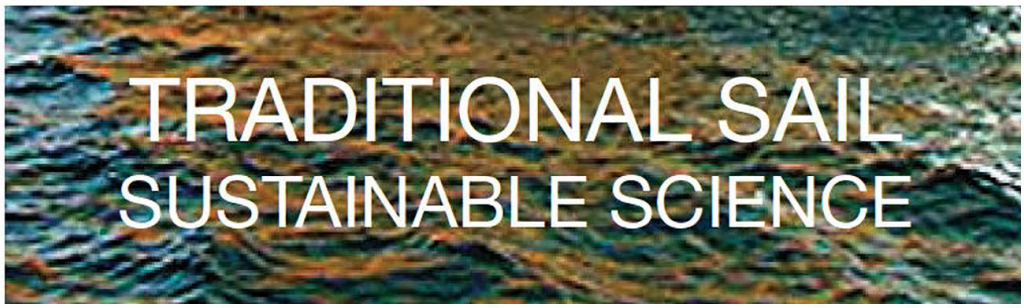
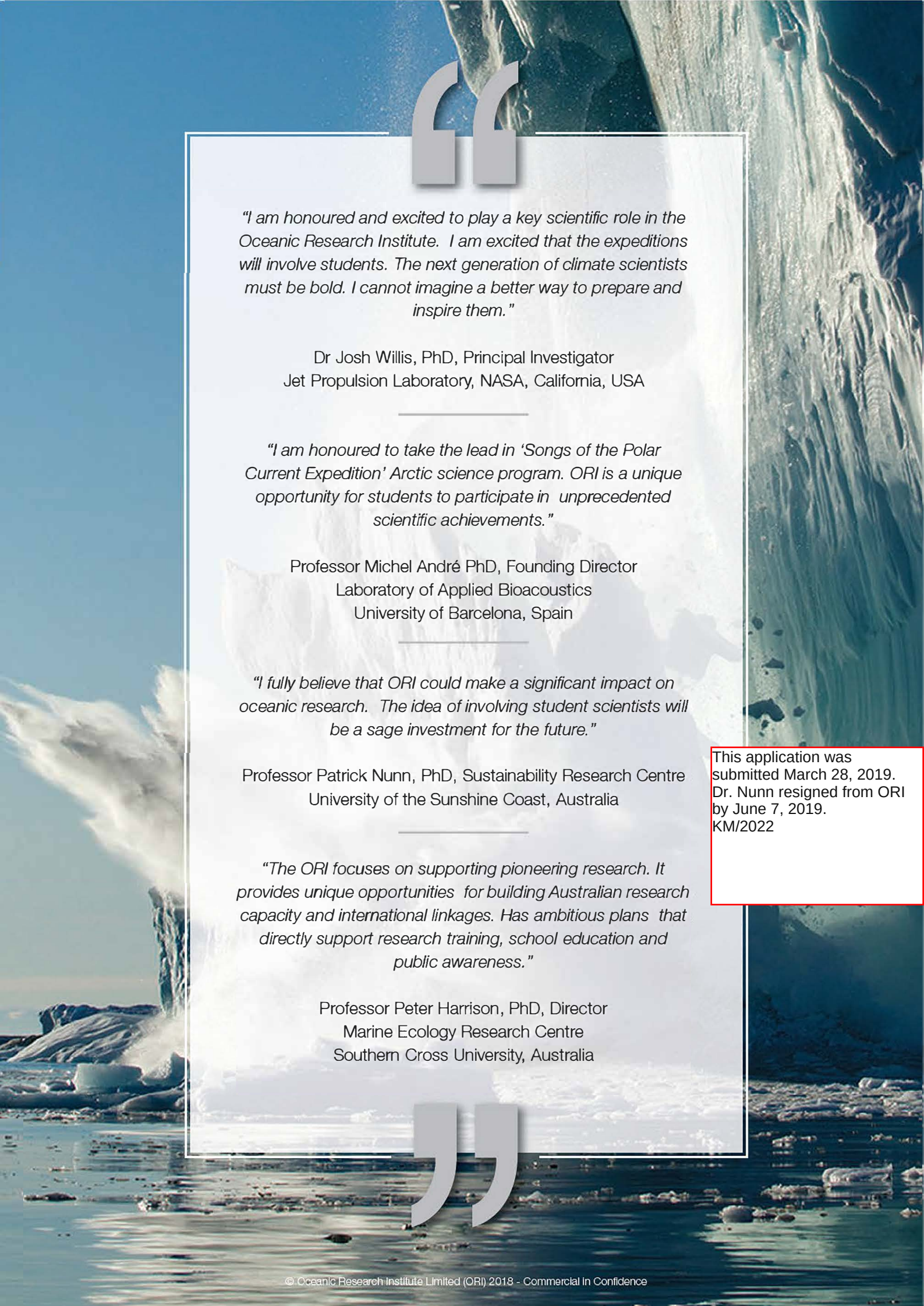
OCEANIC RESEARCH INSTITUTE



OVERVIEW



"I am honoured and excited to play a key scientific role in the Oceanic Research Institute. I am excited that the expeditions will involve students. The next generation of climate scientists must be bold. I cannot imagine a better way to prepare and inspire them."

Dr Josh Willis, PhD, Principal Investigator
Jet Propulsion Laboratory, NASA, California, USA

"I am honoured to take the lead in 'Songs of the Polar Current Expedition' Arctic science program. ORI is a unique opportunity for students to participate in unprecedented scientific achievements."

Professor Michel André PhD, Founding Director
Laboratory of Applied Bioacoustics
University of Barcelona, Spain

"I fully believe that ORI could make a significant impact on oceanic research. The idea of involving student scientists will be a sage investment for the future."

Professor Patrick Nunn, PhD, Sustainability Research Centre
University of the Sunshine Coast, Australia

"The ORI focuses on supporting pioneering research. It provides unique opportunities for building Australian research capacity and international linkages. Has ambitious plans that directly support research training, school education and public awareness."

Professor Peter Harrison, PhD, Director
Marine Ecology Research Centre
Southern Cross University, Australia

This application was submitted March 28, 2019. Dr. Nunn resigned from ORI by June 7, 2019.
KM/2022

Oceans are Australia's great paradox.
They cover 70% of Earth, yet only 5% of them are known to science.

Oceans enabled us to create this nation, yet they also drive devastating weather events, and the floods that will inundate our cities, as climate change escalates.

Australia is surrounded by oceans full of vast Blue Economy wealth, yet we are unable to fully access it.

In all these things we need to know more, and to do so we need more research vessels and the expertise to maximise their value.

Oceanic Research Institute's plans and research will face these challenges to bring significant benefits to Australia.

Oceanic Discovery Centre will bring renewal and prosperity to Ballina Historic Seaport, and revive its 170 year legacy.

Oceanic Discover Center was literally, just hot air. De Blonville found no support at all from local business or government for this idea.

OCEANIC RESEARCH INSTITUTE – OVERVIEW

The ORI has been in development for over five years. It is a not-for-profit infrastructure organisation, modelled on Australia's highly successful Antarctic Division. ORI will own and operate a fleet of Research Expedition Vessels (REVs) and field boats. It will design and lead discovery science research expeditions, support the scientists, and develop Australia's research capacity and international profile.

ORI & BALLINA HISTORIC SEAPORT, NSW

This is purely pipedream. Never happened.

ORI's Global HQ will be housed in a world-leading Oceanic Discovery Centre (ODC). Historically sympathetic architecture and leading edge immersive and interactive multi-media will create a valuable year round, high-yield tourism resource for all ages. Online and onsite visitors can interact directly in real time with field expeditions around the world. This centre will be unlike any other known facility in the world. It will collaborate with major international oceanic and climate research organisations and be Australia's go-to oceanic information centre, with an open-access research repository, that gives Australia a greater global impact.

ORI'S THREE CORE AIMS

1. Extend Australia's Global Influence:

Tailored to CSIRO's focus.. Australian Science, etc.

ORI will elevate Australia's international reputation for Discovery Science by:
- Making a significant contribution to global oceanic and climate change research
- Exploring highly vulnerable but under-researched and difficult to reach regions
- Providing access to all data to scientists worldwide though our open-source repository.

ORI's global presence will open a new era for Australia's reach, reputation and international influence. ORI can put NSW and Ballina Historic Seaport on the national and global map as an innovative leader in oceanic research.

2. Establish New Sustainable Research Standards:

Gobbeldygook that should have been a red flag for CSIRO.

ORI will set a world-class example of technological and economic sustainability in ocean science by:
- Harnessing near-zero carbon and acoustic emissions of traditional wooden sailing vessels
- Pushing continuous operations across entire oceans without refueling
- Gaining access to extremely isolated islands and restricted waterways
- Achieving virtually unlimited vessel operational life by normal annual maintenance.

3. Develop Young Australian Scientists & Climate Leaders: More feel good gobbeldygook.

ORI will lead development of Australia's next generation of oceanic and climate scientists by:
- Mentoring of PhD and Postdoc researchers by international scientists on each voyage
- Encouraging young people into STEM subjects and science careers
- Helping create next generation of climate leaders by engaging secondary students worldwide.

ORI will enable students to interact with our field programs, through social media offered in major languages and through direct participation in proposing and planning expeditions.

UNIQUE, SUSTAINABLE, INFLUENTIAL

Unique: Australia's only internationally ranging oceanic & climate research organisation. Operations planned for remote regions not covered by other Australian research organizations.

Sustainable: World's only sustainable research operating under sail in wooden boats. Focused on natural and applied scientific climate research contributing to global scientific knowledge.

Influential: ORI's research expeditions will extend Australia's international political influence. Through increasing Australia's active scientific presence in the Arctic, we join the global players.

ORI PROJECT COMPONENTS

Oceanic Research Institute, based at the Ballina Historic Seaport, NSW, will accelerate scientific collaboration, facilitate job creation and inspire the next generation of young leaders to drive a more sustainable ocean and maritime environment. There are three major components to ORI:

1. ORI Institute – the parent organisation
2. ORI Oceanic Discovery Centre – the campus housing our local and global operations in Ballina
3. ORI Scientific Research Expeditions – voyages undertaken using traditional wooden sailing vessels.

These three major components each have sub-components as detailed below.

1. THE INSTITUTE

The Oceanic Research Institute itself is a not-for-profit company that is responsible for all our operations. It is designed as an infrastructure organisation, modelled on Australia's highly successful Antarctic Division, founded by Dr Phillip Law (who also led the Australian National

Antarctic Research Expeditions, 1949 – 1966). ORI requires capital funding for facilities such as buildings and research vessels, staff, recurrent funding for operations and expedition sponsorship as detailed below.

ORI Institute Staffing: ORI will begin with a CEO, Director of Research and Director of Operations. Over the first five years ORI will grow its staff to include Directors of Finance, Communications, Expeditions and Office Managers.

ORI Research Committee: Will plan and formulate Discovery Science research projects and invite the world's leading scientists in their fields to undertake big picture research programs, to construct ORI's multidisciplinary research voyages.

ORI Research Vessels: ORI will own and operate a fleet of Research Expedition Vessels (REVs) and field boats, equipped with the latest scientific and communications equipment.

ORI Scientists: ORI will provide skilled support personnel on board and on shore, as well as all travel and logistics costs in order to support scientists and their research. Scientists will be encouraged to submit research proposals for inclusion on expeditions.

Development of Australian research capacity: On each voyage ORI will match an Australian PhD or Postdoctoral researcher with each international scientist aboard, to gain valuable field experience and direct mentoring. This program will be the first of its kind in Australia and is aimed to rapidly increase Australia's scientific capacity in oceanic research.

2. THE OCEANIC DISCOVERY CENTRE (ODC)

The ODC is the ORI's live campus. Located on the Oceanic Coast's magnificent Richmond estuary.

With fast access to the deep ocean, ORI's 'Oceanic Discovery Centre' will bring people together to expand science-based understanding of the ocean; pioneer new ocean-related education programs; and incubate, create and sustain ocean-related businesses. It will be an innovative centre for science tourism, with retail shop, online services and a wharf for our ocean-going Research Expedition Vessels. ORI envisages the ODC as a magnificent, architectural symphony that sings of the ocean, dances with the climate and shapes the soul of mankind. We plan it as a three level state-of-the-art facility to include:

s 47

Sadly, we may never know what the "three level, state-of-the-art" facility would have included. But we can be glad that the ODC would have been "a magnificent, architectural symphony that sings of the ocean, dances with the climate and shapes the soul of mankind."
One has to wonder how CSIRO staff read that with a straight face.

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Oceanic Global Youth: (Local, National & Global Collaborators, including Ballina Coast High School, Marine Discovery Centres Australia, and international projects such as Semester at SEA).

ODC's future-focused project will engage young people in future oceanic research challenges.

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3. THE SCIENTIFIC RESEARCH EXPEDITIONS

ORI Global Research Program: Current research programs are planned for the Arctic, Australian Great Barrier Reef & Continental Shelf, South Pacific, Caribbean, Amazon & Orinoco Rivers. These programs represent the first five years of operations (2019-2023), and will be run aboard three large wooden sailing Research Expedition Vessels (REVs) and two high-speed Research Expedition Rigid Inflatable Boats (RERIBS). Proposed timeline of expeditions detailed below.

The ORI Scientific Research Fields include:
Archaeology, Atmospherics, Bioacoustics, Bathymetry, Cetology, Ethnology, Geology, Glaciology, History, Hydrology, Marine Biology, Oceanography, Ornithology, Plate Tectonics & Vulcanology.

PLANNED EXPEDITIONS FROM 2019-2023

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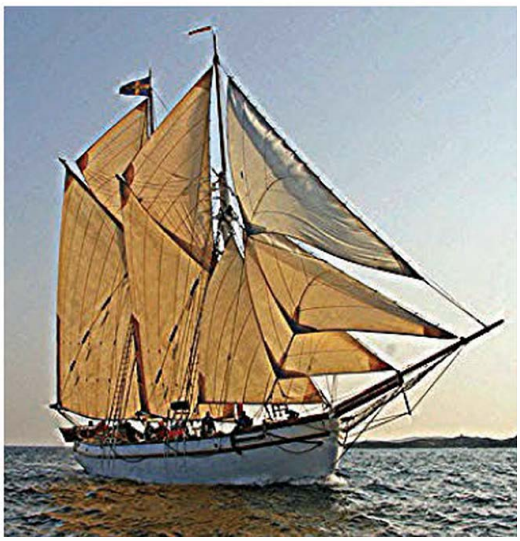

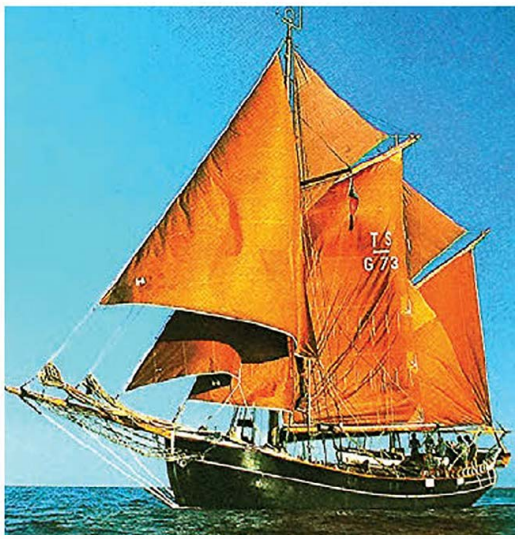

ORI LEGALS & CORPORATE

Incorporated as a Company Limited by Guarantee (August 2016).
ABN: 36 613 988 060. TFN: 987 421 198.
Constituted by international lawyers Norton Rose Fulbright to be a Registered Charity, Authorised Research Institute, Deductable Gift Recipient.

Registered Office: WCA Chartered Accountants, 62 Woodlark Street, Lismore 2480 NSW
Auditors & Accountants: WCA Chartered Accountants, Lismore (Steven Trustum, Director)
Strategic Advisers: Collins Hume Accountants & Business Advisers, Ballina
(Peter Fowler, Partner)
Lawyers: Norton Rose Fulbright Australia, Level 11, 485 Bourke Street, Melbourne
(Elisa de Wit, Partner)
Maritime Legal Advisers: Norton Rose Fulbright, Brisbane (Ernest van Buuren, Partner)

As required by the Corporations Act 2001, ORI has a mandatory three-member Board of Directors:

Earle de Blonville, FRGS
Adjunct Professor, Southern Cross University, NSW
Fellow, LAB, Universitat Politècnica de Catalunya, Spain
Fellow, Royal Geographical Society, London, UK
Role: Chief Executive Officer; Leader: Arctic Expeditions

Jennifer M. Gidley, PhD
Adjunct Professor, Southern Cross University, NSW
Adjunct Professor, University of Technology (UTS) Sydney
Visiting Fellow, CERI, SciencesPo, Paris, France
Role: Director of Research; Chair: Research Committee

David Adams, FRGS
Documentary filmmaker, investigative journalist
Multi-award winning film director & producer
Distributed globally: BSkyB
Role: Director of Media & Communication

CONTACT

Earle de Blonville
Chief Executive Officer
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M

FOUNDERS & RESEARCH COMMITTEE

Professor Earle de Blonville, FRGS.
ORI CEO & Research Committee Member

Fellow of the Royal Geographical Society since 1984.
Adjunct Professor, Southern Cross University, Australia.
Earle is responsible for long-term development and international partnerships. He will lead ORI's Arctic expeditions and skipper the Research Expedition Vessel.

Led Australia's first Arctic expedition 1985-86 with HRH The Prince of Wales as Patron. Principal British Advisor: Lord Shackleton. Actively supported by Prime Minister Bob Hawke & Minister for Science Barry Jones. Advisory Panel included Dame Elisabeth Murdoch, Sir John Holland and Dr Eleanor Rymill. His critically acclaimed book Savage Coast available worldwide. His film of Australia's first Arctic expedition released internationally.

Founding President Mansfield Chamber of Commerce, Victoria, 1983-85. Led team that created the Mansfield Mountain Country Festival, involving 10% of population. Judged by Premier's office as the most authentic country festival in Victoria. Created the Great Mountain Race of Victoria, featured by the Australian Tourism Commission.

Director Tall Ships Victoria NYE Spectacular, 1987-88. Prime Minister Bob Hawke officially opened Australia's Bicentenary year on NYE, involving 70 national and international tall ships, 500 crew, 500 volunteers & four city councils. Attracted 1.5 million visitors to the site.

Professor Jennifer M Gidley, PhD.
ORI Chair of the Research Committee

Jennifer is responsible for chairing Research Committee that selects and monitors ORI's research programs.
Adjunct Professor, Southern Cross University, Australia
Adjunct Professor, Institute for Sustainable Futures, UTS

President of World Futures Studies Federation, 2009-17. Global NGO and peak body for leading futures scholars and researchers in 60 countries. UNESCO & UN Partner.
Oversight of research programs in several developing countries for WFSF-UNESCO partnership programs.

Renowned international Futures Academic 1995 - 2018. Held academic positions in three Australian universities, and visiting professorships in Europe. International keynote and plenary speaker across Europe, Asia & USA. Published by Springer & Oxford University Press.

Founding Principal innovative Steiner School 1983-1994. Achieved multi-million dollar funding to build an architect-designed, world leading school campus in the northern rivers region, developed over ten years.

Professor Patrick Nunn, PhD
ORI Research Committee & Director Pacific Research

Patrick shares the Nobel Peace Prize for his leadership of the Intergovernmental Panel on Climate Change's (IPCC) 4th Report on Sea Level Change. He holds the prestigious Gregory Medal of the Pacific Science Association.

Patrick is Professor of Geography (Research), Sustainability Research Centre, University of the Sunshine Coast, QLD. At the University of the South Pacific he held a Personal Chair, Professor of Oceanic Geoscience, and was Pro Vice-Chancellor, Research International.

Professor Michel André, PhD
ORI Research Committee & Director Bioacoustics Research

Michel is a Rolex Laureate and a world-leading scientist in the rapidly developing field of applied bioacoustics. He is President of The Sense of Silence Foundation and the Director of LAB (Laboratori d'Aplicacions Bioacustiques) based in Barcelona, Spain.

Michel's projects include saving Amazon dolphins, Indian elephants and Atlantic whales from accidental death from the effects of acoustic trauma, and mankind itself from tsunamis, using underwater sensors linked to a central warning system.

Professor Peter Harrison, PhD.
ORI Research Committee & Director GBR Research

Peter holds the prestigious Eureka Prize for Environmental Research for his discovery of the mass coral spawning phenomenon on the Great Barrier Reef (GBR). He is the Founding Director of the Marine Ecology Research Centre, Southern Cross University, NSW.

Peter's research has focused from the Great Barrier Reef to Japan, Micronesia, French Polynesia & the Arabian Gulf. Peter has held Ministerial appointments to Federal and State government research committees and been awarded multiple prizes for excellence in science research and University teaching.

INTERNATIONAL ADVISORY PANEL

Josh Willis, PhD
Jet Propulsion Lab, NASA, Pasadena, USA
Lead researcher: Oceans Melting Greenland Program.
Major contributor: IPCC Nobel-winning report, 2007
Member, Ocean Circulation Group, NASA
Advisory: East Greenland warming currents

Professor Robert Bednarik
International Centre for Rock Art Dating
Hebei Normal University, China.
Advisory: Pleistocene voyages & navigation

Tom Cunliffe, FRIN
Ocean Yachtmaster
Foremost global expert on classic sailing vessels
Journalist, navigator, author, filmmaker.
Advisory: Rigging design for expeditions

Rich Gilmore, MSc, MICD
Country Director Australia: Nature Conservancy
Formerly, MD - EarthWatch, Australia
Cambridge Business & Environment Program
Harvard Club of Australia
Advisory: Ocean effects on coastal margins

Greg Mortimer, OAM
Founder: Aurora Expeditions
Australia's greatest living mountaineer
First Australian ascent of Mt Everest.
Pioneer: maritime adventure travel to polar regions
Advisory: Marine operations for Arctic waters

When contacted, neither Tom Cunliffe or Greg Mortimer were aware they were listed on this application and had not given permission to be listed. email comms available on request. KM

OCEANIC RESEARCH INSTITUTE

AUSTRALIAN INTERNATIONAL RESEARCH EXPEDITIONS

Support for Oceanic Research Institute

"I am honoured to support the Oceanic Research Institute and its exciting plans to expand Australia's international scientific reputation through oceanic and climate research conducted in scientific unstudied regions of the world, from the Arctic to the Pacific."
Kevin Page MP
Federal Member for Page
Lismore

Actually, Kevin's name is Hogan, not Page. He did not respond to my inquiry about this endorsement.

"The proposal for Ballina and the Northern Rivers to become Australia's first centre for international oceanic and climate field research operations is very exciting. As an independently operated and privately funded organisation, ORI can advance NSW's reputation for big picture thinking, innovation and entrepreneurial flair."
Austin Curtin
Nationals NSW candidate.
Lismore

"The ORI has ambitious plans that will directly support research training, school education and public awareness of the key environmental issues and challenges facing our oceanic realms"
Professor Peter Harrison
Eureka Prize Laureate
Director, Marine Ecology Research Centre
Southern Cross University

"I fully believe ORI could make a significant impact on oceanic research by addressing research issues that lie within the mainstream but also along its edges, issues of great potential importance."
Professor Patrick Nunn
Nobel Laureate (shared)
Director, Sustainability Research Centre
University of the Sunshine Coast

"I am honoured to take the lead of the 'Songs of the Polar Current Expedition' science programme and to contribute with our technology to achieve ORI's key scientific objectives."
Professor Michel Andrè
Rolex Laureate
Director, Laboratory of Applied Bioacoustics
University of Catalonia, Spain

"I am excited that ORI expeditions will involve students. The next generation of climate scientists must be bold, knowledgeable and aware of the world around them. I cannot imaging a better way to prepare and inspire them than an expedition like this one."
Dr Josh Willis
Director, OMG program (Greenland)
NASA – Jet Propulsion Laboratory
California, USA

On October 29, 2019 Ballina Councillor Ben Smith said "I think I can speak on behalf of others and say that Council has zero connection with ORI and their requests for money from council have been denied previously, I think most councillors are broadly supportive of any kind of endeavour that could further climate change efforts or make a positive impact on the local economy but its fair to say there's a degree of skeptism regarding ORIs efforts on these fronts to date.

"I am very pleased to convey my support for the Oceanic Research Institute which is … dedicated to integrated climate science, including the interrelationship of people, traditions and environment."
Cr David Wright
Mayor of Ballina

"We would see the establishment of ORI and the associated infrastructure as an opportunity to enhance tourism products in Ballina. This would benefit the region in terms of attracting a new market of visitors, however still link closely with our existing natural assets to support conservation and raising environmental awareness."
Jane Laverty
Regional Manager
NSW Business Chamber Northern Rivers

"The Ballina Chamber of Commerce and Industry strongly supports the ORI and the economic benefits it will leverage to development in the Ballina Shire."
Martin Corkery
President
Ballina Chamber of Commerce and Industry

"We at Byron Bay Chamber of Commerce would like to offer our support and endorsement for the ORI project, in as much as this important research aligns with and embodies our collective values and eco credentials as a region."
Todd Sotheren
President
Byron Bay Chamber of Commerce

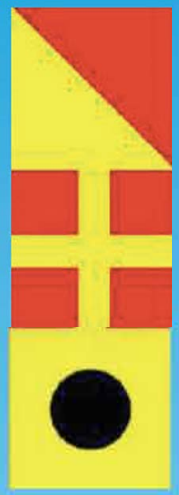
"ORI will bring substantial value to our region via tourism, education and employment and will align perfectly with the Ballina Maritime Museum, Ballina Coast High Marine Studies Program, NSW TAFE and several other local organisations whilst at the same time being an international hub for oceanic research."
Peter Fowler
Partner: Collins Hume
Board Member: Lismore Business Panel

"We believe that ORI project is an opportunity to take our region to the world and allow us to reap many benefits. Their vision aligns on many levels bringing not just tourism but also educational opportunities, environmental awareness and other employment initiatives."
Mark Holden
Director & Program Manager
Sourdough Business Pathways
Mullumbimby

Mark advised that he did not supply this quote directly however he did acknowledge that it could have been a reflection of some things Mark said to them at their launch.

"With Ballina situated between World Heritage rainforests and Cape Byron Marine Park, it makes the ideal location for ORI headquarters as it fits in closely with the region's values of biodiversity and sustainability."
Karen Whiteford
General Manager
Ramada Hotel & Suites
Ballina

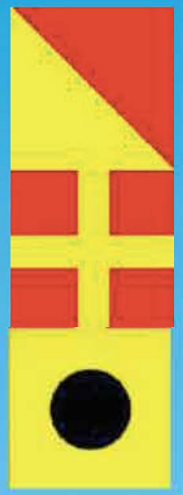
"We see the establishment of ORI and associated infrastructure as an opportunity to enhance the role of the museum and to support tourism in the region as a positive. We commend this project to those who are considering funding [ORI] as being most worthwhile and beneficial to our community."
Richard Greaves
President
Ballina Naval & Maritime Museum



OCEANIC RESEARCH INSTITUTE

PIONEERING SUSTAINABLE OCEANIC RESEARCH

COMMERCIAL IN CONFIDENCE



WHOLLY AUSTRALIAN
FULLY INDEPENDENT
PRIVATELY FUNDED

Established 2016. Company Limited by Guarantee.
Tax-exempt Authorized Research Institute.

OCEANIC RESEARCH INSTITUTE – THREE CORE AIMS

1. Extend Australia's Global Influence
2. Establish New Research Standards
3. Engage Young Australian Leaders

OCEANIC RESEARCH INSTITUTE

AUSTRALIAN INTERNATIONAL RESEARCH EXPEDITIONS

World's First
Fully Sustainable
Oceanic & Climate
Research Organization

BRIEFING FOR SPONSORS, SCIENTISTS & COLLABORATORS.

"PUTTING BALLINA AT THE CENTRE OF AUSTRALIA'S INTERNATIONAL OCEANIC AND CLIMATE RESEARCH PROGRAMS"

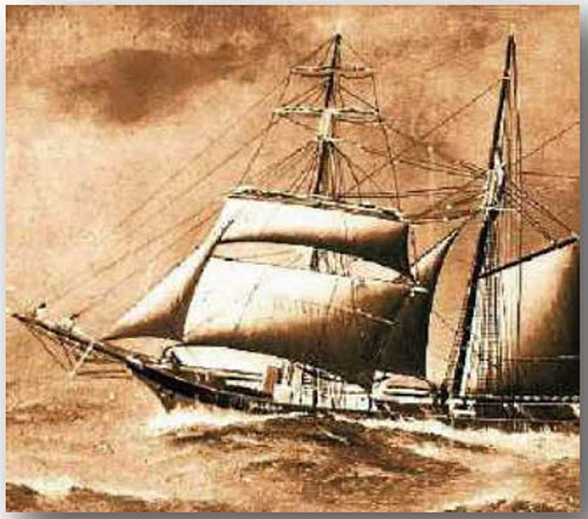
- Why NSW & Australia needs ORI

- What ORI does, where it operates & who benefits

- How ORI can help boost Ballina's economic & cultural future

190 years of Ballina navigation - 1828 – 2018

2018 marks the 190th anniversary of the arrival of explorer Captain Henry Rous, aboard 'Rainbow'



2018 also marks the arrival of the Oceanic Research Institute to Ballina Historic Seaport

OCEANIC RESEARCH INSTITUTE – CO-FOUNDING DIRECTORS

Chief Executive Officer

Earle de Blonville, FRGS

Member: ORI Research Committee

Adjunct Professional Fellow, Southern Cross University
Fellow, LAB, University of Catalonia, Spain
Fellow, Royal Geographical Society, London
Life Member, ANZ Scientific Exploration Society

Founding President, Mansfield Chamber of Commerce
Victorian Director, Bicentennial Tall Ships spectacular
Leader, First Australian Arctic Expedition
- Patron: HRH The Prince of Wales
Published author, internationally screened film maker

OCEANIC RESEARCH INSTITUTE – CO-FOUNDING DIRECTORS

Director of Research & Youth

Professor Jennifer Gidley, PhD

Member: ORI Research Committee

Adjunct Professor, Institute for Sustainable Futures, UTS
Adjunct Professor, Southern Cross University
Visiting Fellow, CERI, SciencesPo, France
Fellow, LAB, Catalonia University, Spain
Fellow, The Botin Foundation, Spain

Founder & Principal, Daystar Steiner Campus, NSW
Former President, World Futures Studies Foundation (Paris 1973)
- Global peak body, members 60 countries, UNESCO & UN-ECOSOC Partner
Published author: Oxford University Press, Springer International, (SUNY)

INTERNATIONALLY ACCLAIMED EXPERTS

RESEARCH COMMITTEE

Professor Patrick Nunn, PhD

Nobel Laureate (Shared).

Cha rman: ORI Research Comm ttee

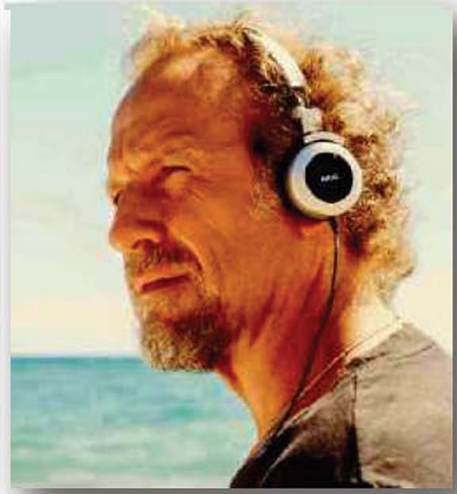
D rector: ORI Pac f c Is and Research

Professor Peter Harrison, PhD

Eureka Laureate.

Member: ORI Research Comm ttee

D rector: ORI Great Barr er Reef Research



Professor Michel André, PhD

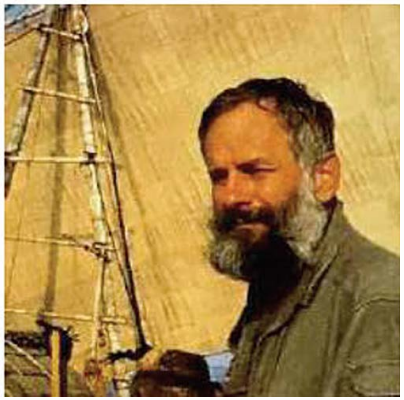
Rolex Laureate.

Member: ORI Research Comm ttee

D rector: ORI Arct c & Amazon Research

INTERNATIONALLY ACCLAIMED EXPERTS

INTERNATIONAL ADVISORS



Professor Robert Bednarik

Wor d's greatest rock ort expert.
D scovered Hom n ds hove been
seofor ng for a m on years.

Dr Josh Willis: NASA

Oceans Me t ng Green ond: 'No other
pro ect hos such o b g-p cture v ew of
ocean- ce nteroct ons'

Greg Mortimer OAM

Austro o's greatest mounto neer.
Founder of wor d's eod ng po or
adventure exped t on company.

Why NSW & Australia needs ORI …

OCEANIC
RESEARCH
INSTITUTE

INCREASING AUSTRALIA'S
GLOBAL INFLUENCE

ORI GIVES NSW NATIONAL RESEARCH IMPACT

ORI is NSW's only offshore oceanic research organization.

- NSW operates no Government funded research vessels
- NSW gets no Federal funds for offshore marine research
- NSW cannot provide training at sea for marine scientists

ORI gives NSW national research impact

ORI GIVES AUSTRALIA GLOBAL RESEARCH IMPACT

ORI is Australia's only internationally operating oceanic research organization.

- Australia is not recognised as an international oceanic researcher
- Australia has lost its former international negotiating influence

ORI gives Australia global research impact

What ORI does …

OCEANIC
RESEARCH
INSTITUTE

RESEARCH UNDER SAIL

- ORI is the world's first sustainable oceanic and climate research organization.
- Our research is conducted aboard traditional wooden sailing vessels.
- Under sail, we can research across oceans, all around the world.

* Remember: most of the world was discovered under sail !

RESEARCH EXPEDITION VESSELS

LA BOHEME 34m 1913

CURRENTLY OWNED BY OR

COURAGE 25m 1928

CURRENTLY OWNED BY OR

ZAR 40m 1942

CURRENTLY AVA LABLE FOR OR

MODELLED ON WORLD'S GREATEST OCEANIC INSTITUTE

- Privately Funded
- Not For Profit
- Independent
- Agile

For almost 90 years, Woods Hole (USA) has been one of the best known and most trusted names in ocean science and exploration.

This homage to WHOI is ironic to the max, in that Earl de Blonville, just 4 months after applying for ARI status, accused the administration of WHOI of criminally supporting the imaginary "cyberstalking" activities of Kent Madin. Earl literally tried to blackmail WHOI into taking actions that were completely impossible. https://earldeblonville.net/wp-content/uploads/2020/01/WHOI-letter-Lawrence-Madin-annotated.pdf

BASED ON AUSTRALIA'S BEST EXPEDITION OPERATIONS MODEL

- Infrastructure Based
- Objective Focused
- Service Oriented

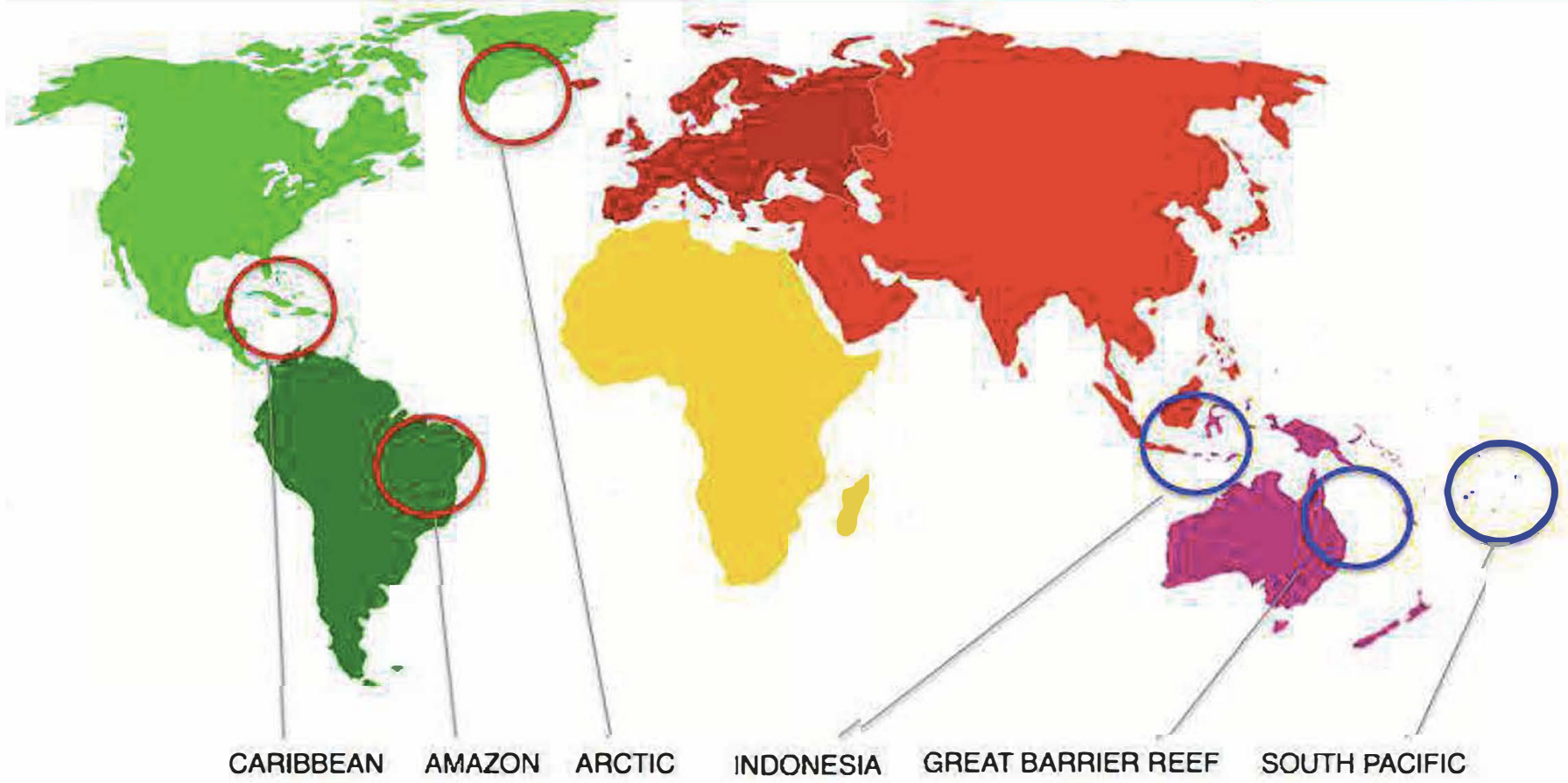
Since 1948, the Australian Antarctic Division has been one of the world's best known remote area scientific expedition infrastructure operators.

Where does ORI work…

OCEANIC
RESEARCH
INSTITUTE

MULTIDISCIPLINARY
DISCOVERY SCIENCE

BIG PICTURE - MULTI-DISCIPLINARY - DISCOVERY SCIENCE



A TOTALLY INTEGRATED RESEARCH APPROACH

OCEAN
CLIMATE
MANKIND

INTERNATIONAL RESEARCH PARTNERS

Southern Cross University

OCEANIC
RESEARCH
INSTITUTE

CREATING TOMORROW'S
CLIMATE LEADERS

What ORI will achieve …

DEVELOPMENT OF EARLY CAREER SCIENTISTS

- Building Australia's marine research capacity
- Developing Australian science careers
- Mentoring by international experts

ORI: Only Australian organization training marine scientists at sea

Again, irony abounds. A simple search on Google for "does anyone in Australia train marine scientists" produced this, first result... from CISRO no less, dated two years before ORI application. https://www.csiro.au/en/news/news-releases/2017/new-wave-of-marine-scientists-complete-voyage

DEVELOPMENT OF NATIONAL YOUTH CLIMATE LEADERS

- Build national network of students
- Develop international student cohort - 6 languages
- Active youth engagement in planning research projects

ORI: Only Australian organization enabling direct student participation in oceanic research projects, including implementation in the field.

A statement like this should have rung bells and raised red flags for veracity when reviewed by CISRO staff.

Where ORI research starts…

OCEANIC
RESEARCH
INSTITUTE

Never happened. Never got close to happening.

AUSTRALIA'S FIRST ARCTIC RESEARCH EXPEDITION

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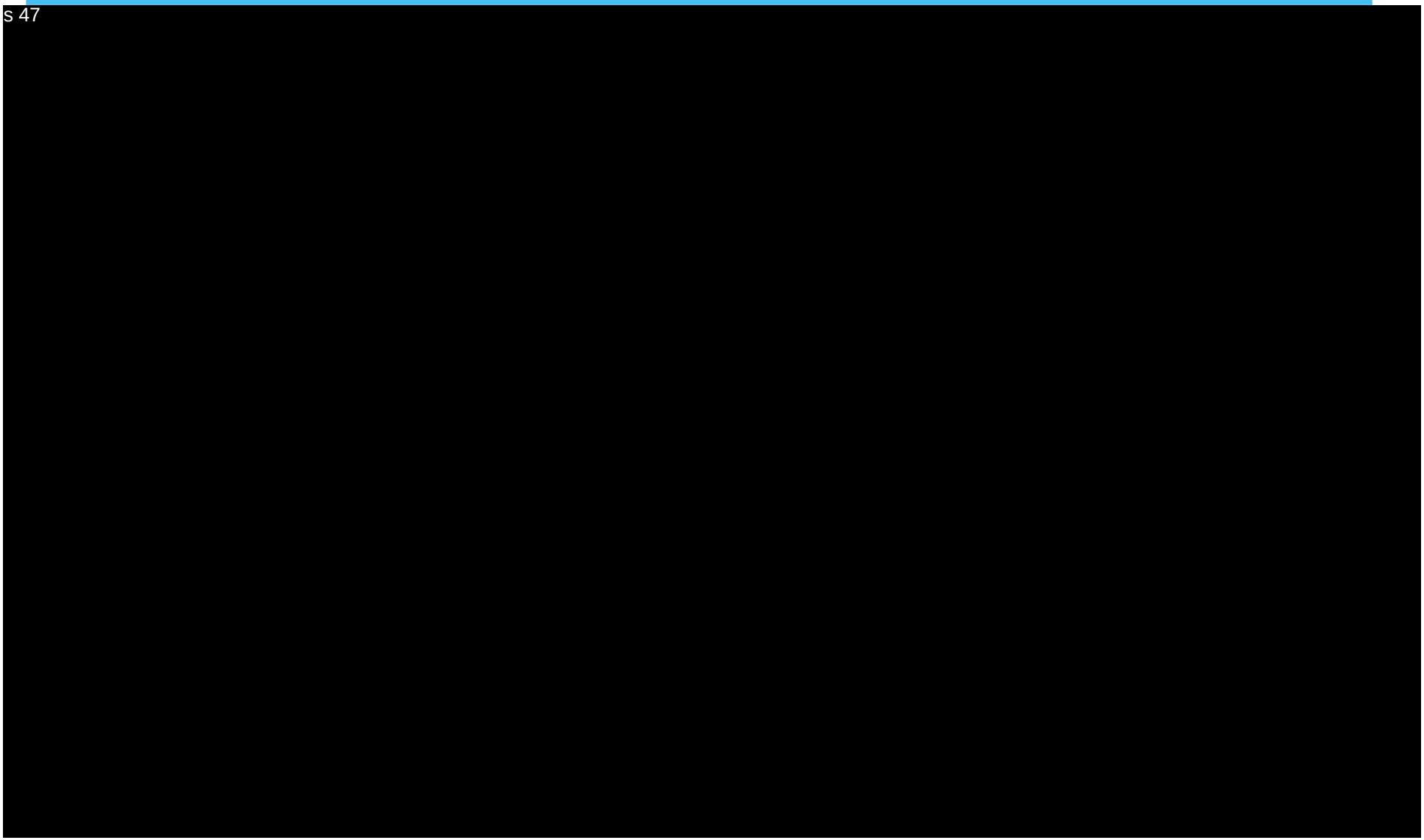

THE ARCTIC: CHANGING 4X FASTER THAN ANYWHERE ON EARTH

ORI: Research starts here …

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RESEARCH
INSTITUTE

TRADITIONAL SAIL
SUSTAINABLE SCIENCE

OCEAN ACCESS PAR EXCELLENCE

LONG TERM PLANS: OCEANIC RESEARCH PRECINCT

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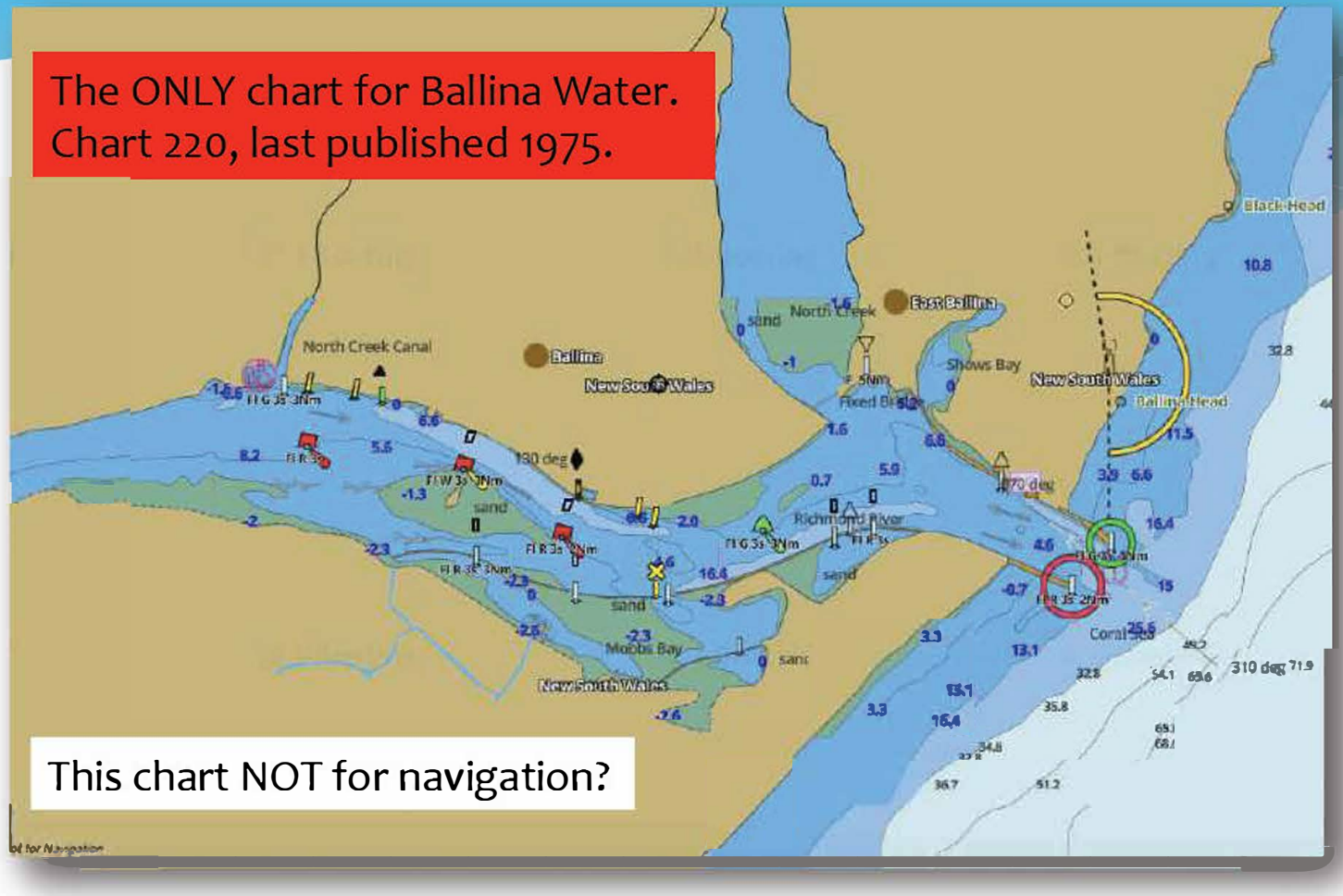
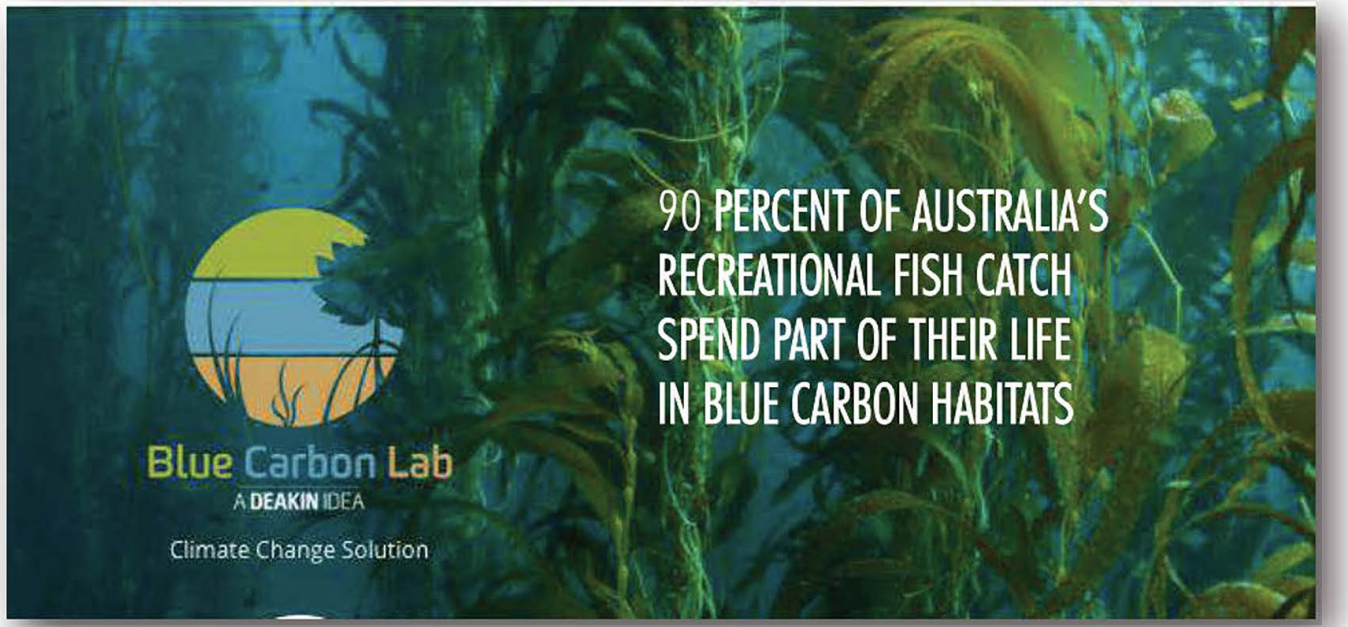
BALLINA WATER: UPDATE SURVEY & PUBLISH NEW CHART



ORI leadership in Blue Carbon

Ballina's extensive waterways are extremely rich in Blue Carbon Habitats. Blue Carbon Habitats capture CO2 40X faster than the Amazon rainforest.



ORI OCEANIC DISCOVERY CENTRE

SCIENCE TOURISM

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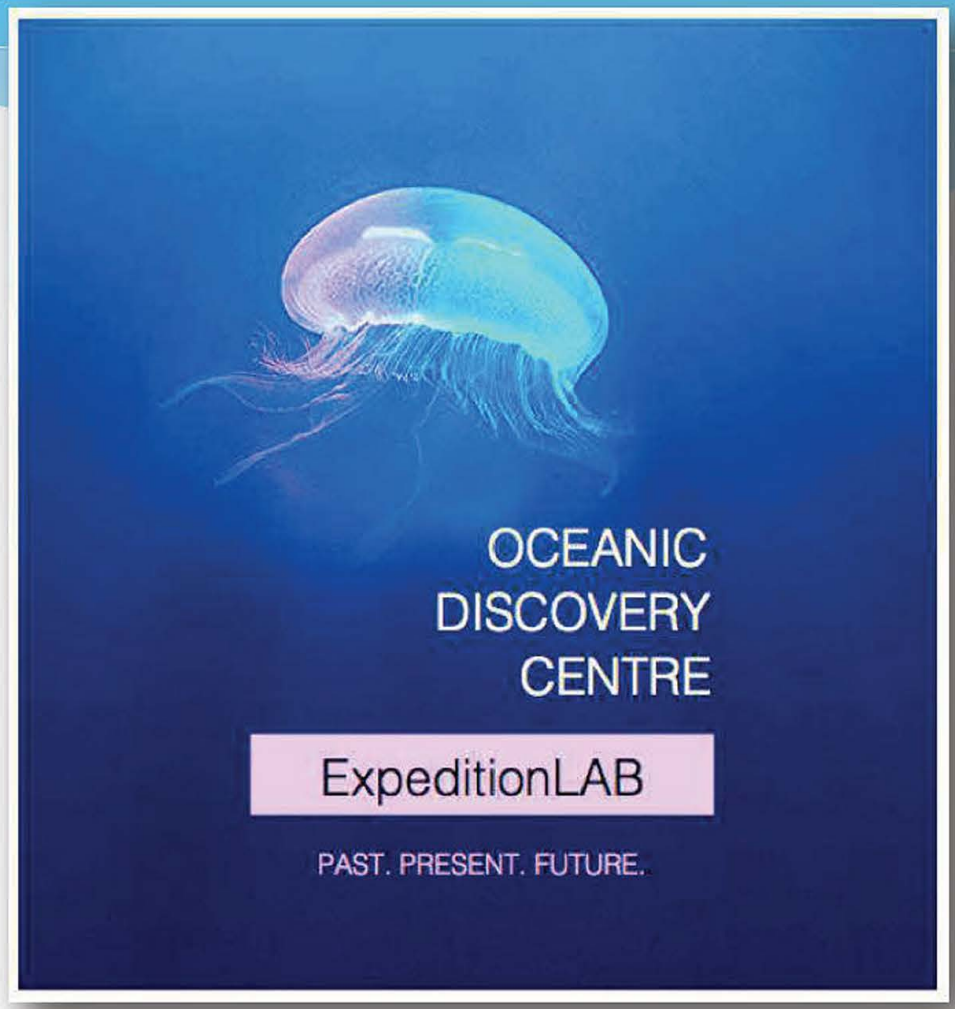


COPENHAGEN: A PROVEN MODEL FOR BALLINA'S MARITIME TOURISM

BALLINA'S OLD SLIPWAY - NOW THE RAMADA

COPENHAGEN'S OLD WATERFRONT - NOW THE ADMIRAL HOTEL

"MAKE BALLINA GREAT AGAIN"

FORMERLY NSW'S SECOND BIGGEST PORT

ORI can help…

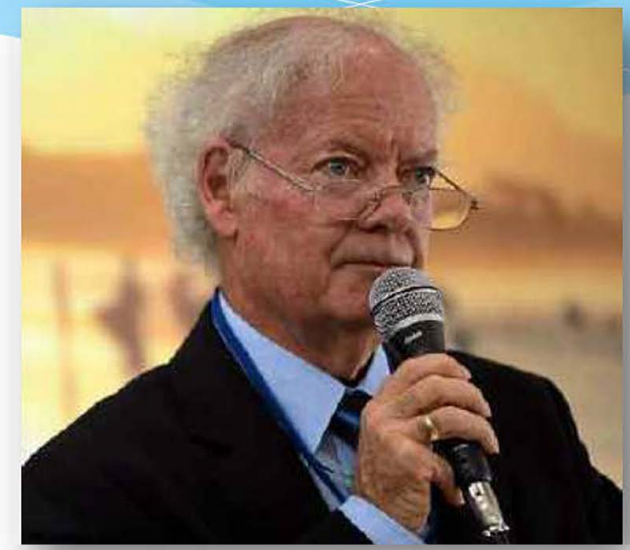
- Support current Council marine development plans
- Support North Coast TAFE maritime careers training
- Support Ballina Coastal High School marine programs

- Promote the value of Ballina's natural waterway assets
- Promote Ballina's rich maritime history and culture
- Attract many more boats: visitors & locally based

- Boost Ballina's tourism economy with major attraction
- Inspire regional development funding for Ballina

Why choose Ballina?

1. Future vision of Ballina Mayor
2. 190 years of maritime tradition
3. Fast access to the Pacific Ocean
4. One of NSW's beautiful seaports
5. High School, TAFE, Maritime Museum
6. Marine infrastructure growth potential

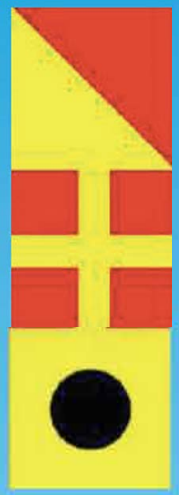


* ORI can make a valuable contribution to Ballina's future

ORI GLOBAL HEADQUARTERS. RAMADA COMPLEX

CALL IN AND
SAY HELLO

OCEANIC RESEARCH INSTITUTE. THE RAMADA COMPLEX. BALLINA HISTORIC SEAPORT.



OCEANIC RESEARCH INSTITUTE

PIONEERING SUSTAINABLE OCEANIC RESEARCH

OCEANIC RESEARCH INSTITUTE

PIONEERING SUSTAINABLE OCEANIC RESEARCH

EARLE DE BLONVILLE FRGS

CHIEF EXECUTIVE OFFICER

ADJUNCT PROFESSIONAL FELLOW, SCU, AUSTRALIA
FELLOW, LAB, CATALONIA UNIVERSITY, SPAIN
FELLOW, ROYAL GEOGRAPHICAL SOCIETY, UK

W: ORI.NET.AU E: s 47F
M: [redacted]

OCEANIC RESEARCH INSTITUTE

INCREASING AUSTRALIA'S
GLOBAL INFLUENCE

1. ARCTIC PROGRAMS

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MULTI-DISCIPLINARY SCIENCE PLATFORM

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SCIENTIFIC OUTPUTS

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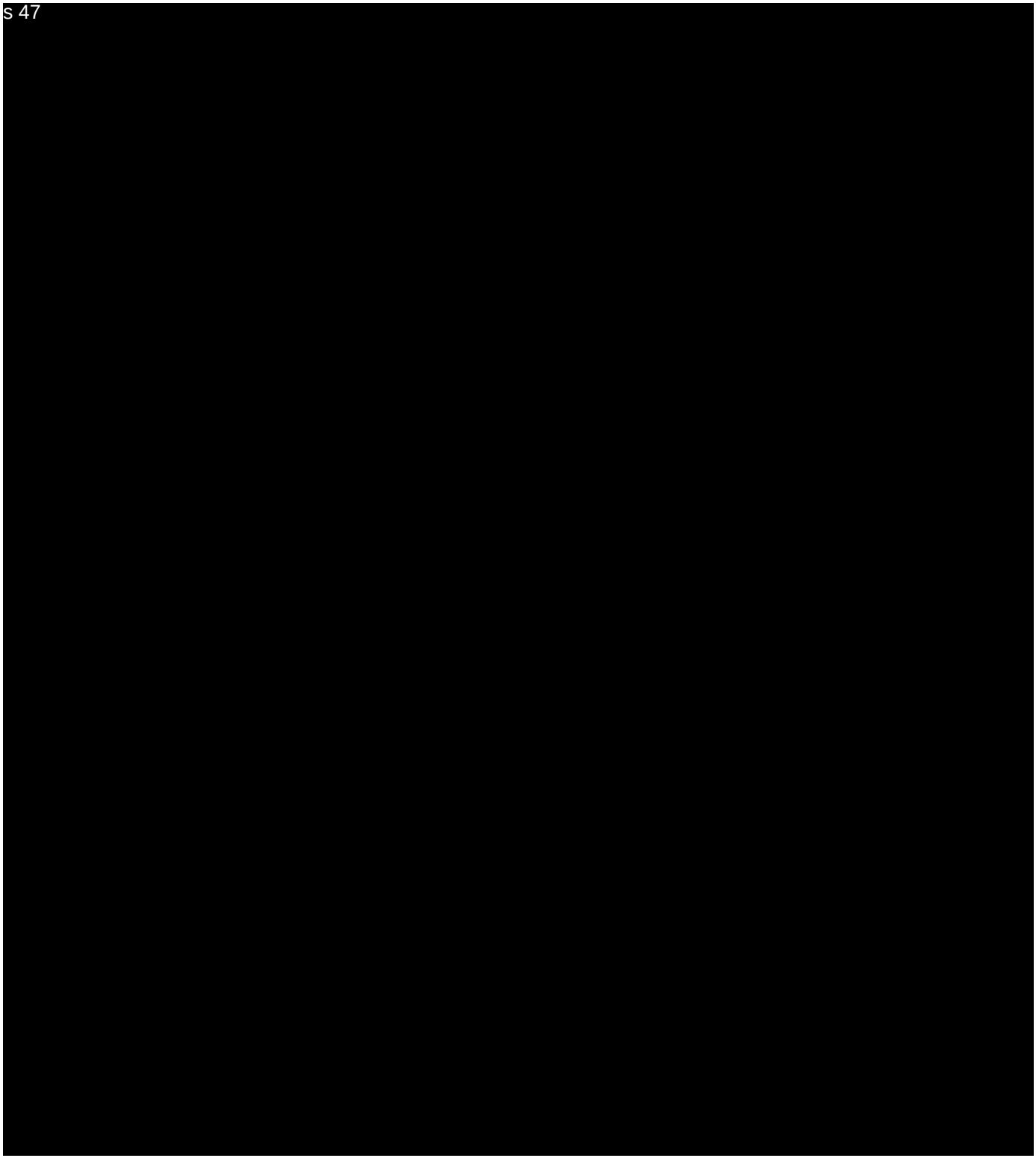

SCIENCE TEAM

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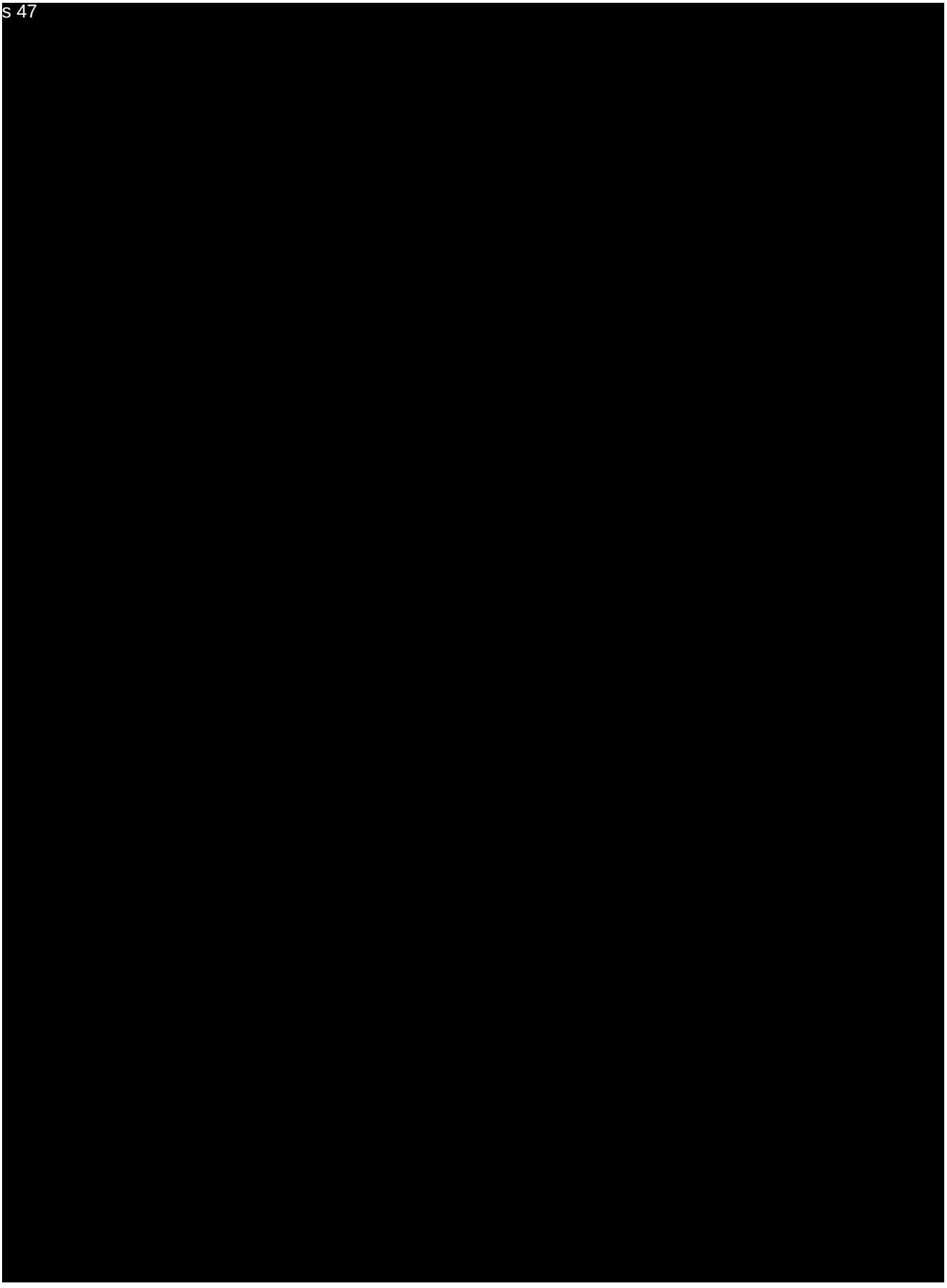

SCIENCE TEAM

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LABORATORI D'APLICACIONS BIOACÚSTIQUES

Universitat Politècnica de Catalunya

LABORATORI D'APLICACIONS BIOACÚSTIQUES
Universitat Politècnica de Catalunya

Bioacoustics is a cross-disciplinary science, which investigates sound production and reception in animals, the biological acoustically borne information transfer and its propagation in elastic media. It also looks at effects of anthropogenic sound sources on ecosystems.

The Laboratory of Applied Bioacoustics (LAB) of the Technical University of Catalonia, Barcelona Tech (UPC) was created in 2003 with support from the Spanish Ministry of Science and Technology, the City of Vilanova i la Geltrú and the Ports Directorate of the Catalan Government.

The LAB was the first laboratory enabling a global network of multi-disciplinary scientists exclusively dedicating their efforts to better understand the impact of manmade noise pollution on the marine environment and to respond to the increasing demand from the administrations and industries to address ocean noise issues by developing innovative applied solutions.

Clearly, the work has significant global implications by providing technological solutions to the progressive deterioration of the seas, limiting the effects of anthropogenic noise and contributing to the sustainable development of human marine activities.

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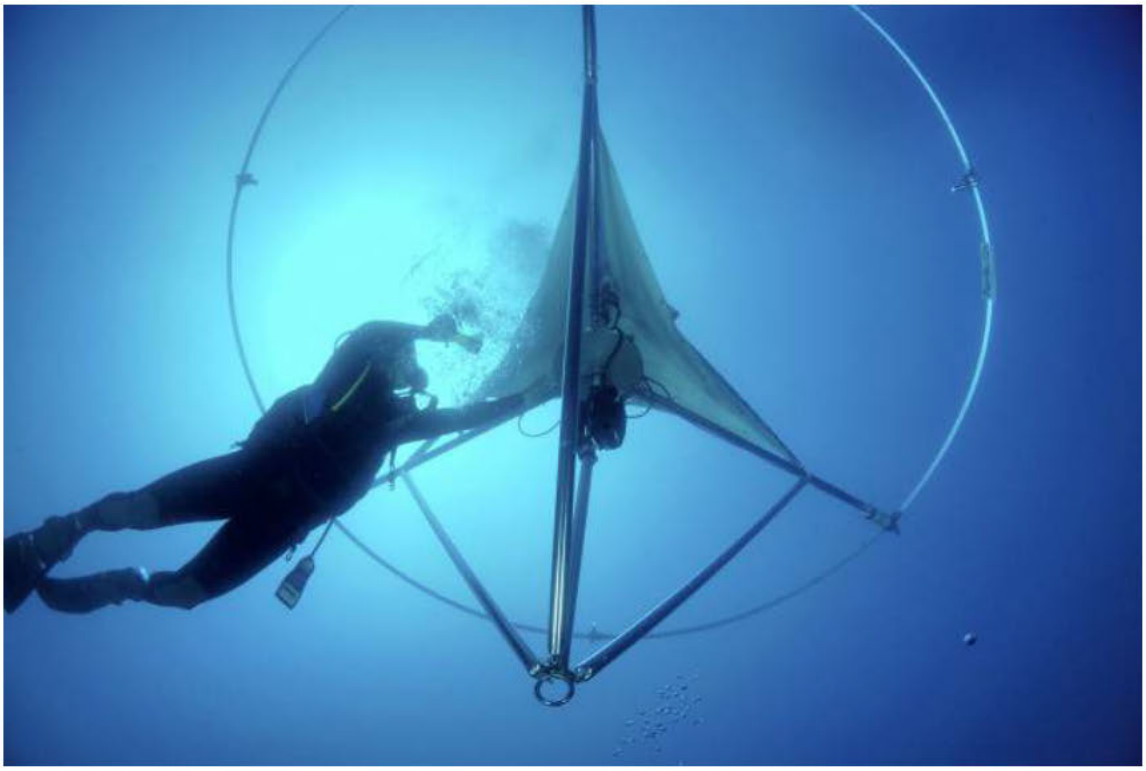

Jet Propulsion Laboratory
California Institute of Technology

1 Science Investigation

1.1 OMG Science Goals and Objectives

1.1.1 OMG Science Goals and Relation to NASA Goals

Global sea level rise will be one of the major environmental challenges of the 21st Century. Without adaptation, the cost of sea level rise globally could reach $1 trillion per year (more than 1% of Gross World Product) by 2050 (Hallegate, 2013). Yet despite its importance, sea level rise remains one of the most poorly predicted impacts of human-caused climate change. Most of this uncertainty stems from our inability to predict how the great ice sheets in Greenland and Antarctica, which contain ice equivalent to 80 meters of sea level, will respond to human-caused global warming (Willis and Church, 2012). In fact, NASA's 2007 Earth Science Decadal Survey (NRC, 2007, p. 27) highlighted this issue, citing the following key scientific questions: "**Will there be catastrophic collapse of the major ice sheets, including those of Greenland and West Antarctic and, if so, how rapidly will this occur? What will be the time patterns of sea-level rise as a result?**"

Melting of the Greenland Ice Sheet accounts for almost 1/3 of the uncertainty in sea level projections, with estimates of its contribution ranging from 5 to 54 cm by 2100 (Meier et al., 2007; Pfeffer et al., 2008). Furthermore, the rate of Greenland ice loss has approximately doubled during the last decades (Rignot et al., 2011; Shepherd et al., 2012). Half of this mass loss has been traced to the acceleration and retreat of marine-terminating, or tidewater glaciers, rivers of ice that drain the ice sheet into long narrow fjords that connect with the open ocean (Howat et al., 2011). Dynamic changes in the marine-terminating glaciers of Greenland and Antarctica, were cited by both the 2007 and 2013 IPCC Reports as being the *largest source of uncertainty in sea level rise projections* (Lemke et al., 2007; Church et al., 2013) in part because existing numerical models are unable to represent them accurately enough to reliably project their evolution.

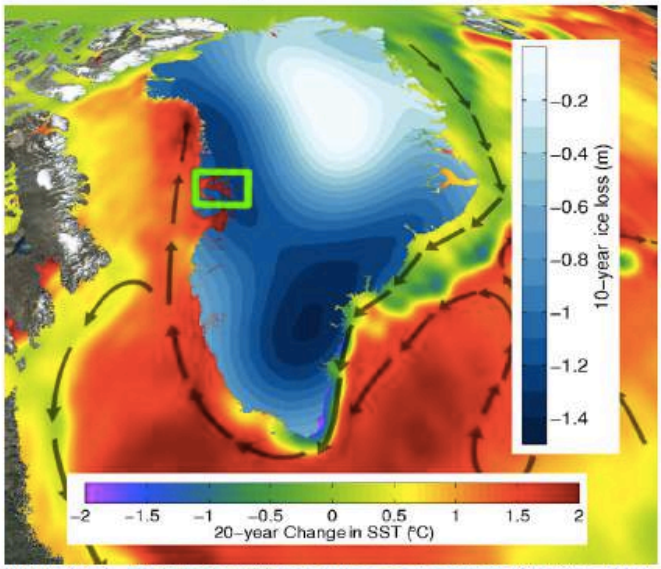

Figure 1.1-1. Over the last 20 years, the oceans surrounding Greenland have warmed dramatically and ice loss in Greenland has accelerated (Rignot et al., 2011). The regions of fastest ice loss in Greenland (dark blue contours from the GRACE mission) occur near the regions where the ocean is warming the fastest (red ocean colors from blended satellite and in situ observations). Arrows depict the major ocean currents.

During the last decade, ice loss in Greenland has occurred primarily near regions where ocean waters are warming the fastest (see Figure 1.1-1). An increase in the temperatures of the comparatively warm, salty subtropical-origin water (hereafter Atlantic Water) has been found in fjords with glaciers undergoing accelerated mass loss, leading researchers to hypothesize that at least some of the ice loss can be attributed to faster submarine melting at the ice–ocean interface (e.g., Holland et al., 2008, Rignot et al., 2010; and Straneo et al., 2013). Around Greenland, warm Atlantic Waters can be 3 to 5 °C warmer than fresh, cold water from the Arctic (see

The M/V Cape Race (inset) measured seafloor depths around Greenland this summer. Its complex path followed deep trenches dug by ancient glaciers. The track starts light and becomes darker throughout the survey. Sea ice at the cruise outset, July 24, is shown at left.
Credits: NASA/JPL-Caltech

OMG research is undertaking a one-time ship-based survey of sea floor bathymetry (depth and shape) in key fjords to examine geometric constraints on the intrusion of warm Atlantic Water in fjords. Research has begun in West Greenland, using the Research Vessel 'MV Cape Race' which has been specially equipped with a hull-mounted multibeam sonar and onboard supporting technical instruments.

In 2017 or 2018, OMG will survey the coast of East Greenland, following the route shown below. Because the proposed research voyage is some 2,000km long, only half of this is likely to be completed in the 2017 season, allowing for seasonal variations in sea ice cover.

In 2019, our Arctic Research Vessel will aim to complete the research voyage for NASA's OMG program, under the supervision of OMG Principal Investigator, Dr. Joshua Willis.

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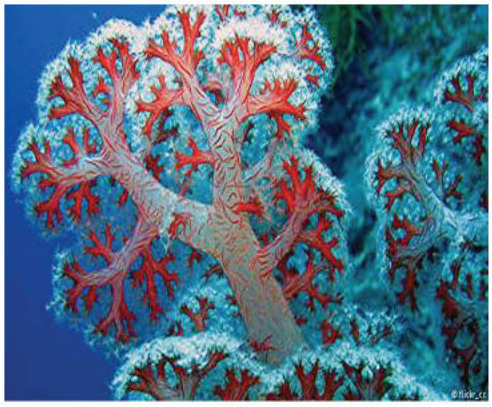
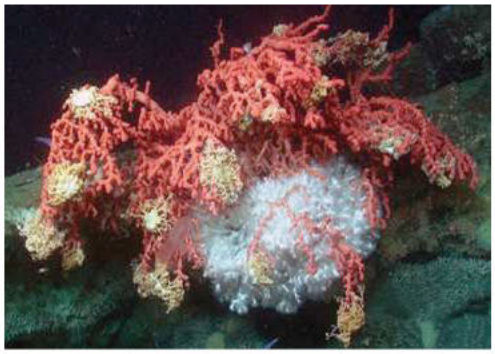
Southern Cross University

Marine Ecology Research Centre

ARCTIC CORALS & GREENLAND SHARKS

COLD WATER CORAL RESEARCH





The Hunt for Arctic Corals

Yes, cold-water coral is a thing. Fishermen have known about them for nearly 250 years, but modern science has only just begun to study them.

However, almost nothing is known about true Arctic corals, potentially growing on the coast of East Greenland, fed by fast-flowing, nutrient-poor, super-cooled waters from the Arctic Ocean.

If they do exist, what forms do they take, how deep do they live, how old are they, and where do they originally come from? Many coral mysteries …

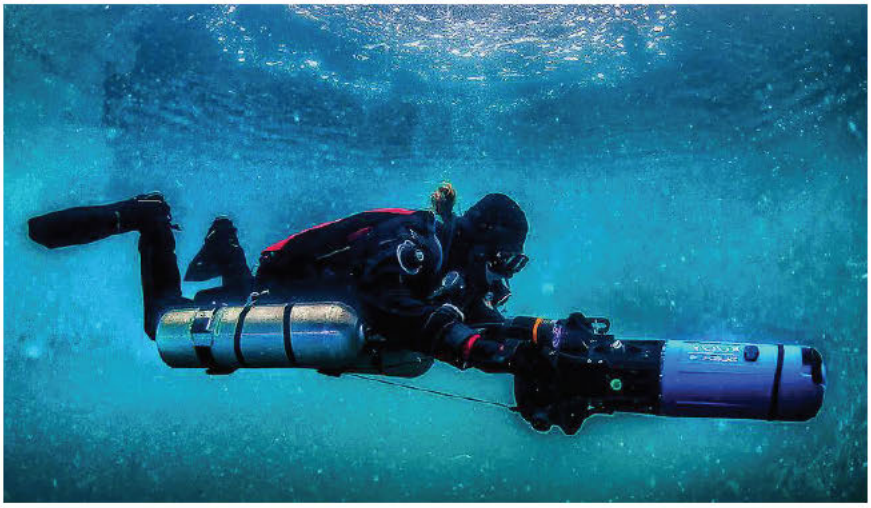
Arctic coral is a great scientific unknown, which ORI scientists plan to explore. The questions are, is the water too cold, at almost minus 2°C? Is the East Greenland Current (EGC) flowing too fast for corals to grow? And is the water – mostly melted ice - simply not saline enough to support cold-water corals as we know them?

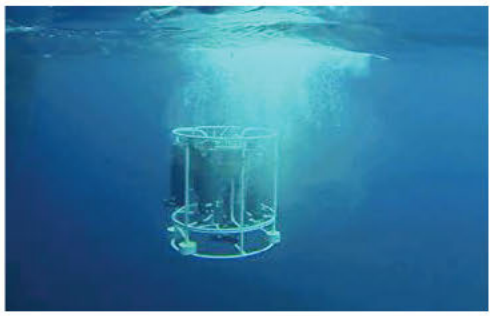
As Captain Jacques-Yves Cousteau famously said, *'Il faut aller voir'*
We must go and see for ourselves.

Cold-water coral reefs are important biodiversity hotspots. The known corals are found at depths from 40m to 2,000m, in temperatures down to +4°C. They exist in the dark without light-dependent symbiotic algae living in their polyps (which are much bigger than tropical corals). Feeding solely on nutrients filtered from the surrounding water they are typically found where the current flow is fastest.

The largest cold-water reef yet discovered, off the coast of Norway's Røst Island, is 40km long and 2-3 km wide. Radiocarbon dating shows the reef has been growing since the last glacial period, 10,000 years ago, meaning their banded skeletal structures (like tree rings) would contain invaluable environment archives allowing us to understand how the sea and climate has changed over time.

The major threats to cold water corals are increased ocean acidity caused by rising atmospheric CO levels from burning fossil fuels, causing reduced alkalinity and calcium carbonate saturation of the water. ORI's research will help determine the fragility of corals to ensure future preservation.





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INCREASING AUSTRALIA'S
GLOBAL INFLUENCE

2. PACIFIC PROGRAMS

CLIMATE CHANGE IMPACTS

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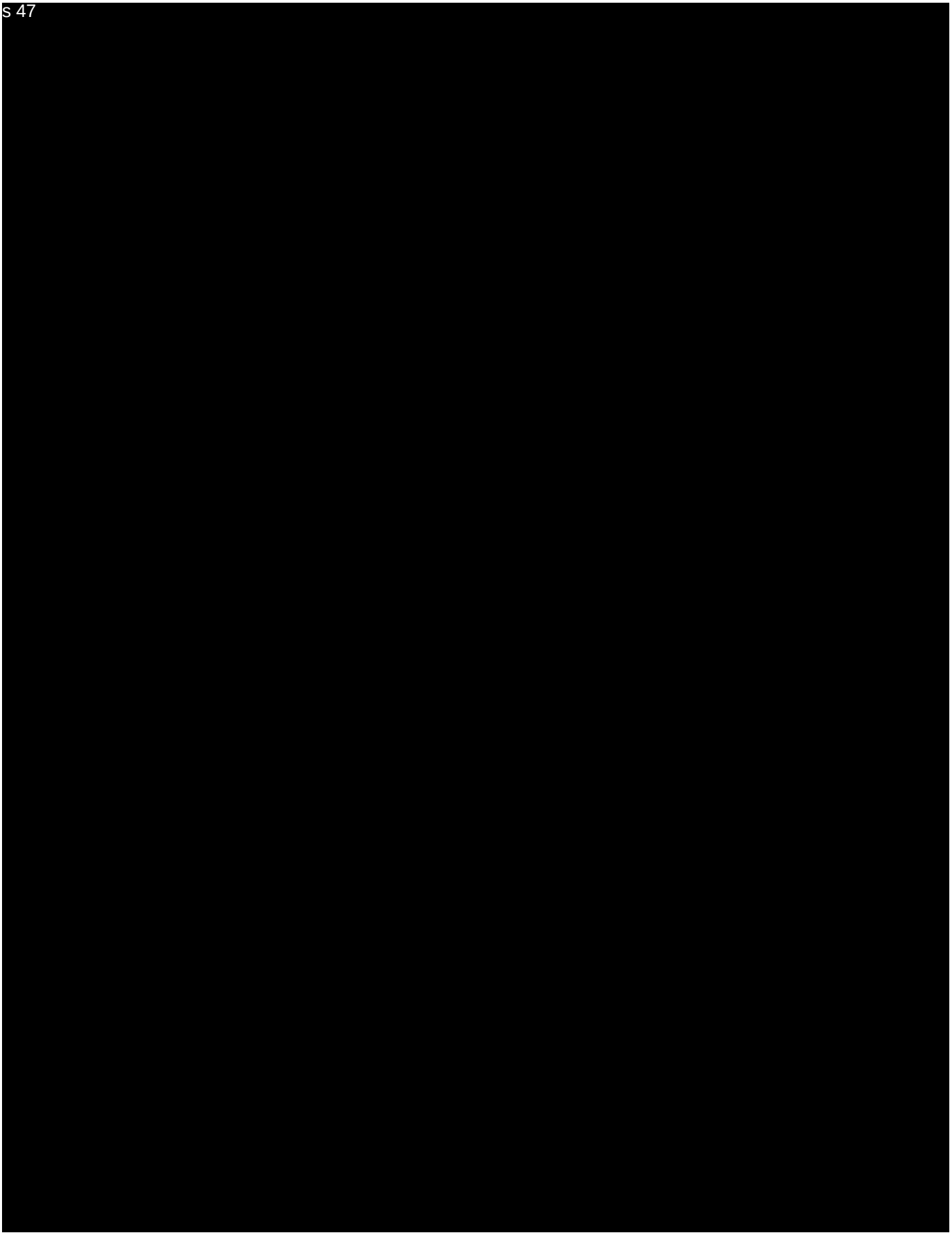

TANGIBLE CULTURAL HERITAGE

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PACIFIC GEOHAZARDS

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GREAT BARRIER REEF

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BROADER PACIFIC REGION

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GREAT BARRIER SOUNDSCAPES

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AMAZON PINK DOLPHINS

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Document 15

OCEANIC RESEARCH INSTITUTE

PIONEERING SUSTAINABLE OCEANIC RESEARCH

ARCTIC SCIENTIFIC RECONNAISSANSE EXPEDITION

OCEAN. CLIMATE. MANKIND.

AUSTRALIAN INTERNATIONAL RESEARCH EXPEDITIONS

OCEANIC RESEARCH INSTITUTE

AUSTRALIAN INTERNATIONAL RESEARCH EXPEDITIONS

OCEAN. CLIMATE. MANKIND.

Leading Australian oceanic and climate research into uncharted regions is a vital step to strengthening Australia's influence in international affairs.

The Oceanic Research Institute (ORI) is Australia's first international climate research organisation, operating in regions from the Arctic to the wider Pacific. We are the world's first truly sustainable oceanic research organisation, using traditional wooden sailing vessels fitted with the latest scientific research technology.

Based on the highly successful scientific research management model developed by the Australian Antarctic Division, ORI is a multidisciplinary platform designed to enable internationally recognised scientists to undertake programs in the myriad oceanic regions not covered by institutional and government owned marine research vessels.

Our mission is threefold.

Firstly, to elevate Australia's international reputation for climate Discovery Science by making a significant contribution to global oceanic and climate change research; by exploring important but un-researched and difficult to reach regions; and by making the data accessible to scientists worldwide though open-source repositories.

Secondly, to set a world-class example of economic and technological sustainability in scientific fieldwork by harnessing the benefits offered by traditional wooden sailing vessels. These include operations across entire oceans without refuelling, access to extremely isolated islands and restricted waterways, indefinite vessel operational life (with normal annual maintenance), and near-zero carbon and acoustic emissions.

Thirdly, to help develop Australia's next generation of oceanic and climate scientists by placing HDR students and Postdoc researchers with international scientist-mentors on each of our voyages, and in stimulating the creation of future generations of climate leaders by engaging secondary students worldwide in our field programs, through social media forums offered in several languages, and through direct participation in planning expeditions.

Because 95% of oceans are unknown to science (we know far more about Mars and the Moon) ORI plans to create an Oceanic Discovery Centre in Australia offering the world's most technologically innovative multi-media oceanic and climate science exploration experiences for all ages, on site and online.

By increasing Australia's global influence in climate research, partnering with the world's most respected oceanic research organisations, engaging more young Australians in the realities of climate science, and helping to create tomorrow's climate leaders, the Oceanic Research Institute will make an exceptional contribution to Australia's ability to have greater global impact.




The Institute's multidisciplinary programs currently include:

Arctic 2020 – Secrets of the Hidden Fjords

Programs: Completion of NASA's OMG ocean floor mapping; Creation of first Big20 glacial survey; Discovery of polar coral origins; Creation of first inventory of cetaceans.

Arctic 2021 – Songs of the Polar Current

Programs: Creation of first Arctic ambient ocean acoustic signature; Expansion of polar coral distribution map; Creation of first cetacean distribution map.

Pacific 2022 – New Life in the Coral

Programs: Great Barrier Reef - Discovery of Humpback Whale breeding areas; Mapping coral population dispersal and connectivity; Baseline map of GBR acoustic signature. Coral Sea Triangle – Surveys of ocean plankton & marine biodiversity.

Pacific 2023 – Historical Climate Records

Programs: Vanishing Islands & geotectonic contexts; Tsunami impacts on remote islands; Abrupt shoreline uplift records; Volcanic eruption proxy records.

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Arctic Reconnaissance Expedition

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CREATING TOMORROW'S CLIMATE LEADERS

Corporate Sponsorship Opportunity: s 47

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