

AUCKLAND CONVERSATIONS
“THE FUTURE OF OUR OCEANS”
5th JULY 2017

Mark Orams - Kia ora. A special welcome to you all to this event, especially to members of the Tara crew and sponsors of Tara Expeditions Foundation. To members of Blake Expeditions, whanau, friends and crewmates of Sir Peter Blake, and to all watching online, welcome, welcome, welcome. My name's Mark Orams, and it's my privilege to be your master of ceremonies this evening. We are here to learn more about Sir Peter Blake's legacy and the global initiatives that have been undertaken to protect our oceans. In doing this, we honour Sir Peter's memory. We come together at a special time and in a special place. Those of you who have arrived in the daylight and have looked out the window here to your right will have seen a very special boat moored in a very special place with deep and important connections with Sir Peter Blake. I'm privileged to lead a school at the Auckland University of Technology where we decided to embark upon a Mataranga Maori voyage in 2015. In doing this, we have learned and embraced Maori culture and Tikanga Maori. As part of this voyage, I've been encouraged to look for tohu, or signs, important indications of the coming together of elements in our lives in poignant and serendipitous ways. This past week and today, we have many such tohu. Last weekend, Sir Peter Blake's old yacht Seamaster, now Tara, arrived back in Auckland for the first time since she left in the year 2000. Last weekend, when she arrived, was also the beginning of Matariki. For Maori, Matariki is an important time. Traditionally, a time for remembering those who've passed on and for celebrating new life. In addition, of course, we have the arrival of the America's Cup and Emirates Team New Zealand back into Auckland at lunchtime today, a team co-founded by Sir Peter Blake and Alan Sefton, who also co-founded Blake Expeditions and bought Seamaster as their expedition vessel. We have Romain Trouble as director of Tara Expeditions here with us this evening, and his father, Bruno Trouble, who was a close friend of Sir Peter's. We have Nicolas de la Brosse, who as a schoolboy in France had Sir Peter Blake as his hero, and subsequently worked hard to develop qualifications and an opportunity to contribute and live the legacy of Sir Peter Blake, and has spent the last five years on board Tara, honouring Sir Peter with his work. We also this week have Sir Peter Blake Leadership Week. This Friday is Red Socks Day. The raranga, or weaving of our lives, of voyages of commitment to our oceans' planet, have other strands crossing and intertwined this evening. Thank you for being here, and for being a part of this. Before we get started with the presentations, a few housekeeping issues, please. In the unlikely event of an emergency, an alarm will sound, and we will be directed out of the building by our ushers. Toilets are located through the back of the room, past the exhibition stands and on the right. Just a reminder, please ensure all your mobile phones are turned to silent. We invite you to take part during this event using social media with the handles #AKIConversations and #tarareturns. We strive to

make Auckland Conversations as inclusive as possible, and a full video of the event will be available with full captioning on the Auckland Conversations website post-event, along with a full transcript. We're lucky I got through that conversations-conservation conundrum there, but it's probably okay to mix them up on a night like tonight. A few background comments about the Tara visit and the Sir Peter Blake Trust. After Sir Peter felt he'd achieved all he wanted to with his sailing career, he turned his attention to the environment. He'd always had a deep and passionate love for the environment, nature and especially marine wildlife. This was his new challenge. He was very excited about the possibilities to make a difference with Blake Expeditions. In 2000, he and his crew set off on the Seamaster from here for the Antarctic Peninsula to explore and observe evidence of climate change. They then travelled onto the Amazon basin and rainforest. His mission was to make people fall in love with the environment, especially young people. He wanted to educate people throughout the world through entertainment and by making documentaries with a difference, with a focus on water. He was only a year into this new challenge when he was killed in the Amazon defending his crew. Today, the Sir Peter Blake Trust delivers programmes and experiences that continue Sir Peter Blake's legacy of leadership and environmental action. The programmes of the Sir Peter Blake Trust give young New Zealanders with a passion for science, the environment and conservation life-changing opportunities. They also, importantly, include Sir Peter's spirit of adventure, exploration and fun. Tara Expeditions Foundation also continues Sir Peter's legacy with a strong focus on science and ocean health. Since 2003, the schooner Tara has travelled 350,000 kilometres across the world's oceans. It has completed 11 expeditions to date to study and understand the impacts of climate and ecological changes on ocean health. The return of Tara to Auckland last Saturday for the first time since Sir Peter's death has been a weeklong special programme of events, including a welcome flotilla, boat tours, a public outdoor photo and video exhibition, and this special Auckland Conversations event this evening. Tours of Tara are available until Sunday, and registrations are recommended. To register, please visit the Sir Peter Blake Trust website, sirpeterblaketrust.org. Tonight, we will be hearing from Shelley Campbell, the chief executive of the Sir Peter Blake Trust; Romain Trouble, the executive director of Tara Expeditions Foundation; and associate professor Rochelle Constantine from the School of Biological Sciences at the University of Auckland. You will have the opportunity to ask questions after the presentations. Auckland Conversations would not be possible without the ongoing backup of our wonderful supporters, so we'd like to thank our partner sponsor Resene. Thanks also to our programme supporters Brookfields Lawyers, Boffa Miskell, Architectural Designers New Zealand, the New Zealand Institute of Architects, the New Zealand Planning Institute, the New Zealand Green Building Council and MRCagney. We are tonight in a wonderful city and a wonderful region. A city of two coasts, Tamaki Makaurau. A city of four harbours. A city of estuaries, beaches and reefs. A city of islands. The City of sails. Now, once again, the city of the America's Cup. It's my pleasure now to introduce to you the mayor of the city of the America's Cup to speak to you and welcome you. On behalf of Auckland Council,

Mayor Goff.

Phil Goff - Good evening, ladies and gentlemen. What a fantastic place to be this evening, and fantastic to see the turnout of people here. I look to my left, and I see the Tara back here after 17 years, and back in the last spot where Sir Peter Blake stepped off New Zealand soil to go on his expedition. It's an amazingly emotional thing to see the Tara, then the Seamaster, back here. What fantastic timing to be here at the time the America's Cup has arrived back to be New Zealand's Cup. I have to reflect on 22 years ago when my kids were, I think, 18 and 12, and we joined the parade in Queen Street and watched Peter bring back that cup to New Zealand, or bring, for the first time, that cup to New Zealand, and how proud we felt of him and his team, and what that achieved for our small country. It's a great time to be in Auckland. It's a great time to welcome Romain, your crew and the Tara back to our city. Can I acknowledge Professor Mark Orams and thank him for his work in emceeing tonight, and his much greater work on behalf of the marine environment. Can I acknowledge the friends who are here tonight of Peter Blake and the friends of the Sir Peter Blake Trust. Romain Trouble, to you and your crew, you're really welcome in our city. It's great to have you here. Can I acknowledge Councillor Wayne Walker sitting down here, who actually went to Paris in 2015 and was integral in the invitation to bring you here at this time. I don't know what you knew in 2015, Wayne, but well done and congratulations for that. Yeah, let's hear a clap for Wayne Walker. Can I also acknowledge to Bob Harvey, who's a good friend of Auckland, former longstanding mayor of Waitakere City. But to all of you, ladies and gentlemen, I just don't think there could have been better timing than to have the Tara in our port to remind us of the contribution that Sir Peter Blake has made to our country and to the global marine environment. He had a remarkable career tragically cut short, but where he won all of blue water races that were worth winning. The Whitbread Round the World Race, the Jules Verne Trophy and the America's Cup twice. We're gonna beat that in honour of Peter. We're gonna win it as long as we have it back in Auckland. That's my hope and my expectation. Sir Peter was, of course, a superb sportsman, but he was a man also of remarkable courage. He died defending his crew and that ship that is outside this hall, docked at the wharf. He was a man, in my view, that was in the mould of Sir Edmund Hillary. I say that in the sense that he did great things, but he showed remarkable modesty as he went about doing those things. What we as Kiwis like to think is that our heroes are people who achieve great things, but also show the modesty about what they've done. We also like them to have a vision for a better world. We know this about Peter Blake, that he had a commitment to making this world a better place. We reflect tonight on his commitment in protecting, sustaining and enhancing the world's marine environment. He did that using Seamaster as his platform, visiting ecologically sensitive areas, like the Antarctic and like the Amazon, and using that to highlight and to advocate for the protection and the sustaining of those areas. He was a leader with a firm determination. He said, and I quote, "To win, you have to believe "that you can do it." He had that belief, he had the vision and he realised his dreams. I wanna congratulate Tara and the people who support Tara and crew Tara for carrying on that mission statement, for focusing on

the oceans, on science and on education. It's also fitting that the trust established in his name, the Sir Peter Blake Trust, works to deliver programmes and experiences to young people, focused on environmental action and focused on leadership. I had the privilege just a few weeks ago to present the awards to the students on the Young Environmental Leaders Trust. What a fantastic group of young New Zealanders they are. For my generation, they give us huge confidence that our future and the future of our global environment is in good hands. Tonight, we celebrate the return of the Tara. We will be hearing distinguished speakers on local and global initiatives that we need to look after our oceans. Can I wish all of you an interesting and an enjoyable evening. I hope this evening strengthens our commitment, collectively, to campaign for and to preserve the environment that sustains us, and in particular, our beautiful marine environment. Thank you very much for being here tonight.

Mark Orams - Thank you, Mayor Goff. In particular, we'd like to acknowledge and thank you for giving us your time and your thoughts in what's been a challenging and difficult time for your family today. Our thoughts go with you as you farewell your dear father over the coming days. I'd now like to introduce a special video that's going to be shared with you all. Blake Expeditions was Sir Peter's vision for an organisation to change the way people felt about our water planet. Some of the material that was recorded during Blake Expeditions' short two years of work has been archived and resurrected by the Sir Peter Blake Trust. This video is appearing with the courtesy of and support of the original directors of Blake Expeditions, Pippa, Lady Blake, Scott Chapman and Alan Sefton. We want to acknowledge their generosity in allowing us to view this very important footage. We will now have the opportunity to hear from Sir Peter himself about the vision he had for engaging people in caring for our marine planet.

Peter Blake - We're away. We have this extraordinary vessel, Seamaster, built to go anywhere in the world where she can float. Anywhere where there's one 1/2 to two metres of water, this vessel can go there. Doesn't matter whether it's minus 40 degrees centigrade in the Arctic or the Antarctic, or the top of the Amazon River, we can be there. We have electronic charting. My family, my kids can call me on the telephone through the satellite. We can send emails, we can send still pictures. We have the latest high definition video equipment you could possibly imagine. We have onboard this vessel enough food for approximately 15 people for nine months. We can motor for 10,000 miles. Of course, you add the sails, and the range becomes pretty much unlimited. Quite a unique vessel. We all live on a water planet. That's what Earth is. Water is life. That's where life started. It started in the sea, right here. Where there's good water quality, generally, life is good. We are going on a series of expeditions, explorations, adventures to look at the quality of life around the world, as far as water is concerned. Life in, on and around the sea in oceans, rivers, streams. The way we planned to do this is through education, but it's education through entertainment. About to put the two sides on it. I want to get to every classroom of every school in the world. We want you to fall in love with the environment. We want you to have fun with us, experience the adventure with us, to wanna come with us from

place to place. We can do a lot. Why bother? It's too important not to, for all of us.

Mark Orams - Isn't that wonderful footage and wonderful to hear the words directly from Sir Peter. One of the greatest ways we can honour a great New Zealander is to continue on with the work that he started. Our next two speakers are going to give us wonderful examples of work that is doing just that. The first of our speakers, it's my pleasure to introduce to you Shelley Campbell, who is currently the chief executive of the Sir Peter Blake Trust, and is responsible for leading and implementing its leadership development and environmental programmes throughout New Zealand and beyond. Prior to taking up her role in 2010, Shelley was overseeing the health business cases for the Minister of Health Reforms in Auckland. She is a former chief executive of the Waikato Primary Health, that provided health services to 315,000 people across the central North Island. Shelley is a board member of the Halberg Foundation, Te Pou and Pacific Incorporated. In 2007 Shelley was awarded a Sir Peter Blake leadership award for New Zealand, and was the first person of Maori descent to ever win that award. In 2015, she received the award of honorary captain from the Royal New Zealand Navy. Shelley will present to us on how the Sir Peter Blake Trust has taken hold of Peter's mission to create strong young New Zealanders who will make a difference. Please join me in welcoming the wonderful Shelley Campbell.

Shelley Campbell - Thank you, Marko, for your warm welcome. It's really fitting that we are here for a discussion around ocean leadership while our friends from the Tara crew are in town. I'm incredibly heartened that so many people have turned up tonight to share that with us, and joined in online, as well. Sir Peter was, for many of us, the ordinary New Zealand guy who taught us the difference that great leadership can make. Most Kiwis know about Peter's sailing achievements and prowess, but for a few minutes, I just want to share a little about his environmental mission, how the Sir Peter Blake Trust is continuing his legacy here at home and why it's so critical to involve and upskill our young people in this. The trust was established in 2004. The purpose of our trust is to inspire and mobilise the next generation of great Kiwi leaders, adventurers and environmentalists. Essentially, we want to lift the leadership performance of young Kiwis through our programmes and experiences. We want proud Kiwis and future leaders capable of operating at the level that Peter did for our country. I remember really well about seven years ago when Pippa and the board challenged our team to really step up and be more ambitious about Blakey's legacy. They wanted to reposition the organisation and really revamp environmental education for young people because actually that's what Pete really cared about. At the time, Pippa said, "I just want you "to move us from beach cleanups to something "Peter would be really proud of, and something "you think if he was still alive today "that he would be doing." I do remember thinking at the time, wow, that's pretty ambitious for a little charity with four staff and no money, but okay, we're gonna give that a go. The first thing that we did was we decided to go back and talk to Peter's family and friends and fellow sailors. We spent time with the crew from Seamaster and we looked through thousands, literally

thousands of unpublished logs, images and footage of Peter at sea on expeditions from Antarctica to Brazil. The archives gave us real clarity about what Peter really cared about, what he wanted to achieve and why. But we also realised that Peter was ahead of his time. From citizen science, his belief 17 years ago in climate change, when most people doubted that it was actually real, and his desire to use high quality communications to get to as many people as he could through his environmental adventures. While his passion to raise the world's awareness about the changes in our environment was clear, we also faced the challenge that many of our young Kiwi students that we worked with were very young or hadn't even been born when Peter was killed. How were we going to connect them and ensure that Blakey's legacy was relevant for them? We wanted to create for our country a solid pipeline of talented young environmental leaders, young people ready and able to become great scientists, naval leaders, conservationists, communicators, policymakers and the future leaders of our sustainable businesses and industries for this country. We decided to provide life-changing experiences to young people that would inspire them to want to deliver on Blakey's legacy, and that we would do that through adventure, education and leadership development, just as he had. Over the next three years, we pursued three strategies to bid his legacy into New Zealand. The first strategy was to revamp the National Youth EnviroLeaders' Forum for 15 to 17 year olds. We decided to take the programme out of the classroom, and around New Zealand. We wanted to showcase our beautiful country to our young people and to examine the critical environmental issues that we're all facing, from pest eradication and ecotourism to climate change and ocean health. We have kayaked in Nelson with orcas. We have zip lined 220 metres above the forest floor in the Mamakus. We have snorkelled in New Zealand's best marine reserves, and we've sailed Steinlager down the coast of New Zealand. It's true, mock hijackings by the Navy during this forum are not uncommon as we help young people learn to adapt to the unknown and to work effectively as teams to build their confidence, their self-belief and their resilience. We teach the delegates how to negotiate with people who think differently than they do, and to work with media to tell great stories of environmental action in order to mobilise their peers. Upon leaving this forum, these young people return to their schools and communities ready and equipped to lead their own environmental activities. Our second strategy was to scale what was working, our Blake Ambassadors. We worked to develop a network of partnerships with New Zealand science and conservation experts to provide 18 to 24 year olds and New Zealand teachers with unique summer intern roles. In the last few years, our Blake Ambassadors have worked in The Catlins on penguin research and rescue, fishery surveys on the Chatham Rise, studying humpback whales in the Southern Ocean with NIWA, and on wind turbines and restoration projects in Antarctica. Most recently, we had two Blake Ambassadors onboard Tara doing plankton and ocean sampling between Fiji and New Zealand. These young people return even more excited about environmental science as they move on to complete Ph.Ds and lead international science and environmental research initiatives for New Zealand. I wanted to include this slide because I think this saying or this quote of Peter's is definitely the one that resonates most with young New Zealanders today. For them, they intrinsically understand that

their actions every day have a direct impact on the environment. For that, it gives me great hope about our future. But we still had one strategy to implement, our most ambitious. We wanted to move the trust and young Kiwis into a modern age of ocean exploration. We wanted to attract our brightest and most talented future leaders into science and conservation. Strategy number three was Young Blake Expeditions. The reason it's ambitious, and my board would tell you this, is that we didn't actually own a boat, we didn't employ any staff with experience in planning or leading expeditions, and as a charity, we still didn't have any money. But just like Blakey, we didn't let that stop us. We forged partnerships with the Royal New Zealand Navy, our universities, NZARI, DOC, NIWA, and the Ministries for Education and Environment to give us access to the expertise and resources we needed to put together a deep sea ocean-based programme. In 2012, we cut, Young Blake Expeditions cut its teeth on a thousand K voyage onboard HMNZed's Canterbury to the Kermadecs, New Zealand's northernmost marine reserve, with 30 young leaders and a full science crew onboard. With health and safety at the forefront, our trustees were a little nervous. This was not assisted by the news that we were taking the 30 voyagers swimming with sharks off Raoul Island. With the discovery of a new species of shark and a massive underwater volcanic eruption that was photographed by NASA, this voyage certainly delivered on our promise of adventure. Since then, we have undertaken two further expeditions to the sub-Antarctic and Auckland Islands, where our young leaders have worked with scientists to undertake the survey work required for the proposed Blake Station, a new climate and ocean research station for New Zealand. That gives you a snapshot of our environmental pipeline. I just wanted to mention, as well, that in addition to our environmental programmes, the trust also runs about a thousand Leadership Week and Red Socks events in schools and communities across New Zealand. Our theme for leadership this year is Believe You Can, which, of course, comes from Peter and the essence of who he was and how he went about his business, but also fitting with Team New Zealand returning with the Cup this week, as well, I think. I just wanted to finish up with several observations around ocean leadership, and then share with you a video from our Youth EnviroLeaders' Forum this year, which was actually in the beautiful Hauraki Gulf. The first observation is that despite the fact New Zealand is an island nation, we still have a bias towards terrestrial conservation, often resolving issues such as plastic pollution. Sustainable fishing and marine reserves can feel too hard. But given the increasing importance of our oceans to sustaining life and the planet, I would offer Blakey's own advice, "It's too important not to." New technologies, like N Zed Geo's underwater virtual reality experience are helping us to get a better understanding and experience our marine environments in ways that were not previously possible. Secondly, the motivation for change around ocean leadership across the world, and actually all cultures, is without doubt an intergenerational view. Those taking the greatest leadership do so accepting that it is their children and their grandchildren who will see the benefits of their actions today. The new models around eco-based management of our marine environments offer real promise. It is not enough to have great science and decision-making tools around the effective utilisation of our marine resources. We must also engage New Zealanders in discussions around what we value in our

oceans, our priorities for use of these beautiful blue spaces and the trade-offs that we can all live with as Kiwis. We now believe that the trust model to enhance not only young people's knowledge and skills about the marine issues, but also their leadership and confidence to negotiate, influence and mobilise their peers will be critical to New Zealand's ability to create change and manage multiple stakeholder interests as we move forward to resolve complex environmental challenges. Finally, my view is that we cannot engage young people early enough in these discussions. Our efforts to do this through experiential learning will deliver a new generation of ocean leaders for New Zealand, and perhaps the world. We must make space for them in our ocean debates currently in order to prepare them for these future leadership roles. Now I want to share with you a quick video from our Youth EnviroLeaders' Forum. We spent a week out on the Hauraki Gulf. We had 50 bright, young, talented New Zealanders, and another five from across the Pacific who joined us. Please enjoy Youth EnviroLeaders' Forum. Thank you.

- The YELF brings together students from all over New Zealand, as well as from the Southwest Pacific. The whole week is about leadership and action and experiential learning opportunities for these young people to become environmental champions.

- We've given the students a number of activities and events that will challenge them, which allows them to explore their reactions to that and learn a little bit about themselves.

- It's been incredible in assessing the different ways that people can actually work together, and what works, what doesn't work, what works in a different way.

- You gotta get up. Welcome to your early morning activity this morning.

- It was just a once in a lifetime experience. Not every day you could go onto a Navy base. You could do the things they do. You can use their equipment.

- One of the things we're doing here in Ngati Whatua is about trying to create a sustainable urban village.

- This is the clay that was left over from the hui of 200 people on the weekend. We've got some systems in place in our nursery with our compost, our garden, our wind farm and our Bokashi system to reduce waste from a landfill.

- YELF and the Ministry for the Environment have a really close partnership. This year, we've got a number of us coming for the week and presenting what we do to these students.

- It's really opened my eyes towards the procedures, legislation and everything like that.

- I've already seen some YELF people go back to their own communities and change what they might do in their school, in terms of recycling. Others have been involved with us in terms of thinking about policy.

- My favourite event at YELF was the microplastics lab and learning about how microbeads and polyethylene really affects plankton.

- My favourite part of YELF has been meeting so many people who are like minded.

- I think I've created lifelong friendships. We have the same realisations that we need something to be done within our environmental community.

- It's certainly blown away all my expectations. It's been an incredible week. Each day has topped the last.

- We learned about lab work. We learned about policy. We went to field trips, places that I've never been before, and learning that they existed. It's definitely been life changing for me and it has impacted my life so much.

Mark Orams - Isn't that wonderful? Congratulation to the Sir Peter Blake Trust, to its supporters and all who've contributed to creating that organisation that is living Peter's legacy. Blakey would be proud. Another organisation that Sir Peter would be proud of is Tara Expeditions Foundation, and the connections that run deep through not just the boat, but the Trouble family, who have had such a long-standing friendship with Sir Peter over so many years. It's my privilege to introduce to you, for the next presentation, the executive director of the Tara Foundation, Romain Trouble. With a double degree in biotechnology and business management, Romain is equally known for his sailing skills and his participation in the two America's Cups that were hosted here in Auckland in the year 2000 and 2003. From 2003 to 2006, he worked for Cerpolex, and specialised and polar logistics in the Arctic, Antarctic and in Siberia. They were involved in the organisation of sporting, tourist and scientific expeditions, but also in the discovery of frozen mammoths. He has been coordinating Tara Expeditions since 2004, and has become the executive director of that organisation. Romain is going to give us some insights into how Tara Expeditions has transformed Sir Peter's drive and vision to get people caring about the environment through showing them how beautiful the world is and focusing on scientific research to help combat some of our planet's most pressing environmental issues. As Peter would say, here's trouble. Romain Trouble.

Romain Troublé - Wow. It's a be back week. The Cup, Tara, Seamaster and myself. My dad. Some part of my crew, as well. It's a be back week. What a week. It's a wonderful time to be

here, and effectively with Wayne Walker, two years ago, we planned that. We planned this week. You're good, huh? Yes. Thank you for your hospitality. Why Tara is sailing across the ocean since now 14 years, since now Pippa decided to lend the boat, to sell the boat to my family, to my cousin Etienne Bourgois, who's a crazy guy in the head with a vision. My aunt, my dad's sister, who we started to let's take over and let's take the people into their adventure. Let's tell stories about the environment. At the beginning, it was not much about science. It was just about telling stories. Why the ocean? If you look at the planet, this is our planet. If you look at the ball on the corner, this is just all the air we have on the planet. If you put all this air in a ball, the air is such a small ball. But if you do the same with the ocean, all the water on the planet fits into this very, very small ball. When you know that the life on the planet's coming from the ocean, when you know that the life that sustains us every day, our life's super systems, is in the ocean, and when you realise the size of it, you say, okay, this is the main compartment of life on the planet, where you find life. It's the biggest, 80% somehow of the biosphere. There's no politicians there, there's no voters. There's nobody to vote for rules. A lot to do for the community, for our community as human being, mankind, to take care of this and to study it and to share it. We did do that over the last 14 years. We did 11 expeditions. Some were small at the beginning, but we did, all in all, very three big ones. Three that is in the wake of the great expeditions of the 19th century, 18th century, when we were discovering the planet, when we were going behind, it was Darwin's time, it was the Challenger. Looking for trade routes Now we start, we're doing these kind of missions, but to study life and to share the ocean stories and the ocean life. We did three main ones. The first one is a crazy one, the craziest maybe so far. In the room, we have two, a few of my crew who spent 11 months onboard the boat during this trip. You can see the drift of Tara in the, what is this colour? Blue. This was done a century after the Fram did it in 1893. We did cross the Arctic Ocean like that. The boat and the sea. What you see now, the boat and the world around the boat was drifting across the ocean, 10 kilometres per day. Without guessing. Sometimes, it was a bit shaky. We did study the atmosphere. We did study the ocean below, 4,000 metres below. We also studied that small vanish of sea ice, which is a metre now. That's been reduced by 70% over the last 30 years. How this small vanish of sea ice is diminishing over the last. Where the heat's come from? The heat's come from our places, from this house, actually, in the Arctic. You can see that by the water coming in there, heat's coming in, and by the temperature in the atmosphere. This piece of ice in the middle is disappearing very fast. Coming back from this expedition that last 18 months, a year and a 1/2, six months in the dark, six months in the day and six months in the dark again. Minus 30 sometimes, minus 40 maximum. We said, okay, what could be the impact of this onto the sea life? Onto what is the basic food chain in the ocean, which is the plankton, the microscopic life that you can see on this video. How can we understand this better, this world, this completely amazing world, this beautiful, beautiful species of animals, creatures? We did study the planet. We did study this across the planet. We study the biology, viruses, bacterias, microalgae, so plankton that eats on it, which is therefor the fish food, in fact. We studied that in the environment. We did that across the planet. It was four years in a row. As you can see here, we

were, we'd be fast on that. We even sailed across the Arctic, around the Arctic Ocean to finish this study. This was bring 40,000 samples. We do genomics on it, science. When I speak in front of you and just not me, we have 300 people who, since the 10 years, 14 years, are working to make this happen. It's a lot of commitment. This commitment's led to a very, very state-of-the-art science with it. Nine papers in Science journal and in Nature. 120 papers so far on this plankton story. We also did the cover of Science, which is amazing. I don't know how we did that, but we did it. Everywhere we were going on the planet, we were fishing plankton. Always did the same work. Pretty boring, in fact, in the end, but we were finding plastic, as well. We decided to also do an expedition on the plastic in the Mediterranean Sea as a laboratory. The Mediterranean's very well known, so we tried to tackle this issue. For every bits of plankton size, you have a same plastic bit pieces in the ocean. This is not the fate. This is reversible, which we take action, if we do something, if we stop throwing plastic in the ocean. In 50 years' time from now, we will be a much better world. This is really realise our daily life, the plastic we use every day in our kitchen to the ocean, and very far from the ocean. We found plastic in Arctic and Antarctic everywhere. While we are here today because we are on a project called Tara Pacific. It's in Japanese because we were in Japan three months ago. We crisscrossed the Pacific Ocean for two and a 1/2 years. We tried to understand how the reef, coral reef, behaves. Global change, not only climate change, but global change. Doing that, we stopped by. The range track is the first year we did. We're now in Auckland. We stopped by 18 so far, 18 different islands. We do always the same. We collect the same species. We collect water around. We try to understand who is working with whom, who is doing what, how this whole ecosystem behave. By doing that there, we were in the same way, we can able to compare those, crisscross data and understand new patterns and new adaptation strategies for the future, and how to help in the future, how to help the reef to sustain the climate change, if we can. This is a long story. This is a long haul, two and a 1/2 years. The science will be getting out for the next five, six, seven years. The beauty of it is we're gonna be able to compare the reef biology with the offshore biology in the same way. We can get connectivity and have a bigger understanding of all this. You know what? Over this four years project on the plankton, 85% of what we collected is unknown to man. This is huge. This is very engaging because there is so much to do, so much to discover, so much to tackle. We need young scientists to engage with the Blake Trust and through many other NGOs across the world. Really, this is, I feel this is a great, great challenge to take. Across the ocean, we dive, the crew and the sailors. Diving on every reef. You got Sam, the captain, is also a diver. He's diving now, flying his motor scooter across, above the reef to collect the plankton that must live on the reef, on top of it. Then we have other divers down below. One is with his mask. The other divers that collect pieces of plankton, of coral reefs, pumping water around the reef to know who's living there. All this is happening everywhere on the ocean. Over the last year, 2,500 dives so far, all safe. We are going to next year, again, to do the same across Southeast Asia. This is during the reef. I would like to take you on a journey, two minutes, three minute journey to really love this animal, which is the coral reef. Can you play the video, please? What you see is really super micro stuff that's never been done before. This guy,

Pete West from BioQuest, is a crazy man. We are working with him a year already to achieve this kind of video. This is science. There's education, education of kids, of course. We talked about it a lot with Shelley. Also, grandkids. They are very important. This is with Ban Ki-moon. He had the chance to have him twice onboard Tara over the last three, four years. He was completely moved by what's happening on this boat, the science, the questioning, what we know or we don't know, what we need to know in the future. We need facts. Today, we need facts in the world where the US craziness to have their own facts. We need scientific facts today. I have my truth, he has his truth. This is very important. I need to continue the work. In the future, into 2020, we already planned to do our next drift across the Arctic Ocean. We have to build. It's just the beginning of the project and, as Peter said, the biggest, the hardest is to start. We are now starting to develop this new project to drift across Again, study the biology over there and try to predict what's gonna happen. If we are here today because of this man. I think if we got this boat in the family, it's because of this man. He inspired us to do something. If we are here, it's really a great legacy. It was hard to cope with this legacy, but I think we are, in a good way, all together. If we are here, it's because of the council support, thank you very much, the Blake Trust. Owe some support and hope it's the beginning of a long story between us. Also because of our great partners of Tara since many, many years. Yes, we can make our planet great again, and we can do it together. Thank you.

Mark Orams - Bravo. To Romain and to all the Tara team. As you can see, we've had two presentations which demonstrate for us that the spirit of Sir Peter Blake lives on in the work and the hearts of so many. That is a wonderful, wonderful way to honour him. Our next presenter and final presentation for the evening is to bring us a little bit more down to home. This is a person whose career and mine have intertwined on a number of occasions. I'm delighted to welcome and introduce to you associate professor Rochelle Constantine. She is a conservation biologist whose research is primarily focused on cetaceans, and more recently, sharks and seabirds. She heads the Marine Mammal Ecology Group and works on a number of multi-disciplinary collaborative projects anywhere between the tropics and Antarctica. She leads an international project on humpback whale connectivity in the Southern Ocean, as part of the Southern Ocean Research Partnership within the International Whaling Commission, dedicated to non-lethal whale research. She is the director of the Joint Graduate School in Coastal and Marine Science between NIWA and the University of Auckland. Rochelle will bring the global picture home for us and will talk about the Hauraki Gulf, what's going on above and below the water, and how our actions can make the difference. Please join me in welcoming Dr. Rochelle Constantine.

Rochelle Constantine - Kia ora, Marko. Marko is one of great inspirations. I'm very grateful for many years of friendship with you that continue on. Thank you all for coming here tonight. It's always very overwhelming, these events, because you realise that, and as a scientist we know we always stand on the shoulders of giants. There are many of you in this room who I know in

many different ways because as a scientist, our work is not, it doesn't exist in isolation. It takes a village. My approach to my research has always been collaborative. It's always been about getting the best people onboard to try and find answers to problems, often to very wicked problems. Certainly, when it comes to marine conservation, there are many wicked problems. Tonight I'm gonna talk to you a little bit about, or the Hauraki Gulf. It has many names. It's a big area. It's actually a really, really important place. It's an important place to all of us who live here in Auckland because it's our big blue backyard. Many Aucklanders know the edges of it. We dabble in it, we look in the rock pools, but it's actually an enormous area. For a marine scientists like myself, it's about 4,000 square kilometres of just pure productivity. It's a really homogenous environment. It's only about 50 metres deep. Pretty much similar benthos. A few islands dotted around, but it is constantly changing. There's this rich seam of cold water and warm water that come through at different times. They come up and over the continental shelf. The wind mixes the water. It's always green. In this case, green water is a good thing. It's life. That's where it all starts. It's the phytoplankton. I am often asked, "Rochele, what's your favourite "marine animal?" Because I study whales and dolphins, everyone's like, oh, it'll be a whale. It's actually a coccolithophore. I'm not kidding you, I love coccolithophores. Now you need to go and look up what that is. It's a very small, unicellular phytoplankton, but it is a work of nature that is spectacularly beautiful. In New Zealand, we have them all around our coastline, massive blooms of them. They can be seen from space. Go look it up, coccolithophore. But in the gulf, we have massive productivity. We have a rich phytoplankton fauna. Of course, in turn, zooplankton and so on and so on. Many people don't know that the Hauraki Gulf is New Zealand's only marine national park. It's a national park. It's like Tongariro National Park, like Whanganui National Park, like Abel Tasman. Yet, most people are like, really, really? But this is it. This is our jewel. It has an act of law that protects it. It is truly a magnificent place. It's a place of great life of all kinds. I talk a bit about the phytoplankton, and now I've talked about the zooplankton. For me, these are the things that we see that inspire me. In this picture here, there's dolphins down in the bottom of the picture. There are shearwaters. There are some terns in there. Of course, the gannets that are diving in. All of this life you can see on the surface is going after the same thing. They're going after fish. They're mostly small pilchard, saury, those kinds of things. A big whale has come right through the middle of it all, a Bryde's whale, and taken a giant gulp out of the way of all those other things that are picking off one fish at a time. These 15-meter-long whales, Bryde's whales, this is a species that I've studied for some time here in the gulf, but everything that you see on the surface is only a fragment of what's going on because underneath there, there are big schools of fish. They're feeding on the different zooplankton. Then there are sharks under there. Then there are larger fishes that are eating the smaller fishes and so on and so on. This happens every day in the gulf, all the time, constantly. It is such a place of great productivity. It's a place that is quite a fascinating environment because not only do we have the stuff we see on the surface and the life that lives in it, but it's also a place of many sounds. I'm involved in a research project with my colleague, we have a Ph.D student who's about to finish, about the soundscape ecology of the gulf. Now, I don't think

you probably think much about what does the water sound like. Mostly, at best, we sit on top of it, often, with our fishing rods or on our boats, and we sorta bob around. Occasionally, we get in there. Occasionally, we might either snorkel or dive, but it is so noisy. There is the noise of small geological events, small earthquakes. You can hear those in our hydrophone arrays. There's also the dawn and dusk chorus. It's a massive amount of noise, and that's mostly the kina, the urchins, going They go crazy, dawn and dusk. For some reason, they all rattle their spines, groove around, do their thing. We don't know why. At nighttime, you hear these really unusual sort of kinda sounds. Those are the bigeye fish venturing out of their caves at nighttime. They go pop, pop, pop as a kind of I'm here, oh, yeah, I'm here, I'm here, I'm here. They just pop, pop, pop, pop and move around, staying in contact with each other as they venture at nighttime out of their very safe environment. You also have the deep croakings of gurnards and all the other fishes. You have the whistles and the echolocations of the dolphins, who also have, the common dolphins in particular, have this very active period around dusk. For some reason, they all come alive. I think it's because the nighttime fishes are waking up, and the daytime fishes are going to sleep. The dolphins are making the most of that. You have the low, very, very, very boring moans of the Bryde's whales, as well. But also over this, there is a lot of noise that's made by us. There's ship noise and boat noise. The high whine, the squeal of an outboard engine and the noise of ships. Now, our big blue backyard is in our bigger city, Auckland. It's also our biggest port. We have a really big challenge there because that low frequency sound goes for miles and miles. We did some tagging of these Bryde's whales, suction cup tags that recorded every sound they heard. There's 62 hours of recording. There were very few minutes where we didn't have boat noise in the background. That boat noise is exactly the same frequency that the whales use to communicate with each other. That is of concern to us. But what was of more concern, of greater concern to us, was that around the early, mid-2000s, we noticed that we were having a lot of these whales wash up on our shores. Now, Bryde's whales in the Hauraki Gulf, it's about one of only three coastal populations of the species in the world. We don't know very much about them because they weren't heavily hunted. Unlike most whales, they don't go down to the polar regions. They just stay year round in the gulf. We have these whales here year round. 15-meter-long, big Baleen whale, eating all the time, out in the Hauraki Gulf. They're usually alone. They're usually just doing their thing. But what we found out is that they were being hit by ships as ships were coming and going. This provided for us an immense challenge because what do you do when you've got shipping, which is the lifeblood of New Zealand, it's moving products into and out of. It's a massive commercial venture. Most of the shipping is global. These are the big companies, Hapag-Lloyd, Maersk, all the big names that we know that are global. We were faced with a really big problem because the Bryde's whale population, those that are pretty much resident in the gulf year round in the broader regions, is about 60 whales. We were having between two and three whales killed every year by ship strike alone, which is about the same rate as their natural mortality. We were staring down a really big problem, that we might lose these whales. I guess I'm one of those people who don't like problems, I really like solutions. Problems annoy me, and I like to find solutions to them. My first

inclination was what are we gonna do? Who needs to know? We got a bunch of people together. We sat down and we said, "Right, what's going to happen here?" The industry, of course, is like, "Well, we can't slow down. We've got schedules to keep to," blah, blah, blah. "I'm sure this isn't a problem." I'm like, "Yeah, it's a problem. Here's some science." They're like, "Oh." Then we went back to the table. They said, "Well, this is how much money it's gonna cost us to slow down." I'm like, "Oh, really, okay. That's a bit of a shame because that means you've valued whale's lives." There was around about five to \$8 million a year. Each whale, you kill two whales a year, is worth about two and 1/2, give or take, to \$4 million. That's the price of a Bryde's whale. Whoa, steady arm. It was one of those moments where we kind of all realised that our currencies were different. What we were discussing and what needed to happen was different. What we did is we sat down, we hashed it out. We talked a lot. We agreed to be uncomfortable. We agreed to disagree. But we agreed that we had to keep going because we had one common thing: We didn't want dead whales. No one wanted to kill whales. That was the thing around which the whole conversation went. In two and 1/2 years, we solved the problem. The shipping industry developed a voluntary transit protocol themselves. From two and 1/2 years from the beginning of our conversations, they announced the Transit Protocol for Commercial Shipping. Took them sort of a year or so to get into it and to actually start slowing down. But now, for the last two and 1/2, almost three years, they've been sailing at about 10 knots through the Hauraki Gulf. Completely voluntary. All off their own bat, and just doing the right thing. The last dead whale we had was in September 2014. That, I think, is the spirit of leadership that everything that we've had. The leadership came from us as a group. It didn't come from me. It didn't come from each of the owners of the shipping companies. It came from us as a group. That collaborative approach is what solved the problem. I could not be more proud of these guys 'cause they just do it 'cause it's the right thing to do. We face other challenges in the Hauraki Gulf, the same as the global ones. These wicked problems don't stay away from our gulf. We are affected by climate change. We know that our weather events are getting bigger and more extreme. A couple of summers ago, pretty much all the whales and birds and everything just moved right out of the Hauraki Gulf. It was too hot. It was just too warm for them. They moved because it was too hot for the plankton, so the plankton moved and the whales moved. They follow their food. We are facing these challenges. We're clearly facing challenges of plastic pollution. There's not one single one of you that can walk on any one of our beaches here and not find some plastic on it, which is really sad. We have some amazing organisations, the Seacleaners, Sustainable Coastlines, a couple of examples, and their hundreds and hundreds of volunteers who have removed over 6 million litres of mostly plastic rubbish off around our coastline in this region. 6 million litres. It's ridiculous. They mostly focus on the big stuff. This is a terrestrial problem. Plastic is a terrestrial problem. It's our problem. These are our choices. Every single one of us needs to show our own leadership in thinking about plastic and use and disposal and where it goes because these kinds of scenes of birds. There's no wildlife at all in the ocean, from the smallest, smallest of animals to the very largest of animals that are not affected by plastic. This is our personal challenge, I think, in the gulf that

we need to take on. We also need to think about in the gulf the way we fish. Fishing has become a real kind of, ah, the recreational, ah, the commercial, ah. There are no sides in fishing. There are just fish. There are these fish populations that we have in the gulf that live only over a reef. That is their home. They know every part of the reef. We bob around on top, we chuck our line over, we hook them out. There might be a 40-year-old snapper who settled there quite young, knows all of where to get the best kina, where to go, where its favourite kelp is, how hide, hello to the spotty. Get a to the little leather jacket that goes by. We pull it out. We eat it. Nice. In fact, sometimes we don't even eat all of it. We need to think about that. We need to think about what we're doing to our gulf. We need to protect its sediments, the benthos, the life-rich benthos. It often just looks like sand and mud, but there is so much life. There are thousands of different species that live in the benthos. We need to think about what we're doing and how we interact with the gulf. We've had some really fantastic initiatives been taken in identifying problems. This is the last of the State of our Gulf reports. They came to that point where they recognised there was a problem. They had some very clear guidelines of things that we need to do. This is our gulf. This is our gulf that we're talking about. It is on all of us to think about how we can actually enact this and ensure that we move forward to a much better place than we currently have. No, it's not a big disaster, but it's not all good. There are many things that we can do. We also have the sea change, process, which is now a framework for moving forward and actually making difference. It's a bit stuck at the moment. It's stuck for political reasons. We need to unstuck that. I think us as Aucklanders need to just keep going because this is our gulf. It's not Wellington's gulf. It's our gulf. We need to think about what we want that to look like. There are many ways we can achieve that. In summary, I am, I guess the Hauraki Gulf is every message that Romain talked about that's global is in our backyard here. I think that we can make change. All of the organisms that live there, from the largest whale to the smallest little coccolithophore, this is their place, too. I've had a lotta conversations recently with people about why don't we just change our way of thinking about it. It's not our gulf. It's all of the organisms that live in their water, it's their gulf. If we think of our actions and what that does to them, then maybe, maybe we can just move forward and own it and take leadership over our own lives, but over looking after the gulf for now and forward. Thank you.

Mark Orams - Kia ora, and thank you, Rochelle, for such a powerful presentation and for reminding us of a number of things that are important. Firstly, that conversations are important, courageous conversations, conversations with people who see the world differently, but a commitment to continue to persevere, and through those conversations to try and find a way forward that is better. That is part of what we are moving to now. I'd also like to reflect on two very powerful presentations from Romain, with regard to Tara Expeditions Foundation, and from Shelley Campbell, with regard to Sir Peter Blake Trust, and the work that they do and the difference that they are making. As we move into our question session, I'd like to invite both Romain and Shelley back onto the stage to join Rochelle here. So here's what we're going to do, everybody. I would hope that as these presentations have been made that your curiosity has

been piqued and that you may now have some questions that you would like to put to our panel members. We have some wonderful ushers who are working on each of the three blocks that you're sitting in. Then what we are going to do is invite you to raise your hand if you have a question you'd like to put. Then we will direct, I will select the question to be put, and we will direct one of our ushers with the microphone to you. If you would like to introduce yourself, your name. If you have an affiliation with an organisation, you're welcome to let us know that, as well. Then please let us know who your question is for, and ask your question. Then we will have our panel here respond. I know it takes a little bit of courage to put your hand up, and even more, perhaps, to put a question, but please have that courage and do so. This is the opportunity for us, with these wonderful presenters, to have questions that you're curious about answered, or particular points that are significant and important for you. Thank you very much. Appreciate your courage in the middle of the middle block here. If you wouldn't mind just keeping your hand up and standing, thank you. We'll have the microphone delivered to you presently.

Audience - Thank you. Hi, my name's Anita. I'm in my late 20s. I just wanted to ask the question, who is your target audience? I guess more for the Tara people. When you have this information, who are you giving it to? Because I have an interest in Sir Peter Blake and what he has done for us because of my mother's introduction for me and everything that Sir Peter Blake did, but I haven't really heard anything since. I don't know whether that's just because I'm not in the right circles or what. I think it's a shame because you have all this important information, and I haven't heard it. I'm just wondering who your target audiences are to maybe be more a part of that circle.

Mark Orams - Kia ora, Anita. That question's for you, Romain.

Romain Troublé - Thank you for the question. Actually, we have three targets, four targets. The first one is, the basic one is science because everything that is collected, every data that is taken, every information that we have on the ocean, is open letter, is open source, shared with any scientist across the world. They have access through databases freely. That's one. The second audience, I think in size, is generating through the media. Mainly French media, but whenever you publish this science papers, this has triggered 1,000 papers, 1,000 articles in 100 countries in 10 days. There's global reach. We are crafting curriculums for schools. But we speak to the kids through the schools. It's very hard to reach the kids directly, so we choose to target the school kids with the teachers. That's what we do every day now. A lot of activity, a lot is done in French so far. We need to be wider now, it's underway. The last target is politicians. At the UN, we managed to take the scientists on the stage at the UN. Many times we managed to do side events explaining stuff. This is the four targets we have. We try to do all of the main targets, but, of course, it's a bit spread out, but I think it's what we need. We need time. We always say we are no time, this is too late, but we have time to change, we have time to teach, we have time to engage a new generation for the next 25, 30 years. I think we need to take the

time for that.

Mark Orams - Thank you, Romain. Appreciate that. Thank you for the question, Anita, and for leading us off with the question session. I'd invite somebody else to raise their hand if they have a question, please. Again, in the middle block towards the front here, please, for our usher. If you wouldn't mind just standing again. Thank you.

Audience - Kia ora, my name's Emily. I love the oceans. Thank you for your talks, all of you. I have a question for Romain about your expedition through Japan. What was it that you were looking at? Was it, for example, the impacts of the nuclear power plant fallout? If it was, did you see anything, and can you tell us about it, please?

Mark Orams - Thank you, Emily, for the question. Just a quick little translation going on here.

Romain Troublé - The sound is not very nice for us, and I'm French, of course. In Japan, we did a survey of the coral reefs in August in Tsushima, south of Japan, and all the archipelagoes of islands from the Ryukyus, the one from the southern tip of the main islands and Okinawa. This was a study we did from Tokyo to Okinawa. But we spent a lot of time. We spent more than a month, all the crew. It was a crazy adventure to call in eight harbours in Japan to talk to them about the ocean. Without confrontation, talking about the fisheries, but we tried to talk to them about what the ocean is doing for them every day. Ocean, atmosphere, the oxygen they breathe, the fish they catch is coming from beneath the ocean. Maybe in the future, if we are not careful, this lab super system may not sustain. We tried to that. We haven't gone to the nuclear issues area in Fukushima this time. We're gonna go there next year. Effectively, this would be the time to talk about it. Japan is such a weird place. Weird people. They're not like us. They don't think like us. I think it was a crazy time for us all on the boat, but it was very interesting, actually. It's very different. We are very different. Before putting them, the head below the water that you are doing. You are bad fishermen. You fish too much, you ruined the ocean with your nuclear leaks. There's a lot of work to do to understand them, how they think, how they can change.

Mark Orams - Thank you, Romain. Excuse me, just shading the lights here and sort of looking in the distance. Middle block, all the way down the back row there, please, usher. Just be a few seconds. Same process, please. If you wouldn't mind just taking the microphone and introducing yourself and who your question is for, and then your question, please.

Audience - Yes, my name is David. I'm Australian. I feel friendly here. I'm at the end of a 10 year yacht cruise around the world. My question is this. There's enormous resource out there called yachtsmen. In the City of Sails, all the more so. I've met thousands of yachtsmen. Can I ask you, how do you utilise that resource and what suggestions do you give to do so? Thank

you.

Romain Troublé - Thank you for asking the question. Since four years now, with the scientists involved in Tara, and also with association in New Zealand, as well, we develop a project called Plankton Planet. If you connect to this website, if you wanna go on the loop, there's a loop here, KIWILAND, FIJILAND, VANUATU and back. If you wanna do this loop, you could do plankton collecting every day, every day or so. But the problem so far, you have to go down to two knots. When you're a cruiser, you don't wanna go to two knots. You don't wanna get the sail down. You don't wanna bang in the ocean like that to collect plankton you don't even see. We are working now to develop. We spent the week here to work on it. There was 15 people of us coming from all over the place to find ways to be able to do that in five knots. I think we'll be much more successful in the future to go, to avoid stopping down the boat. It's the future. Of course, when you talk about the ocean, we barely know nothing about what's live in the ocean. It's not only the survey boat across the planet who can do the job. You're right. The resource we have in the yachtsmen, the cruisers across the planet is huge. We are definitely intending to tap into it and to engage people in that. Thank you for the question.

Mark Orams - I'll add to that, too. Thank you, David. You may already be a part of or aware of an organisation called Sailors for the Sea. You're quite right. There are thousands of sailors who are exploring, sailing and caring about our marine planet as we speak. I'd also add you're very welcome here, David, as an Australian. Of course, the skipper of the Emirates Team New Zealand is an Australian, so I hope you celebrate along with us tomorrow in the parade. Welcome, in the best ANZAC spirit. Another question, please. Again, in the middle block. Come on, outside blocks, we're not at all. Middle block, just in the front here. I'll come to you, thank you very much, in the right block after that. About the fifth row, black, middle back, middle block, please.

Audience - Thank you. My name is also David. I'm an Aucklander. This is a related question, particularly for you, Rochelle, if I may. I'm an Aucklander. I have a small boat. With my family, we love to explore the Hauraki Gulf. If there was one thing you would like Aucklanders to do differently, one behaviour change you think could make a considerable difference to our big blue backyard, what would you ask us all to do? Assuming we like to behave responsibly as best we can. We like to do the obvious. What's the big change we need to make?

Rochelle Constantine - I think for all Aucklanders is thinking about what comes off the land part and goes into the sea. We have issues with storm water, with sewage runoff and, of course, with just rubbish going off our land and into the sea. I think for those Aucklanders on the water, and there are very many, we're usually not too far from the land, we quite like the land, but for all the Aucklanders that are on the water, I think have a seriously good think about your fishing practises because we need to think about how we, the gear we use, how we use it. We need to

think about is there a risk for a bycatch of a seabird, for example? We have very high bycatch of seabirds. Little hooks, just the little hook you throw off the side of your boat, just through lack of awareness. There's some great education campaigns around how to make your fishing seabird-safe. Also, what you're catching. How many fish are you catching? Also, how much you're taking from around the coastlines, as well. Our mussels, our cockles, all of those things, as well. On the land, thinking about what comes off our land into the water. Then when you're on the water, thinking about your fishing practises.

Mark Orams - Thank you, Rochelle, and thank you, David, for the question. I'll just add my thought to that, if it might, as well. My view on it is that we need to go through a fundamental attitude change. That fishing is not a right, it's a privilege. What that means is if we adopt that particular attitude, that means we don't fish to the limits that are given to us. We fish for, as a privilege, only what we need, and we're very careful in our decision making about where we go, how we do it and what we do. Leadership first starts with leadership of self. If we lead ourselves, then we have the right or the ability to perhaps lead others. Thanks for the question and the opportunity to share my thoughts. Now, I promised I would come over to the right group here, so apologies that I missed that before. There was a gentleman, middle of the right group, who was waving. About third from the aisle, please. Thank you for your patience.

Audience - My name is Ridge Lawson. I'm a fourth generation New Zealander on all sides. I've dived from the age of 13. I'm now 73. I've seen a lotta changes in all that time, most of them for the worst. When I attended an Oceans 40 years ago where Dr. Sylvia Earle warned of the pollution of the trenches around the world. I think it was last year, NIWA said, "Oh, there's pollution in the trenches "of the ocean." To quote a plumber, shit doesn't run uphill. I'm just wondering how the heck we can actually deal with this problem because that's, I think, with the ocean is getting poisoned. As you know, if the oceans die, we die. It's as simple as that. I'm just wondering if you knew of any way that they're improving this situation, apart from just the shallow waters. Thank you.

Mark Orams - Thank you, Ridge. Any one of the panel members like to take that question?

Rochelle Constantine - It's a very good point. I do think we must also remember we have made progress. If you think, probably about 30, 40 years ago, everything got dumped into the ocean, absolutely everything. The London Dumping Convention, as it was at the time, actually got rid of a lot of the real egregious crimes against the planet where the ocean was just considered a big tip. Same with runoff from factories into rivers and estuarine spaces. I think one of the great challenges for us, and this is where technology and engineering and ingenuity is really important, and allowing people to think of completely wacky ideas and not dismissing them out of hand. We have to think about all crazy ideas, good ideas, random ideas, and really give them an airing to solve these problems. There's recently that Dutch boy, teenager, who sort

of thought of a big machine that, well, it's not even a machine, really, it's just a passive thing that's floating around out in the ocean and picking up rubbish. It's working. Sure, it's not perfect, but it's actually working. We know where the major rubbish gyres are. I think now we're getting to the point where why don't we work out how to just go out there and pick up a whole bunch of that rubbish. It's not hard to find. Sure, there are some things, like in the deep trenches, that we won't be able to get to to tidy up, but I do think if we don't add to it, then it won't get any worse. They're really wicked problems, but I do think that one thing about humans, we are infinitely curious and we're always thinking of ingenious new solutions to problems. Sometimes it's the most obvious, simple thing. I think we need that space to voice those possibilities.

Romain Troublé - We need to share that because within Japan, three months ago. I've been in front of a crowd like you, and I asked the question to Japanese, how long do you think plastic bottles disappears in the ocean by itself? How long? They raise their hand. "A week." Another lady in the back, "Two weeks." An Indian, okay, let's go for it. "Three months." A century. They were shocked. 1,000 people I had in front of me. You realise such a country like Japan, educated, sophisticated, rich, is not able to teach its population this type of basic ideas, basic notions. Here we are. Here we stand. Now in Japan, there is maybe five, six NGOs only. We have to leverage that. We need to work on that, as well. It's everywhere on the planet. The problem's global, but education is, for me, education is the key of everything.

Shelley Campbell - I was just saying that with your experience that you see that number one issue is pollution because actually, from our experience with young people, it's the thing that concerns the most, as well. But what gives me heart with young people is we did a microbeads plastic lab at Auckland Uni with YELF. Then we got all these calls from parents when they came home because the kids had raided the medicine cabinets at home and chucked out all their parents' makeup and creams that were contributing to their pollution. We hear a lotta stories about our young people, negative stories in the paper, but actually, they really care about these environmental issues. They want to make a difference and they're really ready to act. We need to create the space for them to do that, and engage them in those conversations. The other thing that I watched that's really different with them is that those of us, of my generation, we might look at potentially one or two situations or solutions. Our kids in this generation, they're very quick to look at technology and 25 different solutions. I remember one expedition when we're on, and we talked about problems with recreational fishing and capturing how many fish were being taken. That night, one of the students created an app to be able to monitor recreational fish take. Our kids are smart and they're really, really motivated.

Mark Orams - Thank you to the three panellists, and thank you to Ridge for the question. We'll share it over to the left block here now. I'm sorry, we're not gonna be able to take all questions. We've only got a couple of more minutes, but we do want to have a representative from team left block to go ahead. Thank you.

Audience - I'm Rosario. I'm the national French advisor. We love French here in New Zealand. We have about 60,000 students living French. 550 teachers across the country. Could we have some resources for our French curriculum from you, please? As open source.

Romain Troublé - Yes, of course, open source, my dear.

Audience - I'll come and talk to you afterwards.

Romain Troublé - To every parent, I did it myself with my daughter. She was six years old. You take her once, once, one hour on a beach clean, beach cleaning once in your lifetime, one hour, and she will bother you for the rest of your life. She will shout at people, "Hey, you look "at this guy over there." He's strong, this one. Not this one. Do it.

Mark Orams - Thank you for the question, and Romain for the answer, reminding us, as Shelley did, of the power of our young people. My apologies that I am calling an end to the question session at the moment, but I'm sure that there are other opportunities to engage in conversations with one another and with our panelists as we draw things to a close. What I'd like to do before we hand over to our person to deliver a vote of thanks is to acknowledge all of the people in the room here. I recognise that one of the reasons that you are here is because you genuinely care about the sea and about our environment. I know that many of you here have dedicated a huge amount of your time, effort and your money to making a difference for our marine planet. I want to acknowledge and thank you for all the organisations, all the work and all of the commitment that you've shown. You are part of the answer, and thank you for your work and commitment to that. Oh, okay, Romain, good, very good. Give yourself a clap, very nice. I started this evening by talking to you about tohu, or about signs. I also talked about raranga, or weaving. Weaving is very symbolic for Maori because it weaves strands together. What I hope you've recognised tonight, and over the course of this week and the remainder of it, is that we have some very significant strands that are weaving together and adding strength and adding value and adding influence to who we are as people who genuinely care for this planet that we share. The other thing that's significant as a uniting factor, of course, is that the word rangatira in Maori is the word for a leader. As the essence of that raranga as the beginning of rangatira, it is the weaving. It is the bringing of people together, and a rangatira does that, as a servant and a person who was able to bring people together to unite and weave those strands to create something strong, to create something that is special and to create something that is able to carry knowledge and change into the future. I want to draw a close to our thinking and conversations tonight, and with the hope that they're catalytic and we're able to continue on with those conversations and the work that we all do in our different spheres of influence, and the rangatiratanga that we express through our actions and our connections. Thank you for coming this evening. It's been my privilege to be your master of ceremonies. I would now like to

introduce to you the person who's going to close and express thanks for our speakers this evening. Jacob Anderson is the manager of the environmental programmes at the Sir Peter Blake Trust. These include, as Shelley has introduced us to earlier, the Young Blake Expeditions, those fantastic opportunities for young New Zealanders to explore and adventure to remote parts of our archipelago in this corner of the Southwestern Pacific and Southern Ocean, the Blake Ambassador programme, the Environmental Educator and science outreach initiatives. Jacob obtained his Bachelor of Science from Massey University. He has a Master of Science in Geology from the University of Otago. He held there an AINSE Postgraduate Research Award. He's currently undertaking his Ph.D at the University of Otago. His research focuses on past Antarctic climate and ice sheet behaviour. He has participated in four scientific expeditions to Antarctica, and has been on two expeditions to the Auckland Islands as part of the Department of Conservation's hoiho, yellow-eyed penguin, monitoring programme, and on the 2016 Young Blake Expedition. Please join me in welcoming Jacob Anderson.

Jacob Anderson - Kia ora. Thank you, Marko. As Marko had mentioned, my name is Jacob Anderson, and I manage the environmental programmes at the Sir Peter Blake Trust. I've worked alongside an amazing team to deliver this very special and timely return and Tara exhibition this week. It has just been the most extraordinary week for the trust team here and the Tara crew to bring Sir Peter Blake's legacy, his environmental legacy, back to life. I'd like to thank you, again, Marko, for facilitating this wonderful evening. I'd also like to especially thank the speakers tonight. I've got a few key messages that I've taken from what they've said today. Shelley mentioned the trust pipelines and the need for us to engage with our young people in environmental issues. We need to equip and prepare them with the skills and knowledge to be future leaders in that space. People often ask us how's the best way to support the trust and continue Sir Peter Blake's legacy. We have a support crew of fantastic people who contribute small amounts of their choice of money or other ways to support us monthly. If you're interested in supporting us, there is a desk at the back for you to sign up and have a chat with some of our team. We would love to have you onboard. Romain, really, it's been the most amazing week to get to know you and the team at Tara. I feel like, for us, after 16 years to have Tara back in New Zealand, it is remarkable. The trust is delighted to be starting this amazing partnership with you and Tara Expeditions Foundation. Through the research and outreach onboard Tara and the programmes that the trust delivers, we really look forward to working together in the future. I think that the time lapse in that coral imagery was just the most compelling thing. Seeing some of those visual images was truly spectacular tonight, so we're very special, as well, to see that. Rochelle has a very simple message. It's amazing what getting together the right group of minds into a room and having an honest conversation about some of those big challenges is. We know what we need to do, and we just need to keep moving forward. I think that's a really important message. We already know what some of these big challenges are. We've just gotta pull our sleeves up, like Peter would, and just get on with it. I'd also like to extend a very special thanks to the Mayor, Phil Goff, for opening the conversations this evening, and thank you all for

attending, and also our viewers watching the live stream online. I'd like to extend a very special welcome, a very special thank you to Councillor Walker. His work and support of this project, which has been two years in the making from your visit in Paris. Wayne, it's been instrumental to the success of this week, so thank you very much, Wayne. I'd also like to extend my thanks to the Seamaster crew here this evening. It's been wonderful to have you back involved with Tara, Seamaster, this week. Thanks again to the Auckland Conversations programme sponsors and supporters, and the supporters of the Tara exhibition. In particular, the New Zealand Maritime Museum, the New Zealand-France Friendship Fund, the Hauraki Gulf Forum - the Kermadecs, Omnigraphic Flags, Phantom Billstickers, Alliance Francaise, Soar Print, QMS, Eleven PR, TVWA, The Maritime Room, New Zealand Marine, Orams Marine, Network Visuals and Cosio Industries. At the next Auckland Conversations event, we'll discuss a living wage for Aucklanders, and is taking place on Tuesday, the 25th of July, in Aotea Centre. If you visit the Conversations website, you can find more information about the next event. Also, I would encourage, for those of you who haven't had the opportunity yet this week, to go out and have a tour of Tara. It is the most remarkable vessel. Have a look at the videos and the photos, and explore the containers. Bring your family along. We encourage you to go and check that out. Those opportunities will be open until Sunday. That concludes the evening. I really wanna thank you all for being here tonight. I want to thank the speakers and Marko, again, for this wonderful evening. Cheers.