

# 2020 ANNUAL REPORT



Elodie Van Lierde

HIGHLIGHTS FROM OUR DISCOVERY SCIENCE, CONSERVATION INITIATIVES, OUTREACH AND CAPACITY BUILDING PROGRAMS AND GROWING PARTNERSHIPS MEASURED AGAINST THE WCS MELANESIA 2020 STRATEGY



# Providing evidence-based guidance that informs species conservation and ecosystem management

# DISCOVER

## DO FISH AGGREGATING DEVICES BENEFIT LOCAL COMMUNITY FISHERS?



Eloïe Van Lierde

In 2018, WCS deployed subsurface nearshore fish aggregating devices (FADs) within the customary waters of 13 communities that have established 11 locally managed marine areas (LMMAs) in western New Ireland Province. FADs are often viewed as a sustainable option for small-scale fisheries in tropical coastal regions because they can help transfer fishing pressure from vulnerable reef fishes to more resilient open water fish species. To gauge whether the FADs have benefited community members in each of the 13 communities, WCS conducted group interviews in each community to understand how residents use their FADs, and whether the FADs have had a positive impact on local fishing trends. The majority of residents stated that they were pleased to have the FADs in their customary waters, and that they would also recommend other communities to deploy FADs.

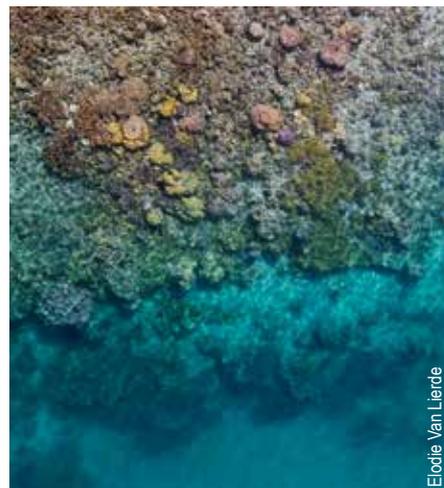
Funded by the Australian Government Department of Foreign Affairs and Trade

Full citation: WCS (2020) Summary Report: Fishers' focus group surveys: Have fish aggregating devices benefited local community fishers? Wildlife Conservation Society, Kavieng, PNG

## LINKING INNOVATIVE SCIENTIFIC RESEARCH AND TRADITIONAL ECOLOGICAL PRACTICES TO INFORM SPECIES CONSERVATION AND ECOSYSTEM MANAGEMENT

The WCS terrestrial program utilised traditional ecological knowledge and innovative scientific techniques to guide the establishment of community-based natural resource management in the Highlands and on remote Manus Island. On Manus, Master's research by former WCS Terrestrial Science Officer John Lamaris, from the University of Queensland, was supported to better understand traditional community conservation methods which provide protection to the Manus Island spotted cuscus. To provide guidance to traditional conservation practices, he is also using scientific techniques to estimate sustainable community hunting rates for the species. In the Highlands, Susan Good, from the Pacific Adventist University, is being supported to research the heavily hunted subalpine woolly rat. Susan and John's work will inform the establishment of hunting rules in the Highlands and in Manus' Great Central Forest.

Funded by the European Union's Sustainable Wildlife Management programme



Eloïe Van Lierde

## CORAL TRIANGLE IS A BRIGHT SPOT FOR CORAL REEFS

A WCS-led study discovered that the Coral Triangle, which encompasses Papua New Guinea, is surprisingly resistant to thermal stress from climate change, making it a sanctuary for corals amid the ongoing climate crisis. The findings are a glimmer of hope in an otherwise dismal outlook for the world's coral reefs. The study looked at 226 reefs in 12 countries during 2016, one of the Earth's warmest years on record, and included data from WCS Melanesia program. In the words of lead author from WCS, Dr. Tim McClanahan, "These findings suggest many published predictions for corals were overly pessimistic. It gives us a much better insight into where to focus our conservation efforts. WCS is fortunate to have built a global conservation program that covers a large number of these climate resilient reefs."

Full citation: McClanahan TR, Maina JM, Darling ES, Muthiga NA, D'agata S, Leblond J, Arthur R, Jupiter SD, Wilson SK, Mangubhai S, Ussi AM, Guillaume MMM, Humphries AT, Patankar V, Shredawi G, Julius P, Ndagala J, Grimsditch G (2020) Large geographic variability in the resistance of corals to thermal stress. *Global Ecology and Biogeography* 29:2229-2247



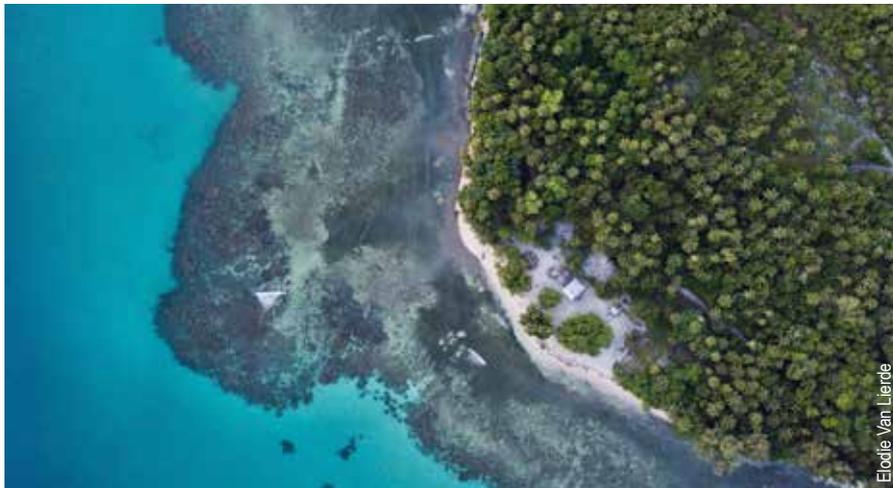
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# Protecting important land and seascapes across Papua New Guinea

## CREATING TWO MPAs TO PROTECT 750,000 HA OF A MARINE BIODIVERSITY HOTSPOT

In 2018, at the 5th Our Ocean Conference in Bali, the Papua New Guinea Government declared that it will establish two new marine protected areas (MPAs) covering 750,000 hectares of critical marine habitat in New Ireland Province by 2021. In 2020, during a new round of community consultations in 83 communities (in Lovongai and Murat jurisdictions), this promise began to turn into reality, as community-selected rules and penalties were drafted and the outer-most external boundaries of the coastal community's customary waters were documented, helping delineate each MPA's external boundary. During the fifth meeting of the New Ireland Province Technical Working Group, a steering committee for MPA development in New Ireland Province, stakeholders from government, local NGOs, the private sector and communities provided feedback on the community-selected marine management rules and boundaries for the two MPAs.

*Funded by Oceans 5, WCS MPA Fund and Blue Action Fund*



## PROTECTING ENDANGERED RAYS, NEW IRELAND PROVINCE

Sawfish, wedgefish and giant guitarfish comprise the world's most threatened group of rays, though populations still survive in Papua New Guinea. WCS is undertaking work in New Ireland Province to raise awareness about the threats to these unique species from habitat loss and degradation and accidental entrapment in fishing nets. In 2020, we deployed baited remote underwater video surveys in over 15 locations in New Ireland Province to look for evidence of threatened rays and sharks. Queries from residents of over 50 villages indicated that wedgefish sightings are reasonably common in both Lovongai and Murat Local Level Government areas (LLGs) areas, where giant guitarfish were also observed. Sightings of sawfish have only been made in Lovongai and Tikana LLGs.

WCS is working towards the establishment of marine protected areas in the province that will include rules to safeguard these threatened ray species.

*Funded by the John D. and Catherine T. MacArthur Foundation and the Disney Conservation Fund*



## PROTECTING INTACT FORESTS AND REEFS THROUGH CONSERVATION DEEDS

WCS is using conservation deeds as an innovative tool to provide legal protection to intact forest and coral reef areas critical for biodiversity and human well-being. We are working with 12 clans in the Highlands and 9 clans on Manus Island who have agreed to develop deeds that will protect ~30,000 ha of high biodiversity forest. We have been helping the clans map the external boundaries of their community conservation areas and develop local management rules for the deeds. In the Highlands these rules primarily focused on ensuring sustainable resource use, while in Manus the focus is on securing legal forest protection and raising awareness of landowner rights given interest from international logging. The 21 clans have finalized the conservation deeds and have scheduled signing ceremonies for early 2021. In New Ireland Province, 11 communities have agreed to develop conservation deeds to formalize fisheries management rules within their LMMAs.

*Funded by the Australian Government Department of Foreign Affairs and Trade, the European Union's Sustainable Wildlife Management programme, the United States Agency for International Development, the Critical Ecosystem Partnership Fund, Oceans 5, WCS MPA Fund, and Blue Action Fund*

PROTECT

# Moving people to take action through stories and examples

## INSPIRING CONSERVATION ACTION THROUGH TARGETED AWARENESS

In 2020, WCS initiated or renewed partnerships with several local NGOs who have specialist skills in knowledge dissemination to trigger conservation action. We engaged the Research and Conservation Foundation (RCF) to design a tailored environmental education program for teachers in the Bismarck Forest Corridor (BFC) to strengthen local awareness of conservation values and threats. In 2021, RCF will roll out their program while also developing a radio segment and community theatre act focused on BFC conservation issues. WCS partnered with the Centre for Environmental Law and Community Rights Inc (CELCOR) to facilitate community rights legal training workshops with over 200 participants from nine communities on the north and south coasts of central Manus. WCS also collaborated with Ailan Awareness Inc. to facilitate knowledge exchange workshops for marine management.

*Funded by the United States Agency for International Development, the Critical Ecosystem Partnership Fund and the Australian Government Department of Foreign Affairs and Trade*



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# INSPIRE

## PNG DIRECTOR NAMED YALE WORLD FELLOW

WCS PNG Director, Dr. Ambroise Brenier, was named to the 2020 Maurice R. Greenberg World Fellows Program. The Program is based out of Yale University's Jackson Institute for Global Affairs and provides Fellows the opportunity to develop leadership and management skills, while contributing to Yale's intellectual life by giving talks, participating on panels, and mentoring students. Ambroise was recognized for his outstanding achievements in promoting conservation in Papua New Guinea, and prior to that in Madagascar and West Africa, as well as his skills in managing complex programs.



## COMMUNITY EXCHANGE VISIT TO LEARN ABOUT LOGGING IMPACTS

The Great Central Forest of Manus Island is a veritable kaleidoscope of ecological and cultural diversity. Though widely recognized as one of the country's most important biodiversity hotspots, the forest has nonetheless suffered some of the highest rates of deforestation and forest degradation in Papua New Guinea. To increase understanding of the negative impacts of large-scale logging, WCS organized an exchange visit for clan leaders from the northern part of Manus Island to learn about the consequences in the southern part of the island. It is the hope that by hearing first-hand accounts of the serious harm that logging has had on local livelihoods in the island's south, landowners from the north will strengthen their commitment to forest conservation.

*Funded by the Critical Ecosystem Partnership Fund and the Australian Government Department of Foreign Affairs and Trade*



Alex Fanaso / WCS

# Expanding conservation efforts across Papua New Guinea and strengthening our programs

## FIRST SALES FOR THE COMMUNITY-BASED VANILLA PRODUCTION PROJECT

A sustainable vanilla farming initiative is underway with nine communities that have committed to conservation in the Great Central Forest of Manus Island. To date, 9,895 vanilla vines have been distributed to 50 model farmers who have received training on various aspects of vanilla husbandry. The farmers also received training on family budgeting by the Bank of South Pacific. Samples from the farmers' vanilla gardens were sent to prospective overseas buyers and some initial sales were brokered. In 2021, we will expand production in the communities and support further sales of community-produced vanilla in international markets.

*Funded by the Australian Government Department of Foreign Affairs and Trade and Critical Ecosystem Partnership Fund*



George Pupui / WCS

## DEVELOPING COASTAL LIVELIHOODS IN NEW IRELAND PROVINCE

In 2020, we initiated marine biodiversity-associated livelihoods linked to sustainable fisheries management in 13 communities in western New Ireland Province focused on mud-crab farming and sea cucumber processing. The mud crab fattening project aims to help local fishers, and particularly women, to generate higher returns from mud crab sales while also taking some of the pressure off more vulnerable reef fisheries. The sea cucumber project focuses on cucumber post-harvest handling and processing methods – such as drying and salting techniques – for 20 commercially important sea cucumber species in the region. In preparation for the lifting of the ban on sea cucumber harvest in August 2020, we collaborated with the New Ireland Provincial Fisheries Office and Emirau Marine Products to provide training in processing techniques and we provided drying tables, salting boxes and ovens to the 13 LMMA communities.

*Funded by Blue Action Fund and the Pacific-European Union Marine Partnership Programme*



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## EXPANDING COMMUNITY-BASED FISHERIES MANAGEMENT IN NEW IRELAND PROVINCE

In 2020, WCS initiated a new partnership with the Pacific Community (SPC) and LMMA Network with the aim to improve and expand community-based fisheries management approaches in New Ireland Province. One objective of the project focuses on strengthening the capacities of the Provincial Fisheries Office. Following several meetings with the provincial fisheries staff and other key stakeholders, a roadmap for coastal fisheries management in New Ireland Province has been developed for the 2020s, coupled with a database of fisheries management needs for the Province.

*Funded by the Pacific-European Union Marine Partnership Programme*

# BUILD



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# Creating partnerships to extend our impact

## NEW PARTNERSHIP WITH CARE INTERNATIONAL

Under the PNG Lukautim Graun biodiversity project, led by Cardno, WCS is leveraging the strengths of Care International to ensure gender equity and women's empowerment is achieved through our activities designed to improve sustainable management of Highlands forests. Care International conducted a gender analysis of all project sites, as well as a gender audit of WCS PNG. Based on the findings of the analysis and the audit, Care International is developing a gender capacity building program to strengthen and mainstream the involvement of women in conservation activities. They are also providing organizational effectiveness training to the local community groups with whom WCS works.

*Funded by the United States Agency for International Development*



Azalea Anota / WCS

## SUPPORTING A BIODIVERSITY TRUST FUND IN PAPUA NEW GUINEA

WCS has been awarded an ambitious contract to help facilitate the establishment of a national Biodiversity Trust Fund in Papua New Guinea, in partnership with the United Nations Development Programme and the Conservation and Environment Protection Authority. The WCS PNG team is working closely with conservation finance specialists from WCS Conservation Solutions and the Conservation Finance Alliance, who are sharing experiences from other conservation trust fund endeavours to guide the establishment and operational terms for a fund for Papua New Guinea. The Fund, when established, will provide a sustainable flow of capital towards the country's protected area system and other conservation projects.



John Lamaris / WCS

*Funded by the United Nations Development Programme*

# LEVERAGE



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To learn more about our programs, visit

GLOBAL: [www.wcs.org/our-work/regions/melanesia](http://www.wcs.org/our-work/regions/melanesia)

PNG: [png.wcs.org](http://png.wcs.org)



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