

## COMMUNITY-BASED CONSERVATION IN THE WESTERN PACIFIC



Culture and conservation can clash when endangered sea turtles are harvested as part of ancient and deeply held traditions in the western Pacific. While leatherback meat is not regularly consumed, eggs are a traditional source of protein and income, often to generate school fees for children. Through education and community involvement, however, local villagers can sustainably manage turtle resources.

The people of the Vogelkop Coast, Birds Head Peninsula of Papua, Indonesia, and villagers of the Huon Coast of Papua New Guinea, are now actively involved in community-based projects to conserve endangered leatherback turtles.

Today, villagers recognize the global impact of local actions. They have reduced egg harvest and are employed as rangers, who collect valuable data that is expanding our understanding of the nesting dynamics of the western Pacific leatherback.

Reconciling traditional harvest practices with sustainable use remains an overarching goal. But thanks to leatherbacks, villagers of the western Pacific have joined the international arena of sea turtle conservation and are motivated to preserve turtles for future generations.



## WPRFMC SUPPORTED TURTLE PROJECTS

### NESTING BEACHES

- **Vogelkop Coast, Papua, Indonesia** – Warmon beach leatherback turtle conservation in collaboration with the Jamursba Medi project, WWF and NOAA Fisheries.
- **Huon Coast, Papua New Guinea** – Leatherback turtle conservation at four key nesting beaches coordinated through the Kamiali Integrated Conservation Development Group, the Village Development Trust and PNG Department of Environment & Conservation.
- **Japan** – Beach management activities at five loggerhead turtle nesting sites in partnership with the Sea Turtle Association of Japan.

### FORAGING HABITATS

- **Baja California, Mexico** – ProCaguama, loggerhead turtle conservation through gillnet fishery management in association with ProPeninsula and Grupo Tortuguero.
- **Kei Islands, Western Papua, Indonesia** – Leatherback turtle conservation in collaboration with SIRaN and WWF.
- **Latin America** – Longline fishery mitigation and circle hook technology transfer in partnership with the Inter-American Tropical Tuna Commission, WWF and NOAA Fisheries.



Kamiali, Papua New Guinea



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THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL is one of eight Councils in the United States established by the Magnuson Fishery Conservation and Management Act of 1976. This Council oversees the nation's fisheries in U.S. Federal waters of the Pacific Islands Region. Management objectives are to achieve optimum yield while operating best practice and environmentally responsible fisheries.

IN COLLABORATION WITH:



# Nesting Beach Conservation:

## A Community-Based Approach for Sea Turtle Recovery in the Pacific



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Leatherback sea turtle nesting.

## Introduction

Sea turtles are long-lived species that migrate vast distances from nesting beaches, through the high seas to foraging habitats. Consequently a collaborative approach among nations is essential for conservation. Six species of sea turtle occur in the Pacific Ocean; all are endangered or threatened including leatherbacks (*Dermodochelys coriacea*) and loggerheads (*Caretta caretta*).

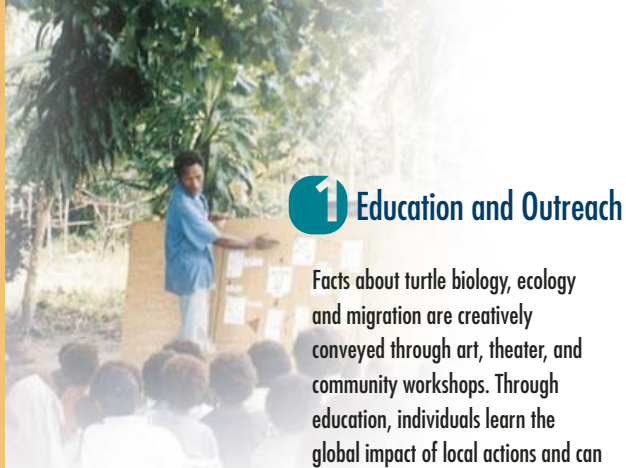
The Western Pacific Regional Fishery Management Council (WPRFMC), the U.S. federal authority for fisheries of the Pacific Islands Region, recognizes that sea turtle management must include both fishery mitigation and nesting beach conservation.

Today, the WPRFMC, along with its partners, support a number of community-based nesting beach projects to reduce poaching, predation and environmental impacts to increase hatchling production and bolster population recovery.

Sea turtle laying a clutch (nest) of eggs.



Leatherback sea turtle hatchlings leaving the nest.



Community consultations provide essential information for sea turtle conservation.

### 1 Education and Outreach

Facts about turtle biology, ecology and migration are creatively conveyed through art, theater, and community workshops. Through education, individuals learn the global impact of local actions and can make responsible choices about marine resource utilization.

Raising awareness through the arts.



Community-based rangers learning how to collect nesting beach data in PNG.



## Elements of a Nesting Beach Project

### 2 Monitoring and Research

Through community-based monitoring and research, local people become actively engaged in conservation. Beach monitoring also provides protection from poaching and predation due to the nightly presence of personnel.

Research activities include tagging, measuring, hatching success studies and beach surveys. Long-term monitoring provides valuable information such as population size, recruitment, annual survival rates, reproductive success, and population trends over time.

Measuring a loggerhead turtle in Japan.



Community rangers recording data.

Mark/recapture studies: scanning a leatherback for a PIT tag.



### 3 Nesting Beach Management



Watering reduces high nest temperatures and increases hatching success rates in Japan.

Beach management activities protect eggs and maximize hatchling production by controlling human related threats associated with beach use, and reducing environmental impacts from beach erosion, tidal inundation, high temperatures or predation.

To maintain a healthy nesting population, at least 70% of nests should be safeguarded. The best conservation strategy is to leave eggs *in-situ* (in place) and reduce threats, eliminate vehicular or foot traffic, or place barriers (e.g., fences/grates) to protect nests from predators.

In some situations, however, "doomed" nests must be relocated to safer locations. With proper handling, management intervention can increase hatchling survival and boost recovery by adding turtles to the population that would have otherwise been lost.

Simple barriers, such as this grid, reduces dog predation in PNG.



*Favorable nesting habitat is critical for sea turtle reproduction and is central to the survival of sea turtle populations.*