



Great Southern Seascapes

2018 Impact Report



David & Barbara Thomas and The Nature Conservancy

The Nature Conservancy would like to acknowledge and thank David Thomas and his late wife Barbara, and The Thomas Foundation for the role they have played in enabling and supporting our Australian operations. Their passion and vision have been central to all we have achieved, including the successes this report celebrates.

David Thomas was introduced to The Nature Conservancy during a trip to the United States. Impressed by the organisation's unique model for conservation, David, along with his friend and colleague Rob McLean encouraged The Nature Conservancy to establish in Australia.

The Foundation initially worked with The Nature Conservancy to fund large-scale land acquisitions for biodiversity conservation. In 2007, David and Barbara boldly launched an innovative matched-funds program, the David Thomas Challenge, with a \$10M commitment to The Nature Conservancy Australia.

This resulted in an investment of \$28M for conservation of lands throughout Australia. Conscious of the increasing threats to Australia's marine biodiversity, in 2013 the Foundation's focus shifted to the ocean; and with an initial \$3M grant, enabled The Nature Conservancy Australia to launch the Great Southern Seascapes Program. Greatly pleased with the progress being made and the program's prospects, the Foundation made a further grant of \$2M in 2016.

“To have impact, you have to have focus.”

— DAVID THOMAS

ACKNOWLEDGEMENTS

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THE GSS CONSERVATION TEAM

Chris Gillies, Marine Manager

James Fitzsimons, Director of Conservation

Simon Branigan, Marine Restoration Coordinator

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With support from The Nature Conservancy Australia operational team.



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About The Nature Conservancy

The Nature Conservancy was founded in the United States in 1951 and now works in over 72 countries with a staff of over 4,000 people, including 600 scientists.



The Australia program was formed in 2002, collaborating with partners including local communities, governments, Indigenous groups, business groups and other conservation groups. The Nature Conservancy Australia has supported conservation efforts across more than 127M ha. Our focus is to address the most pressing conservation threats at the largest scale through our scientific and collaborative approach.

OUR MISSION AND SCOPE

The mission of The Nature Conservancy Australia is to protect the lands and waters on which all life depends.

The outcome we seek is the health of Australia's nature and people across each of the following critical ecosystems:

- The tropical savannas and arid deserts of Australia's outback
- The rivers and wetlands of the southern Murray-Darling Basin
- The bays and estuaries of our great southern reefs
- The natural environment of Australia's largest cities

OUR ADVISORY BOARD

- Rob McLean AM, Chairman, Senior Advisor, McKinsey and Company
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- Peter Stephen, Deputy Country Director, Australia
- Jane Hutchinson, Executive Director Strategy and Innovation
- James Fitzsimons, Director of Conservation
- Simon O'Connor, Director of Finance and Operations
- Marla Edwards, Director of Development
- Rachel Bailey, Director of Marketing and Membership
- Lina Di Prisa, Director of People and Culture

CURRENT ACTIVITIES IN AUSTRALIA

For the next four years, The Nature Conservancy Australia will work to sustain the health of nature on a global scale across four key areas:

- Tackling Climate Change
- Protecting Land and Water
- Providing Food and Water Sustainably
- Building Healthy Cities

Our 2020 Business Plan strategies are:

- Indigenous land management supported by a fair and robust market for carbon and ecosystem services.
- Indigenous-led arid land management combining traditional and western science supported by long-term funding.
- Natural marine and coastal assets are recognised as a part of the nation's infrastructure with 30% of historical shellfish reefs restored.
- Conservation financing is demonstrated through sustainable food production systems and scaled water sharing investments.
- Recommendations of *Living Melbourne: Our Metropolitan Urban Forest* have been adopted by local councils and endorsed for funding by the Victorian Government.

About The Great Southern Seascapes (GSS) Program

Our mission is to spark a revolution in marine conservation and the blue economy by scaling-up restoration of coastal habitats in bays and estuaries across southern Australia.

We will achieve our mission through five key initiatives:

- Demonstrate best-practice restoration in at least one strategic estuary in each state of southern Australia.
- Determine historical baselines, quantify decline and develop best practice restoration methods through strategic investments in science.
- Establish the case for ecological, financial and social benefits of restoration through strategic investments in ecosystem service science.
- Build political and financial support for restoration at both state and national levels.
- Build a marine restoration movement in Australia by strengthening coastal networks and boosting community engagement.

Our actions are underpinned by science and our global knowledge-base. Our tactics are centred on making marine restoration a priority by reframing conservation and restoration in terms of safeguarding the benefits marine habitats provide to people and nature.

GSS 2018 BIG WINS

- Completion of 20 ha Windara Reef in Gulf St Vincent, South Australia.
- Commencement of a 1ha reef in Oyster Harbour, Western Australia.
- Restoration of 2.5 ha reef in Port Phillip Bay, Victoria.
- Scale-up of Shuck Don't Chuck shell recycling project into Melbourne.
- Nomination accepted by Commonwealth Government to assess shellfish reefs as a Threatened Ecological Community under the federal *Environment Protection and Biodiversity Conservation (EPBC) Act*.

WHAT'S COMING IN 2019?

The Great Southern Seascapes program is embarking on an exciting new strategy beginning in 2019 and operating until 2025. Our focus will be on restoring shellfish reefs ecosystems throughout Australia, working alongside our partners and supports to bring back shellfish reefs from extinction. The program will undergo a name change, shift in strategic focus and establish a more effective way to report and measure our impact. Look out for the launch of our new reef campaign in mid 2019.



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“Our oceans are losing the ability to support us. They provide us with basic needs and the benefits we all rely on but our demands are proving too great. The Nature Conservancy is dedicated to transforming how Australia manages its oceans. Our solutions focus on investing in natural infrastructure; promoting sustainable fisheries management and managing and protecting ocean and coastal habitats to provide benefits to nature and people. People are the ocean’s greatest hope. People like you. Thank you.”

— RICH GILMORE, COUNTRY DIRECTOR

Key Initiative 1: Restoration

Demonstrate best-practice restoration in at least one strategic estuary in each state of southern Australia.

FIVE YEAR KPIS: 20 ha living oyster reefs established in one strategic estuary in each southern state.

METRICS: Reef area; growth; survival; biodiversity/fish; number of new jobs and student projects.

2018 MILESTONES

- Complete 500 m² of reef deployment in Port Phillip Bay, identify additional areas for restoration and secure new investments for Stage 3 (20 ha scale-up).
- Complete construction of Windara Reef, SA.
- Initiate Stage 2 restoration for Oyster Harbour, WA.
- Complete scoping study for new project in Sydney.
- Finalise TNC strategy for supporting community-developed restoration projects.

KEY ACHIEVEMENTS

IN PORT PHILLIP BAY, VIC: Restored 2,549 m² of reefs over a total project footprint of 2.5 ha at two sites. The new and existing reefs were seeded with a total of 1.789 million juvenile oysters and 446,000 mussels, using 170 m³ of recycled shells for reef base. The monitoring results indicate that the restored shellfish reefs are performing well, with high growth and survival of shellfish and encouraging signs of natural recruitment. There are increases in biodiversity at both sites, including many fish species (e.g. pinkie snapper).

IN GULF ST VINCENT, SA: Completed 20 ha reef construction of Windara Reef which includes 13,419 m² of shellfish reef footprint over 20 ha, using 10,000 tonnes of limestone as a reef base and 60 concrete reef balls. The reef design process won our engineering partner, Jacobs, a US Environment Business Journal Award for outstanding business performance.

IN OYSTER HARBOUR, WA: A new team member Alex Hams joined the program and commenced early phase restoration planning. Project implementation and reef construction will occur in 2019.

IN PEEL-HARVEY ESTUARY, WA: Project launched in February 2018. Established research partnership with Murdoch University to assess the feasibility of mussel restoration in the Estuary. Site visits by US TNC coastal

resilience staff, stakeholder consultation and Conservation Action Planning. Beta versions developed for online decision support apps (Risk Explorer app).

IN THE SWAN RIVER ESTUARY, WA: Early planning undertaken and generous support provided to launch a new mussel restoration project in the Swan River estuary, Western Australia in early 2019.

IN THE NOOSA ESTUARY, QLD: New partnership established with Noosa Council to establish an oyster reef restoration project and undertake other conservation works in the Noosa river estuary, starting in mid 2019.

OTHER INITIATIVES

- Two purchased properties officially added to the Adelaide International Bird Sanctuary National Park–Winaityinaityi Pangkara and provided advice for the completed management plan as part of TNCs ongoing commitment to the advisory group.
- Consultation undertaken with South Australian Government to establish a new oyster reef on the Adelaide metro coast.

2019 PRIORITIES

- In Victoria, secure financial support for Stage 3 (20-hectare scale-up), finalise project planning and restore a further 2 ha of new reefs in Port Phillip Bay.
- In South Australia, secure financial support for a new oyster reef project near Adelaide.
- In Western Australia, construct 1 ha of reef in Oyster Harbour, commence new mussel restoration project in the Swan River and complete research and planning in the Peel-Harvey estuary.
- In Queensland, undertake early planning work for reef restoration in the Noosa Estuary.

“The recovery of the shellfish reefs in Port Phillip Bay has been incredible. Even after such a short period of time there is high survival and growth of shellfish, as well as natural recruitment and big schools of pinkie snapper and many other species colonising the reefs.”

— SIMON BRANIGAN, MARINE RESTORATION COORDINATOR, VICTORIA

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Key Initiative 2: Restoration Science

Determine historical baselines, quantify decline and develop best practice restoration methods through strategic investments in science.

FIVE YEAR KPIS: Australian relevant best practices for Angasi reef restoration published.

METRICS: Peer reviewed papers; best practice guides.

2018 MILESTONES

- Finalise IUCN Redlist of Ecosystems nomination.
- Update and publish global best practice guidelines for shellfish reef restoration.

KEY ACHIEVEMENTS

IUCN REDLIST OF ECOSYSTEMS RESEARCH PAPER: Draft manuscript developed (due for submission mid 2019).

BEST PRACTICE SHELLFISH REEF RESTORATION GUIDELINES: TNC Australia are coordinating the update of the existing guide and have assembled a team of authors and editors from North America, Europe, China and Hong Kong, Australia and New Zealand, with input from other practitioners and managers worldwide. Significant progress has been made in compiling the guide with the target publication date now June 2019.

CLOUDY BAY, TAS: Field surveys were completed by The Nature Conservancy and University of Tasmania in 2018. During the GSS team retreat a remnant *O. angasi* dominated habitat was surveyed using established monitoring methods for TNC's shellfish restoration. The evaluation of this data will enable testing and measurement against the condition thresholds for EPBC nomination.

ADELAIDE INTERNATIONAL BIRD SANCTUARY, SA: The South Australian Government committed \$30,000 to the Conservancy to undertake a scoping study documenting the importance of the Adelaide International Bird Sanctuary for migratory shorebirds within the East Asia-Australasia Flyway and determine sister sites in the region. Dave Mehlman, TNC's Migratory Bird Program Director, led the work in conjunction with TNC Australia staff, TNC China staff and the TNC Global Marine team. The work was presented to meeting of the parties for the parties of the East Asia-Australasia Flyway Network and a peer reviewed paper is currently in revision for the journal Pacific Conservation Biology on this work.

WINDARA REEF, SA: Cost Benefit Analysis of undertaking shellfish restoration using Windara Reef as a case study. Led by researcher Dr. Abbie Rogers (University of Western Australia) and supported by Anita Nedosyko as part of a NESP funded project.

FINALIST IN THE 2018 SA SCIENCE EXCELLENCE AWARDS: The Windara Reef project was recognised for the multi-partner research collaboration and innovative science

STUDENT SUPERVISION: Dr Chris Gillies supervised honours Gideon Heller-Wagner to completion and is a co-supervisor of Mapping Ocean Wealth PhD student Ashley Whitt. Simon Branigan continues to provide ongoing support to PhD student Ben Cleveland (Port Phillip Bay project). Simon Reeves provides support and advice to several Mapping Ocean Wealth students.

SCIENTIFIC PAPERS

The following marine-related book chapters and scientific papers were published by TNC Australia staff (bolded) in 2018:

- **Gillies C.L.** et. al. (2018). Australian shellfish ecosystems: past extent, current status and future management. *PloS One* 13, e0190914.
- McLeod, I. M., Purandare, J., **Gillies, C.L.**, Smith, A. & Burrows, D. (2018). Symposium report: Inaugural Australian Coastal Restoration Symposium. *Ecological Management & Restoration*, 19, E1-5.
- McLeod, I., Schmider, J., Creighton, C. and **Gillies, C.L.** (2018). Seven pearls of wisdom: Advice from Traditional Owners to improve engagement of local Indigenous people in shellfish ecosystem restoration. *Ecological Management & Restoration*, 19(2), pp.98-101.

- Alleway, H.K., **Gillies, C.L.**, Bishop, M.J., Gentry, R.R., Theuerkauf, S.J. and Jones, R., (2018). The Ecosystem Services of Marine Aquaculture: Valuing Benefits to People and Nature. *BioScience*, 69(1), pp.59-68.
- Pagoda, B., Brown, J., **Hancock, B.**, Preston, J., Pouvreau, S., Kamermans, P., Sanderson, W. and von Nordheim, H. (Submitted). Foundation of the Native Oyster Restoration Alliance (NORA): Bringing back a key ecosystem engineer by developing and supporting best practice in habitat restoration. *Aquatic Living Resources*.
- **Hancock, B.**, zu Ermgassen, P.S.E. (2018). Production of finfish and large crustaceans from bivalve reefs. In, *goods and Services of marine bivalves*. Eds. A. Smaal, J. Ferreira, J. Grant, J. Petersen, and O. Strand, Springer Publishing. Open access at <https://link.springer.com/book/10.1007/978-3-319-96776-9>
- Ysebaert, T., Walles, B., Haner, J. and **Hancock, B.** (2018). Habitat modification and coastal protection by ecosystem-engineering reef-building bivalves. In, *goods and Services of marine bivalves*. Eds. A. Smaal, J. Ferreira, J. Grant, J. Petersen, and O. Strand, Springer Publishing. Open access at <https://link.springer.com/book/10.1007/978-3-319-96776-9>

- **Fitzsimons, J.A.** & Wescott, G. (2018). Large-scale expansion of marine protected area networks: Lessons from Australia. *Parks* 24(2), 19-34
- Leo, K., **Gillies, C.**, **Fitzsimons, J.**, **Hale, L.**, Beck, M. (in review). Coastal habitat squeeze: A review of adaptation solutions for saltmarsh, mangrove and beach habitats. *Ocean and Coastal Management*
- Mehlman, D., **Fitzsimons, J.**, Irving, A., Irving, J., **Hancock, B.** (in review) Selecting a suite of potential partner sites for the Adelaide International Bird Sanctuary to aid shorebird conservation in the East Asian-Australasian Flyway. *Pacific Conservation Biology*

OTHER INITIATIVES

TNC led the investigation of new sites in Port Phillip Bay, which involved a Bay-wide targeted search for degraded shellfish reefs and areas of high densities of oysters and mussels. The exploration work confirmed that shellfish reefs are a collapsed ecosystem in the Bay. However, the study found areas suitable for assisted rehabilitation and full restoration in addition to several areas where oyster broodstock could be collected.

2019 PRIORITIES

- Finalise IUCN Redlist of Ecosystems nomination.
- Publish global best practice guidelines for shellfish reef restoration.
- Undertake further surveys of 9ft Bank in Port Phillip Bay to determine if this remnant habitat will qualify as degraded shellfish reef ecosystem as part of the EPBC Nomination.



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Key Initiative 3: Ecosystem Service Science

Establish the case for ecological, financial and social benefits of restoration through strategic investments in ecosystem service science.

FIVE YEAR KPIS: Key ecosystem services provided by salt marsh, mangroves and seagrass habitats quantified and mapped for Port Phillip Bay and Richmond River.

METRICS: Communication products; ecosystem service maps.

2018 MILESTONES

- Finalise initial stakeholder interviews and synthesize needs and requirements of stakeholders.
- Complete all field sampling and focus on modelling for all ecosystem services.
- Coordinate and develop a number of applications utilising MOW Australia data.
- Develop Story Maps to communicate MOW Australia research and applications.
- Complete 50% of the research projects.

KEY ACHIEVEMENTS

New research partnership established with Deakin University and Dow to undertake a coastal wetland restoration feasibility study in Port Phillip Bay (called the Victorian Wetland Rehabilitation Program). The project forms part of the Victorian Government's Biodiversity Response Planning program.

50% of Mapping Ocean Wealth research projects completed, all other projects are in the final analysis/writing stages.

One study has been published to-date from Mapping Ocean Wealth work. The publication '*Optimal soil carbon sampling designs to achieve cost-effectiveness: a case study in blue carbon ecosystems*' was led by Dr Mary Young and was published in Biology Letters in September 2018.

Three other Mapping Ocean Wealth studies are currently in review with scientific peer-reviewed journals.

Baseline and historical mapping have been completed for Port Phillip Bay, Western Port and the Richmond River estuaries.

Models and maps have been created for blue carbon ecosystems in Victoria and New South Wales (see Figure below). Our research partners Deakin University are extending the original scope of this ecosystem service to produce soil carbon maps across the three ecosystems throughout Australia.

The Deakin-TNC project team are developing five Mapping Ocean Wealth narratives to pull together the 25 research projects into cohesive stories. These will be centred around the four ecosystem services, whilst a fifth will examine how these ecosystem services combine or bundle to provide a wealth of benefits to people and communities. These narratives will outline how the economic value of estuarine habitat ecosystem services will be integrated into the Ocean Wealth mapping portal.

We continue to update the Mapping Ocean Wealth web mapping tool with new maps produced and uploaded as they become available.

2019 PRIORITIES

- Complete MOW project and deliver final report to funders and stakeholders.
- Produce five narratives communicating outcomes from MOW, these will include infographics and provide an easily 'digestible' overview of each of the key ecosystem services and an integrated view of all key ecosystem services.
- Upload all maps to MOW portal and integrate with narratives.
- Develop webpages for all narratives on MOW Australia webpage.
- SEEA and InVEST case studies completed and communicated.
- Symposia 'Appreciating the value of marine and coastal ecosystems: what we know and future directions' chaired at AMSA 2019 in Fremantle, Perth.

For more information on our Mapping Ocean Wealth Program, visit:
<http://bit.ly/2Ed8f5Y>

Key Initiative 4: Government and Policy

Build political and financial support for restoration at both state and national levels.

FIVE YEAR KPIS: \$50 million committed to restoration through new government programs and sustained funding sources.

METRICS: Funding committed to marine habitat restoration.

2018 MILESTONES

- Secure public funding for expansion of shellfish reefs in South Australia as part of 2018 state election commitments or in 2018–19 state budget.
- Secure public funding for expansion of shellfish reefs in Port Phillip Bay as part of Victorian 2018 election commitments or 2019–20 state budget.
- Support NSW government and parliamentary engagement on natural infrastructure investment initiative.
- Develop policy recommendations around TNC's preferred methods of estuary management and marine conservation for state and federal governments.

KEY ACHIEVEMENTS

NATIONALLY: The Nature Conservancy has led the EPBC Threatened Ecological Community and IUCN Redlist of Ecosystem nominations, by submitting a nomination for “Temperate coastal oyster beds and reefs” in Australian waters. The nomination has been included on the Finalised Priority Assessment List as a threatened ecological community and will be assessed for listing under the EPBC Act.

GSS staff also held a number of meetings with the Commonwealth Department of the Environment and Energy to confirm eligibility of shellfish ecosystems for listing under the EPBC Act.

Nereus Consulting undertook a blue carbon scoping study for TNC which provided a high level assessment of six potential demonstration sites and provided further information related to financing and development of voluntary markets. We have subsequently commissioned a second study to understand the detailed logistical elements and scale of blue carbon opportunity across south eastern Australia and to complete further due diligence on one of the potential restoration sites in NSW.

IN SOUTH AUSTRALIA, the Liberal Government announced a \$1.2M election commitment for new reefs as part of their New Life for our Coastal Environment election commitment. It is anticipated that this commitment will support new oyster reefs along the Adelaide metro coastline. TNC hosted the Hon. David Speirs, Minister for Environment and Water and other distinguished guests including and Fraser Ellis (MP for Narungga) on a site visit in June to see the development of Windara Reef.

IN VICTORIA, the Labor Government announced a \$2.5M election commitment for marine habitat restoration in Port Phillip Bay. We anticipate a proportion of this will support new reefs in Port Phillip Bay. A successful awareness-raising event was held at Parliament House before the State Election, attended by all sides of politics, with speeches by the Minister and Shadow Minister for Fisheries. The event successfully promoted a habitat restoration and policy proposal, developed in joint collaboration with Seafood Industry Victoria and OZFish Unlimited.

IN WESTERN AUSTRALIA, the WA Government provided \$1.15M in funding to scale up reef restoration in Oyster Harbour, Albany. This funding will be used to restore 1 ha of Native Flat Oyster habitat to an area where they once thrived.

IN NEW SOUTH WALES, the NSW Government committed \$2M towards shellfish reef restoration and science as part of the Marine Estate Management Strategy.

2019 PRIORITIES

- Secure public funding for expansion of shellfish reefs in South Australia from coordinated departments including Tourism, Environment, Infrastructure, and Regional funding.
- Develop policies for communities to undertake shellfish restoration.
- Secure public funding for a 20-hectare expansion of shellfish reefs in Port Phillip Bay.

Key Initiative 5: Capacity Building, Community Engagement and Media

Build a marine restoration movement in Australia by strengthening coastal networks, initiating new training and education and boosting public communication.

FIVE YEAR KPIS: Communications plan targets achieved (key stakeholders and audience reached).

METRICS: Non TNC projects initiated; people trained; knowledge exchanges; media stories and audience reached; volunteers and community groups engaged.

2018 MILESTONES

- Coordinate annual National Shellfish Reef Restoration Network meeting.
- Sustain current communication strategy and media campaign.
- Increase viewership of Reef Cam.
- Maintain and grow Restore the Bay Network.
- Maintain and grow Oyster Watch (formerly Settlement Plate Watch).
- Maintain and grow the Shuck Don't Chuck Shell Recycling Project.

KEY ACHIEVEMENTS

IN SOUTH AUSTRALIA, TNC successfully hosted a joint Australian Shellfish Reef Restoration Network/International Conference on Shellfish Restoration Conference over three days in Adelaide. The event was attended by over 80 local and international delegates and opened by the Hon Ian Hunter, Minister for Environment. Site visits to Adelaide coastal wetlands and Windara Reef were also undertaken.

The Yorke Peninsula Council in partnership with TNC won a National Science Week grant to host a community education and awareness event on Yorke Peninsula at a local Watsacowie microbrewery which featured presentations on the reef and local oyster tastings matched with beer.

TNC was successful in securing a grant from Inspiring SA to develop an online animated shellfish reef tool to visually communicate to the public how the restored reefs will develop over time.

Windara has had 35 volunteers (331 hours), 24 public presentations and 29 media mentions in 2018.

IN VICTORIA, Reef Cam continues to garner strong viewership numbers (see Digital Media below) and is the most popular of the marine related webpages on the TNC Australia website. TNC continues to maintain all Reef Cam infrastructure with regular scheduled maintenance trips out to Popes Eye marine reserve.

The Restore The Bay network is now well established as the volunteer support arm for the Port Phillip Bay project. The Network is an effective way to continue to build community support and provide project updates through information sessions and e-news bulletins. Volunteer activities run through the Network involved 90 participants over 15 days and 430 hours. This work supported hatchery preparations for the 2018 oyster run and six-monthly monitoring activities.

TNC was successful in securing a new investment of \$173,000 for OysterWatch, through the Port Phillip Bay Fund, to maintain and grow this citizen science initiative until mid-2020. Project partners, the Victorian National Parks Association and University of Melbourne are working with TNC to create a 'natural recruitment hotspot map' to guide decisions about future shellfish reef restoration locations. The volunteer activities involved 30 volunteers, over 6 days and 150 hours were involved in settlement plate construction, deployment and monitoring.

Shuck Don't Chuck was maintained throughout the year in the Greater Geelong Region with new support provided to further expand into Melbourne and Geelong. There were several outcomes in 2018 including: recycling 170 m³ of shells, South Melbourne Markets (SMM) and Portarlington Mussel Festivals widely promoted the project in the media as part of their annual festival events, a 'Craft Beer, Oyster & Mussel' event was held at Little Creatures Geelong with over 100 Geelong locals and Melbourne supporters attending, and an 'Oyster Art Installation' in collaboration Barking Spider Visual, Seafood Industry Victoria and SMM with up to 100 member of the public attending.

A new citizen science initiative was formed in partnership with OZFish Unlimited and VRFish to build on the Baited Remote Underwater Video recreational fisher pilot project that TNC first established. Recreational fishers will support shellfish reef monitoring and monitor other habitats in Port Phillip Bay.

The Port Phillip Bay Restoration Project was a finalist in the Victorian Coastal Awards.

IN WESTERN AUSTRALIA, launched the Bringing Back the Reefs to Oyster Harbour project and conducting the first of a series of community workshops. Engagement of local community and stakeholders to guide project delivery, assist in practical restoration activities, provide project updates and build community support.

COMMUNICATIONS

Interest in our marine program continues to be high. From a communications perspective, our Great Southern Seascapes project continues to benefit from being close to major urban areas, creates tangible outcomes, is interesting to a wide range of interest groups (conservationists, anglers, recreational divers, boating enthusiasts etc.), and is without critics.

DIGITAL MEDIA

SOCIAL MEDIA

The Great Southern Seascapes project featured regularly on our Facebook page throughout 2018. TNC Australia's Facebook page has accumulated 162,697 followers with an average monthly organic reach of 95,665 people and monthly engagement (clicks, comments, likes & shares) averaging 6,523.

The most popular post on Facebook was the shellfish reef project update video showing hundreds of pinkie snapper swimming around a reef in Port Phillip Bay. On TNC Facebook account it reached over 18,000 people in October 2018. The story was later picked up in November by Channel 7 News Melbourne with the post on their Facebook page receiving 33,000 views and even more on TV <http://bit.ly/2Ss17HU>

WEBSITE

The GSS related pages of TNC Australia's website enjoys strong levels of visitor interest. The top pages with the most page views in 2018 were:

1. Underwater reef cam with 24,833 page views

2. Above water reef cam with 8,471 page views

In addition to the existing GSS related pages, the following new web pages were added in 2018:

GET TO KNOW THE FISH OF REEF CAM: This page was created in response to the popularity of the Reef Cam to help people identify the fish they're seeing on camera to feel more engaged with what they're seeing <http://bit.ly/2GJzF7l>

ABOUT REEF CAM: An explanation of why Reef Cam exists, how it was installed, where it lives and how TNC and its partners use it <http://bit.ly/2T25TBg>

SEE PORT PHILLIP BAY TEEMING WITH LIFE: Shellfish reef project update in September 2018 with a video showing the abundance of marine life at our various project sites. <http://bit.ly/2BVoILU>

NAME THAT FISH: Various pages for the fish naming competition (see below for more information) that include entry form, facts about Victorian Scalyfins, terms & conditions of entry, information about the judges and prizes. Note: These pages were not migrated to the new website as they were no longer used.

FISH NAMING COMPETITION – APRIL 2018
To increase public awareness of Reef Cam and appreciation of the marine environment, we came up with a Fish Naming Competition for the Victorian Scalyfin fish that is frequently spotted on Reef Cam.

Although there was no budget for prizes and advertising, we enlisted our network and GSS partners to help promote the competition which was met with enthusiasm especially from Deakin University, Scuba Life and Biology Teachers Network.

The prizes kindly donated to TNC were:

- Dolphin swim for two people valued at \$150 each. Donated by Polperro Dolphin Swims
- “Discover Scuba Diving” experience for two valued at \$129 for each person for a 2hr session. Donated by Academy of Scuba

KEY RESULTS

- 828 Entries
- 689 Unique entrants (Average 1.2 entries per person)
- Total web page views 3,068

GOOGLE ADWORDS GRANT

TNC has a grant of \$40,000 a month from Google to spend each on text-based Google Ads. In 2018 the GSS ads made up 15% of the ad clicks with 22,914 clicks that cost nearly \$51,000.

Restoring reefs at a large-scale in South Australia has been possible because of our collaborative partnerships with commercial and recreational fishers as well as all three tiers of government working together to build Windara reef.”

– ANITA NEDOSYKO, MARINE RESTORATION COORDINATOR SA



TRADITIONAL MEDIA

The Great Southern Seascapes project featured very strongly in traditional media formats throughout 2018. Six GSS-related media statements were released (go to our Newsroom at www.natureaustralia.org.au/about/newsroom/ for details) contributing towards a total of 106 stories across newspapers, magazines, radio, online and TV news throughout the year. This equates to around a third of all TNC Australia media coverage.

TNC Australia's biggest story for the year was coverage of Dr Chris Gillies' published research on the decline of shellfish reefs across Australia since European settlement. This received 40 media stories alone including in all Newscorp publications (e.g. *The Australian*, *Herald Sun* & *Daily Telegraph*), Fairfax press (e.g. *Sydney Morning Herald* and *The Age*), the ABC online, Guardian Australia and internationally in places like India, China, Uruguay and Finland.

Some other highlights included:

- **“From plates to the port”**, 2 January 2018 – shell recycling story in Australian Geographic Magazine.
- Windara Reef report on Channel 7 Adelaide news, 11 February 2018 – one of 21 stories on Windara Reef throughout the year.
- Guardian Australia video on Windara Reef, 3 May 2018.
- **“Hidden Pearl”**, 24 June 2018 – Channel 7 Melbourne's news report updating viewers on the Port Phillip Bay project.

- **“Port Phillip Bay's road to recovery continues to this day after early colonial oyster rush”**, 11 November 2018 – ABC online https://www.abc.net.au/news/2018-11-11/repairing-damage-caused-by-oyster-rush-in-port-philip-bay/10452566?WT.ac=statenews_vic
- **“An unusual plan to revive Barren Reefs in Port Philip Bay is showing remarkable success”** 10 November 2018 – Channel 7 News <https://twitter.com/7newsmelbourne/status/1061519259887591424>
- **“Harbour oysters back to repopulate”**, 18 December 2018 – Albany Advertiser article on Oyster Harbour Reef Restoration Project in WA.

GSS presentations by TNC staff both in Australia and internationally, included:

- Australian Shellfish Reef Restoration Network & 19th International Conference on Shellfish Restoration (Simon Branigan, Anita Nedosyko, Simon Reeves and Chris Gillies)
- Society for Ecological Restoration, Australia (Simon Reeves)
- Australian Marine Science Association (Anita Nedosyko)
- Estuaries and Coasts (Anita Nedosyko)
- National Estuaries Network meeting (Anita Nedosyko)
- TNC Global Science Gathering (Simon Branigan and Chris Gillies)
- Coast to Coast Conference (Simon Branigan and Chris Gillies)
- Fishers for Habitat Forum (Simon Branigan)
- Showcasing Victoria's Marine Science' – AMSA VIC (Simon Branigan)
- TNC India program staff and Advisory Board (James Fitzsimons)
- Several community presentations (Simon Branigan and Anita Nedosyko)

Boze Hancock also presented the Great Southern Seascapes Program at the following international meetings, conferences and public forums:

- International Conference on Shellfish Restoration, Adelaide, Feb 2018
- Presentation to the Agriculture Fisheries and Conservation Dept. of Hong Kong on the benefits of shellfish habitat restoration including the Australian perspective and achievements. March 2018.
- Asia Pacific Economic Cooperation, Oceans and Fisheries Working Group meeting, Port Moresby, New Guinea, March 2018. Describing the economic impact of restored shellfish reefs, with detailed reference to the work in Australia, as a project concept for APEC.
- Presentation to the US Coast Guard Academy emphasising the fishery benefits of shellfish habitat including examples from Australia and New Zealand. April 2018.
- Presented the trajectory and accomplishments of shellfish restoration, with emphasis on the work in Australia, to the Inaugural GBR Coral Restoration Symposium to demonstrate the success in an analogous ecosystem. July 2018.
- Presented the benefits of shellfish habitat and examples of restoration to a Science Forum at Hong Kong University. August 2018.

- Study tour of oyster restoration projects around Chesapeake Bay in the US for community and academic reps from Hong Kong. The tour included detailed background on the global application of oyster habitat restoration including Australia. September 2018
- Presented the benefits and global uptake of shellfish habitat restoration to a global meeting of TNC Science staff. November 2018.

2019 PRIORITIES

- Indigenous youth coastal restoration TAFE certification and training in shellfish restoration
- Launch Friends of the Reef group in SA
- Sustain current communication strategy and media campaign
- Increase viewership of Reef Cam
- Maintain and grow Restore the Bay Network
- Maintain and grow OysterWatch

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