

2015 ANNUAL REPORT



Stacy Jupiter

Highlights from our discovery science, conservation initiatives, outreach and capacity programs and growing partnerships measured against the WCS Melanesia 2020 Strategy



Providing evidence-based guidance that informs species conservation and ecosystem protection



Stephen J Richards

USING LOCAL KNOWLEDGE FOR SPECIES CONSERVATION

The Manus green tree snail, found only on Manus Island, PNG, has a 4 cm emerald green shell renowned for its beauty. Demand for the shell for jewelry grew from the 1930s, resulting in recent international concerns about possible extinction of the species and the snail being the first invertebrate to be listed on the US Government's Endangered Species Act of 1973. However, since then no research has been conducted to see if the snail species was still at any risk of extinction. WCS assessed the conservation status of the Manus green tree snail using the century-old Wisdom of Crowds method. In this approach, knowledge collected from a large number of people is used to generate population estimates.

Funded by The Christensen Fund

Richard Cuthbert, WCS PNG Director, said, "Not only did the paper change the IUCN [Red-List] threat status of this species from Data Deficient to one of Near Threatened, but it was the first demonstration of a robust Wisdom-of-Crowds approach in conservation."

Full citation: Whitmore N (2015) Harnessing local ecological knowledge for conservation decision making via Wisdom of Crowds: the case of the Manus green tree snail *Papustyla pucherrima*. *Oryx* doi.org/10.1017/S0030605315000526



Nathan Whitmore

DISCOVER

ENSURING SUSTAINABILITY OF SEAFOOD MARKETS

Global demand for certified seafood has nearly doubled over the past four decades and major seafood retailers in developed countries have committed to source only sustainably certified seafood, even though it is not clear where the supply will come from. A team of researchers, including WCS Melanesia Director Stacy Jupiter, found that fishery improvement projects designed to bring seafood to the certified market, with only a promise of sustainability in the future, need to be fine-tuned to ensure that fisheries are delivering on these promises. "It's possible that more durable protection could be achieved if the improvement projects withheld market access from the fisheries until after sustainable fishery-management systems are in place," said co-author Jim Sanchirico of University of California, Davis.

Funded by The David and Lucile Packard Foundation



Stacy Jupiter

"The publication of the paper and the media interest within the seafood press enabled [the Sustainable Fisheries Partnership] to effect positive change on buyer behavior. [SFP] had been trying for several months to get retailers to put additional language into their written commitments that address the need for continual improvements as a condition to their continued commitments. Our paper helped them get that in place." Prof. Cathy Roheim, University of Idaho.

Full citation: Sampson GS, Sanchirico JN, Roheim CA, Bush SR, Taylor JE, Allison EA, Anderson JL, Ban NC, Fujita R, Jupiter S, Wilson JR (2015) Secure sustainable seafood from developing countries. *Science* 348:504-506

NEW SPECIES FOUND IN PNG

The relatively remote islands of Manus and Mussau, located in the northern portion of the Bismarck Sea, have been long identified as key biodiversity areas in PNG and within greater Melanesia. Manus Island has long been known for its endemism and relatively intact forest, while Mussau Island, although relatively unstudied, has been recognised as an Endemic Bird Area. In October 2014, WCS led team of national and international taxonomic specialists to conduct a series of rapid biodiversity surveys focussing on terrestrial flora and fauna. A new report on these surveys released this year documents the discovery of at least 13 new or undescribed species.

Funded by the Critical Ecosystem Partnership Fund.

"The recent discovery of new species of plants, geckos, lizards and bats as well as large populations of marine turtles, coconut crabs and fruit bats by local and international scientists from the Wildlife Conservation Society (WCS) gives us hope for the future in terms of conservation - but only if we act quickly." Papua New Guinea Post-Courier Editorial Nov 10, 2014.



Stephen J Richards

Full citation: Whitmore, N. (editor) 2015. A rapid biodiversity survey of Papua New Guinea's Manus and Mussau Islands. Wildlife Conservation Society Papua New Guinea Program, Goroka, PNG. ISBN 978-0-9943203-2-2

Working to effectively protect important land and seascapes across Melanesia



Cara Miller

PROTECT

RIDGE TO REEF MANAGEMENT ACROSS THE VATU-I-RA SEASCAPE, FIJI

Since 2005, WCS has worked with local communities in a marine biodiversity hotspot of Fiji, the Vatu-i-Ra Seascape, to design locally appropriate terrestrial and marine management measures to conserve natural resources. To date, this has resulted in over 100 km² and 400 km² of locally-managed terrestrial and marine protected areas, respectively. More recently in 2015, WCS has scaled up efforts working with government sectors to develop options for marine zoning in deeper, offshore waters that connect the four provinces within the Seascape. These waters are important migratory corridors and breeding grounds for the endangered Oceania sub-population of humpback whale (*Megaptera novaeangliae*) and support important congregations of black noddies (*Anous minutus*) and red-footed boobies (*Sula sula*). 2015 saw the launch of a public campaign to promote the Vatu-i-Ra Seascape through events such as the Suva Marathon and an art and photo competition opened by the President of Fiji.

Funded by the Waitt Foundation, John D. and Catherine T. MacArthur Foundation



Dwain Galovaki



Nick Hobgood

"Marine spatial planning is a tool and a practical way to create and establish a more rational use of marine space and interactions among its uses, to balance demands for development with the need to protect the environment and to deliver social and economic outcomes in an open and planned way," said Sangeeta Mangubhai, WCS Fiji Director. She said the workshop was a consultative process, following a bottom-up approach to engage, collaborate and co-ordinate with key stakeholders and users from the four provinces of Tailevu, Bua, Ra and Lomaiviti encompassed within the Vatu-i-Ra Seascape." *Fiji Times, December 9, 2015*



WCS PNG

FOREST CONSERVATION IN CENTRAL MANUS, PNG

In November 2015, nine communities who are the customary landowners of 43,500 ha of forest in Central Manus signed conservation agreements with WCS that specifically prevent large-scale logging on their land. This is around two-thirds of the area of Central Manus that WCS is targeting for protection and which contains the only extensive remaining area of unlogged forest on the island. These forests contain important carbon reserves and support many of the livelihoods and subsistence needs of the landowners. The forests also contain many rare and endemic species including the Admiralty cuscus and superb pitta.

Funded by Australian Government Department of Foreign Affairs and Trade, Strongim Pipol Strongim Nesen (SPSN), Critical Ecosystem Partnership Fund (CEPF), The Rothschild Foundation Waddesdon Manor Aviary



WCS PNG

"We believe that the forests of Central Manus can be sustainably managed by the communities that own these resources: this will provide long-term conservation benefits to the communities, provide them with their widest range of options for adapting to climate change and allow sustainable development to proceed with conservation," said Richard Cuthbert, WCS PNG Director. Quote: From Loop PNG

Improving awareness of best practices for management



"Students are the most important agents of change and this centre will give them the information they need to know about climate change and the future decisions they need to make about their environment," said Director of the Fisheries and Marine Resources Division of the New Ireland Authority, Donald Papaol.

LAUNCH OF CLIMATE CHANGE CENTRE IN KAVIENG, PNG

WCS PNG opened a new Climate Change Education Resource Centre in its Kavieng office in April 2015. The centre is intended to promote awareness and understanding of the causes of climate change and ways that local people can adapt to its impact. It holds information on wider environmental and conservation issues that are relevant to New Ireland such as the sustainable use of marine resources, forest and mangrove conservation.

Funded by Australian Government Department of Foreign Affairs and Trade

FIRST FISHERS FORUM FOR NORTHERN DIVISION, FIJI



The Department of Fisheries, in collaboration with the WCS and with support from the World Wide Fund for Nature and Partners in Community Development Fiji, hosted a two day forum to share information, identify challenges and find solutions collectively for the sustainable management and development of Fiji's coastal fisheries, with a special focus on the Northern Fisheries Division. With over 50 participants attending from government, provincial offices, fishing industry and communities, this workshop was timely given the growing pressure on the Northern Fisheries Division to supply fish for urban centres and to meet export demand.

Funded by The David and Lucile Packard Foundation

BEST PRACTICE MANAGEMENT OF TAMBU AREAS



No-take tambu areas, where hunting and fishing are restricted, are an indigenous resource management tool found across Melanesia. In PNG, WCS is using scientific tools to assess home ranges and reproductive rates of the Near Threatened Admiralty cuscus (*Spilocuscus kraemeri*). This information is being used to suggest rules of thumb to local communities for best practice management of sustainable harvesting thresholds, couple with closure periods for their tambu. For example, WCS's science suggests that an annual harvest conducted could be sustainable so long as the harvest rate does not exceed 10%. In Fiji, WCS and partners have been working with communities to evaluate sustainable harvest regimes of fish caught from marine tambu areas. Results to date indicate that in well-managed systems, tambu closed for 1-2 years prior to a pulse harvest are optimal.

Funded by Australian Government Department of Foreign Affairs and Trade, The David and Lucile Packard Foundation

INSPIRE



Expanding conservation efforts across Melanesia and nurturing local conservation leaders



WCS Fiji

WCS STAFF INVOLVED IN CROSS-CUTTING PROJECTS

In 2015, WCS staff from the PNG program provided technical support to our fisheries and forest management cross-cutting initiatives. In November, WCS PNG Fisheries Technical Advisor Sven Frijlink visited Fiji to help local staff develop ecological assessment and monitoring protocols for mud crab fisheries, while WCS PNG Assistant Director, John Kuange, who leads the PNG Community Engagement Team, visited Solomon Islands to provide guidance to the Kolombangara Island Biodiversity Conservation Association about best practices for engaging communities based on international principles for Free and Prior Informed Consent.

DEVELOPING AN MoU WITH SOLOMON ISLANDS GOVERNMENT

To kickstart WCS's efforts to establish a new Solomon Islands Program, we initiated strategic engagement with the Solomon Islands Ministry of Environment, Climate Change, Disaster Management and Meteorology, which included the drafting of a Memorandum of Understanding and a two year workplan. The workplan includes activities for capacity building of local environmental organisations and community groups, monitoring to inform community-based resource management, and undertaking community consultations with landowners to pave the way for protected area designation.



Emily Darling



Coral Reef Alliance

PAULO KOLIKATA WINS CONSERVATION PRIZE

In the early 1990s, the communities of Kubulau District in Fiji began to notice their fish stocks declining. Under the leadership of Paulo Kolikata, the Chairman of the Kubulau Resource Management Committee, and with support from WCS and other partners, the communities established a network of marine protected areas, now covering over 40% of their fishing grounds. For his efforts in spearheading this community-based management initiative, WCS nominated Paulo Kolikata to receive the 2015 Coral Conservation Prize, which he was awarded by the Coral Reef Alliance at a ceremony in San Francisco in September 2015. The Kubulau marine protected area network has also been internationally recognised by The Prince's Charitable Trusts and through the Rareplanet Solution Search as a model of a fishery transitioning to sustainability.

BUILD



Emily Darling

Emily Darling

Developing and strengthening partnerships to expand our impact

WCS LAUNCHES WOMEN IN FISHERIES PROGRAM



V Creative

In 2015, WCS launched a women in fisheries program to improve the environmental sustainability and livelihoods of mud crab fishers in Bua Province, Fiji. Efforts focussed on conducting a value chain analysis of the mud crab fishery in Fiji and identifying pilot sites for conducting ecological assessments. As part of this work, WCS has also participated in reviving the Women in Fisheries Network in Fiji (WiFN-Fiji), with WCS Fiji Director Sangeeta Mangubhai on the Executive Committee. WiFN-Fiji will play an instrumental role in assisting with the development and management of the mud crab fishery through the empowerment of women fishers.

Funded by the Flora Family Foundation, The David and Lucile Packard Foundation

LEVERAGE



Rebecca Weeks

WCS SIGNS NEW MEMORANDA OF UNDERSTANDING

In December 2015, WCS and the iTaukei Land Trust Board signed a Memorandum of Understanding (MoU) to formalise their collaboration in the development of a Conservation Lease for the Kilaka Forest in the upper catchment areas of Kubulau District, Fiji. The lease will provide annual revenue to the landowners as an alternative to logging. WCS also signed a new MoU with the Secretariat of the Pacific Regional Environment Programme, which opens the door to future collaborations across Melanesian countries, particularly in the realm of ecosystem-based adaptation to climate change.



Rudi Lumelime



TLTB

COASTAL DEFENCES POLICY BRIEF DEVELOPED

WCS has been a core participant in one of the inaugural working groups of the Science for Nature and People Partnership (SNAPP), focussed on the coastal protection benefits provided by ecosystems like mangroves and coral reefs. A policy brief was developed by WCS to highlight measures that Fiji could take to reduce its risk to storm surge related flooding and coastal erosion by implementing nature-based defences, based on interviews with key government and non-government staff.

Funded by Science for Nature and People Partnership, The David and Lucile Packard Foundation



To learn more about our programs, visit

- GLOBAL: www.wcs.org/our-work/regions/melanesia/
- FIJI: programs.wcs.org/fiji/
- PNG: programs.wcs.org/png/



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