

2018 ANNUAL REPORT



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

FOREST CONNECTIVITY IMPORTANT FOR CUSCUS

New research to assess home range sizes of Admiralty cuscus (*Spiloglossus kraemeri*) on Manus Island, led by PNG national researcher John Lamaris, has shown that current customary management measures are insufficient to fully protect populations. In recent years, some clans have revived periodic no hunting areas (*tambu*), in recognition that overharvesting was reducing abundance of the much sought-after species. Data on movement patterns collected using radio-telemetry indicated that despite potentially high growth rates and short dispersal distances, individual *tambu* areas are unlikely to be self-sustaining given their small sizes. While increasing the sizes of *tambu* areas is likely not feasible given land tenure constraints and human population growth, it may be possible to conserve cuscus populations through networks of *tambu* areas within intact, contiguous forest habitat. To this end, WCS is working on developing land use plans with local communities and has renewed conservation agreements with local clans on Manus to maintain forest corridors.

Funded by the Australian Government Department of Foreign Affairs and Trade

Full citation: Lamaris J, Whitmore N (2018) Forest connectivity is important for sustaining Admiralty cuscus (*Spiloglossus kraemeri*) in traditional terrestrial no-take areas on Manus Island, Papua New Guinea. *Pacific Conservation Biology* 24:55-62

FIRST STUDY TO QUANTIFY THE ABUNDANCE OF GREEN TURTLE ON MUSSAU ISLAND

As part of her honours degree at the University of Papua New Guinea, WCS research intern Azalea Anota, conducted the first study to quantify the abundance of the Endangered green turtle (*Chelonia mydas*) on remote Mussau Island. "Mussau Island supports a much higher density of green turtles than most other regions of Melanesia," says Azalea. She also points out attitudes of locals towards turtles are changing as a consequence of the project, particularly in the village of Lolieng. Before the project began the community thought the turtles were damaging the coastal ecosystem and was planning to cull them. She adds, "We are delighted that people of Lolieng decided to abandon the cull. The mass killing of turtles in such a hotspot could have been devastating for the regional turtle population."

Funded by the Critical Ecosystem Partnership Fund

Full citation: Anota A (2018) The relationship of *Chelonia mydas* density and seagrass / seaweed abundance, Mussau Island. Honours thesis, University of Papua New Guinea



Elodie Van Lierde

EVIDENCE OF DECLINE IN COASTAL FISHERIES RESOURCES

For millennia, the coastal people of New Ireland Province, in northern Papua New Guinea, have been reliant on seafood for sustenance, traditions and livelihoods. However, during recent decades, population increase, better fishing methods and exposure to the cash economy has placed pressure on coral reefs and other marine ecosystems that are necessary for maintaining healthy fisheries. To assess the health of reef fisheries, WCS has worked with 14 communities in north-western New Ireland Province in to collect catch-and-effort data. In total, 2,933 fishing trips were recorded, and 35,443 fish from 55 fish families were measured. We found that overfishing is occurring in shallow water coastal habitats in the Tsoi and Tigak islands that lie to the west of the New Ireland mainland. Mean fish size comparisons with data from 2004 indicated an overall trend of decreasing fish body sizes over a 12 to 13 year period. Across 20 fish species that were examined, average fish weights in 2004 were 67% greater than sizes recorded in 2017 and 2018.

Funded by Ocean 5, U.S. National Fish and Wildlife Foundation, David and Lucile Packard Foundation, and the Australian Government Department of Foreign Affairs and Trade

Full citation: Frijlink S (2018) Fisheries catch-per-unit-effort report, Kavieng District, New Ireland Province, Papua New Guinea: 2015-2017. Wildlife Conservation Society, Papua New Guinea Program, Goroka, PNG



Elodie Van Lierde



Elodie Van Lierde

Protecting important land and seascapes across Papua New Guinea

KWIOP COMMUNITY PLEDGES TO SAFEGUARD FOREST

The people of Kwiop, nestled in a remote valley of Jiwaka Province, Papua New Guinea, pledge to create a protected area over 4,200 hectares of primary forest. The protected area will contribute to the conservation of the Bismarck Range Forest, a contiguous intact forest corridor in the central highlands, one of the world's top seven regions for the highest plant diversity and an area supporting the highest mammal and amphibian species richness and endemism in the country. In November 2018, the Kwiop community organized a traditional ceremony to formally start the protected area creation process, and to celebrate the launch of the Kuakam Landowners Foundation, a new community-based organisation. With the support of WCS, they are currently working towards signing a conservation deed, which will provide legal protection for the conservation area.

Funded by the Australian Government Department of Foreign Affairs and Trade, European Union, and the Darwin Initiative supported by the UK's Department for Environment, Food & Rural Affairs



GOVERNMENT OF PNG COMMITS TO DECLARING NEW MPA'S

From July to October 2018, WCS worked with the Papua New Guinea Conservation and Environment Protection Authority to gain political support from the Government for the designation of new marine protected areas (MPAs). This culminated in two announcements made by the Government at the 5th Our Ocean Conference in Bali, Indonesia in October. In the first announcement, the Papua New Guinea Government declared that it will establish 7,500 square kilometres of MPAs in the Bismarck Sea by 2021, thereby tripling MPA coverage nationally. WCS is currently assisting the government to implement this vision on the ground. Through the second announcement, the Government reaffirmed its commitments to designate national marine sanctuaries in 10% of its offshore waters by 2025, and to establish a variety of MPAs in 10% of its territorial waters and the coastline by 2025.

Funded by Oceans 5 and the WCS MPA Fund



PROTECT

MANUS ISLAND INDIGENOUS COMMUNITIES ACT TO SAFEGUARD THEIR FORESTS

Located north of the island of New Guinea, Manus Island has experienced substantial and ongoing forest loss because of commercial logging and forest clearance from subsistence agriculture cultivation. The Great Central Forest of Manus holds the only remaining significant track of the original primary rainforest on the island. This forest is recognized as a globally important Key Biodiversity Area and has been designated as a priority area for conservation by the Government of Papua New Guinea. This forest area is home to many species found nowhere else, such as the Admiralty cuscus, Manus green tree snail, the bumble gecko, as well as a new species of giant rat first described in 2016. In late 2018, after six months of community consultations, 52 clans renewed their commitments to conservation by signing conservation agreements with WCS to protect 43,000 hectares of the communities' forested lands.

Funded by the Australian Government Department of Foreign Affairs and Trade



Moving people to take action through stories and examples



MARINE AND CLIMATE SCIENCE EDUCATION IN MANUS COMMUNITIES

In 2018, WCS wrapped up a multi-year project with ten coastal communities around Manus Province, Papua New Guinea, to develop site-based fisheries management plans addressing overharvesting and climate impacts. A key part of the work involved education and awareness presentations and training workshops, which featured topics on marine ecology, fisheries, climate threats, and coastal management options, and which aimed to build capacity at the local level to empower communities in managing their marine customary areas, or Locally Managed Marine Areas (LMMAs).

Funded by the Asian Development Bank

EMPOWER COMMUNITIES TO SUSTAINABLY MANAGE THEIR FISHERIES

The northern Bismarck Sea (bordering Manus and New Ireland provinces) lies to the northeast of mainland PNG. It is one of five biodiversity hotspots in the Coral Triangle, the center of global marine biodiversity. To safeguard local food security in this region and protect coral reefs, seagrass beds and mangroves, WCS has been working with several communities since 2016 to set up locally managed marine areas (LMMAs). By the end of 2018, 22 LMMAs (with a total area of 11,945 hectares) were established by local communities with the support of WCS and local and provincial governments in both Manus and New Ireland provinces. By increasing awareness of sustainable fisheries management and enabling site-specific self-governance, the LMMA initiative has helped sustain local fish stocks, food supplies and livelihoods, and assisted communities to adapt to environmental change. In addition, with the assistance of the National Fishery College, WCS has deployed 18 inshore fish aggregating devices (FADs) in the waters of these LMMAs to help transfer fishing effort from vulnerable coral reef fisheries to more resilient open water fish species. A gillnet exchange programme was also established, enabling fishers to voluntarily exchange 137 small-meshed gillnets for less destructive larger meshed nets, which should help reduce the harvest of vulnerable juvenile fish.

Funded by the Asian Development Bank, Ocean 5, Paul M. Angell Family Foundation, U.S. Department of State, and the Australian Government Department of Foreign Affairs and Trade



REFORESTATION WORK IN THE HIGHLANDS

In the highlands of Papua New Guinea, communities depend on resources from the forest to support a multitude of livelihood and cultural activities. However, rapid population growth has meant that some uses, such as the harvesting of trees for construction and firewood have become unsustainable. To satiate future timber needs and lessen forest degradation, WCS has therefore worked with three communities to establish community woodlots and reforestation initiatives. To date, novel propagation techniques have been successfully devised for 8 native timber and 3 tree crop species. Since 2017, this program has propagated and planted over 12,000 seedlings in the three communities. The three communities have been very supportive of this work and have made great strides in their ability to run the program with minimal assistance from WCS. This should allow the program to be extended to more communities in the future.

Funded by the Australian Government Department of Foreign Affairs and Trade, European Union, and the Darwin Initiative supported by the UK's Department for Environment, Food & Rural Affairs

INSPIRE



Expanding conservation efforts across Papua New Guinea and strengthening our programs

BUILDING CAPACITIES OF EARLY-CAREER CONSERVATION PROFESSIONAL

Jacob Kimagl has been the WCS GIS Officer in Papua New Guinea since 2014. In July 2018, he attended a Conservation Leadership Programme (CLP) training held in North Sulawesi, Indonesia. The CLP's mission is to advance biodiversity conservation globally by building the leadership capabilities of early-career conservation professional working in places with limited capacity to address high-priority conservation issues. The four core modules covered during the course included: personal leadership development, project planning, communicating conservation for behavior change, and fundraising. Jacob left the training feeling connected and empowered to continue to do his work.



MINIMISING ENVIRONMENTAL IMPACTS OF ROAD DEVELOPMENT

Although vital to economic development and service delivery, roads also risk severely degrading PNG's rich natural environment if poorly planned. This is because road construction is associated with increases in deforestation, bush fires, wildlife hunting, illegal logging, invasive species and other negative environmental impacts. To address this, WCS has partnered with the Conservation and Environment Protection Authority (CEPA) and the James Cook University's Centre for Tropical Environmental and Sustainability Science on an innovative project focused on increasing the socio-economic benefits of road development while minimising the environmental impacts. To launch this project, a workshop was held at CEPA in August 2018 with representatives from the Department of Transport, Department of Works, Papua New Guinea Forest Authority, and other critical stakeholders. The project is now focused on improving PNG's environmental impact assessment process, carefully analysing the "Missing Links" highway proposals and supporting communities to protect their land from clear cut logging on Manus Island.

Funded by an anonymous donor



FIRST COMMUNITY-BASED ORGANISATION ESTABLISHED IN MUSSAU ISLAND

WCS supported the Lolieng community on remote Mussau Island in New Ireland Province to form and register a community-based organisation (CBO) with the Investment Promotion Authority. This came after three years of assistance by WCS. Numerous training sessions on governance, financial management, accounting, forming relationships with partners and designing the CBO's mission and program were conducted. The CBO is called the Lolieng Sustainable Program and is the first CBO to be registered from Mussau Island. With support from WCS, the CBO has recently applied for a small grant to monitor and protect an internationally significant green turtle nesting site in Lolieng.

Funded by the Critical Ecosystem Partnership Fund



Creating partnerships to extend our impact

STRENGTHENING SUSTAINABLE WILDLIFE MANAGEMENT IN THE HIGHLANDS

Across much of the world wildlife is under severe threat from overharvesting for food and cultural use. The Sustainable Wildlife Management Programme (SWM) was formed to address this pressing issue. SWM is a joint initiative of the Food and Agricultural Organization (FAO), the Centre for International Forestry Research (CIFOR), French Agricultural Research Center for International Development (CIRAD) and WCS. In 2018, the programme started operating in 12 African, Caribbean and Pacific countries. The WCS-led Bismarck Forest Corridor program, which seeks to bring wildlife harvesting to sustainable levels while increasing community protein intake in the PNG highlands, is currently the only SWM project in the Pacific. In 2018, the Conservation and Environment Protection Authority chaired the first Site Review Committee for the programme in PNG.

Funded by the European Commission through the 11th European Development Fund



NEW PARTNERSHIPS WITH THE CONSERVATION AND ENVIRONMENT PROTECTION AUTHORITY

In May 2018, the Conservation and Environment Protection Authority (CEPA) and WCS signed a 5 year Memorandum of Understanding. Both organizations recognise the importance of establishing a strong partnership to ensure a lasting collaboration in the development and implementation of activities related to their areas of mutual interest, namely, biodiversity conservation, environmental protection and natural resource sustainable management in Papua New Guinea. WCS also hired a Senior Policy Officer, Lester Seri, who is based at CEPA office.

To learn more about our programs, visit

GLOBAL: www.wcs.org/our-work/regions/melanesia/

PNG: programs.wcs.org/png/
www.facebook.com/wcspng



WCS Papua New Guinea
A Wildlife Conservation Society Program



LEVERAGE



SUPPORTING IMPLEMENTATION OF REDD+ POLICY IN PNG

In partnership with the Papua New Guinea Climate Change and Development Authority, and two local NGOs (FORCERT and the Research and Conservation Foundation), WCS undertook an evaluation of stakeholders at the provincial level in East New Britain, West New Britain and Madang province to help guide the implementation of the national strategy related to “reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (REDD+)”. Over 800 stakeholders were surveyed from urban areas and 18 rural communities between August and October 2018. The objectives of the work were to identify capacity needs for future training in order to prepare provinces for implementation of the strategy, as well as to identify concerns of rural landowners regarding their potential roles in decision-making, land-use planning, livelihoods and environmental protection.

Funded by the Forest Conservation Partnership Facility through UNDP

Full citation: WCS (2018) Stakeholder engagement mapping and report: Development of REDD+ Stakeholder Engagement Plans in East New Britain, West New Britain and Madang Provinces of Papua New Guinea. Wildlife Conservation Society, Goroka