General goings on

It has been a busy couple of months for the seagrass team. We've visited seagrass experts in Australia, searched for flowers with our new students and started setting up seed collection tanks. A lot of progress has been made on our project and we are excited for what we will achieve over the coming summer.

In the Media

- Stuff: <u>Seagrass restoration trial</u> <u>could open new front on climate</u> <u>action</u>
- Radio New Zealand: <u>Seagrass</u> restoration project aimed at fighting climate change
- Cawthron: <u>Restoring Aotearoa</u> <u>New Zealand's seagrass</u> meadows
- Cawthron: Fostering a pipeline of future scientists and scientific leaders
- Video about the project: <u>Seagrass</u> restoration project video

Out and about in Australia



In October, Dana Clark and Anna Berthelsen spent 10 days in Australia where they visited seagrass restoration sites and nurseries at Deakin University and Central Queensland University. During their stay they took part in flower collections, checked out different seagrass nursery set ups and met with seagrass restoration experts. The knowledge gained during this trip has informed how we will collect and store our seeds this summer. Connections with these experts will be invaluable for the project here in Nelson and we look forward to them visiting us here next year.

Report published

Last summer we had two fabulous students join us at Cawthron – Breanna Hindmarsh and Rachel Hooks. We've just published a <u>report</u> on their research, which included interviews with locals to gain their views on seagrass restoration, surveys of seagrass flowering in Nelson estuaries and growing seagrass in a land-based nursery. A big thanks to <u>Nelson City Council</u> and <u>Ngā Pae o te</u> <u>Māramatanga</u> for funding their student scholarships.

Funding needed: PhD student

We would really like to get a PhD student working on our seagrass project and are looking for funding to cover their stipend. The student would be based at Cawthron and their research would play a pivotal role in making seed-based seagrass restoration possible in Aotearoa. If you know of anyone that might be interested in supporting the next generation of scientists, please contact us (dana.clark@cawthron.org.nz).



From the field

Over the last three months, we have been in the field keeping a close eye on the seagrass. The first flowers were spotted in October. Since then, flower surveys have been completed at sites in Nelson Haven, Wakapuaka/Delaware Inlet and Waimea Inlet. So far, we have counted over four hundred flowering shoots! From now until the end of the flowering season, we plan to do a survey once a month at each of our sites and monitor how the flowering progresses over the summer period. This will help us to understand where and at what times of year we can find seeds for future seagrass restoration projects. We have also put out temperature loggers to investigate whether temperature is influencing flowering.



New faces

Two new summer students have arrived in Nelson to help with the project. Demi Fearn and Irisa Hudson have both just finished their undergraduate studies.



A bit about Demi: From a young age I have always been fascinated by nature, my curiosity and passion has led me to embark on many adventures over the years. Most recently I have been studying at University of Canterbury, majoring in biology and minoring in environmental science. I am fortunate enough to have received a 20-week scholarship to be a part of the seagrass restoration project at Cawthron. Over these 20 weeks I hope to apply some of what I have learnt over the last three years to a real situation, along with expanding my skills in the field and lab.

A bit about Irisa: I am a keen climber and tramper with a great appreciation for New Zealand, its mountains, and its biota. I have just completed my degree in Ecology and Environmental science at the University of Auckland and am looking forward to helping out for 10 weeks with the seagrass restoration project here at Cawthron. I am particularly excited to gain hands on experience both in the field and in the lab, especially on such an interesting and current topic!



Community engagement

Visitors to the <u>Cawthron Open Day</u> learnt about the importance of seagrass and how restoration could increase carbon storage.



Last month, Dana gave a presentation on our seagrass research at the joint <u>New Zealand</u> <u>Marine Science Society and New Zealand</u> <u>Freshwater Science Society conference</u> in Auckland. The conference was attended by more than 500 people, including marine and freshwater scientists from across Aotearoa and environmental managers from local and central government. There was a lot of interest in what we are doing down here in Nelson.





Dana spoke to Hon James Shaw (Minster for Climate Change and Associate Minister for the Environment) when he visited Cawthron in November. They discussed how seagrass restoration could provide biodiversity and climate change benefits.

- Anna Berthelsen spoke at <u>Port Nelson's</u> <u>Environmental Consultive Forum</u> about the work we are doing with seagrass in the Haven.
- The <u>Nelson Science Society</u> invited Dana to speak at a public lecture held at the Boathouse in Nelson last month. More than 30 people attended, and a lot of enthusiasm was shown for the project
- Earlier in the year Anna presented to the **Nelson Biodiversity Forum**
- Dana was invited by the Waimea Inlet Coordination Group to speak to them about our work with seagrass in Waimea.
- Dana went along to a sponsorship launch hosted by <u>OneFortyOne</u>. Along with our seagrass restoration work, OneFortyOne is sponsoring the <u>Nelson</u> <u>Marlborough Rescue Helicopter Trust</u>, <u>Habitat for Humanity</u>, the <u>Young</u> <u>Enterprise Scheme</u> and the <u>Wasp</u> <u>Wipeout Programme</u>

Next steps

Over the past few weeks, we have been setting up a system that will allow the extraction of seeds from the flowers. This design is modelled off what Dana and Anna saw in Australia. Soon, we will collect seagrass flowers and put them in a bubbling tank of seawater (AKA - seagrass spa), with the hope that the seeds will fall out of the flowers and be collected at the base of the tank. Once we have collected the seeds, we will experiment with different methods for storing them in preparation from germination trials next spring.

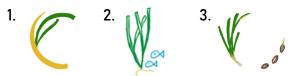
We want your opinion

The seagrass team is looking for a name and logo and we want your input!

Names:

- 1. Restore the meadows nurturing our seagrass
- 2. Totally Zostera nurturing marine meadows
- 3. Other...your suggestion

Logos:



4. Your own Design...

To have your say email us at dana.clark@cawthron.org.nz

Thank you to Our Supporters!

Our partnerships with the <u>Westpac New Zealand Government Innovation Fund</u>, <u>Port Nelson</u> and <u>OneFortyOne</u> make this work possible, and we are grateful for their support. Our trip to Australia was supported by a <u>Royal Society Catalyst Grant</u>.



The Seagrass Team: Lisa, Dan, Anna, Demi, Irisa, Dana, Lucie

