



# ANNUAL REPORT 2016







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# annual report 2016

# www.treekangaroo.org

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# Contents

## 3

About Us

#### 4

Celebrating 20 Years of TKCP's Work With the YUS Community

#### 6

Milestones and Achievements

#### 8

Tree Kangaroo Conservation Program Team Members

#### 11

Best Wishes for Our Outgoing Staff

## 12

Highlighting TKCP's Strategic Partnerships

#### 14

TKCP's Accomplishments in 2016

## 15

Communities Uniting for Conservation

#### 16

STRATEGY ONE: Managing the YUS Conservation Area

#### 20

STRATEGY TWO: Applying Our Research

#### 24

STRATEGY THREE: Planning for a Sustainable Future

#### 30

STRATEGY FOUR: Supporting the Communities

#### **42** STRATEGY FIVE: Operating TKCP

**46** Publications and Media

**52** Partnerships and Friends

#### 54 Support

**56** Thanks

#### 58

Maps

Front cover: YUS Junior Rangers at TKCP's 20th Anniversary celebration. Photo by Ryan Hawk. Back cover: Matschie's tree kangaroo in YUS. Photo by Daniel Solomon Okena, TKCP. Title page: Waterfall in YUS. Photo by Daniel Solomon Okena, TKCP. Left, top: A Matschie's tree kangaroo at TKCP's 20th Anniversary celebrations. Photo by Ryan Hawk. Left, bottom: Yawan village in YUS. Photo by Ryan Hawk.



# **Common Acronyms**

AZA – Association of Zoos & Aquariums (USA)

AZA TK-SSP – Association of Zoos & Aquariums Tree Kangaroo Species Survival Plan

CA – Conservation Area

CAMC – Conservation Area Management Committee

CBO – Community-based Organization

CEPA – Conservation and Environment Protection Authority (formerly the Department of Environment and Conservation)

GEF – Global Environment Facility

IUCN – International Union for the Conservation of Nature

LLG – Local Level Government

LUP – Land-use Planning

NGO – Non-governmental Organization

PHE – Population Health Environment

PNG – Papua New Guinea

TKCP – Tree Kangaroo Conservation Program

TKCP-PNG – Tree Kangaroo Conservation Program – Papua New Guinea (local NGO)

UNDP - United Nations Development Program

UNDP GEF-SGP – United Nations Development Programme Global Environment Facility Small Grant Programme

WPZ – Woodland Park Zoo

YUS – Yopno-Uruwa-Som

YUS CO – YUS Conservation Organization (landowner association and community-based organization)

# About Us

# Vision

The Tree Kangaroo Conservation Program envisions a sustainable, healthy, and resilient Huon Peninsula landscape which supports the area's unique biodiversity, human communities, and culture.

# Mission

The Tree Kangaroo Conservation Program fosters wildlife and habitat conservation and supports local community livelihoods in Papua New Guinea through global partnerships, land protection, and scientific research.

# Three Organizations, One Common Vision

The **Tree Kangaroo Conservation Program (TKCP)** is the umbrella name for the partnership between Woodland Park Zoo's TKCP and TKCP-PNG.



#### TREE KANGAROO CONSERVATION PROGRAM – PAPUA NEW GUINEA (TKCP-PNG)

An independent non-governmental organization registered in PNG. TKCP-PNG is the implementing partner of TKCP. Based in Lae, PNG.



#### WOODLAND PARK ZOO'S TREE KANGAROO CONSERVATION PROGRAM (TKCP)

Woodland Park Zoo's TKCP serves as a model for the "living landscape" approach to conservation among the zoo's Partners for Wildlife field conservation program. Based in Seattle, Washington, USA.







#### YUS CONSERVATION ORGANIZATION (YUS CO)

To ensure local ownership and continued community support of our work, TKCP partners with the community-based YUS Conservation Organization which represents the interests of local landowners and their communities. Based in YUS, PNG.

# Celebrating 20 Years of TKCP's Work With the YUS Community





The Tree Kangaroo Conservation Program (TKCP) is Woodland Park Zoo's flagship international conservation program, focused on conserving the endangered Matschie's tree kangaroo (*Dendrolagus matschiei*) and the habitat in which it lives. From its beginnings in 1996 to determine the status of the Matschie's tree kangaroo in the wild, TKCP has evolved into a holistic program supporting habitat protection for a wide range of threatened species, as well as initiatives to support local stewards and enhance local community livelihoods and access to government services.

Over the course of two decades, the program has grown from its mountainous roots to embrace a broad landscape encompassing marine and coastal reef ecosystems, lowland and montane rain forests, alpine grasslands, and agricultural areas and settlements belonging to more than 50 villages within the Yopno, Uruwa, and Som (YUS) watershed areas on the Huon Peninsula. Under PNG's customary land tenure system in which local people own and control over 90% of the land, long-term habitat protection relies on the commitment and participation of the local communities who depend on the environment's products and services.

Beginning with the first tract of land pledged for conservation by customary landowner Mambawe Manaono and his clan in 1996, TKCP helped to establish the country's first nationally-protected Conservation Area under the PNG Conservation Areas Act on customary land pledged by local clans. The 187,000acre YUS Conservation Area is managed together with the YUS communities and PNG government, protecting a wide range of species and habitats and serving as a national model for conservation in Papua New Guinea.







To strengthen grassroots capacity and reinforce local commitment to environmental stewardship, TKCP's communityfocused initiatives have empowered sustainable resource management at the local level, increased access to education through teacher training and placement, trained community health workers, and facilitated market access to improve local livelihoods and economic resilience. To safeguard the beauty of YUS for its future landowners and stewards, TKCP's Junior Ranger Program engages youth in local conservation efforts and instills an appreciation for their environment and place-based cultural heritage. In another 20 years, the continued stewardship and protection of YUS will be in their hands. In 2016, TKCP marked 20 years with a major celebration in YUS.

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#### Clockwise from top right:

 $\label{eq:constraint} Attendees watch sing-sings in Weskokop village during TKCP's 20th Anniversary celebration. \\ \textit{Photo by Ryan Hawk.}$ 

TKCP's Karau Kuna and Danny Samandingke. Photo by Emily Transue.

YUS Elder presenting TKCP Founder & Director Lisa Dabek with bilum at the 20th Anniversary celebration. Photo by Ryan Hawk.

Women playing music during TKCP's 20th Anniversary celebration. *Photo by Ryan Hawk*. Woodland Park Zoo Board Member Dr. Rob Liddell and Vice President of Field Conservation Fred Koontz present a commemorative plaque to TKCP's Danny Samandingke at the 20th Anniversary celebration. *Photo by Ryan Hawk*.

A village elder presents CEPA's James Sabi and Benside Thomas with bilums at Weskokop village. Photo by Ryan Hawk.

The Teptep community welcomes visitors for TKCP's 20th Anniversary celebration. *Photo by Ryan Hawk*. TKCP Director Lisa Dabek and visitors arrive in YUS for TKCP's 20th Anniversary celebration. *Photo by Ryan Hawk*.

YUS CO President Timmy Sowang at TKCP's 20th Anniversary celebration. Photo by Ryan Hawk.



I really admire the people who live here, and I really admire the work that Lisa Dabek and the staff of the Tree Kangaroo Conservation Program have been able to accomplish.

> Dr. Rob Liddell – Radiologist and TKCP Health Team Volunteer





# **Milestones and Achievements**

## 1996

First land pledged for conservation by YUS Landowner Mambawe Manaono and his clan 1999

TKCP's education project starts



Tree kangaroo conservation research begins



First YUS Teacher's Scholarship students graduate from Balob Teacher's College and return to teach in YUS primary schools



It is really fantastic to see the way in which people's aspirations have increased, the way in which education is transforming lives, the way in which people are committed to conservation. 20 years ago, it was a struggle to achieve that. Today, everybody wants to be part of it.

> Roy Trivedy – UNDP Resident Representative to PNG

# 2005

Landmark YUS landowner workshop with the Department of Environment and Conservation (now CEPA), Conservation International, and TKCP to apply for Conservation Area status

TKCP's health project starts with the visit of its volunteer team of physicians

# 2008

TKCP receives five-year grants from Conservation International and from the Lifeweb Initiative of the German Federal Ministry of Environment (BMU) and German Development Bank (KfW)

## 2009

The YUS Conservation Area is formally gazetted by PNG's national government, protecting 187,000 acres of wildlife habitat

# 2010

TKCP's livelihood project starts with a focus on coffee

As a local YUS man, I think conservation is very important, because the ground that belongs to me – I look out for the soil, I look out for the water, I look out for the forest. And I feel that for the long run, it will contribute to the health of my family.

Namo Yaoro – TKCP Conservation Officer and YUS landowner

## 2011

The YUS Conservation Endowment is established at Woodland Park Zoo to provide sustainable funding for conservation efforts in YUS

YUS Conservation Coffee farmers' first bags of coffee are exported to Caffe Vita in Seattle

## 2012

Team of 12 YUS Conservation Area Rangers is established to patrol and monitor the YUS Conservation Area

## 2013

TKCP-PNG is registered as a local nongovernmental organization in Papua New Guinea



TKCP receives the United Nations Equator Prize



Left to right

TKCP Pioneer and Advisor Mr. Mambawe Manaono. Photo by Emily Transue. Matschie's tree kangaroo in Weskokop village, YUS. Photo by Lisa Dabek, TKCP. A bridge crosses a river in YUS. Photo by Lisa Dabek, TKCP. Coastline in YUS. Photo by Karl Morrison.

Village in YUS. Photo by Daniel Solomon Okena, TKCP.







2015

YUS Conservation Area expands its protection and management to include coastal and marine ecosystems with the launch of a community-based marine monitoring program

# 2016

YUS Junior Ranger Program is developed and piloted to engage the future leaders of YUS in local conservation efforts

TKCP receives five-year grants from the Global Environment Facility through the UNDP and from Rainforest Trust

TKCP celebrates its 20th Anniversary

My hope for the future is that tree kangaroos will no longer be endangered, but also that the YUS community will be strong and vibrant and healthy.

> Lisa Dabek – TKCP Founder and Director

# Tree Kangaroo Conservation Program Team Members

# Seattle, Washington, USA





Dr. Lisa Dabek Program Director Expertise: Leadership, marsupial biology, partnerships, fundraising



Mr. Trevor Holbrook Program Coordinator

Expertise: Program management, strategic planning, organizational development



# Papua New Guinea





Ms. Mikal Nolan Assistant Program Director

Expertise: Project management, organizational development, gender



Mr. Karau Kuna Conservation Strategies Manager

Expertise: Geographic information systems, information technology, land-use planning



Mr. Benjamin Sipa Community Services and Livelihoods Manager

Expertise: Agricultural value chains, community development

Administrative Coordinator Vacant



Mr. Danny Samandingke Leadership Training and

Outreach Senior Coordinator

Expertise: Education, leadership training, youth programs



Mr. Daniel Solomon Okena Research and Monitoring Coordinator

Expertise: Biological research, mammal surveying, plant phenology, long beaked echidna biology



Ms. Melanie Palili Healthy Community Coordinator

Expertise: Community development, health education



Mr. Namo Yaoro Conservation Officer

Expertise: Leadership, conservation outreach, community mobilization



Mr. Dono Ogate Conservation Officer

Expertise: Leadership, coffee production, conservation outreach



Mr. Steven Fononge Conservation Officer

Expertise: Leadership, conservation outreach, community engagement



Mr. Chris Max Conservation Officer

Expertise: Leadership, cocoa production, coastal resources



Mr. Victor Eki Mapping Officer

Expertise: Landowner engagement, dispute resolution, Global Positioning Systems (GPS)



#### Mr. Matthew Tombe Mapping Officer

Expertise: Landowner

engagement, dispute resolution, Global Positioning Systems (GPS)



Mr. Basip Matumangke Conservation Coffee Project Assistant

Expertise: Coffee production, post-production processing and quality



# YUS Conservation Area Rangers

Appointed by the landowners of YUS to conduct monthly patrols through steep, treacherous terrain and challenging weather conditions, the YUS Conservation Area Rangers embody the commitment of local communities to protect their environment. TKCP is proud to support Papua New Guinea's first conservation rangers in patrolling and monitoring, educating communities on the rules and boundaries of the YUS Conservation Area (CA), and upholding the YUS CA bylaws in collaboration with landowners and local magistrates. Building upon their traditional knowledge of the YUS landscape and ecosystem, the YUS Conservation Area Rangers are gaining expertise in species identification, tracking and scientific research. The team welcomed three additional members in 2016, now with 14 terrestrial and two marine YUS Conservation Area Rangers patrolling and raising awareness with communities across the landscape.



From left: James Jio, Manrex Yasause, Geno Yuwoc, Hesia Manok, Robson Soseng, Mike Barup, Moses Nasing, Dogem Mirande. Not pictured: Soya Werawe, Nelson Teut, Tamina Findeng, Tingke Sapenu, Danny Wande, Hemon Yangeng, Weo Bafinuoc, Bama Kennong. Photo by TKCP. Mr. Nelson Teut Mr. Tamina Findeng Mr. James Jio Mr. Moses Nasing Mr. Geno Yuwoc Mr. Robson Soseng Mr. Tingke Sapenu Mr. Danny Wande Mr. Mike Barup Mr. Dogem Mirande Mr. Manrex Yasause Mr. Hesia Manok Mr. Hemon Yangeng Mr. Weo Bafinuoc

Mr. Soya Werawe

Mr. Stanis Max

Kumbu/Keweng village Gua/Teptep village Mek/Nolum village Towet village Yawan village Worin village Gomdan/Sapmanga village Gogiok village Kalaset village Ronji/Yuong village Bonkiman/Wandabong village Bonea/Nanaya village Singorokai/Bugara village Koripon/Bungawat village Nokopo/Nian village Ronji village

# Best Wishes for Our Outgoing Staff

The entire TKCP team would like to thank our valued staff members Danny Samandingke and Melanie Palili for their tremendous contributions to the program and the YUS communities. We wish them success and fulfillment in their future endeavors.

Danny Samandingke from Weskokop village in YUS has worked with TKCP since 2001, first as a field research assistant and then leading the development of the program's leadership and environmental education initiatives. Danny's passion for the people and culture of YUS is contagious, and his enthusiasm for empowering youth as environmental stewards is inspirational. We are extremely grateful for Danny's dedication over the years, and look forward to his continued involvement as a YUS landowner.





Melanie Palili joined TKCP in 2014 to lead the program's community health efforts including the "Healthy Village, Healthy Forest" project. Melanie brought valuable expertise and perspectives to the team, helping to establish a large network of local peer educators throughout YUS to promote a healthy environment and healthy communities. We appreciate Melanie's contribution to strengthening healthcare services in YUS and promoting self-reliance in remote communities, and wish her all the best.



Danny Samandingke in traditional dress during TKCP's 20th Anniversary celebration. Photo by Ryan Hawk. Melanie Palili facilitating a Population-Health-Environment Peer Educator training in YUS. Photo by TKCP.



Front row, from left: Mambawe Manaono, Lisa Dabek, Roy Trivedy; Middle row, from left: James Sabi, Robin Kiki, Joan Castro, Harriet Allen, Margit Cianelli, Fred Koontz, Madeline Lahari, Danny Samandingke; Back row, from left: Rob Liddell, Emily Transue, Benside Thomas. Photo by Ryan Hawk.

# Highlighting TKCP's Strategic Partnerships

Long-term relationships are vital to the success of the YUS Conservation Area and TKCP's conservation efforts. TKCP partners with the Government of Papua New Guinea at the local, district, provincial, and national levels, and with many institutions both in PNG and internationally. In recognition of their essential roles, we highlight two of our long-term partners: PNG's Conservation and Environment Protection Authority (CEPA), and the United Nations Development Program (UNDP).

# **Conservation and Environment Protection Authority**



TKCP has worked in close coordination with the Conservation and Environment Protection Authority (CEPA), formerly

called the Department of Environment and Conservation, since the program's earliest years. CEPA played an integral role in the creation of the YUS Conservation Area in 2009, providing critical guidance and leadership in navigating the country's first application of the 1978 Conservation Area Act. A special thanks to Arthur Ganubella for early support and mapping expertise during the Conservation Area gazettal process. CEPA supported TKCP and the YUS community in developing the landscape management plan and establishing the structure for coordinated management of the YUS CA. With representation on the YUS Conservation Area Management Committee (CAMC), CEPA continues to provide direction for the YUS CA in accordance with the national government's policies and priorities. Having created PNG's new Protected Areas Policy (2016), CEPA recognizes TKCP and YUS as a model for successful community-based conservation within the country's unique customary land tenure system. Lessons

from the creation of the YUS CA and initiatives led by TKCP have been incorporated into the Protected Areas Policy for application in other protected areas throughout PNG. TKCP's partnership with CEPA continues through the five-year Global Environment Facility (GEF) funded project which aims to strengthen the effectiveness of the country's systems for protected area management. TKCP and the people of YUS are

grateful for the longterm partnership and national-level support through CEPA and its representatives including the Honourable John Pundari, Gunther Joku, Kumaras Kay Kalim, James Sabi, Benside Thomas and Madeline Lahari. Thank you!

Papug New Guineg POLICY ON PROTECTED AREAS





[The Tree Kangaroo Conservation Program is] such a brilliant project; there aren't many projects like this worldwide. When you have something as good as this you have to nurture it, you have to support it, and you have to tell the world about it because the world wants to know that these kinds of things are happening in Papua New Guinea. It is a country with huge potential, huge possibilities, and it is the local communities who are taking ownership of the challenges they face and the way in which they want to live their lives in the future. I am very confident that this will be a model not just for Papua New Guinea, but for many places around the world.

Roy Trivedy-UNDP Resident Representative to PNG

## United Nations Development Program



Since 2013, TKCP has collaborated with the United Nations Development Program (UNDP) through grants supporting grassroots-level community development and environmental sustainability. As

TKCP's approach to conservation recognizes the importance of addressing the needs of both wildlife and people, our work aligns closely with the United Nations' ambitious global Millennium Development Goals (2000-2015) and the recently-launched Sustainable Development Goals (2015-2030). Through its Small Grants Programme, UNDP supports the development of coastal and marine protection within the YUS Conservation Area as well as TKCP's YUS Conservation Cocoa livelihoods initiative. Recognizing TKCP's success in mobilizing the YUS community and advancing sustainable development solutions, UNDP's Equator Initiative - headquartered in New York, USA - awarded the program with a prestigious Equator Prize in 2014. With the prize, TKCP has joined a global network of innovative community-led conservation programs. In 2016 the Equator Initiative published a Case Study of TKCP's work in YUS (see page 46), and the impacts of TKCP's coastal conservation and livelihoods project were shared in a UNDP-

GEF 25th Anniversary book, "Voices of Impact" (see page 46). TKCP Director Lisa Dabek was invited to UNDP's headquarters in New York in October to present the program's approach and discuss its impacts across the UN's Sustainable Development Agenda. TKCP was also highlighted as a model program through the UNDP at the 2016 World Conservation Congress (see page 43). As the facilitating agency for the five-year Global Environment Facility (GEF)-funded project in PNG, UNDP's partnership with TKCP continues to grow. We are grateful to be one of two NGOs in Papua New Guinea working with UNDP on the GEF grant. The UNDP office is a close ally and colleague, and helps TKCP to share our successes and best practices globally. We thank the UNDP representatives and staff in both New York and Papua New Guinea, including Roy Trivedy, Nik Sekhran, Johan Robinson, Gwen Maru, Emily Fajardo, Tamalis Akus, Christie Mahap, Jamison Ervin and Anne Virnig.

 Top: Mr. Roy Trivedy, UNDP Resident Representative to PNG, hikes to Weskokop village in YUS. Photo by Ryan Hawk.
 Bottom left: CEPA's Madeline Lahari, James Sabi, and Benside Thomas with TKCP's Karau Kuna visiting YUS. Photo by Lisa Dabek, TKCP.
 Bottom right: UNDP's Roy Trivedy observes opening ceremonies for TKCP's 20th Anniversary celebration. Photo by Ryan Hawk.





# TKCP's Accomplishments in 2016

# 2016 was a year of major milestones for YUS and the Tree Kangaroo Conservation Program!

In recognition of the 20th Anniversary of TKCP's work in YUS, the communities organized a major celebration to highlight the program's many achievements in protecting biodiversity and supporting community needs in partnership with the local people.

The celebration was held in September, while YUS Conservation Coffee farming families were busily organizing the shipment of their 2016 harvest from the airstrips in YUS. With a strong foundation built on high quality and local conservation action, the YUS Conservation Coffee initiative continues to expand with the inclusion of more farmers and access to additional markets. More than 30 tons of green coffee beans were exported in 2016, reaching coffee lovers through Seattle's Caffe Vita and Melbourne's Jasper Coffee. Through its "Healthy Village, Healthy Forest" project, TKCP provided training for community health workers, midwives, and local peer educators in response to critical gaps in local healthcare services. Facilitated by three volunteer physicians and two biologists, the workshop focused on the integration of human, wildlife and environmental health.

To further enhance the management of the YUS Conservation Area, TKCP hired three new YUS Conservation Rangers to conduct monthly patrols and completed field data collection for the YUS Ecological Monitoring Program regarding the status of key species including the Matschie's tree kangaroo. The data will be compared with previous findings from 2011, and will provide valuable insight into the conservation impact of the YUS CA.

Clockwise from left: Sing-sing in celebration of TKCP's 20th Anniversary held at Weskokop village. Photo by Ryan Hawk. The Matschie's tree kangaroo is the flagship species for TKCP and the YUS Conservation Area. Photo by Daniel Solomon Okena, TKCP. Women performing sing-sing during TKCP's 20th Anniversary celebration. Photo by Ryan Hawk.

# Communities Uniting for Conservation

The Tree Kangaroo Conservation Program works together with local communities, responding holistically to the needs of wildlife, people and the ecosystems on which they depend.

Together with communities and landowners, TKCP developed five strategies to guide the efforts of TKCP and our partners to ensure the sustainable health and prosperity for the living YUS landscape including its biodiversity, people and culture.





#### ONE: Managing the YUS Conservation Area

The YUS Conservation Area was created to protect wildlife and biodiversity. TKCP works with the PNG government and YUS community to support its effective management through YUS Conservation Ranger patrols, ecological monitoring and mapping of the landscape. Local communities are engaged in the protection and management of the YUS Conservation Area.

#### TWO: Applying Our Research

Scientific research of species and ecosystems helps TKCP to better understand conservation threats and guides priorities in YUS. A broad range of research topics are investigated by TKCP, partners and outside researchers. In addition to TKCP's ongoing studies of tree kangaroo ecology, research studies examine ecological and social questions to guide local initiatives and contribute to the global scientific knowledge of the species, ecosystems and anthropology of YUS.

#### THREE: Planning for a Sustainable Future

The people of YUS depend upon their land and natural resources for food, water, shelter and livelihoods. TKCP assists communities in land-use planning to ensure long-term sustainability and access to resources. Managing the responsible use of the forest products, wildlife, and water across the YUS landscape will ensure the communities' continued commitment to protecting the YUS Conservation Area.

#### FOUR: Supporting the Communities

The people of YUS are an integral part of the living YUS landscape. TKCP works with communities to address their need for sustainable livelihoods, access to health, education and skills training. In partnership with the government, businesses, and other NGOs, TKCP builds connections to provide YUS communities with alternative opportunities which build local resilience and reduce conservation threats.

#### FIVE: Operating the Tree Kangaroo Conservation Program

The protection of the YUS landscape relies on the effective management, expertise and local leadership of TKCP's efforts. TKCP is committed to building resources and staff capabilities in PNG to maintain long-term support for the landscape and people of YUS.



# Managing the YUS Conservation Area

The YUS Conservation Area (CA) is managed in partnership among TKCP, the YUS community and the PNG government. To ensure the effectiveness of the YUS CA, TKCP manages the YUS Conservation Ranger team and the Ecological Monitoring Program, conducts community awareness-raising and mapping, and facilitates the YUS Conservation Area Management Committee.

# Marine Ecosystem Protection

With the establishment of a YUS community-based monitoring plan, training of local village volunteers, and the continued expansion of YUS Conservation Area Ranger marine patrols over the past several years, TKCP engaged Australia-based natural and cultural resource management specialists Anne O'Dea and Steve Winderlich with Windydea Professional Services and Consultants to evaluate the program's marine protection efforts. O'Dea and Winderlich visited the coastal communities in YUS to consult with community members, observe marine protected areas, assess needs to build capacity of TKCP staff, and review the capabilities of current monitoring regimens. The evaluation will provide recommendations and outline strategies to strengthen the community-based management and monitoring of coastal and marine protection in YUS in 2017.

Clockwise from top:

TKCP's Daniel Solomon Okena and Ecological Monitoring Research Assistants hiking along the elevational transect in YUS. *Photo by TKCP*. Fishing from an outrigger canoe on the YUS coast at dusk. *Photo by Karl Marrison*.

A sign informs community members of a reef's tambu protection status in Ronji village, YUS. Photo by TKCP.

The coastal communities of YUS rely heavily on local marine resources. Photo by TKCP.



We are happy to support and take care of [the Tree Kangaroo Conservation Program]. It serves us and serves our tomorrow.

> Danny Wande – YUS Conservation Area Ranger





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# YUS Conservation Area Rangers

Established in 2012, the local YUS Conservation Area Ranger team is responsible for patrolling and monitoring wildlife in the YUS Conservation Area. With the addition of three new YUS Rangers in 2016, the 16-person team spends one week each month patrolling areas within the YUS CA. The additional YUS Rangers will enable TKCP to gather patrol data from more areas within YUS, reduce each Ranger's patrol area, and expand monitoring in the coastal and marine areas of YUS.

YUS Rangers record the presence or absence of priority indicator animal species key to achieving conservation goals, raise community awareness regarding conservation in YUS, and check for potential violations of the bylaws governing the YUS Conservation Area. Throughout 2016, the YUS Rangers have observed fewer indications of bylaw violations (i.e. hunting, clearing and burning). Reflecting on these findings, the TKCP team suggests that this is due to increased community awareness of the YUS CA boundaries and bylaws, strengthened community commitments to conservation bolstered by TKCP's YUS Conservation Coffee livelihoods initiative (see page 30), and sufficient natural resource availability outside of the core protected area. To enhance the collection, analysis, and application of YUS Ranger patrol data in managing the YUS CA, TKCP's Conservation Strategies Manager Mr. Karau Kuna attended a Training of Trainers workshop for the Spatial Monitoring and Reporting Tool (SMART) system in January. The SMART system utilizes digital field data collection, remote data transfer, and streamlined analyses to improve quality and reduce the time involved in ranger patrol data management. The workshop equipped Kuna with the skills to develop the framework and database for TKCP's YUS Ranger patrol data. TKCP also piloted the use of Nautiz handheld field computers which are designed to support data collection using SMART software. Additional Nautiz devices have been purchased, and YUS Rangers will receive hands-on training before using the SMART system during patrols in early 2017.

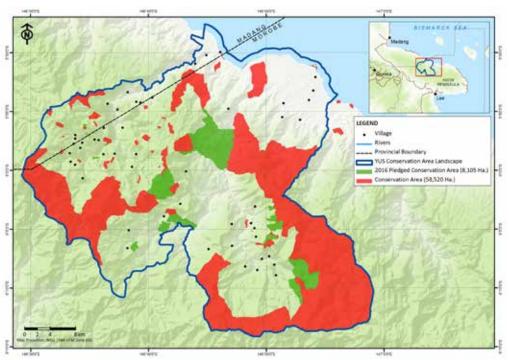
Clockwise from top left: TKCP Conservation Officer Dono Ogate shares preliminary results of YUS Ranger patrol observations in Uruwa Zone. Photo by TKCP. To strengthen the capacity of the YUS Ranger team, TKCP's Research and Monitoring Coordinator Daniel Solomon Okena teaches introductory ornithology training in March. YUS Rangers learned how to identify YUS bird species by sight and sound to improve accuracy in recording sightings during patrols. TKCP's Ben Sipa (far left) and Daniel Solomon Okena (far right) present YUS Rangers with new uniforms and boots. During the workshop, the YUS Rangers were issued new uniforms, equipment, and identification cards to raise their profile within

local communities and improve patrol safety. Photo by TKCP.

# Governing the YUS Conservation Area

#### YUS CA BOUNDARY MAPPING AND CONSERVATION AREA AWARENESS

TKCP's Conservation Strategies Manager Karau Kuna and Mapping Officers Victor Eki and Matthew Tombe made substantial progress in mapping the YUS Conservation Area during 2016. 8,105 hectares of land pledged to the core YUS Conservation Area were mapped in 2016, as well as 794 hectares of reforestation and restoration sites. In total, 58,520 hectares (144,606 acres) of the YUS Conservation Area have been mapped using GPS devices. As a result of TKCP's successful Land-use Planning process and benefits received from participation in TKCP's livelihood program, landowners continue to pledge land to the YUS CA including nearly 5,800 additional



Mapped areas of the YUS Conservation Area as of 2016. Map by Karau Kuna, TKCP.

hectares in Som Zone which have closed two important gaps in the connectivity of the YUS CA.

## YUS CONSERVATION AREA MANAGEMENT COMMITTEE

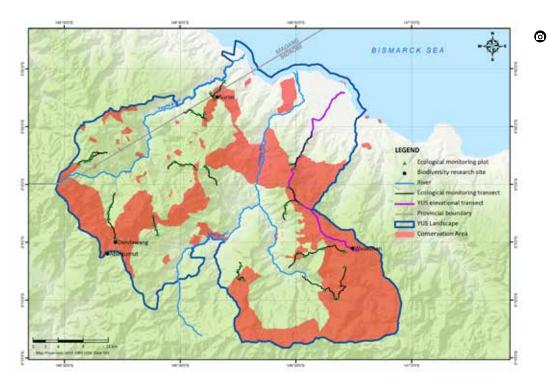
As required by the PNG Conservation Areas Act, the YUS Conservation Area Management Committee represents all stakeholders in decision making for long-term management of the protected area. The committee's members include:

- Landowner representatives from the YUS Conservation Organization
- Kabwum District Administrator
- Morobe Provincial Government representative
- Conservation & Environment Protection Authority (CEPA) representative (National Government)
- President of the Yus Local Level Government
- President of the Wasu Local Level Government
- Assistant Director of the Tree Kangaroo Conservation
   Program

The YUS Conservation Area Management Committee (CAMC) is responsible for facilitating communication among the various stakeholders of the YUS Conservation Area, from the grassroots level to the national government's Ministerial level. The committee meets twice a year to provide strategic direction for and oversee management of the YUS Conservation Area.

In April, the CAMC met in Port Moresby to coincide with the International Tree Kangaroo Summit (see page 42). The CAMC was well-represented, discussing the progress of the pending Protected Areas Bill and its potential implications for YUS. Afterwards, PNG's Conservation and Environment Protection Authority (CEPA) hosted the CAMC members with a visit to Varirata National Park to observe and experience another type of protected area. Varirata National Park is another priority site for the current Global Environment Facility project grant focused on strengthening the national system of protected areas in PNG. In September, the CAMC meeting was held in Weskokop village while the CAMC members were visiting YUS as honored guests during TKCP's 20th Anniversary celebration. The committee discussed CEPA's plans for conducting a review of the Management Effectiveness Tracking Tool (METT) Score assessment in YUS, initial recommendations from TKCP's evaluation of the marine monitoring program, and progress regarding PNG's Protected Area Bill. Provincial representative Robin Kiki reiterated his support for training village court magistrates in order to implement the YUS CA bylaws.





#### Clockwise from left:

Gabriel Porolak (third from right, foreground) trains YUS Rangers in data collection methods for TKCP's Ecological Monitoring Program. Photo by Daniel Solomon Okena, TKCP. Led by Daniel Solomon Okena, TKCP. Led by Daniel Solomon Okena, TKCP assistants completed data collection for the YUS Ecological Monitoring Program in 2016 for comparison with previous findings from 2011. Photo by Daniel Solomon Okena, TKCP.

YUS is a "living laboratory", with II established transects to support the YUS Ecological Monitoring Program. *Map by Karau Kuna, TKCP*.

# YUS Ecological Monitoring Program

The YUS Ecological Monitoring Program was established with James Cook University in 2011. Five years later during August through October, TKCP's Research & Monitoring Coordinator Daniel Solomon Okena led the second round of field data collection for the YUS Ecological Monitoring Program. The team gathered data regarding the status of priority indicator species including the Matschie's tree kangaroo, possum species, and dwarf cassowary for comparison with previous findings from 2011. Former TKCP staff member and James Cook University doctoral candidate Gabriel Porolak provided guidance and training to TKCP's YUS Rangers in preparation for the field data collection including practical lessons in distance sampling, data recording and the use of GPS devices. Once analysis of the data is completed in 2017, the findings will provide TKCP and the YUS community with valuable insight into the effectiveness of the YUS CA in protecting wildlife and serving as a wildlife bank to sustain local resource use.

# Applying Our Research

The success of conservation efforts in YUS depends upon a thorough knowledge of the area's biological and cultural diversity. TKCP works to advance scientific knowledge of Papua New Guinea's wildlife and rain forest habitat so that the YUS Conservation Area can be managed in an ecologically sound and sustainable manner. TKCP conducts research into tree kangaroo ecology, facilitates collaborative research partnerships, and promotes YUS as a site for ecological and social research.

# Tree Kangaroo Ecological Research

Scientific research remains a central component of TKCP's work in YUS. Since 1996, the program has sought to gain a greater understanding of the species we are trying to protect to ensure that the YUS Conservation Area effectively protects its habitat.

The Tree Kangaroo Conservation Program has been studying the feeding ecology, behavior, health, and habitat use of Matschie's tree kangaroos at both the high and low elevations of their distributional range (1,000 to 3,500 meters) since 2004. In 2016, TKCP Director Dr. Lisa Dabek and Research & Monitoring Coordinator Daniel Solomon Okena developed a strategic plan to guide TKCP's research focus for the next five years and beyond. The strategic plan identifies vital knowledge gaps regarding tree kangaroos in the wild and defines the program's methods for addressing them. TKCP's priority research objectives include an increased understanding of the species' health parameters and feeding ecology, its population distribution and density throughout the YUS landscape, and the scale of hunting pressure in YUS. TKCP also seeks to understand and document traditional knowledge of tree kangaroos among communities in YUS.

During field research activities in 2015, Dabek and Okena collected data regarding the various species of food plants eaten by Matschie's tree kangaroos. Supported by video documentation of feeding behaviors, Okena collected and catalogued plant samples for further identification and analysis. The samples reaffirmed TKCP's previous findings that Matschie's tree kangaroos are generalist herbivores. In 2016, Okena worked in partnership with the Papua New Guinea





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Top to bottom:

TKCP continues to study the ecology and behavior of Matschie's tree kangaroos. Photo by Daniel Solomon Okena, TKCP. TKCP's Lisa Dabek and Stanley Gesang checking telemetry equipment at a research site in YUS. Photo by Daniel Solomon Okena, TKCP.











Forest Research Institute (PNG FRI) staff at the National Herbarium in Lae to identify the plants. Okena continues to share the findings and observations with Woodland Park Zoo (WPZ) tree kangaroo keeper Beth Carlyle-Askew to inform the development of standardized diet guidelines for captive tree kangaroos at AZA institutions. The information has also been shared with the Rainforest Habitat at the University of Technology in Lae. With support from a WPZ ZooBright scholarship, Beth traveled to PNG in April 2016 to participate in the International Tree Kangaroo Summit (see page 42). During the Summit, Okena and Beth discussed their findings, best practices, and recommended actions for tree kangaroo diets and feeding ecology research in collaboration with animal nutritionist Ellen Dierenfeld.

Following initial testing of a prototype GPS collar device in the thick canopy of the YUS cloud forest in 2015, Dabek and Okena continue to collaborate with its designer, Doug Bonham of Hawk-Owl Systems. Based on their strong performance, TKCP hopes to use the devices for its field research focusing on tree kangaroo home ranges and distribution in YUS.



Clockwise from top left:

Matschie's tree kangaroo food plants are catalogued and recorded for further analysis. *Photo by Lisa Dabek, TKCP.* TKCP's Daniel Solomon Okena records tree kangaroo food plants at a research site in YUS. *Photo by Lisa Dabek, TKCP.* Matschie's tree kangaroos are generalist herbivores. Examples of food plants. *Photo by Lisa Dabek, TKCP.* TKCP documents tree kangaroos feeding on a variety of food plants. *Photos by Lisa Dabek, TKCP.* 

# EDGE Fellowship: Monitoring the Eastern Long-beaked Echidna in YUS



TKCP's Daniel Solomon Okena was selected by the Zoological Society of London's "Evolutionarily Distinct and Globally Endangered" (EDGE) Program as an "EDGE Fellow" for 2016-2017. Okena is leading the integration of the critically endangered eastern long-beaked echidna (*Zaglossus bartoni*) into the YUS Ecological Monitoring Program using an innovative method of surveying signs of echidna utilizing "nose pokes." Like the Matschie's tree kangaroo, the echidna is extremely elusive and difficult to observe in the wild. Okena's approach will record the imprints left in the soil from the echidna's foraging activities in order to estimate its relative abundance at each of the locations along the YUS research transects. He participated in an intensive four-week Conservation Tools training program with other EDGE Fellows in the Philippines in early 2016, and facilitated field data collection during YUS Ecological Monitoring efforts from August through October (see page 19). TKCP's lead tracker and research assistant Mr. Stanley Gesang once again provided valuable technical skills and leadership during the field monitoring activities, drawing on his many years of TKCP tree kangaroo research in YUS.











#### Clockwise from top right:

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PNG's Huon Peninsula is home to one of the world's largest remaining cloud forests. *Photo by Ryan Hawk.* 

Wildlife recording specialist Sue Gould listens for birds in YUS using a parabolic reflector. *Photo by Rod Gould.* 

Graphic novelist Garima Gupta visited YUS in July to explore the nuances of human behavior toward wildlife conservation through first-hand accounts of local stewards. Gupta plans to document stories of personal transformation in support of conservation, with a particular focus on the Birds of Paradise. Following her visit, Gupta shared this sketch from Gomdan village with the TKCP team. Sketch by Garima Gupta.

As long-beaked echidnas are highly elusive, Okena's EDGE research will record "nose poke" imprints in the soil. *Photo by Lisa Dabek, TKCP.* 

Critically endangered long-beaked echidna in YUS. Photo by Toby Ross.

TKCP Research & Monitoring Coordinator and EDGE Fellow Daniel Solomon Okena attended a comprehensive Conservation Tools Course in preparation for his project focused on measuring the relative abundance of long-beaked echidnas in YUS. *Photo by Daniel Solomon Okena, TKCP.* 

## **Research Collaboration**

TKCP collaborates with the YUS Conservation Organization and local landowners, attracting research institutions and scientists to answer key questions defined in the YUS Landscape Plan. Research findings are used to inform management decisions and guide the direction of the YUS Conservation Area.

Wildlife sound recording specialist Tony Baylis made his third visit to YUS in October 2016 with colleagues Sue and Rod Gould to further contribute to a baseline data collection of bird species present on the Huon Peninsula. YUS CO President Timmy Sowang and local research assistants Alphius Bao and Keshti Awa accompanied the research group, which used microphones and parabolic reflectors to capture the vocalizations of birds and other animals. As the scientific community is increasingly recognizing the value of sound recordings in addition to visual observation, Baylis's research aims to support further research into species presence, abundance and geographic distribution. A narrative of their research trip was published in December's issue of Audiowings: The Journal of Australian Wildlife Sound recording Group (Vol. 18, No. I).



# Planning for a Sustainable Future

Protecting the biodiversity and habitat of YUS requires coordinated commitment and action across the entire landscape, both in and around the Conservation Area. To sustain the needs of local communities, the natural resources and services provided by the environment beyond the protected area must be maintained for the benefit of current and future generations. TKCP facilitates the development of land-use and community-based monitoring plans to ensure long-term sustainability and access to resources.

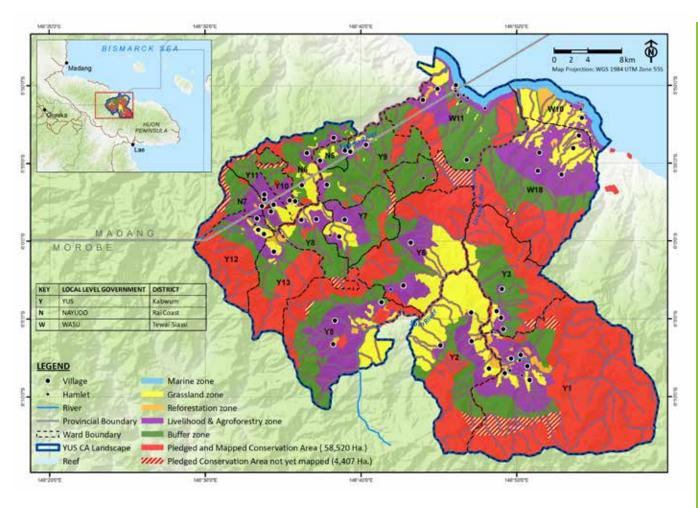
# Ward-level Land-use Planning

Since 2011, TKCP's Conservation Strategies Manager Mr. Karau Kuna has worked with villages throughout YUS to develop Land-use Plans (LUP), in which landowners and communities create zoning maps and collectively define how their resources will be sustainably used. The plans outline community priorities for conservation and development, and describe specific community activities relating to local goals. TKCP's Land-use Planning process has been widely recognized as a model for engaging communities in conservation efforts. The process is highlighted in PNG's recently-launched Protected Areas Policy which guides the management of protected areas throughout the country, and its effectiveness in YUS earned Kuna a prestigious 2016 Whitley Award (see page 29)!

In 2016, Kuna and the LUP team completed LUP review and re-confirmation workshops with the remaining six wards (group of villages) in YUS. The workshops guided community representatives in evaluating their progress-to-date, reviewing the status of priority species and development actions, and considering emerging priorities. Based on a review of previous plans, the communities adjusted their conservation actions to ensure that they are clear and achievable at the local level. All 18 wards now have plans in alignment with the government's planning cycle for 2016-2020, which will significantly enhance their ability to advocate for public funding and support according to local needs. Funding from the Provincial government is allocated according to Ward and Local Level Government (LLG) plans.

To strengthen the capacity of communities to manage the implementation of their 2016-2020 LUPs and to better understand the impact of local conservation efforts, TKCP is facilitating the development of community-based monitoring plans. The LUP monitoring workshops introduced participants to project management concepts and tools, and Kuna supported community members in drafting and refining a list of monitoring questions relating to their conservation and development priorities. TKCP will continue to support communities in selecting measurable indicators, and provide assistance in developing monitoring tools for localized tracking of species status and community progress.







In the community there are different groups of people who play different roles and have responsibilities that they perform on a daily basis, some of which require special skills and knowledge. TKCP's Land-use Planning and Monitoring workshops have helped us put these roles and responsibilities in perspective. We now have a better understanding of who does what, when and how we can collaborate with other stakeholders to achieve our conservation and development priorities.

Mr. Mume Saranue – Isan Primary School Board Chairman, Urop Village

Top to bottom:

Mosaic of ward-level land-use plans comprise a fully zoned map of the YUS landscape. *Map by Karau Kuna, TKCP.* Mume Saranue. *Photo by Karau Kuna, TKCP.* 

Land-use Plan Review and Monitoring workshop in Tazon village. Photo by Karau Kuna, TKCP.





Participants are becoming more inquisitive about the project management process including planning, implementation and monitoring. They are interested to participate in service delivery processes and to promote ecosystem services. They want to know where they fit in the cycle and how participating can work to their advantage. As women and youth are becoming more actively engaged in the formal community planning process, they are feeling more empowered.

Karau Kuna – TKCP Conservation Strategies Manager





#### Clockwise from top:

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Partners with Melanesians 3D Modeling specialist Kenn Mondiai facilitates a discussion with community members during a scoping visit to Yawan village. *Photo by Karau Kuna*, *TKCP*: TKCP'S Conservation Strategies Manager Karau Kuna leads an LUP review session in Bugara village, YUS. *Photo by TKCP*. Partners with Melanesians' Kenn Mondiai presents the 3D Modeling concept in Yawan village. *Photo by Karau Kuna, TKCP*. Community members discuss landmarks, features, and land use with Kenn Mondiai. *Photo by Karau Kuna, TKCP*.

# Participatory 3D Modeling

TKCP strives to capture the many perspectives and priorities of all community members in YUS through its LUP initiative. With a strong understanding of the varied resource needs, uses, and considerations among different groups in society, TKCP and community leaders are better able to mobilize local efforts in support of sustainable resource management. Building upon the progress made in developing ward-level LUPs across YUS, TKCP is piloting the use of Participatory Three-Dimensional (3D) Modeling in partnership with the PNG-based organization Partners With Melanesians (PWM). Through this project, TKCP will lead communities in the creation of 3D relief models of their ward that will best represent mountains, valleys, watersheds and coastal areas. The final product is a true visual representation of the place of YUS, a diorama enabling community members to interact with the landscape as if they were looking down from space. Members of the community, including women, youth, elderly, and disabled, will each be invited to share their perspectives and document the ways in which they use their land and resources using the 3D model. In March, TKCP completed a scoping visit to Yawan village with PWM's 3D Modeling specialists Mr. Kenn Mondiai and Mr. Noel Gisawo. The group observed the ward's geographical and social attributes, and consulted with the communities in preparation for the participatory workshop scheduled for 2017. Based on feedback and results of the pilot workshop, TKCP intends to conduct participatory 3D modeling activities with all wards in YUS.

## STRUCTURE OF GOVERNANCE IN PAPUA NEW GUINEA



The multiple levels of governance in PNG. TKCP works with all levels for the management and sustainability of the YUS Conservation Area.

Left: Women discuss their community's development priorities to incorporate into ward-level land-use plans. *Photo by Karau Kuna, TKCP. Right:* Partners with Melanesians' Kenn Mondiai presents scoping visit findings and recommendations to the TKCP team at the Lae office. *Photo by Karau Kuna, TKCP.* 





# Local YUS Conservation Priority Species

Through TKCP's Land-use Planning process, communities identify their priority species for the focus of local conservation efforts. Species are selected based on their local conservation status, their role in maintaining the health of the ecosystem in YUS, and their importance to the community for cultural, dietary and livelihoods purposes.

Conservation Priority Species are defined at the ward level. Priority species include:

#### TERRESTRIAL SPECIES:

- Matschie's Tree Kangaroo
- Eastern Long-beaked Echidna
- New Guinea Pademelon
- Cuscus species
- Rat species
- Forest Wallaby
- Long-fingered Triok
- Small Dorcopsis
- Bandicoot

#### AVIAN SPECIES:

- Dwarf Cassowary
- Bird of Paradise species
- Parrot species
- Harpy Eagle
- McGregor's Bowerbird

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- Scrub Fowl
- Cuckoo Dove

#### MARINE SPECIES:

- Dugong
- Turtle species
- Prawn species
- Eel species



Long-term wildlife conservation requires local communities to understand the direct link between protecting their forests and protecting their future.

Karau Kuna – TKCP Conservation Strategies Manager Clockwise from bottom left: Long-fingered triok. Photo by Daniel Solomon Okena. Mountain cuscus. Photo by Bruce Beehler. Cassowary. Photo by TKCP. Vulturine parrot. Photo by Daniel Solomon Okena. Palm cockatoo. Photo by Daniel Solomon Okena. WFN Trustee Sir David Attenborough congratulates TKCP's Karau Kuna on his 2016 Whitley Award. Photo by Whitley Fund for Nature. H.R.H. Princess Anne presents a 2016 Whitley Award to TKCP's Karau Kuna at a ceremony in London. Photo by Whitley Fund for Nature. 2016 Whitley Award recipients. Photo by Whitley Fund for Nature.

# TKCP's Karau Kuna wins 2016 Whitley Award

The Tree Kangaroo Conservation Program and the communities of YUS are thrilled to see Karau Kuna, TKCP's Conservation Strategies Manager, receive global recognition in honor of his innovative community land-use planning initiative in YUS. The Whitley Fund for Nature seeks out and supports the most effective grassroots conservation leaders in developing countries, and through its prestigious Whitley Awards – often referred to as the "Green Oscars" – provides a platform for winners to boost their national and international profile. Kuna traveled to London in April to attend the Whitley Awards Ceremony and to accept the prestigious nature conservation prize, presented by H.R.H. Princess Anne. In his acceptance speech, Kuna dedicated the award to the people of YUS and the TKCP team.

The Whitley Awards Ceremony is about recognizing and celebrating the small battles which cumulatively add up to significant change at the national level. In addition to the financial benefit of winning an award, winners receive professional communications training to turn scientists into ambassadors, so they're able to communicate what they're doing to the public and to policy makers.

With the award, Kuna received project funding to support communities in planning and carrying out conservation actions across the YUS landscape from 2016-2020. Kuna's Whitley Award was donated by The William Brake Charitable Trust in memory of William Brake. The Whitley Fund for Nature also produced an excellent short video about TKCP and Kuna's leadership of sustainable resource management efforts in YUS, with narration by the distinguished Sir David Attenborough. Please watch the video on our website at www.treekangaroo.org.

We are extremely proud of Kuna's accomplishments and honored to share in this recognition of our work with the communities of YUS. Congratulations, Kuna!







The Whitley Fund for Nature is unique. It doesn't put its own people on the ground but seeks out local leaders who are already succeeding. It puts its money where it really counts, where every penny counts.

> Sir David Attenborough, WFN Trustee



# Supporting the Communities

To ensure the long-term sustainability of the YUS Conservation Area, local communities must participate in and benefit from its protection. To encourage community engagement and sustainable development, TKCP builds partnerships to address local needs for livelihoods, health, education and skills training. These partnerships provide increased access to essential services, access to markets and technical knowledge, and support for local leadership of conservation efforts.

# Livelihoods

#### CONSERVATION COFFEE

TKCP's YUS Conservation Coffee initiative continues to flourish, as TKCP has expanded from a small pilot program in the Uruwa Zone to now include all coffee-producing areas across the YUS landscape. More farmers throughout YUS now recognize its impact and join through their commitment to conservation. More than 400 coffee farming families from Yopno, Uruwa, and Som Zones participated in the program in 2016, resulting in a record 30 tons of parchment coffee exported from YUS. With the inclusion of the Yopno and Som Zones in addition to Uruwa, the 2016 shipment represents a 400% increase from 2015 and a stunning 1,000% increase over total exports in 2014. An emphasis on the revitalization of long-standing coffee gardens and commitment to quality has significantly contributed to farmers' ability to meet the increased demand and explore the potential for continued growth through new markets. Seattle's Caffe Vita once again demonstrated its long-term

commitment to the YUS community and their conservation efforts, purchasing 20 tons and expressing possible interest in an additional shipment of the current harvest for early 2017. Through a partnership with Zoos Victoria, YUS Conservation Coffee is now reaching consumers in Australia through Melbourne-based roaster Jasper Coffee. TKCP's Livelihoods & Community Services Manager Ben Sipa visited Melbourne in December along with Mikal Nolan and Trevor Holbrook, and had the opportunity to meet with Jasper Coffee Director Wells Trenfield and his team. Wells expressed his excitement for supporting the project, both because of the excellent quality of the coffee and the initiative's conservation impacts. Jasper Coffee purchased 10 tons of YUS coffee in 2016 and confirmed their interest to collaborate further in 2017.





Under Sipa's leadership, TKCP supported farmers in coordinating logistics and enhancing quality control systems to ensure that exported coffee meets the high standards expected by buyers. TKCP hired YUS Coffee Assistant Mr. Basip Matumangke to facilitate logistics and assist farmers in quality control management. Eighteen community coffee inspectors were trained in February to monitor post-harvest quality and to emphasize the link between livelihoods and conservation efforts in YUS. In June, Caffe Vita's former Green Coffee Buyer Daniel Shewmaker visited YUS in his new role as Green Coffee Buyer & Supply Chain Manager with MTC International Coffee Group. Shewmaker and Sipa met with the community coffee inspectors in June to provide training in the use of coffee moisture readers purchased by TKCP to aid in monitoring quality at the community level and to distribute the devices at all airstrips in YUS. Shewmaker provided valuable support to the program this year, lending his logistics expertise and knowledge of the coffee supply chain in PNG to facilitate the export for Caffe Vita's new Green Coffee Buyer, David Hong. Recognizing the strong demand and the increasing production capacity of farmers in YUS using existing trees, Sipa and TKCP will pursue reliable logistical solutions capable of supporting large export quantities.

Left page:

Ripe coffee cherries harvested in YUS. Photo by Ryan Hawk. YUS coffee farmers separate coffee beans from the fruit using small handcrank pulping machines. Photo by Ben Sipa, TKCP.

YUS coffee is now available in Melbourne, Australia through Jasper Coffee Roasting Company. *Photo by Trevor Holbrook*, *TKCP*.



Every year, I have to leave my wife with our younger kids at home for months at a time. I travel to Lae with my bundle of dried tobacco leaves to sell, so that I can raise funds for our two older kids who are in secondary and high schools. I never expected that my wife, who grew coffee on her own, would receive so much money.

> Mr. Mangkera Dononge, who burst into tears upon receiving PGK580 (approx. \$210) for two bags of coffee



Caffe Vita's Papua New Guinea Yopno-Uruwa-Som coffee is sold at Woodland Park ZooStores, Caffe Vita locations, and online at www.caffevita.com. Photo by Jeremy Dwyer-Lindgren, WPZ. Right page:

TKCP's Ben Sipa demonstrates the use of coffee moisture readers during a YUS coffee inspector training. *Photo by TKCP*. YUS coffee beans are washed before drying. *Photo by Ben Sipa*, *TKCP*.

Bags of parchment coffee beans are flown out of YUS, milled in Goroka, and exported from the port in Lae. Photo by Ryan Hawk.

## CONSERVATION COCOA

Following initial reports of a presence of the invasive cocoa pod borer pest in YUS at the beginning of 2016, TKCP's Ben Sipa and Nambis Zone Conservation Officer Chris Max arranged a visit to assess the extent and impact of the pest on cocoa crops in YUS. The pest has significantly affected cocoa production throughout many areas of PNG, and demands a thorough response to manage its spread. Accompanied by local extension officer Simon Simboki, Ben inspected several cocoa fermentries and gardens. Unfortunately, the presence of cocoa pod borer was found among many of the gardens and most fermentries were not operating due to a swift decline in the volume of cocoa. In collaboration with the PNG Cocoa Board and with support from the UNDP GEF Small Grants Programme, TKCP organized a rapid response by providing farmers with technical advice and pruning tools to effectively control the spread and impact of the invasive species. Several meetings and workshops were organized during the first half of the year to monitor the situation and support farmers in applying the pest management techniques.

Fortunately, due to the rapid response and the diligence of the YUS cocoa farmers, the impact of the cocoa pod borer was limited and cocoa production resumed during the second half of 2016. Following an agreement for farmers to deliver cocoa to PNG's Queen Emma Chocolates (a subsidiary of Paradise Foods) at the nearby port in Madang, 567 kg of YUS Conservation Cocoa was sold at above-market rates. Seeking to build relationships with international buyers of premium cocoa, TKCP coordinated with AusAID's Pacific Horticultural & Agricultural Market Access Program (PHAMA) to connect with Denmark-based Original Beans. The conservationfocused chocolate company is interested in sourcing sustainably-produced cocoa from PNG and provided valuable recommendations for farmers based on testing of YUS cocoa. The sample results and feedback were generally positive, noting a mild cocoa flavor with interesting fruit notes. TKCP and the YUS farmers are incorporating the recommendations along with guidance provided by the PNG Cocoa Board. Original Beans is currently reviewing potential partnerships for 2017, and is considering TKCP and the YUS cocoa farmers.

PHAMA is active in supporting the development of the cocoa industry in PNG, and facilitated an October cocoa trade visit





with four premium cocoa buyers interested in sourcing from PNG. During the trade visit, the buyers visited TKCP's office in Lae to learn about the YUS Conservation Area, community conservation efforts, and the YUS Conservation Cocoa initiative. The buyers shared positive feedback and interest in the initiative and emphasized the importance of both cocoa quality and the farmers' commitment to sustainability. TKCP will continue to collaborate with PHAMA to benefit from its technical expertise and to gain increased exposure among international buyers of premium cocoa.

Sipa also had the opportunity to participate in the PNG Cocoa Board's strategic planning process in early 2016. Sipa sought to emphasize the role that sustainable livelihoods can play in conservation efforts across the country.

#### Left page:

YUS Cocoa is sent by boat to the port in Madang for sale to Queen Emma Chocolates. *Photo by Karl Morrison.* Cocoa is grown in mixed family garden plots in the low-lying coastal areas of YUS. *Photo by Ben Sipa, TKCP. Right page:* 

Cocoa is fermented locally before being shipped and sold. Photo by Ben Sipa, TKCP.

Bags of YUS Cocoa are delivered to a depot in Madang. Photo by Karl Morrison.

The invasive cocoa pod borer impacted crops in YUS in early 2016. TKCP and the PNG Cocoa Board supported farmers in controlling its spread. *Photo by Ben Sipa*, *TKCP*.

International cocoa buyers learn about TKCP and the YUS Conservation Cocoa initiative during a visit to Lae,

organized by AusAID's Pacific Horticultural and Agricultural Market Access Program. Photo by TKCP.

Bags of YUS Cocoa are labeled prior to shipment. Photo by Karl Morrison.

Our biggest recent challenge is the devastation of our crops by the cocoa pod borer. Farmers in our area had never experienced that before. The pod borer is not new to our area, but it is possible that the long drought (due to El Niño) caused the right the Tree Kangaroo Conservation Program helped us to find technical support from experts and the local extension officers, and we have so far been able to contain the problem without too much loss. We will still be able to produce cocoa by using the management practices shared by the local extension officers. Now that we have control over the cocoa pod borer situation, we are ready once again to move forward. I would groups to help each other by sharing tools and labor for maintaining the cocoa gardens. If we do not work together, the borer can spread again and destroy our livelihood. We have come a long way, and I am excited for what comes next.

> Mr. Nomis Simon – Singorokai Village, YUS CO Vice President and Cocoa Farmer











I am a coffee farmer and I have more than 3,000 coffee trees. I have been a member of a cooperative on the other side of the mountain, which requires hiring youths to carry bags over the mountain to Wantowat. It has been a big disappointment, as I lost all 16 of my bags due to malicious deals and have never received any return. I am proud to be part of the YUS Conservation Coffee program, and relieved to earn profit from my efforts.

Pr. Sosengke – Torik Village, Som Zone

#### YUS CONSERVATION COFFEE AND COCOA COOPERATIVE

As the YUS Conservation Coffee and Cocoa initiatives expand to include more farmers, TKCP seeks to enhance the farmers' organizational skills and leadership in developing their business. The YUS Conservation Coffee and Cocoa Cooperative lodged its registration with the Morobe Provincial Division of Commerce in 2015, and was advised of the need to submit a business plan prior to the Cooperative's official recognition by the PNG government. Together with the Cooperative's leadership, TKCP will support the farmers to develop a business plan to guide production planning, logistics, marketing, investments, and financial management. The Cooperative members held meetings throughout the year, including its Annual General Meeting in September at Weskokop village. During the meeting, the members discussed the appointment of Cooperative Executives, membership fees, transportation and storage considerations, wildlife monitoring within garden areas, and linkages with conservation.



Left page:

To enhance quality control, TKCP's YUS Conservation Cocoa initiative connects local cocoa fermentry owners with technical guidance. *Photo by Ben Sipa, TKCP.* YUS Coffee Inspectors ensure that the coffee delivered to airstrips in YUS meets quality standards before being flown out for milling. *Photo by Ben Sipa, TKCP.* MTC International Coffee Group's Green Coffee Buyer & Supply Chain Manager Daniel Shewmaker examines a coffee tree in Bungawat village, YUS. *Photo by Ben Sipa, TKCP.* 

A bag of YUS Cocoa ready for shipment to Queen Emma Chocolates. *Photo by Karl Morrison.* 

A bag of YUS Coffee awaits roasting at Jasper Coffee's roastery in Melbourne, Australia. Photo by Trevor Holbrook, TKCP. Right page:

Radiologist and TKCP Health Volunteer Dr. Rob Liddell brought a portable ultrasound machine to YUS to consult with and diagnose patients. *Photo by Lisa Dabek, TKCP*.

Community Health Workers, Village Birth Attendants, and PHE Peer Educators attended a week-long health training workshop facilitated by TKCP's Volunteer Health Team. *Photo by Lisa Dabek*, *TKCP*.

TKCP Health Volunteer Dr. Joan Castro consults with a child in Gangalut village, YUS. Photo by Harriet Allen.

TKCP Health Volunteer Dr. Emily Transue examines a patient during a health clinic in YUS. Photo by by Harriet Allen.













## Health

#### HEALTHY VILLAGE, HEALTHY FOREST

With the support of the Vibrant Village Foundation, TKCP strengthened its Healthy Village, Healthy Forest Initiative and expanded the network of YUS community Population-Health-Environment (PHE) Peer Educators to serve as a valuable source of information within their communities. PHE Peer Educators serve as community resource people to create awareness about the linkages between a healthy environment and healthy families. The volunteers are also responsible for referring community members to the appropriate health facilities for further information and care in the absence of trained health workers. Now, with more than 250 volunteers strong and with an established leadership group, the PHE Peer Educator Network contributes to greater health knowledge and access to essential health services throughout YUS. TKCP's Healthy Community Coordinator, Melanie Palili, completed the final PHE Peer Educator training in March in Uruwa Zone, equipping youth and adults from nine villages with the knowledge and tools to raise community awareness about health and the environment. The training reached more than 40 participants including Village Birth Attendants (VBAs, or midwives), church leaders and students. With the PHE Peer Educator Network now in place throughout YUS, TKCP will continue to develop and strengthen partnerships with government and nongovernmental organizations to support community awareness-raising and health referral efforts.

TKCP completed the collection and synthesis of data from its comprehensive YUS health baseline survey in 2016, which garnered a total of 544 responses from community members, Community Health Workers, VBAs and other stakeholders. With support from TKCP's volunteer health team comprising international physicians, an epidemiologist,







and health professionals, review and analyses of the data are informing the development of TKCP's five-year strategic plan for healthy communities in YUS. TKCP intends to apply a "One Health/EcoHealth" approach in YUS, recognizing the close relationship among human, environment and wildlife health. During TKCP Director Lisa Dabek's visit to PNG in April, the team participated in strategic planning activities to define TKCP's objectives and gather a detailed understanding of the opportunities and challenges regarding health in YUS. The TKCP volunteer health team met in December to work on the strategic plan and lend advice and insight according to the survey responses, observations, and experiences with the health system in remote PNG.

### YUS PHYSICIAN VISIT AND HEALTH TRAINING

In September, TKCP organized a week-long health workshop and clinic to address the critical need for local health knowledge and access to healthcare in YUS. Three medical doctors volunteered their time and international travel, serving as training facilitators and consulting with patients. In addition to the three medical doctors, two wildlife biologists led sessions focusing on the integration of human, wildlife and environmental health. The five workshop facilitators were:

- Dr. Rob Liddell, Radiologist
- Dr. Emily Transue, Internist
- Dr. Joan Castro, Family Medicine and Specialist in Reproductive Health and Sexually Transmitted Diseases
- Harriet Allen, MS, Wildlife Biology
- Lisa Dabek, PhD, Conservation Biology
- Namo Yaoro, TKCP Conservation Officer

The workshop served as an important opportunity for Community Health Workers, Village Birth Attendants (VBAs) (volunteer midwives), and other local health workers to gain new knowledge and skills regarding preventative care, diagnosis, treatment, and referral of common health conditions in YUS and discuss the connections of environmental, wildlife and human health. A total of 58 participants walked for up to three days to attend the workshop at Gangalut village, underscoring the interest of the local health community. Because YUS is one of the most remote areas in Morobe Province, these communities receive very few resources from the government and are enormously appreciative for the opportunity to learn, develop new skills, and receive professional medical advice and resources.

In addition to the training sessions provided for the YUS health community, the visiting physicians saw more than 150 patients during the week. The patients presented a wide range of illnesses and health problems, reiterating the major need for trained doctor patrols in YUS and a better system for connecting YUS community members to health services in the Province. YUS Community Health Workers and Nursing Officers participated in seeing the clinical patients with the volunteer physicians, thereby receiving first-hand clinical training in addition to classroom learning. The physicians referred about 20 patients to the city hospital in Lae for further diagnostics and more advanced treatment. In addition, solar Luci Lights donated by MPOWERD (www.mpowerd.com) through Seattle-based A New Course (see page 41) were distributed to the VBAs to provide vital light at night for their work in supporting women during childbirth.

Following the trip to YUS, TKCP Director Lisa Dabek and the doctors met with the Morobe Provincial Health Department and United States Ambassador to Papua New Guinea Catherine Ebert-Gray and US Embassy staff. They discussed the need and potential for greater collaboration with the government health departments. Ambassador Ebert-Gray shared the US Embassy's approach to health at the national level in Papua New Guinea, and TKCP explained its "EcoHealth" approach to addressing the health of people, wildlife, and the environment as an interdependent "health ecosystem." They discussed the idea to utilize YUS as a pilot area for innovative health solutions in a remote context for PNG. Given that 85% of Papua New Guinea's population lives in rural and remote areas, it is imperative for the country to develop realistic solutions to bring health access to the villages.



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#### Left page, top to bottom:

Dr. Emily Transue facilitates a health workshop session in YUS. *Photo by Lisa Dabek*, *TKCP*. Harriet Allen (second from right) presents the connection between biodiversity and health with support from Nursing Officer and interpreter Gabriel Puap and Drs. Rob Liddell and Emily Transue. *Photo by Lisa Dabek*, *TKCP*.

Right page, clockwise from top left:

- TKCP distributed solar-powered Luci Lights to Village Birth Attendants, with support from MPOWERD and A New Course. *Photo by Lisa Dabek, TKCP.*
- YUS Teacher's College Scholarship recipients. Photo by TKCP.
- TKCP staff and YUS CO executive members visited Balob Teacher's College in April to discuss the future of the scholarship program and meet with current scholarship recipients. *Photo by* TKCP. TKCP Health Workshop participants. *Photo by Lisa Dabek*, TKCP.
- TKCP produced posters featuring local species, habitats, and communities to communicate the
- connections among healthy wildlife, environment, and people. Photo by Lisa Dabek, TKCP.
- Health workshop participants traveled up to three days for the opportunity to learn new information and skills. *Photo by Lisa Dabek, TKCP.*









# Education and Capacity-Building

## BALOB TEACHER'S COLLEGE SCHOLARSHIP FOR YUS STUDENTS

For more than a decade, TKCP has provided financial support for successful student candidates from YUS seeking teaching certificates through Balob Teacher's College in Lae. Since 2002, TKCP's teacher scholarship program has helped more than 25 students to graduate as qualified teachers who return to alleviate teacher shortages and promote environmental education in YUS. During TKCP Director Lisa Dabek's visit to Lae in April, TKCP and YUS CO Executives, including President Timmy Sowang, Treasurer Botty Kwisal, and Scholarship Chairperson Annie Ogate, met with administrators at Balob Teacher's College to sign an agreement assuring support for the program over the next 10 years. The community-based YUS Conservation Organization has assumed management of the scholarship, and supports the selected students in registration for the three-year certificate program. Mr. Wycliffe Awapmon Muprie from Mangan village is the current recipient of the scholarship and will complete his studies in 2017.





We don't get many chances like this to have programs that can help us. It is really important to come to this training and learn what is being taught. It is not just for work in the Conservation Area. These methods—like planning lessons and being able to communicate clearly—will help if you want to work in the church, the local council, participate in meetings, and many other things. It is a good opportunity and you should make sure you use it.

> Mr. M. Donno – Primary School Teacher who was addressing the training participants at Yawan



#### Clockwise from top left:

- Environmental education specialists Steve Winderlich and Anne O'Dea. *Photo by Karl Morrison.*
- YUS Junior Ranger Program facilitators received training in preparation for the program's pilot. *Photo by TKCP*.
- YUS Junior Rangers performed sing-sings during TKCP's 20th Anniversary celebration. *Photo by Ryan Hawk*.
- YUS families and community members express strong support for the Junior Ranger Program. *Photo by TKCP*.





This training is so interesting it can help me to think on how to teach young Junior Rangers and educate them to become better people in their family, community, YUS, and as a whole.

> Mafuk Wikto – Elementary Teacher, Weskokop village

#### YUS JUNIOR RANGERS

TKCP's Junior Ranger Program seeks to support positive youth development and conservation leadership across the YUS landscape. Due to barriers limiting access to education including the lack of secondary schools in YUS, many youth in YUS have no opportunities to develop professional skills or pursue careers. Youth often leave the education system early and return to their village with few job opportunities or direction. TKCP's Junior Ranger Program will engage youth in local conservation efforts and provide opportunities for positive community participation. As today's youth are the future leaders and landowners of YUS, their appreciation for their cultural heritage and responsibility as environmental stewards is essential to the long-term sustainability of the YUS landscape.

Once fully established, the Junior Ranger Program will engage three age groupings: Early Childhood and Parent Education will focus on increasing environmental literacy and awareness; Learning Opportunities for children in grades 3-8 will engage youth in community conservation efforts; and Leadership Development for young adults will support youth in becoming responsible stewards and leaders.

By providing linked education, stewardship, and leadership opportunities from pre-school through young adulthood, the program aims to strengthen conservation efforts and sustainable living among communities across the YUS landscape. Following a series of community-level program design workshops facilitated by WPZ's Community Engagement Supervisor Eli Weiss and TKCP's Leadership Training and Outreach Senior Coordinator Danny Samandingke in 2015, TKCP enlisted the support of environmental education specialists Steve Winderlich and Anne O'Dea with Windydea Professional Services and Consultants (Australia) to develop the YUS Junior Ranger Program curriculum. TKCP's Junior Ranger pilot program in 2016-2017 is focused on post-primary-aged youth (ages 13-18), providing hands-on opportunities for youth to participate in community activities regarding wildlife monitoring, environmental stewardship and sustainable resource management. Session

modules that were created for the post-primary youth Junior Rnagers include:

- Understanding YUS Habitats, Threats, and Management Approaches: Learn about the main habitats and species in YUS, the role of the ecosystem, threats to species and habitats, and how to preserve the natural environment
- YUS Ranger Mini-Patrols: Learn about map reading, patrol planning, data collection, use of compasses and binoculars and species identification
- The connection between Ecosystem and Human Health: Learn about permaculture, natural resources and environmental services, and healthy living practices
- Scientific Research & Ecological Monitoring: Learn about research techniques, plot sampling and data analysis
- Sustainable Livelihoods & Financial Management: Learn about agricultural livelihoods, local opportunities, investment and saving
- Environmental Education Leadership: Learn about the role of a leader, practice leadership through environmental education activities with peers

During the first half of 2016, Winderlich, O'Dea, and Samandingke conducted a comprehensive consultation process across all four Zones in YUS in order to solicit community perspectives and aspirations, assess opportunities and feasibility, and gain an appreciation of the landscape, habitats and people of YUS. Based on the insights from the community consultations, Winderlich and O'Dea developed a suite of curricula materials, session guides, and participatory learning tools for the Junior Ranger Program sessions including field application activities. During the second half of the year, the specialists returned to YUS to conduct an initial training for volunteer Junior Ranger Program facilitators at its pilot sites in Towet and Weskokop villages. The post-primary curriculum will be piloted in early 2017, as well as the consultations and development of curricula for primary-aged (ages 7-12) Junior Rangers.







#### Left page:

YUS CO executive members Annie Ogate, Timmy Sowang, and Botty Kwisal and TKCP's Danny Samandingke, Stanley Gesang, and James Jio demonstrated the importance of the tree kangaroo in local culture during the 2016 International Tree Kangaroo Summit in Port Moresby. *Photo by Lisa Dabek*, TKCP. YUS CO's UNDP-GEF Small Grants Programme-funded project promotes the development of forest nurseries throughout YUS. *Photo by TKCP*. YUS Environment Day activities on June 5, 2016. *Photo by TKCP*. Right page:

YUS community members participate in an activity regarding gender dynamics. Photo by Karl Morrison.

A New Course's Karl Morrison speaks to community members during his gender assessment visit. *Photo by TKCP.* 

Karl Morrison gathers insights and perspectives from women in YUS. *Photo by TKCP*. TKCP aims to integrate gender considerations into the program's approach. *Photo by Karl Morrison*.

#### YUS CONSERVATION ORGANIZATION

The community-based YUS Conservation Organization (YUS CO) serves an essential role in managing conservation efforts in YUS, representing the customary landowners who have pledged land for the YUS CA and advocating on behalf of their communities. YUS CO advises and collaborates closely with TKCP in managing local-level activities in YUS to support the needs of its communities, wildlife and environment.

#### YUS CO Executive Leadership:

- President: Timmy Sowang
- Vice President: Nomis Simon
- Secretary: Sanangke Yape
- Vice Secretary: Samun Buku
- Treasurer: Botty Kwisal
- Vice Treasurer: Fifu Kuyong
- Scholarship Chair: Annie Ogate

To support the ongoing capacity development of the YUS CO, TKCP organized a week-long computer skills training for three YUS CO Executives, in addition to several TKCP field staff. The training was facilitated by Langa Training Center in Lae and included lessons on basic computer use. TKCP also led a refresher training for YUS CO regarding financial management policies and protocols to ensure compliance and accountability.

YUS CO continued to implement its UNDP GEF Small Grants Programme-funded project, Kutim na Plantim (Cut and Plant) community conservation initiative. The project aims to establish forest nurseries for locally important trees in order to reduce harvesting pressures on the protected area. In 2016 YUS CO conducted trainings in all five zones prioritized by communities for reforestation, focusing on the development and management of the nurseries. The nurseries aim to promote reforestation of trees for local construction, fuel wood, food production, soil conservation, livelihoods, and those of cultural and local significance.

For World Environment Day on June 5th, YUS CO organized community celebrations for the locally re-named YUS Environment Day. The celebrations focused on the theme of "Lukautim na Kamap Mao" (Take care of it and it will become more). Community and school groups performed drama skits, songs, and dances to mark the occasion, and YUS CO presented biology dictionaries to high-achieving primary school students from across the landscape. With support from its grant from the UNDP-GEF Small Grants Programme, YUS CO produced shirts and materials to promote the event and raise awareness of local conservation efforts. YUS CO hopes that, through engagement of youth, they will encourage future generations to "sleep with, move with, go around with, and grow up with the idea of conservation." The YUS Conservation Organization also played an important role in organizing the celebration for TKCP's 20th Anniversary, held in Weskokop village in September (see page 4).



#### A GENDER APPROACH TO CONSERVATION

With support from the Global Environment Facility through the United Nations Development Program, TKCP has engaged gender specialists Jamie Bechtel and Karl Morrison from Seattlebased nonprofit A New Course (www.anewcourse.org). A New Course focuses on empowering women and youth to address the interconnected problems of poverty and environmental degradation. Morrison visited YUS in June to conduct an assessment of needs and opportunities and to gain insight into the gender dynamics within YUS communities. During the three-week visit, Morrison, accompanied by TKCP's Mikal Nolan, met with key stakeholders, community leaders and members to better understand the key challenges facing men, women, and youth in YUS and explore opportunities to improve TKCP's impact by using approaches more sympathetic, empowering and inclusive of women. The TKCP team also



received training on gender awareness, discussing the relevance of gender considerations in relation to each of the program's strategy areas and staff responsibilities. Following the visit, A New Course provided TKCP with a report including recommendations for integrating gender considerations into the program's strategic objectives, activities and evaluation methods. Together with A New Course, TKCP will review the recommendations to guide the development of a comprehensive gender integration strategy and action plan for the program as a whole. As a result, TKCP will better ensure that women are appropriately represented and involved in decisions that affect their lives, including those relating to community-based conservation and development.



# **Operating TKCP**

Long-term sustainability of the YUS Landscape ultimately belongs to the local communities and the government of Papua New Guinea. To support this, TKCP builds local capacities for the leadership and management of conservation efforts. The program serves as a model for community-based conservation, with our approaches and lessons shared for the benefit of local institutions, partners and the practice of conservation.

# Learning and Sharing Our Work

2016 was a busy year for TKCP in our efforts to share our lessons with the global conservation community and learn from the experience of others. The team attended several conferences and events in Papua New Guinea and internationally, resulting in many new connections and ideas to inspire our work in YUS.

TKCP participated in the International Tree Kangaroo Summit, held for the first time in Papua New Guinea at the Port Moresby Nature Park in April. Representatives from PNG's Conservation and Environment Protection Authority (CEPA), Morobe Provincial Administration, local and international zoological institutions, and conservation organizations attended the Summit to discuss species conservation efforts both in the wild and in captivity. TKCP staff members Lisa Dabek, Mikal Nolan, Danny Samandingke, Daniel Solomon Okena, YUS Ranger James Jio, and lead tree kangaroo tracker Stanley Gesang joined the event to present the program's approach and its impact in YUS. YUS Conservation Organization (CO) representatives Timmy Sowang, Annie Ogate, and Botty Kwisal also attended to share their perspectives as customary landowners and the important role of tree kangaroos in YUS culture. TKCP staff and YUS CO members engaged in a traditional performance for participants to portray local culture and its close connection with tree kangaroos and the environment. With the support of a WPZ ZooBright Scholarship, Woodland Park Zoo Tree Kangaroo Lead Keeper Beth Carlyle-Askew traveled to PNG for the event to discuss tree kangaroo care, diets, captive breeding, and the important role of ex-situ efforts in species conservation. The Global Species Management Group (through WAZA) also met alongside the Summit to discuss a global approach to captive breeding and conservation. A fruitful discussion on potential future importation of captive-bred animals was held with PNG government representatives. TKCP is grateful to Michelle McGeorge, Brett Smith, and their staff and volunteers at the Port Moresby Nature Park for hosting an excellent summit.





In July, TKCP's Karau Kuna, Ben Sipa, Daniel Solomon Okena, Danny Samandingke, and Mikal Nolan attended the Society of Conservation Biology (SCB) – Oceania Conference in Brisbane, Australia. YUS CO President Timmy Sowang attended with the team, marking his first international conference. Kuna shared TKCP's participatory Land-use Planning approach as a panelist during the symposium session titled, "Getting the questions right: Reframing the process of how we formulate and approach big questions in Pacific Islands." The symposium was co-organized by TKCP, American Museum of Natural History, Wildlife Conservation Society, University of Queensland, and their local partners across the Pacific region. Prior to the conference all partners gathered to "tok stori," discussing their experiences and framing key research questions for Pacific Islands conservation biology that are relevant to Pacific peoples. The group set the guiding principles for discussion during the symposium:

- Science can strengthen local voice and action
- · Acknowledge who and where you are
- Assume you know nothing
- Sindaun pastaim, move behain, wok wantaim (Sit down first, then take action, work together)

Sipa, Samandingke, and Sowang also presented posters highlighting their respective initiatives including sustainable livelihoods, environmental education, and community leadership in the context of PNG's customary land tenure system. The conference was a valuable opportunity to learn from conservation biology experts and build relationships with other conservation programs throughout the Pacific Islands region.

Much of TKCP's leadership team also traveled to Honolulu,

Hawaii to attend the IUCN's World Conservation Congress in September. The major event brought together thousands of leaders and decision-makers from throughout the globe to discuss environmental conservation and explore innovative solutions to global challenges. Representatives from governments, civil society, academia, business, and indigenous groups participated in the event, resulting in a wide range of perspectives and approaches to the protection and sustainable management of the natural environment. During the Congress, TKCP Director Lisa Dabek participated in a panel discussion titled, "Local and Global Leaders' Dialogue on the UN Sustainable Development Goals." Mikal Nolan presented a case study, "YUS as a Living Landscape" as part of WPZ's workshop for the Living Landscapes Alliance, and Karau Kuna shared an e-poster highlighting the community-based Landuse Planning process in YUS. Prior to the Congress, Kuna and Danny Samandingke represented TKCP and YUS in a Gathering of Pacific Leaders hosted by the indigenous Hawaiian E Alu Pu Network. The gathering served to strengthen the kinship and collaboration among indigenous Pacific Islanders in grassroots environmental stewardship efforts.

To support the continued development of TKCP's "One Health" initiative to address the interconnected health needs of the people, wildlife, and environment in YUS, Mikal Nolan and TKCPs volunteer health team advisor Dr. Joan Castro participated in the 4th International One Health EcoHealth Congress in December. Held in Melbourne, Australia, the Congress focused on unique and innovative responses to global health challenges through cross-sectoral coordination. Nolan presented TKCP's experience with the Population-Health-Environment (PHE) approach in YUS

#### Clockwise from bottom left:

TKCP Assistant Director Mikal Nolan shares about the program at the International Tree Kangaroo Summit. *Photo by Lisa Dabek*, TKCP. From left: Daniel Solomon Okena, Annie Ogate, Lisa Dabek, James Jio, Mikal Nolan, and Stanley Gesang at the International Tree Kangaroo Summit in Port Moresby. *Photo by TKCP*. TKCP's Danny Samandingke and YUS CO President Timmy Sowang present posters at the Society for Conservation Biology – Oceania conference in Brisbane, Australia. *Photo by TKCP*. Conservation Strategies Manager Karau Kuna presents TKCP's land-use planning approach at the IUCN World Conservation Congress in Hawaii, USA. *Photo by Lisa Dabek*, TKCP.







#### Top to bottom:

TKCP's Danny Samandingke and Karau Kuna with Hawaiian indigenous representatives at the Gathering of Pacific Leaders, hosted by the E Alu Pu Network prior to the IUCN Congress. *Photo by TKCP*.

Danny Samandingke shares about YUS and PNG with a child during the E Alu Pu Network event. *Photo by TKCP*.

The TKCP team gathered in Lae in November to review progress in 2016 and plan for the next year. *Photo by Trevor Holbrook, TKCP.* 



STRATEGY FIVE

and provided an overview of the program's interest in applying a One Health approach. Nolan and Castro had the opportunity to learn from international colleagues and expand TKCP's network within the One Health community.

In November, PNG's Climate Change and Development Authority organized a training-of-trainers course focusing on the integration of climate change adaptation into the process of development planning in Papua New Guinea. Karau Kuna attended the training and received certification, equipping him with the knowledge and skills to apply climate change adaptation measures into the strategic planning process for YUS CA as well as its incorporation into ward-level Land-use Plans.

Throughout 2016 many of the TKCP team and YUS CO Executives participated in national and regional stakeholder meetings for the new national Protected Areas Bill, implementation of the Protected Area Policy, and process for assessing the effectiveness of protected areas in PNG. During each meeting TKCP took the opportunity to learn from colleagues and share lessons learned from managing the YUS Conservation Area.



TKCP Director Lisa Dabek was invited to the United Nations Development Program headquarters in New York, USA to share TKCP's community-

based approach to conservation and discuss its contribution toward many of the United Nations 2030 Sustainable Development Goals. The event coincided with the launch of the TKCP Case Study, published by the UNDP's Equator Initiative (see page 46).

# Professional and Organizational Development

TKCP's local non-governmental organization, TKCP-PNG, continues to assume greater responsibility for the management of the program in PNG. With ongoing support and guidance from TKCP Coordinator Trevor Holbrook and Woodland Park Zoo, TKCP-PNG now directly manages the administration and compliance of several grants including the UNDP-GEF Small Grants Programme, National Geographic Foundation for Science and Exploration - Asia, Whitley Fund for Nature, Zoological Society of London's Evolutionarily Distinct and Globally Endangered (EDGE) Fellowship grant and Morobe Provincial Administration.

With the support of Seattle-based Monitoring & Evaluation (M&E) Specialist Kathryn Owen, TKCP is developing a comprehensive program-wide M&E Plan to enhance TKCP's capacity for adaptive management. The plan provides staff and stakeholders with valuable information regarding the progress of program implementation and accomplishments, measures the impact of program activities, and enables the timely identification of opportunities and challenges for effective decision-making. The plan better enables TKCP to understand whether, and how, objectives in the YUS Landscape Plan are being met. Holbrook visited TKCP's Lae office in November 2016 to present the complete draft of the M&E plan and to solicit feedback from the team to support the development of relevant tools for data collection. The team affirmed the plan's framework including key program outcomes, and provided recommendations for the selection of indicators and data collection tools and methods. The plan will be implemented and tested starting in 2017 to enhance TKCP's transparency and management.

#### TKCP-PNG BOARD OF DIRECTORS

TKCP-PNG thanks its Board of Directors for their guidance throughout 2016:

- Dr. Lisa Dabek, Woodland Park Zoo, Board Chair
- Dr. Bruce Beehler, Smithsonian Institution
- Mr. Francis Hurahura, Conservation Specialist, formerly of The Nature Conservancy PNG
- Mr. Zachary Wells, Conservation International
- Ms. Mikal Nolan, ex officio, TKCP-PNG



TKCP's Namo Yaoro and Lisa Dabek. Photo by Emily Transue.

# **Publications and Media**

Together with the PNG government and funded by a five-year Global Environment Facility (GEF) grant through the United Nations Development Programme (UNDP), TKCP and the YUS Conservation Area are serving as a model for community-based conservation in Papua New Guinea. To highlight these partnerships and to share the program's approaches to conservation in YUS, TKCP was highlighted in several publications and articles in 2016:

#### **UNDP Equator Initiative Case Study**

In 2014, TKCP was awarded the prestigious UNDP Equator Prize. As the Equator Initiative seeks to recognize and advance local sustainable development solutions for people, nature and resilient communities, UNDP published a Case Study of TKCP's work in Papua New Guinea to share its approach throughout its global network.





#### **UNDP-GEF** Anniversary Publication: Voices of Impact

To recognize the 25-year anniversary of the partnership between UNDP and GEF, "Voices of Impact: Speaking for the Global Commons" features stories demonstrating the organization's work to protect the health of the planet while bringing about improvements in people's lives. In the publication, YUS landowner Nomis Simon shares the impacts of TKCP's efforts to protect coastal and marine habitats while supporting local livelihoods through value-added, conservation-friendly cocoa production.

## Ridge-to-reef living landscapes

MODEL FOR COMMUNITY-BASED CONSERVATION IN PAPILA NEW GUINEA

FE ARE A COASTAL COMMUNITY and nave always relied on the sea for food and income – we catch fish, and harvest sea and trochus shells. When I was a young boy 

> Also, th about the tree kar

patrol the reefs and coastal areas so watch on the situation and respond come up. We look for the species that rare and endangered species that ne tion and respond to the test of test o

of fish and

We knew about the Conserva amme that the Tree Kangaroo pr rmers in the inland villages of YUS Since that project started, peopl

#### Tumbuna TV: YUS: A Model for Conservation

In May, the television network Tumbuna TV aired the segment, "YUS: A Model for Conservation." Mikal Nolan shared successes from YUS and discussed opportunities and challenges for Papua New Guinea.



#### The National News Articles

TKCP's role as a national model for conservation was featured in two articles in PNG's The National newspaper, highlighting the importance of local leadership and government participation in managing the YUS Conservation Area.

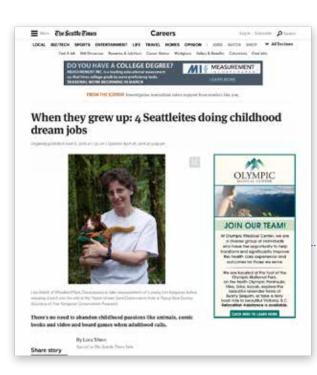
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## TKCP Staff in the Media

Without a doubt, working with the Tree Kangaroo Conservation Program and the people of YUS is a unique opportunity. TKCP's Director Lisa Dabek and Assistant Director Mikal Nolan both shared about their work through media interviews. The Seattle Times highlighted Lisa's experience turning a childhood dream into a lifelong career, and Air Niugini's Paradise in-flight magazine featured Mikal's role overseeing the program in Papua New Guinea.

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Lisa was also nominated for the prestigious 2016 Indianapolis Prize, which aims to bring attention to the conservation cause and celebrate the people who have made extraordinary contributions to the sustainability of wildlife. Lisa and her fellow nominees represent a highly distinguished group of wildlife conservation experts protecting species and creating successful conservation methods around the globe.

# STRATEGY FIVE

# TKCP's 20th Anniversary

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#### UNDP Papua New Guinea Live Radio Interview and Blog

TKCP was honored to have United Nations Resident Coordinator and UNDP Resident Representative Roy Trivedy in attendance during its 20th Anniversary celebration in YUS. During the celebration, Mr. Trivedy organized a live radio interview with 90.7 NBC News PNG, broadcasting the program's successes across Papua New Guinea. Following his visit, Mr. Trivedy reflected on the experience and his impressions through a blog post, noting his appreciation for TKCP's investment in local leadership capacities. WOP is Paper New Outries

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Conservation Program

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Kangaroo Conservation Program

IN Pread in Papers New Gunnet, Ray Directly reflects on his vasit to Tree

Kangaroo Conservation Program to celebrate its 20 year anniversary of seek on
protecting the unique environment of PNG and empowering people

One of nice things about my job is that 1 get to visit many interesting places and meet intrresting people. So I was delighted to receive an invitation to celebrate the 2och anniversary of the <u>True Kangaroa</u> Conservation Program (TKG2) in the Huston Peninsula on the border between Mading Province and Morobe Province of PNG.



#### Woodland Park Zoo Zoo in the World signs

Woodland Park Zoo shared the story of TKCP and its impact over the course of 20 years with its 1.3 million visitors this year, including through its Zoo in the World signs posted throughout the zoo. The signs introduced more of the Seattle community to the program and encouraged visitors to try Caffe Vita's YUS PNG coffee.



#### WE'RE CELEBRATING 20 YEARS OF PROTECTING TREE KANGAROOS!

When Lisa Dabek traveled in 1996 from our zoo to Papua New Guinea to study tree kangaroos, she started something BIG! Today, more than 50 willages work with the Tree Kangaroo Conservation Program (TKCP) to protect forests for tree kangaroos and other endangered species.



Helping people, too! TKCP also helps the local people who protect tree kagmoos. One example: YUS Conservation Coffee, grown in Papua New Guinea and roasted here by Caffee Vira. When you buy YUS Coffee. You help wildlife and people!

VISIT A TREE KANGAROO

LEARN THE WHOLE STORY: at zoo.org/conservation/TKCP and treekangaroo.org

WOODLAND PARK ZOO saves animals and their habitats through conservation leadership and engaging experiences inspiring people to learn, care and act

#### Wethenday, December 28, 2016

#### Tree Kangaroo Conservation Program: 20 Years of Awesome

Posted by "Assa Worker with Lisa Dates PhD, TWOP Director and WPZ Sense Conservation Scientist Video and photos by Ryan Hawk

As we reflect on 2018, one of our proudest indestones is a conservation program at the twent of the zoo's mission to protect wild trangs and wild places. The Time Kangeroo Conservation Program elebrated to 20<sup>17</sup> anniversary tha year. Since 15 debut in 1990, the Papua New Guined-Based Tries langaroo Conservation Program (TNCP) has transformed from a humble. Woodland Pari Zoo upported field: conservator project into one of the work's leading community-based conservation



er, high in the cloud forests of Papus New Guines, the partners of this program came to revenue their hard work, constrainily pertinentities and commitment to conservation will deterration called a single-sing, heighteen that all ever the "topic-Univer-Com area come at thesispico village to reflect and ometinate their achievement with dancing, speeches, envision with a statige that have exercised the Pacific for hair deceders



#### VISIT US AT ZOO.ORG



Search



#### Woodland Park Zoo Blog

The WPZ blog invited followers to join in the celebration of TKCP's 20th Anniversary, sharing beautiful photos and video captured by videographer Ryan Hawk during the YUS community sing-sing celebrations in September. The blog highlights the long-term partnership between WPZ and the YUS community.

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#### MyZoo Spring 2016 Feature Article

WPZ shared TKCP's history and accomplishments over the past 20 years with zoo members through an interview with TKCP Founder and Director Lisa Dabek. We are honored to celebrate our accomplishments together with MYZOO WPZ members and visitors, and hope to inspire Seattle's future conservationists.

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SPRING 2016 **TREE KANGAROO CONSERVATION PROGRAM:** 20 YEARS OF PROTECTINGTHE CLOUD FOREST

A AND THE

It began as a small field conservation project supported by Seattle's Woodland Park Zoo. Now, 20 years later, the Tree Kangaroo Conservation Program has become a world-renowned leader in nunity-based conservation with global support and thousands of landowners who have pledged to protect the remote cloud forests of Papua New Guinea and its incredible animals.

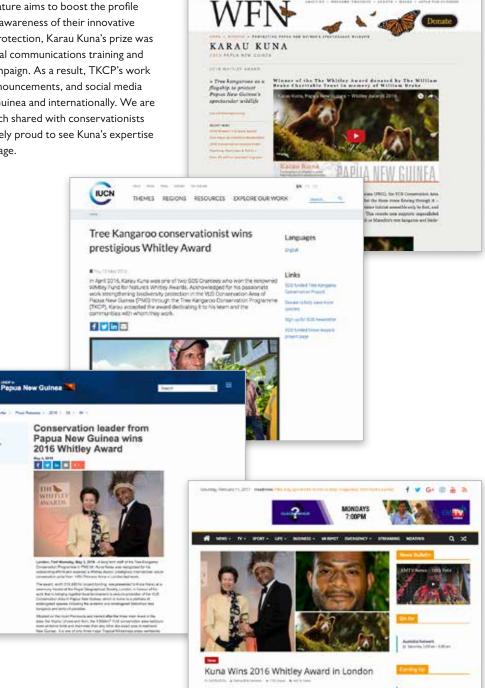
The Tree Kangaroo Conservation Program (TKCP), Woodland Park Zoo's international conservation program focused on the endangered Matschie's tree kangaroo and its habitat in Papua New Guinea (PNG), was created in 1996 by Lisa Dabek, Woodland Park Zoo's r conservation scientist. Dabek, who has a PhD in animal beha ior and conservati , studies the Matschie's tree kangaroo and wo in partnership with the local people. orks with the TKCP team to p

This year, the Tree Kangaroo Conservation F This year, the Tree Kangaroo Conservation Program is celebrating its 20th annivers honor of this milestone, we sat down with Dabek, the program's founder and direct that it takes to protect this dive



# **TKCP's Karau Kuna wins** 2016 Whitley Award

As the Whitley Fund for Nature aims to boost the profile of its winners and increase awareness of their innovative solutions for biodiversity protection, Karau Kuna's prize was accompanied by professional communications training and a major public relations campaign. As a result, TKCP's work was featured in articles, announcements, and social media posts both in Papua New Guinea and internationally. We are thrilled to have our approach shared with conservationists internationally, and extremely proud to see Kuna's expertise recognized on the global stage.



An international native opnionnation prios from Her Royal Highwais Prinzees Anne in Condon, the Writey Award, was presented to Kuna Kanau, a long-term staff of the Tree Kanganos Conservation Programme in PMC.

The average preventiant to Kamar as propert functing at the Hoyal Geographical Society in Landon, work \$1,000 events for his semannation work in the Haun Persinals at Workbe

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# news **PNG park** manager awarded

# Tree

kangaroos summit a success

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# Partnerships and Friends

The Tree Kangaroo Conservation Program is extremely fortunate to have a close network of long-term supporters from around the world. Our extended "TKCP family" generously contributes their time, expertise, and resources in support of the YUS community, environment and wildlife. Among these supporters, zoos and aquariums have been some of TKCP's most ardent champions since the program started 20 years ago. We are incredibly grateful to zoos and aquariums around the globe that value tree kangaroos and community-based conservation.



In recognition of his many years of support and passion for TKCP, we would like to give special thanks to Sedgwick County Zoo

Executive Director Mark Reed. Under Mark's leadership Sedgwick County Zoo has provided steadfast support for TKCP for the last 20 years, totaling more than \$34,000! Mark retired this year after a distinguished 38-year career with the zoo in Wichita, Kansas. As a retirement gift, the zoo's Mammal Department made a generous contribution to the conservation program of Mark's choice; he chose TKCP. Thank you Mark, and best wishes on your next adventure! On behalf of YUS we hope you stay in touch.



"I have always been pleased that we have shared Matschie's tree kangaroos and their story with our guests at Sedgwick County Zoo since 1980. I originally started supporting the AZA TK-SSP because I felt it was important that the Zoo support field conservation programs of the major SSPs we participate in. It was Lisa Dabek's commitment to making TKCP a comprehensive program that drove me to find extra funds every year. The establishment of the YUS Conservation Area and the participation of the community make it one of the premier success programs within the conservation community. We are all proud of the support SCZ has been able to offer and I look forward to what I know will be continued success of the Tree Kangaroo Conservation Program. I know the Sedgwick County Zoo will continue to be a proud partner." Mark Reed, Sedgwick County Zoo



Like TKCP, Zoos Victoria in Melbourne, Australia promotes a holistic

approach to conservation which benefits both wildlife and people. Since 2014, TKCP's partnership with Zoos Victoria has focused on the YUS Conservation Coffee initiative and its role in encouraging community conservation action. To strengthen our collaboration and to build our relationship with Melbourne-based Jasper Coffee Roaster, Zoos Victoria's Conservation Partnership Manager Chris Banks generously hosted TKCP team members Mikal Nolan, Ben Sipa and Trevor Holbrook in December. Our team was highly impressed with Zoos Victoria's conservation campaigns and advocacy efforts, and honored to have TKCP's story featured through their exhibits.





Retired Sedgwick County Zoo Executive Director Mark Reed with Jucque, a 3-year-old female Matschie's tree kangaroo. Photo by SCZ.

From left: Trevor Holbrook, Wells Trenfield, Ben Sipa, Scott Bennett, Mikal Nolan, and Chris Banks at the Jasper Coffee roastery in Melbourne, Australia. Photo by TKCP



We were delighted to host Mikal, Ben and Trevor, and have the opportunity for them to meet Wells and his team at Jasper Coffee. Their time in Melbourne also allowed us to discuss the reports of increased wildlife sightings close to villages and within the coffee gardens, and the villagers' enthusiasm for capturing that information. These are exciting developments that highlight the biological and social importance of our highly valued partnership with TKCP.

Chris Banks, Zoos Victoria

This program is a great example of how Woodland Park Zoo, by long-term financial support and by providing technical expertise, has not only helped save the endangered tree kangaroo, but has also helped build a community structure that will allow them to learn and adapt and build a sustainable world into the future.

Fred Koontz, Woodland Park Zoo



#### INTERNATIONAL PARTNERSHIPS FOR THE PROTECTION OF TREE KANGAROOS

TKCP originated as a field conservation program under the Association of Zoos and Aquariums Tree Kangaroo Species Survival Plan (AZA TK-SSP), which was established in 1991 through the leadership of AZA TK-SSP Coordinator Judie Steenberg at Woodland Park Zoo. Species Survival Plan programs focus on animals in danger of going extinct in the wild, using captive breeding as one approach to help the species survive and to link AZA institutions to field conservation work. We are grateful to current AZA TK-SSP leaders Jacque Blessington, Kathy Russell, Deanna DeBo and the entire AZA TK-SSP membership.

TKCP is supported by zoological institutions throughout the globe which are working together for the conservation of tree kangaroos. Through the World Association of Zoos and Aquariums (WAZA) and its affiliate zoological associations, the international tree kangaroo partnership network promotes greater integration and a more holistic approach to protecting tree kangaroo species. TKCP receives support from WAZA-affiliated institutions in North America, Europe, Asia and Australia.





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Zoos Victoria's Chris Banks (right) with TKCP's Ben Sipa and Trevor Holbrook at Healesville Sanctuary. Courtesy of Trevor Holbrook, TKCP. TKCP's Lisa Dabek and Danny Samandingke with Woodland Park Zoo's Vice President of Field Conservation Fred Koontz at TKCP's 20th Anniversary celebration in YUS. Photo by TKCP.

# Support

TKCP depends on a global network of people and organizations to help us accomplish our work in YUS. Many of our donors are long-term partners and friends, and we sincerely thank you for your enduring support. Together, we have achieved a great deal of success over the years. We wish to thank our donors throughout the years and thank the following friends of TKCP for their financial and in-kind support in 2016.

#### \$100,000 and above

Global Environment Facility via UNDP

#### \$50,000 - \$99,999

Rainforest Trust The Vibrant Village Foundation Whitley Fund for Nature

#### \$10,000 - \$49,999

Anonymous

Merrick and Lorraine Darley

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Taronga Conservation Society Australia

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Zoos Victoria

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Detroit Zoological Society

Ryan and Heather Hawk

Rob and Marti Liddell

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Santa Fe College Foundation, Inc.

Sedgwick County Zoo Toronto Zoo

**Emily Transue** 

ZooParc de Beauval

#### Up to \$999

Albuquerque BioPark

Harriet Allen

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Sarah Brooks, in honor of Blair Brooks and Nancy Philips

Robert and Joan Cullen

Yvette and D Gardner Dunn

**Drew Eisenberg-Holmes** Janice and William Fischel

Cat Gould

The Hoffmann Family

Catherine Kimble in honor of Mark Reed's retirement

In memory of F. Thomas Kinzer

William and Stephanie Knobeloch

Abigail Knobeloch and Sierra Ford

Michael and Jill Nolan Phyllis Randall

Sara Reagan

Maddie and Jesse Scott, in honor of Candis Malcolm

Yus Local Level Government

















## The YUS Conservation Endowment

TKCP and WPZ are proud to have established the YUS Conservation Endowment with Conservation International, which provides annual funding support for the management and protection of YUS CA in perpetuity. TKCP is grateful to all of our supporters who have helped us invest over \$2 million for the creation of the YUS Conservation Endowment. We thank the WPZ Board of Directors for managing the endowment. The investment continues to grow, and since 2013 has partially supported TKCP's annual operating expenses in Papua New Guinea!

#### \$100,000 and above

Anonymous Conservation International Estate of Lorene E. Currier

#### \$50,000 - \$99,999

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\* Deceased



# Thanks

The Tree Kangaroo Conservation Program would like to give thanks to all of our partners, colleagues, supporters, and friends who have contributed to the success of the Tree Kangaroo Conservation Program over the course of two decades. Your collaboration and support makes a tremendous difference for the wildlife, people, and environment of YUS and PNG.

TKCP is the signature field conservation program at Woodland Park Zoo, and relies on the contributions of many departments and colleagues within the zoo. We express our gratitude to the following departments at WPZ:

Woodland Park Zoo Board of Directors
Woodland Park Zoo's President and CEO Alejandro Grajal
Woodland Park Zoo's Field Conservation Department
Woodland Park Zoo Volunteers
Woodland Park Zoo's Finance Department
Woodland Park Zoo's Development Department

Woodland Park Zoo's Human Resources Department

Woodland Park Zoo's Communications Department and Public Affairs

Woodland Park Zoo's Creative Services Department

Woodland Park Zoo's Animal Management Department

Woodland Park Zoo's Animal Health Department Woodland Park Zoo's Education Department

Woodland Park Zoo Docents and the Tree Kangaroo Conservation Cart Volunteers

Woodland Park Zoo's Horticulture Department

Woodland Park Zoo's Guest Services and Events Departments

Woodland Park Zoo's Security Department

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Kundu drum played during a sing-sing performance. *Photo by Ryan Hawk*. Attendees gather under umbrellas during a rainstorm at TKCP's 20th Anniversary celebration. *Photo by Ryan Hawk*.

# TKCP also appreciates the support of our partners and friends in Papua New Guinea and across the globe. We extend a special thanks to:

PNG Conservation and Environment Protection Authority with special thanks to Minister of Environment the Honorable John Pundari, Kumaras Kay Kalim, John Michael, Benside Thomas, Barnabus Wilmot, James Sabi, and Madeline Lahari

Honorable Kasiga Kelly Naru, Governor of Morobe Province

Honorable Member for Kabwum District, Mr. Bob Dadae, Kabwum District Administrator Mr. David Kitenge, and Kabwum District Health Manager Mr. Boning Goniong

Morobe Provincial Government including Mr. Taikone Gwakoro, Mr. Robin Kiki, Mr. Keith Jiram, Mr. Micah Yawing

Yus Local Level Government including Yus LLG President Honorable Epemu Kiwenu, the Councillors, Magistrates, and Manager Mr. Fidel Yapenare

Wasu Local Level Government including Wasu LLG President, Mr. Petrus Yasing, the Councillors, and Magistrates

Simon Simboki, Extension Officer with Wasu LLG

YUS Conservation Organization

Weskokop Community for hosting the YUS CO General meeting, CAMC, TKCP Staff meeting, and the 20th Anniversary Celebration

Yawan community for hosting the TKCP staff meeting and YUS Ranger meeting

YUS Teachers, Headmasters and School Board

YUS Community Health Workers and Village Birth Attendants

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MPOWERED for the donation of Luci Lights

Australian AID's Pacific Horticultural and

Australian AID's Pacific Horticultural and Agricultural Market Access Program

Original Beans

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Ellen Dierenfeld

AZA Marsupial and Monotreme Taxon Advisory Group

TKCP Health Team including Drs. Rob and Marti Liddell, Dr. Blair Brooks, Dr. Nancy Philips, Harriet Allen, Dr. Darin Collins, Dr. Emily Transue, Dr. Joan Castro, and Dr. Susan Barkan

Ryan Hawk

Dr. Fred Koontz

Bobbi Miller

Trish Watson

Kelly Hampson

Eli Weiss

Dana Keeler

Valerie Krueger

Kelly Helmick

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David Gillison

Robert Plotnick and Gay Jensen

Seymour and Carol Sarnoff

WPZ's tree kangaroo team including Deanna DeBo, Beth Carlyle-Askew and Wendy Gardner

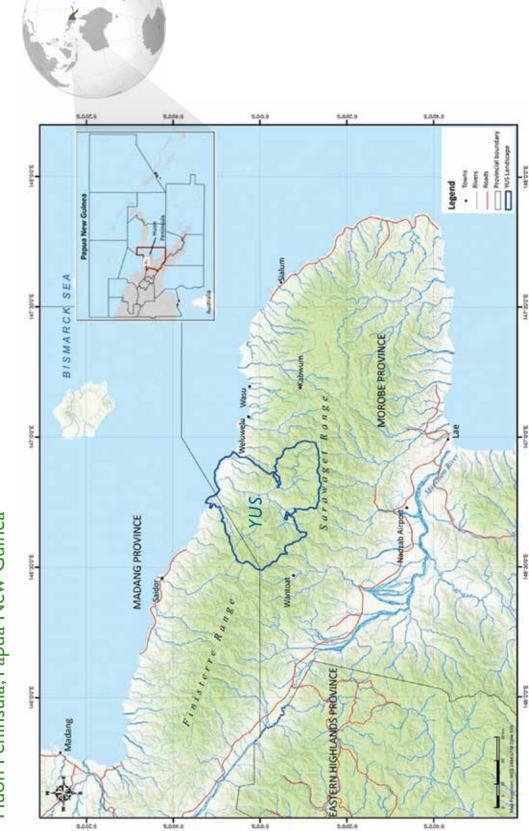
TKCP-PNG Board of Directors Dr. Lisa Dabek (WPZ), Dr. Bruce Beehler (Smithsonian Institution); Mr. Francis Hurahura (formerly with The Nature Conservancy PNG); Mr. Zachary Wells (CI); and Ms. Mikal Nolan (TKCP-PNG, ex officio)

Henrietta Philips, TKCP archivist

Karau Kuna's Mother, part of TKCP's extended family who passed away in 2016

All of the YUS communities, mamas, carriers, and assistants who support and make TKCP's work possible while in the field

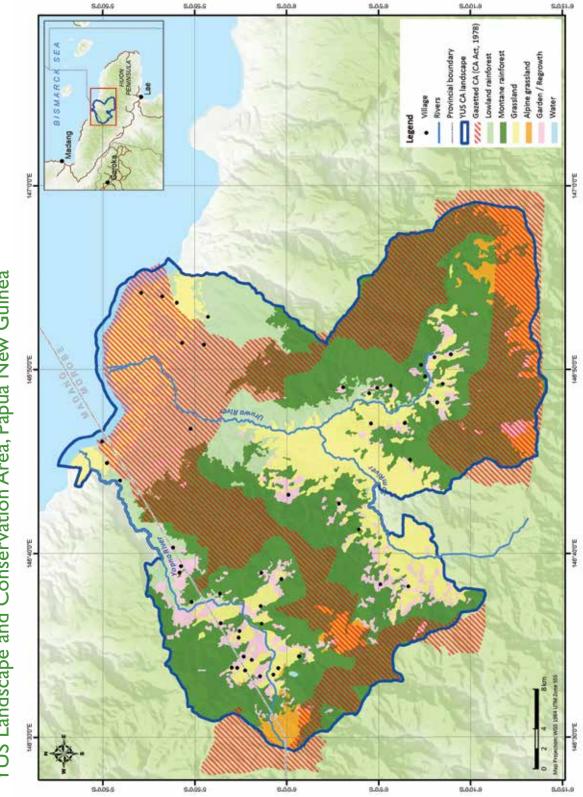
Most importantly, we would like to thank the people of YUS for their steadfast dedication as stewards of their environment, and for their gracious hospitality while we are visiting their villages.



Huon Peninsula, Papua New Guinea

Map by Karau Kuna, TKCP





YUS Landscape and Conservation Area, Papua New Guinea







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