

Rēkohu / Wharekauri
Chatham Islands

Festival of Science

12 – 17 August 2025

Plus Pre-festival Presentations – 11 August

Featuring



Lou Sanson

IUCN Vice Chair
World Commission on
Protected Areas
Ex-Director General
Department of
Conservation



**Prof. John
Hearnshaw**

Emeritus Professor of
Astronomy
University of
Canterbury



Steve Butler

Board Chair
Aoraki Mackenzie
International Dark Sky
Reserve



Nalayini Davies

Fellow & Immediate
Past President
Royal Astronomical
Society of New
Zealand



Gareth Davies

Director
Waiheke Island
Observatory

For over 150 years the Chatham Islands have been visited by international scientists to study the geology of Gondwana, observe weather patterns, map the solar system, monitor seismic movement, and much more. The Islands are like the canary in a cage for the impacts of climate, biodiversity and ecological change.

Located 800 kms east of New Zealand the Islands are thought of as the eastern-most outpost within the largely submerged continent of Zealandia. With exposed submarine volcanoes and fossil-rich marine sediments, the Islands offer a rare uplift window into Earth's ancient past.

Home to nearly 10% of NZ's endangered species, conservation holds an important place both nationally and internationally. The rescue of the black robin from near extinction between 1976-89 and the rediscovery of the Chatham Islands tāiko in 1978 has made the Island famous amongst birdwatchers and environmentalists, with several species on international birding lists. That work continues through the efforts of the Department of Conservation, local groups and individuals – yet their very efforts are under threat. This rich biodiversity together with vulnerable ecosystems and a passionate community saw the Islands join the international Island-Ocean Connection Challenge.

The Island is regarded by resident beekeepers as the Noah's Ark of the apiary industry as it remains disease free. Research and work is underway to establish the island as a bee sanctuary.

The skies on the Chatham Islands have minimal artificial light, making them amongst the darkest and clearest in the world and ideal for stargazing and astrophotography. A move is afoot for them, too, to be recognised internationally as a sanctuary.

The Festival of Science draws on this extraordinary legacy, offering a week-long programme of science-inspired events that bring together local knowledge, the latest research, and global perspectives. This year's theme spans from the seabed to the stars exploring the dynamic interconnections between land, ocean, atmosphere, and life.

 @ChathamIslands |  @festivalofscience

chathamislands.co.nz

Enquiries and bookings to manager@chathamislands.co.nz

Travel and Accommodation Package Tours Available



Make the most of your visit and book the Festival package with Chatham Island Tours



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Chatham Islands

Programme subject to change –
please follow the Festival of Science
facebook page for updates

Festival of Science

12-17 AUGUST 2025

All Festival
events are
FREE

Monday 11th August

Chatham Island Council
Chambers (CICC) –
5:30pm

Pre-Festival Evening Presentations

- *Lou Sanson* – Chathams Unique Place in a Rapidly Changing World
- *Dr. Richard O'Driscoll* – The Contribution to Science from the Chatham Rise
- *Mark Geytenbeek* – Pāua Science for Chatham Island Pāua Management

Tuesday 12th August

CICC – 5:30pm

Official Welcome with Chatham Islands Mayor Monique Croon

Presentations on local environmental projects:

- *Hamish Chisholm* – Restoring the Chathams Islands
- *Jenna Hoverd* – The Taiko Trust
- *Department of Conservation*

Wednesday 13th August

CICC – 4:30pm

- *Dr. Travis Ingram* – Three Years of Ecology Student Research On Chatham Island
- *Grace Fortune-Kelly* – Where Cryptic Fish Hide
- *Tim Park* – Are native plants Chatham's #1 export product?

Thursday 14th August

CICC – 4:30pm

Astrotourism and Darks Skies

- *Prof. John Hearnshaw* – The Benefits of Dark Skies
- *Steve Butler* – Dark Skies by Choice and Design
- *Nalayini Davies* – Astrotourism and dark sky conservation
- *Gareth Davies* – How to Become an International Dark Sky Place

Friday 15th August

The Den – 5:30pm

- *Dr. Zengwei Li & Dr. Anna de Raadt* – Corrosion on the Chatham Islands
- *Tribute to Festival of Science Founder, the late Distinguished Professor David Johnston*
- *Community Quiz Night*

Saturday 16th August

CICC – 2pm

- *Dr. Katherine Holt* – From Flowers to Honey: Using Pollen to Decode Nature's Sweetest Story
- *Dr. Jocelyn Powell* – Challenges for Chatham Island Beekeepers: A Historic Perspective
- *Toni Croon* – From Hobbyist to Semi-Professional – Mistakes and Learnings
- *Kaai Silbery* – Founder's Story: The Journey of Tarahina Honey

Kōpinga Marae – 5:30pm

- *Community Astronomy and Stargazing*

Sunday 17th August

Kōpinga Marae – 11am

- *Community event, including a talk by Anna Miller on the Origins and Impacts of Volcanic Ash Layers on Chatham Island, followed by fun community activities*

Additional Activities Throughout the Week

Chatham Islands Landscape Restoration Trust BioBlitz – Over the festival week, everyone is invited to get involved in citizen science by participating in the first Chatham Islands BioBlitz, with prizes to be won. Take photos of plants, animals, fungi and other organisms from anywhere around the islands and upload them to the iNaturalist app or website. Visit the Landscape Restoration Trust FaceBook or website for details.

Evening Stargazing – First fine evening/s during the week around 9pm | John, Steve, Nalayini and Gareth will lead sessions in stargazing. This is open to everyone. Bring your telescopes and binoculars. Some will also be provided. Register by contacting manager@chathamislands.co.nz and follow the @festivalofscience facebook page for updates.

Astronomy in the Classroom – The astronomers will be sharing their knowledge with local school children.

Dark Skies Sanctuary Planning – Members of the community interested in discussions and plans to have the Chatham Islands gain Dark Skies Sanctuary certification contact Jackie Gurden – manager@chathamislands.co.nz

Presenters



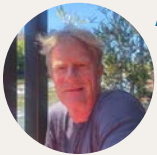
Lou Sanson – Lou was Director General of the Department of Conservation from 2013 to 2021 and has had a long association with the

Chathams. He is now working in international tourism and is the IUCN Vice Chair for Oceania for the World Commission on Protected Areas where he is part of the World Heritage Area assessment team.



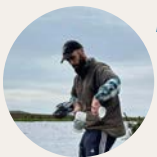
Dr. Richard O'Driscoll – Richard is the Chief Scientist Fisheries at the Earth Sciences New Zealand (formerly NIWA) – where he has worked for 25 years. His

research speciality is in estimating fish abundance from surveys. He has participated in 64 research voyages of NIWA, and led 39 of these, including leading three Antarctic voyages. Richard has authored 58 primary publications, and over 175 research reports.



Mark Geytenbeek – Mark first joined MFish in January 2007 as a fisheries analyst in the Inshore Fisheries team. The first 10 years were spent involved in a variety of

projects and strategies including developing Fish plans, advice on TAC reviews, other regulatory processes as well as building on fisheries management engagement on the Chatham Islands. Mark has taken a keen interest in the New Zealand Paua fisheries and has had ongoing involvement in some of the innovations around finer scale management of this species. Prior to joining MPI (then MFish), Mark worked in a variety of primary sector businesses including the Fishing, Aquaculture and Dairy sector. Included in this was a 10 year period working in UK and Europe.



Hamish Chisholm – Hamish is the Project Coordinator for the Landscape Restoration Trust. He's been involved with this work on island for

four years, and involved in Predator Free and conservation even longer. He'll be joined by a few of the Trustees.



Jenna Hoverd – Jenna Hoverd is a proud local of the Chatham Islands with a strong background in conservation and community leadership. She spent eight

years with the Department of Conservation, working across a range of biodiversity and field operations unique to the Chatham environment. For the past four years, Jenna has been a trustee of the Chatham Islands Taiko Trust, and more recently has stepped into a key role helping to drive the Trust's operational work.



Dr. Travis Ingram – Travis is a Senior Lecturer in the Department of Zoology and the Ecology Degree Programme at the University of Otago. Originally from

Canada, Travis has been visiting the Chatham Islands since 2017. Travis and his postgraduate students are interested in the ecology and evolution of freshwater fish, and in how lake food webs will be affected by climate change. Travis also runs an Ecology Field Course that brings undergraduate students to carry out small research projects asking questions about the biodiversity of Chatham ecosystems.



Grace Fortune-Kelly – Grace grew up in the big river town, Iwikatea (Balclutha) in South Otago and has fostered a love, fascination and respect for water since

childhood. She travelled for a year before being drawn back to her heart's home on the South coast of Aotearoa where she started studying Ecology at the University of Otago. A semester doing freshwater ecology in Sweden sparked a passion that led into her PhD research on the impacts of sea level rise in coastal lakes on Rēkohu Wharekauri Chatham Island.





Tim Park – Kaiwhakahaere/ Manager Ōtari Native Botanic Garden and Wilton's Bush Reserve. Tim is a prominent ecologist and conservation leader based in

Wellington, New Zealand. He currently manages Ōtari-Wilton's Bush, the only public botanic garden in Aotearoa dedicated exclusively to native plants. In this role, he oversees developing the plant collection, gardens, ecological restoration, biodiversity conservation, and public engagement initiatives. Prior to this, Tim served as the Environment Partnership Leader at Wellington City Council for over six years.

Tim is also a descendant of Heinrich and Anna Dorothea Regnault. Dorothea was a German missionary who arrived in the 1840s and Heinrich shipwrecked at Kaingaroa in 1854, they spent some time on Pitt with their family and then lived out their lives at Awarakau where they are buried.



Prof. John Hearnshaw – John is Emeritus Professor of Astronomy at the University of Canterbury, Christchurch. He was an astronomer at

Canterbury 1976-2014. For 25 of those years, John served as Director of Mt John Observatory at Lake Tekapo, during which time he developed new instruments to use at Mt John and trained graduate students in astronomy. John was International Astronomical Union Vice-President on the Executive Committee 2018-21 and chair of the Aoraki Mackenzie International Dark Sky Reserve Board 2012-20, a charity that helps maintain dark skies in the Mackenzie District in the central South Island of New Zealand. John is the author of many books and several other publications on astronomy. He completed his undergraduate degree in Cambridge UK and has a PhD in astronomy from the Australian National University.



Steve Butler – Steve is Board Chair for the Aoraki Mackenzie International Dark Sky Reserve. Leader, Dark Skies Group, Royal

Astronomical Society of New Zealand. Steve has been involved in advocating for protecting the NZ night environment for 30 years.



Nalayani Davies – Fellow and also Immediate Past President of the Royal Astronomical Society of New Zealand. In the area of 'Dark Sky Protection' Nalayani has

collaborative working relationships with Great Barrier Island Dark Sky Sanctuary in New Zealand, Elan Valley Dark Sky Park in the United Kingdom and Cosmic Campgrounds Dark Sky Sanctuary in the USA. She is the current President of DarkSky International, an Arizona-based, not-for-profit, international organisation that works to protect the darkness of the world's night skies. Nalayani is also Executive Director of an award-winning NZ-based economic advisory consultancy operating mainly in Asia and the Pacific.



Gareth Davies – Gareth is director of the Waiheke Island Observatory and delivers regular astronomical outreach sessions to the public across New Zealand.

Gareth is a member of the Royal Astronomical Society of New Zealand, the Auckland Astronomical Society, and DarkSky International. He is a member of the International Dark Sky Places Committee that reviews and approves applications from sites worldwide to become certified 'Dark Sky Places'. Gareth also provides advice and delivers talks on 'Dark Sky Preservation across Australia and New Zealand. In 2021, he was the recipient of the 'Dark Sky Defender' award for Australasia and is the current Executive Director of Dark Sky New Zealand.



Dr. Anna de Raadt – Anna is the Team Leader for Better Buildings Research Team at BRANZ (Building Research Association of New Zealand).

Anna has a PhD in organic chemistry as well as an MBA. After being an Associate Professor overseas (Austria), she came back to New Zealand to contribute to public good research activities in the government sector (Ministry of Economic Development and Foundation for Research, Science and Technology as well as this organisation's subsequent entities). Before Anna joined BRANZ, she was the Director CRCSI (Cooperative Research Centre of Spatial Information) hosted at LINZ (Land Information New Zealand).





Dr. Zhengwei Li – Zhengwei has an education background of material science and engineering. In his current role as a corrosion scientist at BRANZ, he is working to better understand material degradation in New Zealand's distinctive and challenging built environment. Particularly, his study is focused on atmospheric corrosion, building micro-environment and material durability. Some of his research outputs have been used to make a difference in material specifications for building code durability compliance.



Dr. Katherine Holt – Kat is a palynologist (pollen analyst) and geologist with a strong interest in geology and palynology of the Chatham Islands. She currently operates

her own business performing pollen analysis on honey and sediment samples for commercial and research applications, and holds an adjunct research position at Massey University in Palmerston North.



Dr. Jocelyn Powell – Retired botanist and amateur historian, Jocelyn has enjoyed working with the Chatham Islands community over a number of years on

revegetation projects, and on recording oral history. Volunteering at the Chatham Islands Museum has included entering data and preparing information panels and displays. She has also been involved in writing, editing and publishing a few books about the Chathams.



Toni Croon – A lifelong Chatham Islands local and former horse trainer, Toni Croon has owned the iconic Hotel Chathams for over 35 years. In recent years, leasing

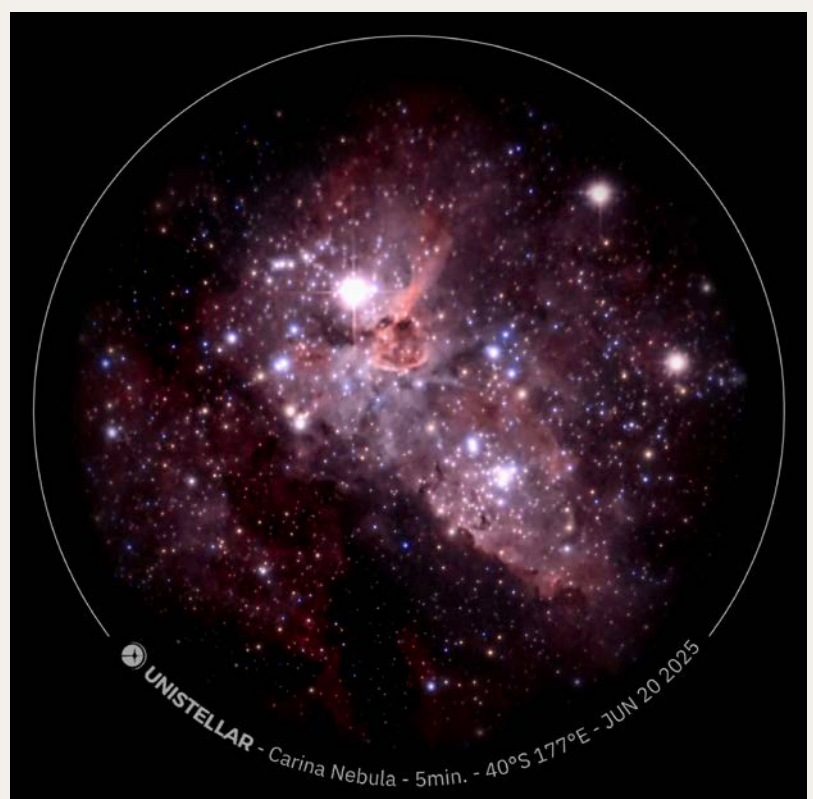
out the hotel has allowed her to focus on one of her long-standing passions—beekeeping.

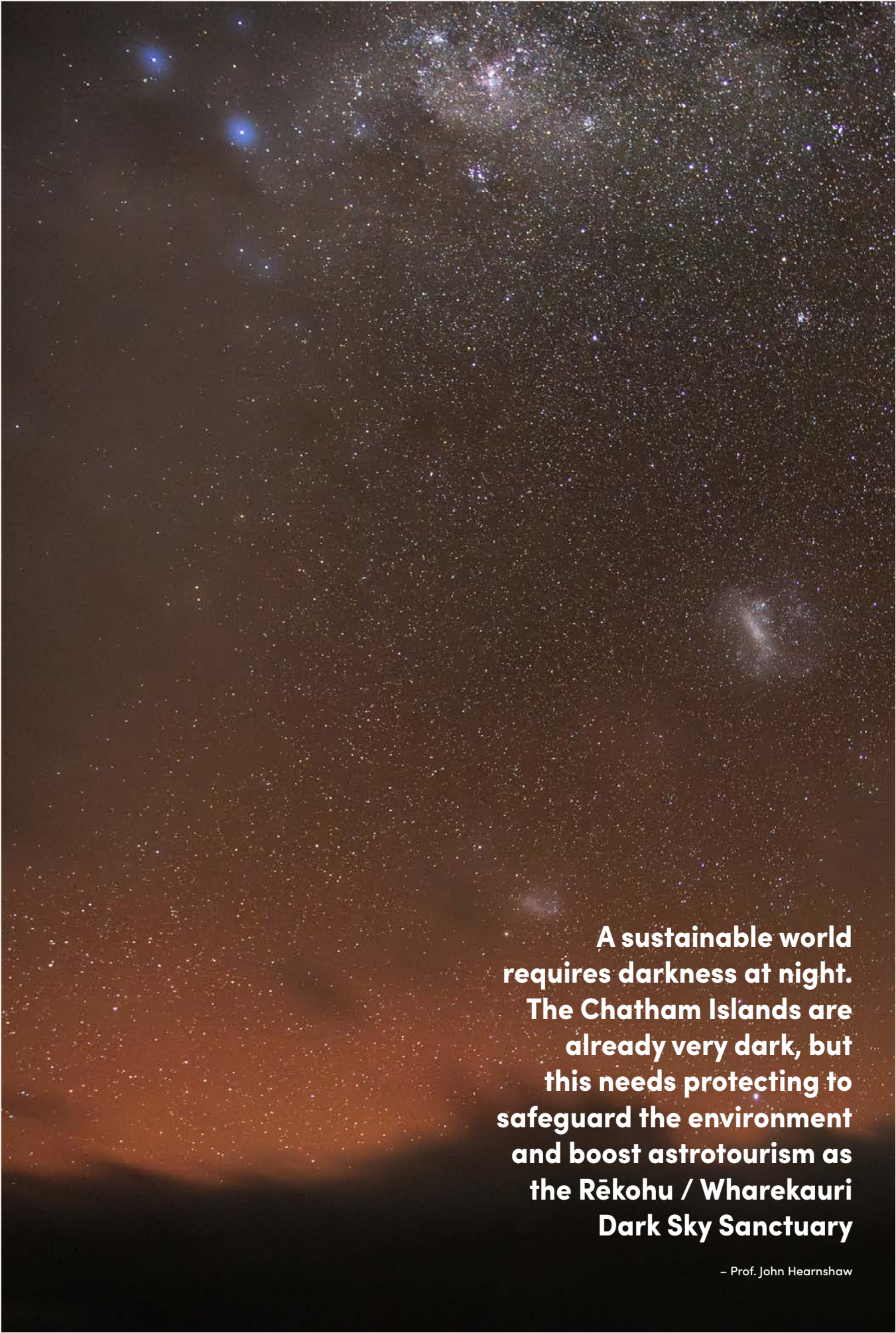


Kaai Silbery – Kaai is a trained chef and apiarist, founder of Tarahina Honey. Inspired by her great-uncle's beekeeping legacy, she blends heritage with innovation, pioneering New Zealand's first freeze-dried honey.



Anna Miller – Anna grew up in Whangārei, Northland. Since a young age she has always had a fascination with the volcanoes that shaped the New Zealand landscape. After graduating from the University of Canterbury in 2017 Anna worked as an exploration geologist for many years all over the world. In 2024, the opportunity arose for her to return to New Zealand and complete a PhD at Te Herenga Waka, Victoria University of Wellington looking at New Zealand's supereruptions. This research allowed Anna to conduct fieldwork across NZ, including the beautiful Chatham Islands. As a keen geologist, naturalist, and of course spearfisher Anna was privileged to be able to learn the unique geological story out here and she is excited to show you some of our findings!





**A sustainable world
requires darkness at night.
The Chatham Islands are
already very dark, but
this needs protecting to
safeguard the environment
and boost astrotourism as
the Rēkohu / Wharekauri
Dark Sky Sanctuary**

– Prof. John Hearnshaw

Programme details

Monday 11th August – Pre-Festival Evening Presentations

Protected Areas Role in the Worlds Future: Chathams Unique Place in a Rapidly Changing World

Lou Sanson

Lou will talk about the opportunity Protected Areas and Remote Places like Chathams can provide to the future of the World as Nations set ambitious targets for Nature to prevent runaway Climate Change to be achieved by 2030.

The Contribution to Science from the Chatham Rise

Dr. Richard O'Driscoll (Earth Sciences New Zealand)

The Chatham Rise, between New Zealand and the Chatham Islands, is New Zealand's most productive deepwater fishing ground. The region is also vulnerable to changing ocean climate. Since 1992, there have been 28 research voyages from the NIWA *RV Tangaroa* to estimate species abundance on the Chatham Rise in water depths from 200–800 m. The main aim of the Chatham Rise surveys is to provide relative biomass estimates of adult and juvenile hoki. Hoki is New Zealand's largest finfish fishery and the Chatham Rise is the main nursery ground for juvenile hoki in New Zealand. Estimates of abundance of juvenile hoki provide information about recruitment which is vital for management by Fisheries New Zealand. The surveys also sample a range of other species and fulfil an important role in monitoring changes in the ecosystem. In 2024, 343 species or species groups were identified, including glow-in-the-dark sharks, iridescent crabs, blobfish, and viperfish. This presentation will introduce you to many of the deep-sea inhabitants of the Chatham Rise, talk about how the environment is changing, and why monitoring is so important. All the results from the Chatham Rise surveys are publicly available and you can explore them yourself on the Trawl Survey Information Portal.

Pāua Science for Chatham Island Pāua Management

Mark Geytenbeek (MPI)

Chatham Island Paua fishery is pioneering multiple science based assessments and projects to rebuild and better manage the fishery for the future. Mark's presentation will cover what is being undertaken and how they are all connected.

Tuesday 12th August – Presentations on local environmental projects:

Chatham Islands Landscape Restoration Trust

Hamish Chisholm

The first Predator Free Chathams traps are out in the northeast of Rēkohu Wharekauri. We're working on an all-of-island Restoration Plan, including maps to help prioritise conservation and support landowners with planning. The Chatham Islands have recently joined the international Island-Ocean Connection Challenge.

Find out more about what the Chatham Islands Landscape Restoration Trust have been doing over the last year, and pin Hamish down after for any questions about getting rid of those possums and rats plaguing your place.

The Taiko Trust

Jenna Hoverd

In this talk, Jenna will share the journey of the Taiko Trust — from its grassroots beginnings to its current conservation efforts. She'll outline key projects underway, the challenges and successes, and the Trust's future direction as it continues to protect some of the world's most endangered species, support locally led conservation, and inspire education opportunities that connect rangatahi to their environment and heritage.

Department of Conservation

Home to 326 Threatened or At Risk species, some of which are endemic to the Chatham Islands, this remote archipelago is a biodiversity hotspot. Get an insight into some of DOC's kaupapa on the islands.





Wednesday 13th August – Freshwater Fish

Where cryptic fish hide: Distribution and habitat of Chatham Island Mudfish

Grace Fortune-Kelly (University of Otago)

Species distributions underpin all aspects of their conservation. They are shaped by habitat requirements and interactions with other species, and threatened by changes to these conditions. Wetlands and peatlands are disproportionately affected by degradation, and, because of harsh environmental conditions, harbour disproportionately high endemism. Rēkohu (Wharekauri, Chatham Island) is scattered with lakes embedded in remnant Tarahināu forest and rush wetlands. Some of these lakes host the cryptic Chatham Island mudfish (*Neochanna rekohua*). We used overnight trapping and eDNA surveys in lakes across Rēkohu to further resolve the distribution and habitat requirements of CI mudfish. We found them in 14 sites and looked at patterns related to the distribution of other fish, the surrounding vegetation, and abiotic conditions. Mudfish were mainly in peat lakes, but with two exceptions. The presence of porure (paraki, common smelt, *Retropinna retropinna*) offered the best explanation of mudfish distribution, but the percent cover of indigenous vegetation was most associated with the number of mudfish caught per trap (CPUE). Tuna presence was correlated with a dramatic shift in maximum mudfish size (112 mm with tuna; 211 mm without). Our results suggest protecting and restoring the vegetation surrounding lakes is important for effective conservation of this unique fish.

Three years of ecology student research on the Chatham Island

Dr. Travis Ingram (University of Otago)

For the past three summers, Ecology undergraduate students from the University of Otago have carried out research projects on Rēkohu Wharekauri Chatham Island. Their project work has taken them all around the island, and they have engaged with the community and worked on a wide range of ecosystems and species. They have collected useful information about the island's biodiversity, from pāua on rocky shores to mudfish in lakes to hoho in forests. This presentation will share some of their experiences and findings, and discuss what we can learn from student research.

Are native plants Chatham's #1 export product?

Tim Park (Ōtari Native Botanic Garden and Wiltons Bush Reserve)

Iconic plants from the Chathams archipelago are now found in gardens worldwide, and they're a staple for many landscape gardeners in Aotearoa. What's the fuss? Why are these plants so spectacular?

Come along and hear from Tim Park aka Timothy Regnault Park, Kaiwhakahaere/Manager Ōtari Native Botanic Garden and Wilton's Bush Reserve, which features its own collection of Chatham Islands plants. Tim brings his experience managing the only public botanic garden in Aotearoa dedicated exclusively to native plants, as well as his background as the Environment Partnership Leader at Wellington City Council for over six years, and passion for ecology and the natural environment.

Thursday 14th August – Astrotourism and Dark Skies

The Benefits of Dark Skies

Prof. John Hearnshaw (University of Canterbury)

Light pollution represents an environmental challenge, comparable to global warming, plastic in oceans and air pollution. In many locations, sky brightness is increasing, impeding star visibility. Light pollution can also result in light trespass and glare. LED lights are often blue-rich, which exacerbates skyglow and endangers human health and the environment. Recently, the benefits of dark skies have shifted from protecting astronomy to promoting the environment, human health and astrotourism. There is also an economic saving from using less electricity. Astrotourism is growing strongly in many countries, especially in places with dark skies and clear nights. For the economy to benefit, hotels and restaurants nearby are needed and night-sky guides must be well-trained in astronomy. Legislation is needed to protect dark skies, as well as the environment and human health. New Zealand needs a Lighting Control Act, as local government councils are not equipped to deal with the rapidly changing lighting technology.

Dark Skies by Choice and Design

Steve Butler (Aoraki Mackenzie International Dark Sky Reserve)

This talk will explore the choices that define the design process for outdoor lighting. I will refer to the Chatham's Resource Management documents, and the issues that can be considered by Chatham Island residents, supported by research, and New Zealand and international guidance.

Astrotourism and dark sky conservation

Nalayini Davies (Royal Astronomical Society)

Astrotourism and its attendant economic benefits are growing rapidly. These are made possible by the presence of dark sky places and the ability to deliver astronomical outreach. To be sustainable then, astrotourism should support ongoing dark sky conservation and the continued development of astronomical outreach. The key findings from a survey of 209 international dark sky places reveal a rapid growth in astrotourism, that delivers an escape from urban nighttime glare and the breathtaking experience of a pristine natural night sky. Dark sky destinations are found to offer unique opportunities for private economic development, thereby drawing attention to the potential for stargazing to be a driver of sustainable growth in remote and often overlooked regions benefitting local communities. The talk will also outline the current status of dark sky places in New Zealand and the principles of responsible astrotourism.

How to Become an International Dark Sky Place

Gareth Davies (Waiheke Island Observatory)

Certified 'Dark Sky Places' are areas that are recognised for protecting the quality of their night skies by controlling the current and future effects of artificial light at night (ALAN). These sites usually offer excellent astronomical observation opportunities and promote environmental conservation. DarkSky International is dedicated to protecting the night sky across the globe, advocating for responsible outdoor lighting, and supporting the establishment of 'Dark Sky Places'. This talk will address 'an effective path to Dark Sky Place certification' and will be of particular interest to those interested in developing an action plan to establish their own certified 'Dark Sky Place'. Specific references to the Chatham Islands will be included as appropriate.

Friday 15th August

Corrosion on the Chatham Islands – What we have learned?

Dr. Zengwei Li & Dr. Anna de Raadt (BRANZ)

When you build a home, one of the most important questions you need to ask yourself is about how corrosive the area is where you will build. In New Zealand, an atmospheric corrosivity map is widely used within our performance-based building code and standards to help answer this question. However, due to a lack of experimental evidence, this map has a very vague description of the atmospheric corrosivity on the Chatham Islands. In turn, this may lead to a high risk of premature failures of metallic building components such as claddings and fastenings.

In November 2021, BRANZ worked together with the Joint Centre for Disaster Research at Massey University to establish four exposure sites on the Chatham Islands. The preliminary results derived from carbon steel samples indicate that some areas on the Chatham Islands could have higher exposure levels than the current classification.

Spurred by these results and with the help of landowners, we established ten additional exposure sites across the island, during November 2023 – November 2024, in an effort to get better "coverage". This talk will give an overview of our findings to date as well as discuss what further studies might be needed to map atmospheric corrosivity and to investigate the corrosion performance of other building materials that could be more fit for building purposes on the Chatham Islands.

We wish to acknowledge all the landowners who have helped us with this experimental work as well as all the people in the Chatham Islands who have supported us.

Tribute to Festival of Science Founder, the late Distinguished Professor David Johnston

Community Quiz Night





Saturday 16th August – Beekeeping on the Chatham Islands

From Flowers to Honey: Using Pollen to Decode Nature's Sweetest Story

Dr. Katherine Holt (Massey University)

The Chathams' unique mix of indigenous and introduced nectar plants, coupled with the absence of bee pests and diseases which plague mainland New Zealand, present rare and precious opportunity for beekeeping on the Islands. For many years, tales have been told of the Chatham Island 'red' honey – a distinctive orange-red coloured honey with properties not unlike heather honey. The Chathams are also known for producing extremely pure 'water white' clover honey. But how do we know for sure what flowers the bees are visiting to make these honeys? This talk will explore how pollen analysis can be used to track what plants are important nectar sources for the Islands' bees and how this information can be used to support marketing Chathams honey to the world.

Challenges for Chatham Island Beekeepers: A Historic Perspective

Dr. Jocelyn Powell

Beekeeping on the Chatham Islands, from the first introductions in the late 1880s to 1900, has been sporadic and until recently largely unsuccessful. The main reasons for these failures will be outlined and how they have been and can be mitigated suggested.

From Hobbyist to Semi-Professional – Mistakes and Learnings

Toni Croon

What began as a hobby has grown into a semi-commercial operation, shaped by the unique challenges and rewards of keeping bees in such a remote environment. In this straight-talking and practical session, Toni will share her journey—from setting up her first hives to managing the bee life cycle, understanding seasonal timing, plant selection, and even grafting techniques.

Expect an honest look at the ups and downs of beekeeping on the Chathams, including valuable lessons from both her successes and missteps. Whether you're new to beekeeping or simply curious about life on the islands, Toni's presentation promises insight, humour, and a deep respect for the bees that keep her buzzing.

Founder's Story: The Journey of Tarahina Honey

Kaai Silbery

Discover the story behind Tarahina Honey—an exclusive, award-winning gourmet honey cultivated in one of the world's last remaining sanctuaries for disease-free bees: the Chatham Islands of New Zealand. Kaai will share her journey, the family legacy that shaped her vision, and her role as a kaitiaki (guardian) of one of the most biodiverse and endangered ecosystems on the planet. The presentation will explore how traditional knowledge, cutting-edge techniques like freeze-drying, and wildcrafted flavours converge to create a truly unique epicurean experience.

Attendees will gain insight into the intersection of luxury food production, environmental stewardship, and the urgent need to protect global pollinator populations.

Community astronomy and Stargazing at Kopinga Marae.

Sunday 17th August

Lunchtime community event at Kopinga Marae

Origins and Impacts of Volcanic Ash Layers on Chatham Island

Anna Miller (Te Herenga Waka, Victoria University of Wellington)

The Chatham Islands preserve multiple layers of volcanic ash sourced from supereruptions of the central Taupō Volcanic Zone. These layers, often preserved within peat, provide insights into distal ash deposition and the timing and environmental impacts of supereruptions. I will talk about the nature, origins and impacts of these ash layers by investigating glass shard chemistry and changes in pollen above and below the ash. Three ash layers are investigated: the ~25.5 ka Kawakawa Oruanui Tephra (Rēkohu Ash), the ~345 ka Rangitawa Tephra and one newly discovered tephra. Each ash layer tells an interesting story about the magmatic processes leading to eruption on mainland New Zealand and show how the local environment on Chatham Island was affected after ash deposition.

All welcome to a gathering of fun community activities

Rēkohu Wharekauri Chatham Islands

FESTIVAL OF SCIENCE

12 – 17 Aug 2025 Chatham Island



Dark Skies and Stargazing Theme



Astronomy is a key focus of this year's Festival of Science. We're excited to welcome the following four specialists:

- **John Hearnshaw**, Emeritus Professor of Astronomy, University of Canterbury
- **Steve Butler**, Chair of the Aoraki Mackenzie International Dark Sky Reserve Board
- **Nalayini Davies**, President of DarkSky International, Auckland Astronomical Society
- **Gareth Davies**, Waiheke Island Observatory and Auckland Astronomical Society

Activities:

- Present on astronomy and dark skies tourism – on Thursday evening, 14th August
- Lead **stargazing evenings** through the week (weather depending)
- Offer introductory training in stargazing for Island tourism operators
- Provide **educational sessions** at schools
- Host a community evening focused on Astronomy and Stargazing at the Kōpinga Marae on Saturday night
- Discuss the possibility of the Chatham Islands becoming a **Dark Skies Sanctuary**



