

October 1, 2006



## Huon Coast Leatherback Turtle Project

### The 2006-2007 Leatherback Field Season Starts!!!

The 2006-2007 leatherback nesting season is here! This is a project that occurs at numerous nesting beaches along the Huon Coast, Morobe Province of PNG. The primary objectives are to promote turtle monitoring and protection activities for population recovery.

Last year we had a somewhat bumpy season. Things did not go as smoothly as we would have liked. However, it was a learning experience for everyone and we all have a better understanding of the beach impacts to the nesting population (dog predation, harvest and erosion), as well as how to best coordinate the project.

This year, we are happy and lucky to have a full time project manager to lead and direct the monitoring and recovery activities for the entire season. Our project manager is Barry Krueger. He comes from Australia with a strong background in research and management of leatherback turtles. He is excited to be working with us and with his assistance we hope to have a productive and successful field season!

This year, the project will once again include the communities of Labu Tale, Busama, Lababia and Paiawa. VDT has graciously donated the remainder of their contract from last year back to the project. Due to this generous contribution, a fifth community will be brought into the project.



Bamboo grids are our greatest achievement to save leatherbacks!!!



The community of Kobo will join our efforts to preserve turtles and hatchlings that occur along their beaches.

Our greatest success last year was the development and use of bamboo grids placed over nests to save hatchlings. Remember, no hatchlings = no adults. To save turtles, one must ensure that hatchlings reach the water. Tagging turtles and counting nests DOES NOT save turtles. Protecting nests from predation and reducing harvest DOES save turtles! For long-term survival of leatherbacks, nests must hatch and hatchlings must enter the water.

The Council and the Marine Research Foundation once again look forward to helping the Huon coast communities realize their goals for the preservation of leatherback turtles in PNG!

#### Important Events

- Beach monitor training week September 15-23, 2006.
- Beach monitoring starts October 1, 2006
- Nest protection devices (bamboo grids) built and deployed
- First hatchlings emerge December and January
- January–April 2007 intensive nest protect and hatchling studies implemented
- Field season ends April 2007



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## Results from the 2005-2006 Field Season



The Huon coast leatherback turtle project of PNG is a research, monitoring and conservation initiative supported by the Western Pacific Regional Fishery Management Council. During the 2005-2006 field season, four sites were involved: Labu Tale, Buli (Busama), Kamiali (Lababia) and Paiawa,

### Turtle Monitoring

In total, 114 turtles nested within the monitoring areas and 65 new turtles were tagged. Long-term trends at Kamiali indicate that the population is not growing (likely the result of continued egg collection). However, the good news is no MAJOR declines, which indicates that efforts might be having some impact.

### Nest Counts and Hatchlings

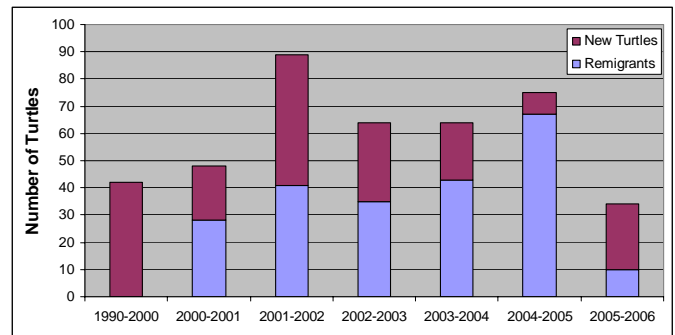
Approximately 6 km of nesting beach was monitored by the four communities. At Kamiali, nest counts were also conducted along the entire 10km of beach to provide a better understanding of overall beach use by turtles.

In total, 237 nests were laid within the 6 km monitoring areas, and overall, approximately 296 nests were counted (including 10 km at Kamiali). Approximately 50% of all monitored nest hatched.

Unfortunately, significant loss of nests (approximately 80%) occurred throughout the coast by dog depredation, beach erosion and egg collection by villagers in areas outside the monitoring zones!

## Leatherback Turtle Results

Results from turtle monitoring and tagging: 2005-2006.			
Site	Number of new turtles tagged	Number of turtle remigrants (with tags from previous season or location)	Nesting interval (number of days before turtle returns to nest)
Kamiali	24	10	20 days
Buli	20	9	24 days
Labu Tale	11	12	15 days
Paiawa	10	18	16 days



Long-term trends for leatherbacks nesting at Kamiali

## Nest and Hatchling Results

Results from nest counts and hatchling success: 2005-2006				
Site	Number of nests counted	Size of monitoring area	Clutch (eggs/clutch)	Emergence success (within monitoring area)
Kamiali	157 (216)	3 km (10 km)	93	about 60% (protection grids employed)
Buli	29	1 km	93	about 50% (protection grids employed)
Labu Tale	23	1 km	75	about 30% (limited deployment of grids)
Paiawa	28	1 km	91	0% (nests washed away)



## Nest Protection to Save Hatchlings

The overriding objective of our conservation efforts is to have a sustainable nesting population. This will only be achieved by maximizing the number of hatchlings that reach the sea. During the second half of the 2005-2006 season, the project developed a bamboo grid which were deployed on some nests within the monitoring zones.

Grids proved effective at combating dog depredation. They are a low-cost solution to protect nests and appear to be effective for local conditions. Therefore, it is very important that nest protection devices be continued, and more importantly, expanded across all sites for the entire nesting season to increase hatchling survival!

**No Hatchlings = No Turtles!!!!**



The best way to save hatchlings from dog predation is to use nest protection devices, such as bamboo grids.

## Data Collection Problems to be Addressed

There were a number of problems that affect data analysis of the 2005-2006 season:

1. Data sheets were not used properly and there are many days where no data exists. It is unclear if this is because there were no monitors on the beach or if no turtles nested.
2. The number of eggs counted during nest examination often did not match the egg counts done when the turtle was laying (numbers should be the same).
3. Differing start times and differing levels of effort on the beaches, compounded by variable (often nightly) lengths in the monitoring areas, made data comparison between sites very difficult. For data to be useful, all information must be collected in the same way for the same length of time.
4. There were problems at all sites with advance planning (batteries, supplies and equipment).
5. A full-time project manager will be hired to coordinate the project. Duties will include the ethical use of project funds, implement public awareness, liaise with communities, ensure proper data collection and that nest protection grids are deployed throughout the season on all beaches.
6. A major coordination issue relates to improper and inadequate setup and scheduling of teams to work on the beaches. Last year, some Team Leaders were not selected equitably, or there was excess of staff on the beaches. Team Leaders should spend more time on the beach than Beach Monitors and have a good understanding of the project goals. Team Leaders and Beach Monitors need to be selected equitably by a rotation system among clans, sub-clans and streets.
7. Overall, what was lacking last year was the commitment to actual conservation (the protection of nests), and accurate and honest data collection and recording.





## Contact Information



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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 promote "best practice" and environmentally responsible fisheries.

### WPRFMC Supported Turtle Projects

#### Nesting Beaches:

- Warmon beach, Vogelkop Coast, Papua, Indonesia
- Huon Coast, Papua New Guinea
- Japan - loggerhead turtle beach management

#### Foraging Habitats:

- ProCaguama - Baja California, Mexico
- Kei Islands, Western Papua, Indonesia
- Latin America - Longline fishery mitigation



## Community Events

During the upcoming 2006-2007 leatherback field season there will be many community events to build capacity and incorporate the community within the project. These activities include: community meetings, education and outreach initiatives, and "community incentive" projects for schools and churches.

Last season, a total of 186 nests were recorded by Jeff Kinch during his walk from Labu Tale to Busama. In several areas, nests had been washed over during high tides and all nests from Maus Buassi to Maus Bula had been poached (eleven during the previous week).

This season, Jeff (assisted by beach monitors) will undertake a similar walk to map the beaches from Labu Tale to Kamiali. This project will help understand beach erosion patterns to assist in the development of an egg management plan. This plan will help communities achieve their ultimate goal for sustainable use of turtle eggs.

Dr. Nick Pilcher and Barry Krueger will be in Lae September 15-23 for training of beach monitors. They will convene a community meeting with the HCLTN, and answer any and all questions.