

## 2019 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



Elodie Van Lierde

## PROTECTING DEAD PARROTS TO CONSERVE THE LIVING

Pesquet's parrot (*Psitttrichas fulgidus*) is found only on the island of New Guinea and is classified as Vulnerable on the IUCN Red-List of threatened species. Its striking crimson feathers make the birds high in demand for use in traditional headdresses and costumes, known locally as *bilas*. A new study by WCS found that there are now more Pesquet's parrots present in ceremonial headdresses than there are remaining in the wild. The authors estimated approximately 8% of the entire remaining population is required annually just to supply the demand from a single highlands district. The research points to prolonging the lifespan of existing headdresses as an important conservation strategy, one that WCS has been promoting successfully at cultural festivals in PNG.

Funded by The Pacific Development Conservation Trust, The Christensen Fund and the Darwin Initiative through the United Kingdom's Department for Environment, Food & Rural Affairs

Full citations: Nugi G, Whitmore N (2019) More dead than alive: harvest for ceremonial headdresses threatens Pesquet's Parrot in Papua New Guinea. *Emu - Astral Ornithology* <https://doi.org/10.1080/01584197.01582019.01676162>

## HAVING FISH AND EATING THEM TOO

A new study published in the *Journal of Applied Ecology* by WCS and collaborating researchers revealed that the challenge of keeping fish in the sea while putting fish on the plate might be best achieved through fishing grounds with closures that are periodically subject to pulse harvests. The new research may help revolutionize fisheries management and settle a long-running debate between fisheries management and conservation sectors about the role of marine protected areas in balancing potential for stock recovery and maintaining yields. WCS Melanesia Regional Director Stacy Jupiter explained, "For many years, we have been arguing that management undertaken by small-scale fishers in the Pacific Islands is more than just a niche practice. I believe these findings will have real impacts on how people around the globe implement fisheries management so that they can have their fish in the water and eat them too."

Funded by the David and Lucile Packard Foundation

Full citations: Carvalho P, Jupiter S, Januchowski-Hartley F, Goetze J, Claudet J, Weeks R, Humphries A, White C (2019) Optimized fishing through periodically harvested closures. *Journal of Applied Ecology* 8:1927-1936



Emily Darling



Stacy Jupiter

## CONNECTIONS TO PLACE AND PEOPLE DRIVE PACIFIC WELL-BEING

Through participatory workshops held across the Pacific, WCS and our partners at the American Museum of Natural History, University of Hawai'i, The Nature Conservancy and elsewhere have found there are critical dimensions to Pacific Islander worldviews of well-being that are being overlooked almost completely in sustainable development frameworks. These include connections between people, and between people and place, as well as Indigenous and local knowledge, skills, practice, worldviews, and values. These gaps can be filled by designing indicators for sustainability planning that are culturally attuned and allocate resources to programs and projects that support, rather than undermine peoples' connection to nature and their abilities to act as good stewards. Our team has produced guidance on how to develop these indicators that is being disseminated globally.

Funded by the National Science Foundation and Science for Nature and People Partnership

Full citation: Dacks R, Tickin T, Mawyer A, Caillon S, Claudet J, Fabre P, Jupiter S, McCarter J, Mejia M, Pascua P, Sterling E, Wongbusarakum S (2019) Developing biological indicators for resource management. *Conservation Science and Practice*. 1: e38. DOI:10.1111/csp2.38

Assessing Biocultural Indicators Working Group (2019) Implementing culturally attuned monitoring and reporting indicators. <http://amnh.org/assessing-biocultural-indicators>



# Protecting important land and seascapes across Melanesia

## NEW LOVONGAI MARINE ENVIRONMENTAL MANAGEMENT LAW ADOPTED

WCS received the good news from the national government in July 2019 that the Lovongai Rural Local-Level Government (LLG) Marine Environment Management Law — that WCS helped to draft — is legally binding and enforceable. The law provides the mandate to establish a Marine Environment Management and Conservation Committee, declare a Lovongai Marine Conservation Area, and give penalties and fines to offenders. Lovongai LLG is located in Kavieng District of New Ireland Province, Papua New Guinea. WCS is now carrying out consultations with all communities within Lovongai LLG to develop management rules for a new marine protected area to be established under the law.

*Funded by the David and Lucile Packard Foundation, US Department of State, Oceans 5, WCS MPA Fund and Blue Action Fund*



## TURTLE MONITORING TRAINING FOR SOLOMON ISLANDS RANGERS

In November 2019, WCS facilitated a leatherback turtle monitoring workshop on Rendova Island in Western Province, which brought together the Tetepare Decendants' Association's turtle monitoring team from Tetepare and Rendova islands to review their turtle monitoring protocols and provide a refresher on how data are collected and analyzed. Leatherback nesting hatching success ranged between 12-83% in 2018-19 across the nesting beaches where WCS is supporting local rangers to collect ongoing monitoring information.

*Funded by the Blue Action Fund*



## ECOSYSTEM-BASED MANAGEMENT PLAN LAUNCH FOR KORO ISLAND

In December 2019, WCS, along with the Lomaiviti Provincial Office and chiefs of the 14 villages, launched a five-year ecosystem-based management plan for Koro Island. This is the first island-scale, ecosystem-based management plan in Fiji. The plan reflects inputs provided by communities through four years of consultations to identify collective rules for sustainable management of the island's resources. WCS Community Engagement Coordinator Akanisi Caginitoba said, "The plan has united the 14 villages who have shown great commitment to protecting their vulnerable resources for the future." This plan has particular importance given that Koro Island was one of the worst impacted locations during Tropical Cyclone Winston in 2016 and demonstrates local resilience and determination to restore environmental foundations of well-being.

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



Alec Hughes

Alec Hughes



# Moving people to take action through stories and examples

## MELANESIA DIRECTOR NAMED MACARTHUR FELLOW



WCS's Melanesia Regional Director, Stacy Jupiter, was named a 2019 MacArthur Fellow in recognition of her work as a marine scientist and conservationist and the innovative ways she has "integrated local cultural practices with field research to develop

conservation solutions that protect both the biodiversity of coastal ecosystems and the well-being of communities that depend on them." Through her work, Stacy tries to galvanize local people to be better stewards of their environment by directly connecting their actions to the things that they care most about – health, food and cultural connections to the land and sea. Part of galvanizing people means using out-of-the-box thinking to inspire people to take action, such as through flash mobs, comic books and puppet shows, to help people understand the impacts of environmental change and reconnect them to nature.

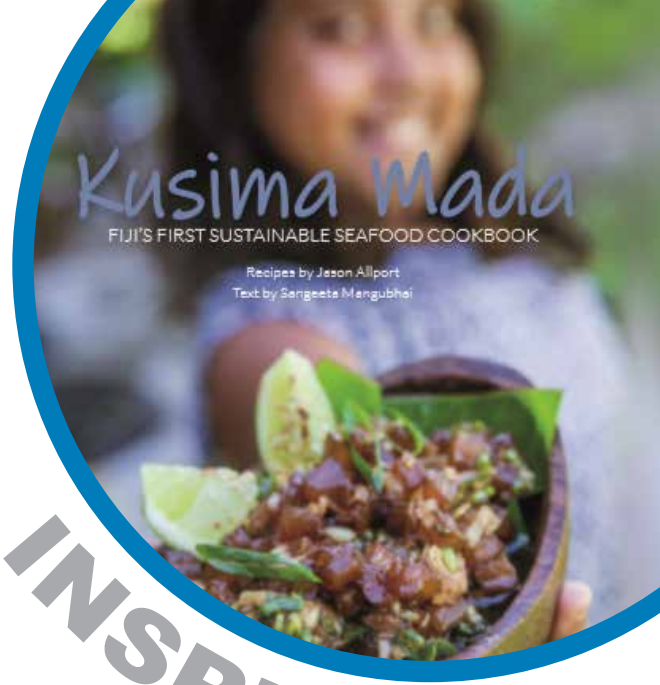
*Funded by the John D. and Catherine T. MacArthur Foundation*

## FISHER TRAINING CURRICULUM LAUNCHED

WCS trialled a new facilitator's guide for educating fishers about best practices for community-based fisheries management. The intent of the guide was to collate the latest scientific knowledge around the topics of: trade-offs between management objectives; managing fish habitat for climate resilience; managing to ensure fish reproduction; optimal design of fisheries closures; and optimum management of harvests from closures. The content is designed with local examples and stories to convey the information in ways that are likely to resonate with local fishers. The modules have been tested and refined in Fiji, as well as piloted at sites in Solomon Islands and Papua New Guinea.

*Funded by the David and Lucile Packard Foundation, John D. and Catherine T. MacArthur Foundation and Blue Action Fund*

*Full citation: WCS (2018) A Facilitator's Guide for Community-Based Fisheries Management. Wildlife Conservation Society, Suva*



# INSPIRE

## LAUNCH OF FIJI'S FIRST SUSTAINABLE SEAFOOD COOKBOOK

In June 2019, WCS launched Kusima Mada, the first sustainable seafood cookbook in Fiji. The cookbook was written in collaboration with local chef Jason Allport, who designed original recipes using a range of locally-sourced seafood and produce using species with low vulnerability to overharvest. The cookbook features over 80 recipes organized by the habitats (rivers, coasts, coral reefs and open ocean) where the species are found. The book was also designed to feature women fishers role in fishing and harvesting seafood in Fiji.

*Funded by the Flora Family Foundation*





# Expanding conservation efforts across Melanesia and strengthening our programs

## CREATING MARKETS FOR CONSERVATION COMPATIBLE CROPS



Elodie Van Nerde

WCS worked with an agricultural expert to undertake a feasibility assessment of potential cash crops that could be sustainably developed with conservation-committed communities in central Manus, Papua New Guinea. Vanilla farming was identified as the most viable option. In late 2019, we established suppliers, identified potential local, national and international buyers, developed a multiplication plot near our office in Lorengau, and refined our vanilla project plan to support at least 5 households in each clan that has given their consent to establish community conservation areas to protect the forest within their tenure boundaries. The vanilla business will move into full operation in 2020.

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



Slacy Jupiter

## WCS SIGNS NEW MoUs IN VANUATU, SOLOMON ISLANDS AND PNG

2019 was a busy year for WCS programs in terms of strengthening collaborations with Government. In March, we signed a Memorandum of Understanding (MoU) with the Solomon Islands Ministry of Fisheries and Marine Resources. In May, we signed an MoU with the Vanuatu Ministry of Climate Change Adaptation, Meteorology, Geo-hazards, Environment, Energy and Disaster Management, opening up possibilities for expanding our work there. And also in May 2019, we signed an MoU with the New Ireland Provincial Government in Papua New Guinea to support sustainable fisheries management and collaborative development of marine protected areas in Kavieng District.



Shiri Ram

## EXPANDING WOMEN IN FISHERIES PROGRAM WITH NEW PARTNERSHIPS

Throughout 2019, WCS built our partnership with UN Women to help better understand the barriers and constraints to the economic empowerment of women seafood vendors in municipal markets. We produced three reports based on market surveys in Suva, Savusavu and Labasa, Fiji. The information is helping UN Women to expand and re-design their Markets for Change Program in Fiji to include seafood vendors.

*Funded by the David and Lucile Packard Foundation and John D. and Catherine T. MacArthur Foundation*

*Example citation: Mangubhai S, Vitukawala B, Nand Y, Berdejo V, Naleba M (2019) Barriers and constraints to the economic empowerment of women seafood vendors in the Suva municipal market. Wildlife Conservation Society. Report No. 03/19. Suva*



Shiri Ram



# Creating partnerships to extend our impact



## STRENGTHENING PARTNERSHIPS TO DESIGN MORE SUSTAINABLE INFRASTRUCTURE

WCS is undertaking a partnership with James Cook University to provide recommendations for reducing the impact of large-scale infrastructure development from road building on biodiversity in Papua New Guinea. A joint paper was released in 2019 focusing on the potential biodiversity impacts of the proposed 'Missing Links' road projects. Through this project, WCS is also working with the Conservation and Environment Protection Authority to provide improved guidelines for road development that could be referred to within environmental impact assessment processes.

*Funded by an Anonymous donor*

*Full citation: Alamgir M, Sloan S, Campbell MJ, Engert J, Kiele R, Porolak G, Mutton T, Brenier A, Ibisch PL, Laurance WF (2019) Infrastructure expansion challenges sustainable development in Papua New Guinea. PLoS ONE 14:e0219408. <https://doi.org/10.1371/journal.pone.0219408>*



## SCALING GENDER AND SOCIAL INCLUSION ACROSS THE PACIFIC

In April 2019, WCS Fiji Director Sangeeta Mangubhai participated in the launch of a new regional handbook for gender equity and social inclusion in coastal fisheries, published through the Pacific Community. Sangeeta was one of the lead authors and editors of the edition, enabling her to expand her work through her Pew Marine

Fellowship across the Pacific. The handbook provides practical guidance on how to improve gender and social inclusion and is targeted at Pacific Island government staff working in fisheries and aquaculture. It also focuses on the responsibilities of Pacific Island governments to help promote sustainable development outcomes for people who rely on coastal fisheries for livelihoods.

*Funded by the Pew Charitable Trusts, Australian Government and United Nations Food and Agriculture Organization*

*Full citation: Barclay K, Leduc B, Mangubhai S, Donato-Hunt C (2019) Pacific handbook for gender equity and social inclusion in coastal fisheries and aquaculture. First edition. Noumea, New Caledonia: Pacific Community.*

# LEVERAGE



## To learn more about our programs, visit

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

FIJI: [fiji.wcs.org](http://fiji.wcs.org)

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