowledge will allow the students to develop innovative ways to restore coastal seaweed environments and improve habitat for many other species. With the help of seaweed experts, student will learn to grow seaweed in the classroom for potential planting at restoration sites. Watch this space and follow updates at <http://mountainstoseawellington.org/love-rimurimu/>



Lily and Jack from Mana College after presenting their action project at the Porirua Guardians Celebration.

OUT IN THE COMMUNITY

Engaging and collaborating with the wider community is a huge part of what we do to inspire kaitiakitanga for the environment. Partnering with others to support and run events is something that we are passionate about. Below is a summary of some of the marine focused collaborations we have had this season.

South Coast Clean Up 2019

This annual event involved many different community groups coming together to 'spring clean' the south coast of Wellington. 2019 saw a new record high with 488 participants out in force to remove rubbish from the south coast of Wellington. MTSW hosted the Island Bay site which also had a record 55 participants removing approximately 200 litres of rubbish. Our site included one of the Sustainable Coastline's Litter Intelligence Project transects. The audit for the transect showed that, out of the 465 items picked, 400 were plastics. The rubbish in the transect area weighted nearly 12kg.



Left: Participants at the South Coast Clean up take part in collection and audit of rubbish for the Sustainable Coastlines Litter Intelligence project. Right: Making seaweed bath bombs at Lush fundraising event.

Lush Event

To promote the Love Rimurimu Project, the team from LUSH Lambton Quay organised a bath bomb workshop where people could come in and make their own bath bombs using seaweed ingredients. This event was great to increase awareness of seaweed in Wellington City and acted as a fundraiser for the project, with LUSH donating 10% of their bathbomb sales from the day.

Ngā Kaitiaki o Te Awarua o Porirua, Porirua Guardians 2019

This year was the 4th annual event held in Porirua to celebrate students taking action for their local environment. It was amazing to see such a variety of projects occurring across the region. Students from 8 schools presented 11 different projects ranging from waste minimisation initiatives, composting, increasing community awareness on environmental issues to waterways restoration and fish passage remediation. Three different projects were selected as finalists, with students traveling to Kāpiti Island for an overnight adventure to celebrate their success. Highlights of the trip included snorkelling in Kāpiti Island Marine Reserve, walking to highest point of the island, Tuteremoana and learning about the history of the island from local iwi guide, Manaaki Barrett.



Students selected as winners from the Porirua Guardians celebration about to enjoy a snorkel at Kapiti Island Marine Reserve.

Forest and Bird Youth Careers Event

MTSW was invited to a careers event organised by Forest & Bird Youth at Victoria University of Wellington. The event included talks from guest speakers and exhibition stalls for 20 environmental organisations and government agencies. After the talks, students could wander through different stalls and inform themselves about projects going on in the Wellington region and how to participate. Approximately 70 students attended the event and MTSW signed up 25 new volunteers.



Student Climate Change March

We also loved joining students in support of their call for stronger action on climate change.

Empowering young people to propose, pilot and lead meaningful solutions, and having their voices heard, remains a core value of the MTSW team and Trust.

COMING UP!

Changes in our team

Our current Marine Manager – Sarah Kachwalla will be taking 12 months maternity leave from April and Jorge Jimenez will be our acting Marine Manager until her return. Jorge is also managing our Love Rimurimu Project and Roni Mohan will be supporting our volunteers as a key contact for this period.

Upcoming Opportunities:

With the current nation-wide rahui in response to the Covid-19 pandemic, our MTSW team are making the most of this time to think creatively about how we interact and engage with our community and schools.

We are encouraging young people and communities to stay connected to nature and have developed local biodiversity challenges/actions to be released each week. These can be found on the MTSW [Facebook](#) page and via our Make Ripples platform.



Iso-action activities to engage with community during Covid-19 rahui.

We are also busy developing online learning content to support teachers as we move into our next term of delivery. Unsure of what contact with schools will be possible we want to make sure we are prepared to keep students excited and engaged with the marine environment and taking action.



Young participant experiences marine environment for the first time via virtual reality at Taputeranga Community Snorkel.

Further Community Engagement:

In partnership with Fish Hook Science studios, we will be planning and developing seaweed focused community events to take place later this year. This will target community members often not reached to get them engaged in the Love Rimurimu project, learning about the many ways our community and environment can benefit from these vital species.

MTSW are one of the pilot organisation of the newly launched Make Ripples platform. This is a pre/post event engagement platform designed to tailor the way we target participants interests in particular topics and help facilitate taking action for the environment.

Celebrating student success

The annual Poor Knights Marine Reserve trip is provided each year by the national Mountains to Sea Conservation Trust. This gives MTSW have an opportunity to send two students from the Wellington region to attend this trip to celebrate their commitment to taking action and inspiring artwork. This year the trip has been postponed until later in the year due Covid-19 disruptions. This provides a great opportunity for teachers and students to continue their EMR action and art projects through the year and invest more time into quality outcomes.

Love Rimurimu Project

This will be an on-going project bringing together other like-minded organisations to inspire community support and drive engagement in marine restoration. Mountains to Sea Wellington will continue to build our partnerships with seaweed experts and enthusiasts to collaborate on a number of possible projects at a wider advocacy level, empowering students to present and lead ideas around marine restoration opportunities.



Snorkel guide enjoys snorkeling with seaweed.

OUR PARTNERS AND COLLABORATORS

None of our work possible without the incredible support we receive from our funders, collaborators and volunteers. Thanks for your encouragement, partnership and enthusiasm!

Funders

- Friends of Taputeranga Marine Reserve Trust
- Greater Wellington Regional Council
- Hutt Mana Charitable Trust
- Kāpiti Island Eco Tours
- Kāpiti Island Nature Tours
- LUSH
- New Zealand Community Trust
- NIWA (Rivers as Vectors)
- Pelorus Trust
- Seasick Sunscreen
- Unlocking Curious Minds (MBIE)
- Wellington City Council
- Wellington Community Trust



Kāpiti Island Ranger Jane shows the Porirua Guardians group how to set up a pest trap.

Support in-kind, Experts and Collaborators

- Our amazing MTSW Volunteers!
- Conservation Volunteers NZ
- Department of Conservation
- Dewhirst Law
- Dive Wellington
- Enviroschools
- Fish Hook Science Studio
- Friends of Taputeranga Marine Reserve Trust
- Guardians of Kāpiti Island Marine Reserve
- HECUA
- Make Ripples
- Mountains to Sea Conservation Trust
- Papa Taiao
- Salvation Army
- Sustainable Coastlines
- Te Aho Tū Roa
- Victoria University
- Wellington Underwater Club

Equipment Providers & Supporters

- Billabong Trailers
- Wette
- The Settlement - Porirua
- Dive Wellington



Nicole Miller (WUC & FOTMR) in the background with a young participant using the VR system.



A Whitireia Community Snorkel participant shows seaweed to MTSW Coordinator Liz Gibson.



Ko au te moana, ko te moana ko au.
I am the ocean, the ocean is me.