

# The Tree Kangaroo Conservation Program - community-based conservation on the Huon Peninsula, Papua New Guinea

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## SUMMARY

Following a community-based conservation programme started in 1996, with the endangered Matschie's tree kangaroo *Dendrolagus matschiei* as the project's flagship species, a joint proposal for the region's first protected area, comprising over 60,000 ha, was submitted to the regional government and approved in 2006.

## BACKGROUND

The Tree Kangaroo Conservation Program (TKCP), based at Woodland Park Zoo in Seattle, USA, was started in 1996 by director Dr. Lisa Dabek. The project initially commenced as a study to determine the conservation status of the endangered Matschie's tree kangaroo *Dendrolagus matschiei* on the Huon Peninsula, in the YUS Local Level Government area of Morobe Province, Papua New Guinea. (YUS is an acronym for the Yupno, Urawa and Som Rivers, the main drainages in the region). However, it expanded into a much broader community-based conservation initiative.

Habitat protection was identified as the primary TKCP objective, with the tree kangaroo as an ideal flagship species. The TKCP developed a community-based strategy with the ultimate goal to formally establish a Conservation Area in YUS of more than 60,000 ha (150,000 acres) in extent.

## ACTION

**Study area:** The YUS Local Level Government on the Huon Peninsula (Papua New Guinea), comprises 37 villages in 13 Wards, and has a human population of 9,360 (2000 census). It includes portions of the Finisterre and the Saruwaged Mountain ranges, with altitudes ranging from sea level to over 4,000 m (13,000 feet). YUS is a remote area with no road access, consisting of approximately 1,500 square km of forests, villages, grasslands and agricultural areas.

There are still large areas of un-logged forest, some of which are classified as pristine.

### **Community based conservation program:**

Given that local indigenous landowners own and control over 95% of the land in Papua New Guinea, the TKCP recognized that long-term habitat protection required conservation awareness among the landowners. The TKCP developed a community-based strategy in which landowners participate in all TKCP fieldwork, including scientific research, land mapping, community education and conservation outreach activities. This investment in communities has fostered trust in the TKCP and its goals, and has been vital to the development of local conservation awareness and habitat protection.

## CONSEQUENCES

The main accomplishments achieved to date by TKCP are summarised below.

**Habitat protection:** When TKCP began work on the Huon Peninsula in 1996, there were no protected areas in the region. Over ten years, TKCP has collaborated with landowners from more than 26 clans to propose the establishment of the region's first protected land area, now comprising over 150,000 acres. In 2005, the TKCP and landowners from these 26 clans submitted a proposal to the Morobe Provincial Government for the establishment of the country's first official, government-sanctioned Conservation Area under the Conservation Areas Act (1998). The proposal was approved at the Provincial Government

level in February 2006. The formal National declaration of the Conservation Area is hoped for in late 2006.

**Mapping:** The TKCP has produced maps delineating the outer boundaries of the planned Conservation Area and has trained local landowners to use Global Positioning System (GPS) units, thus providing them with tools and skills needed to manage the Conservation Area for the long term. Data gathered by local landowners, including coordinates for boundaries and for land features identified in reference to boundaries, have been assembled by the TKCP into a comprehensive GIS database for the production of maps with multiple uses and wide application. The maps integrate landowners' knowledge with data gathered through GIS technology. The GIS database is continually updated as local landowners are trained and gather new data.

**Education:** The TKCP is developing local capacity through its Education Project, which focuses on improving basic and conservation education within chronically under-funded YUS village schools. In addition to providing conservation curricula and teacher training, the TKCP is sponsoring students at a PNG teachers college to alleviate the teacher shortage in YUS village schools. The communities have demonstrated their interest and commitment to improving education by forming a YUS Education Committee. This is a landmark in creating a sustainable education structure within the local school system.

**Tree kangaroo research:** The TKCP has documented new ecological information about the endangered Matschie's tree kangaroo, a species culturally important to the indigenous people of YUS. In collaboration with PNG university students and indigenous landowners trained as research assistants, the TKCP has produced the first population density estimate for a tree kangaroo species in Papua New Guinea, classified tree kangaroo habitat using GIS, and is determining their home ranges and movements through radio-telemetry. These studies are generating local interest in protecting tree kangaroos and other native wildlife, and will hopefully ensure that the established Conservation Area includes enough suitable habitat.

**Documentation of biodiversity:** The TKCP conducted the first biodiversity survey of this region on the Huon Peninsula. During the survey, conducted in two parts in 2001 and 2003, the TKCP documented a total of 41 mammal species, 190 bird species, 30 species of reptile, and 26 species of frog. Six new frog and two new lizard species were discovered. Collaborators for the two-year biodiversity survey project included scientists from the USA, Australia and PNG.

**Goals:** The ultimate goal of the TKCP is to formally establish a Conservation Area in YUS comprising more than 60,000 ha currently set aside for conservation by local YUS landowners. To be called the "YUS Conservation Area," its establishment will mark the first time the PNG Conservation Areas Act (originally) of 1978 being put into practice and will provide a model for establishing additional Conservation Areas in PNG. TKCP is guiding and facilitating this process, which will also include the creation of a local community organization to manage the Conservation Area. Long term funding for the organization and management of the protected area will be through a conservation endowment, which will be developed and set up by the TKCP and Conservation International (Washington DC) over the next few years. Through collaboration with in-country organizations like the University of PNG, the PNG University of Technology, Conservation International's Melanesia Centre for Biodiversity Conservation, and the Research and Conservation Foundation of PNG, the TKCP is establishing a network of local support and resources for the future community organization. It is also ensuring that the organization staff will be well-prepared for the long-term management of the YUS Conservation Area.



For further TKCP information see: [www.communityconservation.org/png.htm](http://www.communityconservation.org/png.htm)

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