

WSB-NOAA Vanuatu Leatherback Monitoring and Outreach Activities



2010 – 2011 Annual Report

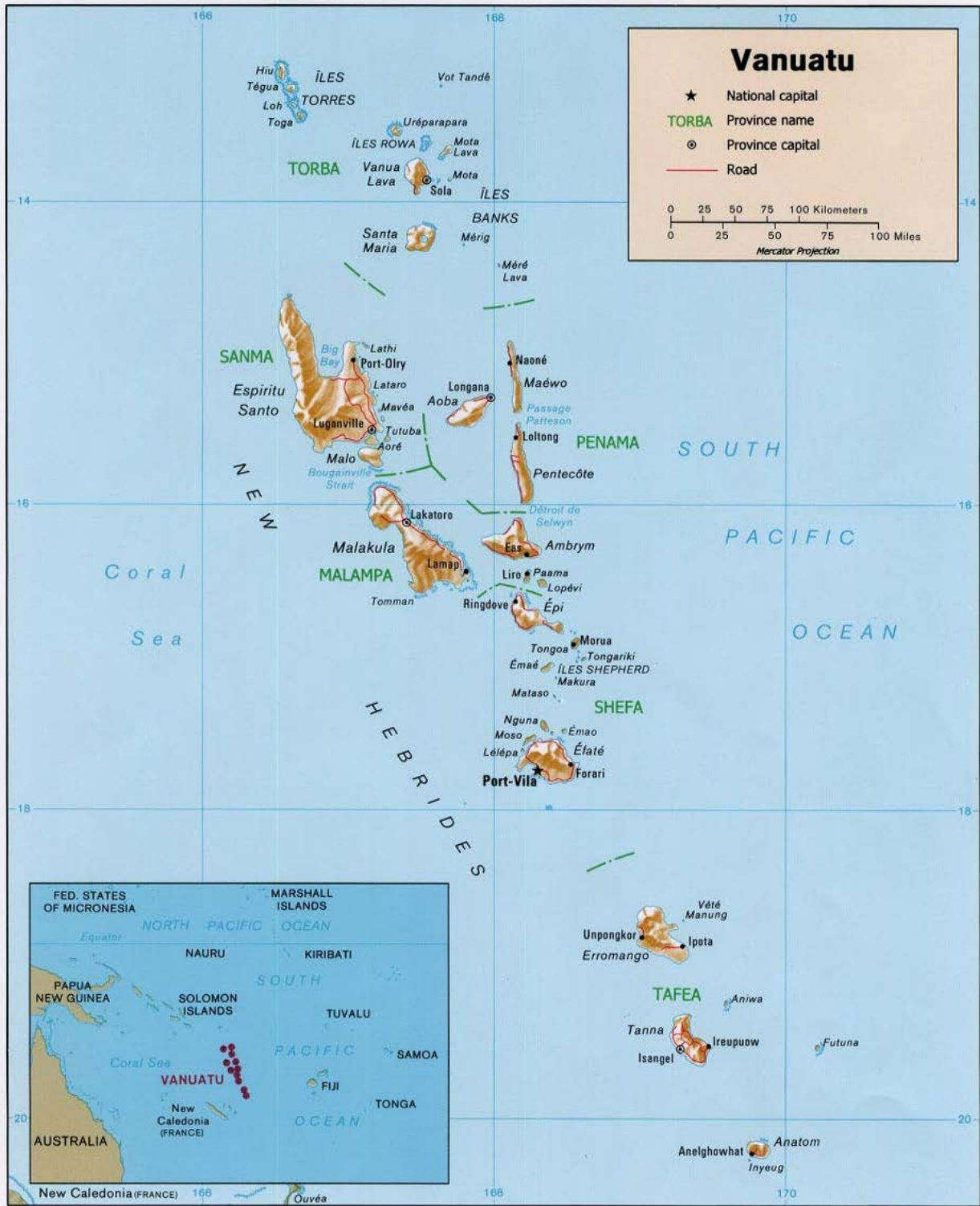
George Petro

Wan Smolbag Environment Department

2010-2011

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1. INTRODUCTION

This report covers turtle monitoring and conservation activities implemented under Wan Smolbag's Vanua-Tai resource monitors network program in the 2010/11 season.

The yearly activities are tours to set up new turtle monitors on outer-islands, workshops for outer-island monitors, the annual Vanua-Tai monitors workshops, and the annual nesting beach surveys and related activities. In addition to the yearly activities the turtle tissue collection over the nesting season on the major nesting sites, and the deployment of a satellite tag on a green nester were new developments to the Vanua-Tai sea turtle conservation program.

The 2010/11 season saw the setting up of new monitors in communities on three islands, three outer-island monitors workshops and the two annual monitors workshops conducted, and nesting beach surveys carried out on six nesting sites.

There was increased leatherback nesting activity on Votlo, one of the two index leatherback nesting beaches in Vanuatu. The nest count was higher than previous seasons; however a big number of nests were affected by cyclone surges at the start of 2011. Despite this the number of leatherback hatchlings released was still higher compared to past nesting seasons at the nesting beach.

Generally there were remarkable achievements to the Wan Smolbag turtle conservation program in the 2010/11 season. Of special mention is the signing of Memorandum of Understandings (MOUs) between Wan Smolbag Theatre and the departments of Fisheries and Environment. The MOUs were to strengthen the work of the local monitors and to foster closer working relationships with the government departments into the future.

Another significant activity to mention briefly is the creation of sub-working committees within the big Vanua-Tai monitors network. This initiative was taken also to strengthen the work of monitors in respective islands and local communities. Since its inception at the 2011 annual monitors workshops three sub-working committees have been established on three islands. The process will continue into the future throughout the entire Vanua-Tai monitors network.

2. ACTIVITIES CONDUCTED

2.1. Setting up of new monitors in the Vanua-Tai Resource monitors Network

The period from July 2010 to June 2011 has seen the establishment of new monitors on three islands, namely Efate in SHEFA province and Tanna and Futuna in TAFEA province.

2.1.1. Refresher training for north Efate monitors

The western to northern part of the main island of Efate was the hub of Wan Smolbag's turtle monitors network in 1995 when it was first established. Since then the network has spread to the outer-islands in Vanuatu but failed to establish itself in the eastern to southern half of Efate. At the 2010 southern provinces monitors annual workshop in Port Vila the setting up of monitors in east and south Efate villages was adopted as a high priority activity to be carried out in the second half of 2010.

In preparation for the setting up of monitors in east and south Efate a one day training workshop was held at Emua Village in north Efate for 8 selected north Efate monitors who will be undertaking the activity.

The objective of the training was to refresh the monitors' knowledge on sea turtle conservation topics and the role of the monitors' network to ensure that they provide the correct information to communities when assisting them in setting up their monitors.

2.1.2. East and south Efate

Tours of East and South Efate communities were conducted in July and August of 2010 by the trained monitors from north Efate, setting up a total of 11 new monitors. As stated above the east and south Efate communities were previously without members of the Vanua-Tai resource monitors. The whole area covered the communities from Eton village in east Efate to Melematt village in the south.

2.1.3. Futuna Island

Futuna is a small rocky island in southern Vanuatu with four focal communities and a couple spotted settlements. Despite its rough physical formation Futuna does have reef areas where turtles forage and beaches where they nest. In September 2010 two Vanuatu-Tai monitors from Efate toured the island to set up monitors to be part of the Vanua-Tai monitors' network. Futuna's geographical location in the Vanuatu archipelago provides infrequent opportunities for such visits to the island. It was the first time in this visit for communities on Futuna Island to learn about the Vanua-Tai monitors' network and were interested in being part of it. A total of four monitors were set up for each of the four communities in Futuna.

2.1.4. Tanna Island

Tanna Island also in southern Vanuatu has its first turtle monitors established in October 2010. Being the second largest island in TAFEA province and one of the most populated in Vanuatu it was ill-timed for the Vanua-Tai monitors' network to be reaching it at this time since its establishment fifteen years ago. Nonetheless like Futuna Island the tour was worthwhile given the interest shown by many communities on the island to be part of the Vanua-Tai network. A total of 23 monitors were set up in Tanna.

Tanna is also one of the most culturally-oriented islands in Vanuatu where people are still practising their long-held local traditions. One such tradition is the exchanging of sea turtles for local food crops from the gardens between coastal and inland communities on the island. As such the Vanua-Tai monitors' network will work with these communities in future to embark on sustainable turtle harvesting measures to sustain their turtle population and maintain their turtle tradition.

2.2. Outer-islands monitors workshops

A total of three outer-island monitors' workshop was conducted on the islands of Ambrym and Ambae in northern Vanuatu and on Tanna Island in the south.

2.2.1. West Ambrym monitors workshop

The area of west Ambrym stands out on the island of Ambrym in terms of turtle nesting when considering the 12 Km long Maranata nesting beach and the adjacent nesting beaches measuring several hundred metres long. Maranata is one of the two active leatherback nesting sites in Vanuatu alongside Votlo in Southern Epi.

In August 2010 a workshop was conducted for monitors along the Maranata nesting beach and nearby communities with turtle nesting sites in west Ambrym. The workshop primarily is to strengthen the turtle monitoring and nesting beach survey work along Maranata and the nearby communities. The special thing about the workshop is the invitation of custom landowners along the Maranata nesting beach to the workshop. This undoubtedly was clear at the workshop to be the means to ensure that nesting turtles along Maranata are protected when the landowners showed the interest in being responsible to monitor their respective parts of the nesting beach. The seven landowners who attended the workshop got their beach areas marked out to monitor over the 2010/2011 nesting season.

2.2.2. North Ambae monitors workshop

Still in August 2010 another workshop was held for 15 monitors in the northern part of Ambae Island, PENAMA province. There were reports of constant turtle harvesting in the area by the local fishermen for food with the use of metal hooks and ropes attached to floaters. The workshop was conducted following requests from the two existing Vanua-Tai monitors in the area. The workshop was therefore treated as an initial one for the majority of the participants who attended the workshop to join the Vanua-Tai resource monitors network. It was interesting to see that some of the local fishermen attended the workshop and admitting to have been killing adult foraging turtles on their reefs and at the end of the workshop affirmed to stop the practice.

2.2.3. Tanna and Futuna monitors workshop

This workshop was conducted in March 2011 on the island of Tanna for the newly established monitors on the islands of Futuna and Tanna.

A total of 20 monitors from the two islands, with more coming from Tanna attended the 3 days workshop that was treated as an introductory workshop for them. As such the meeting introduced the Vanua-Tai monitors' network to its new members and informed them of their roles in working with their local communities to conserve sea turtles. Monitors coming from turtle foraging and nesting sites were identified and trained on turtle tagging before they were provided with tagging devices and turtle tagging forms to start tagging turtles in their communities.

2.3. Nesting Beach Survey Trainings

The 2010/2011 nesting season beach survey trainings began in September 2010 with pre-season nesting beach survey trainings followed by actual nesting beach surveys on the major nesting sites. Nesting beach surveys were conducted on six major nesting sites namely Tasiriki on Moso, Votlo on Epi, Bamboo Bay and Wiawi on Malakula, Maranata on Ambrym and Malokilikili on Malo.

2.3.1. Moso pre-season beach survey training

The Moso pre-season beach survey training is being carried out annually for the past couple of years after 2007 to train the local monitors to work with eco-volunteers in monitoring their nesting site over the nesting season. The pre-season training for the 2010/211 nesting season was conducted for a week in mid September 2011 and was attended by more than 20 local monitors from the village.

In the training local monitors were made to carry out turtle tagging exercises, fill out turtle tagging forms, fill out nesting beach survey forms, and visit the nesting beach to mark out

beach zones and do clearing of walking tracks along the beach in preparation for the beach survey work.

2.3.2. Erromango beach scouting survey

Erromango, the largest of all the 5 inhabited islands in Tafea province was one of the first islands in the province to have Vanua-Tai monitors in many of its villages. Over the years the monitors have been trained to tag turtles and this was confined only to foraging turtles on their reefs. This particular nesting beach in Cooks Bay was reported by local monitors in the area to be a potential site for future nesting surveys. The beach scouting training was therefore conducted for the local monitors to carry out a scouting survey of the beach over the nesting season of 2010/11 to determine the eligibility of future full nesting beach surveys for the Cooks Bay nesting beach.

2.3.3. Reef Islands beach scouting survey

Reef Islands is a group of uninhabited islets located in the Banks Group towards the northern end of the Vanuatu archipelago. The group of islands was reported to be a potential nesting and foraging site for turtles. In early December 2010 a nesting beach survey training was conducted for local monitors to train them in collecting turtle nesting data. This is to know the status of turtle nesting activities on the islands for future beach survey work.

2.3.4. Pre-season beach survey and turtle tissue sampling training for index beaches

On the second week of November a pre-nesting season training was conducted in Wiawi, one of the major nesting sites in Vanuatu, for selected monitors from 5 of the six major nesting sites currently listed by the Vanua-Tai resource monitors network. This training was purposely conducted to ensure that the monitors from these major nesting sites are well trained and are confident enough to collect and record right and quality data from their nesting beaches over the nesting season. This was an intensive training in which monitors were constantly reminded of the nature of their beach work to be of high standard so as to be presentable, understandable and comparable over past and future years to come. The training was on nesting beach surveys and tissue sampling with practical sessions on the Wiawi nesting beach and foraging site.

2.4. Beach Surveys with some WSB Staff Assistance

2.4.1. Tasiriki (Moso)

The Tasiriki nesting site on the island of Moso off the northern coast of Efate Island is an index beach for hawksbills. The annual nesting beach surveys on the site are carried out by the local monitors and eco-volunteers from GVI. As usual prior to the surveys a pre-nesting season training was first conducted for the local monitors. Refer to Appendix 2 for nesting data summary.

2.4.2. Bamboo Bay (Malakula)

The annual nesting beach survey in Bamboo Bay was conducted from October 2010 to March 2011. As usual the survey includes night and day beach patrols of the nesting beaches, nest counts, turtle tagging, and hatchling success of nests. Also included in this nesting survey for the first time is the tissue sampling that was done by the local monitors after the training on tissue sampling in Wiawi in November 2010. For a summary of the data see Appendix 2.

2.4.3. Wiawi (Malakula)

This season marks the third time round for the Wiawi monitors to conduct nesting beach surveys on their nesting site. They have gained considerable skills and knowledge to conduct nesting surveys from trainings and their previous surveys. This is evident from their nesting data in this season. (Refer to Appendix 2 for nesting data summary). Also included in this season's beach survey activities is the tissue sampling exercise.

2.5. Beach Surveys Run Solely by Communities

2.5.1. Votlo (Epi)

Votlo has always been a special site for the Vanua-Tai network and Vanuatu concerning sea turtle conservation and particularly nesting beach surveys. It is was the initial nesting site that nesting beach surveys were first conducted on in the 2002/03 nesting season to determine the status of leatherback nesting on the site. It is also the major nesting site for leatherbacks in Vanuatu.

This nesting season has seen a high number of leatherback nests with a few greens and hawksbills nests. Some nests were washed away by cyclone surges in February 2011. The two monitors from Votlo who had been to the tissue sampling training in Wiawi had also collected leatherback tissues that had been sent with other turtle tissues from other major nesting sites to Nancy FitzSimmonds in Australia for laboratory work. (Refer to Appendix 2 for nesting data summary).

2.5.2. Maranata (Ambrym)

Maranata, the second leatherback nesting site to Votlo has also been surveyed. The general variation on nesting activities with the site however has provided a very minimal nesting data

for this season. The resident monitor recorded only one leatherback nest. This was without actual encounter with the nester. A tissue was taken from a dead hatchling from this lone leatherback nest. So generally the 2010/11 season was a low nesting season for Maranata.

Compared to the other index beaches nesting data from Maranata is generally low. There could therefore be various contributing factors to this. The obvious one is the 11Km extent of the beach which could prove difficult for the resident monitor to survey on a regular basis. To address this issue of the beach survey work on Maranata a beach survey training was held for local land owners of the Maranata beach in 2010, to monitor their respective areas of the beach over the nesting season. This even so has had little effect on the Maranata beach survey activities in the 2010/11 nesting season. The next possible option now to strengthen nesting survey activities and improve the participation of locals in future nesting surveys on Maranata is to conduct a follow-up training for key monitors from the Vanua-Tai network and have two teams to be a mixture of monitors and locals stationed on two different parts of the beach. The nesting beach will then be divided into two parts to be survey by each of the two survey teams on a regular basis over a specific timeframe during the nesting season. The specific time frame will definitely be the peak nesting period for Maranata which normally comes around December and January.

2.5.3. Malokilikili (Malo)

This is the second round of nesting beach survey for Malokilikili after the initial one in the 2009/10 nesting season. In the 2010/11 nesting season the beach survey activities conducted on the site was toward the end of the nesting season. Due to the fact that the monitors are stationed on the mainland nightly beach patrols were not conducted leaving day beach patrols as the main beach survey activity to be carried out by the turtle monitors to record nesting activities and conduct hatchling success of hatched nests. (Refer to Appendix 2 for nesting data summary).

2.6. 2011 Annual Monitors Workshops

The two annual Vanua-Tai monitors' workshops were held at the start and end of May 2011 respectively. The southern provinces monitors workshop was held first, followed by the Northern provinces monitors meeting.

2.6.1. Southern Provinces Monitors Annual Workshop (Efate)

The southern monitors' annual workshop was held from 2nd to 6th May at the WSB premises in Vila. A total of 70 Vanua-Tai resource monitors from the southern provinces of Shefa and Tafea were in attendance. Of the total 20% of the participants were new monitors who were set up in 2010 in south Efate, Futuna island and Tanna Island, and 14% were women monitors mostly from around Efate and its off-shore islands.

Apart from the Vanua-Tai centred activities in the workshop there were invited speakers from SPC-GTZ Climate Change Project, Reef Check Vanuatu, Vanuatu Police Force and the government departments of Fisheries, Forestry and Environment.

Two significant activities in the workshop were the signings of MOUs between WSB and the departments of Fisheries and Environment. The MOU between WSB and the Vanuatu Fisheries Department (VFD) was to strengthen the Vanua-Tai monitors' work in their communities and to formalise and enhance a closer working relationship between WSB and VFD. The MOU between WSB and the department of Environment was specifically to allow Vanua-Tai monitors to conduct research activities into turtle tissue sampling that would see turtle tissues shipped overseas for genetics work.

2.6.2. Northern Provinces Monitors Annual Workshop (Santo)

The northern monitors' annual workshop was held from 23rd to 27th May in Luganville, Santo. A total of 45 monitors from the northern provinces of Malampa to Torba attended the workshop.

The invited speakers to the workshop were the Northern Principal Fisheries Officer in Santo and the Coordinator of Reef Check Vanuatu (RCV). The Northern Principal Fisheries Officer came in to talk about the Fisheries department's role in the signed MOU between WSB and VFD and take questions from the monitors concerning the new Fisheries regulation. The coordinator of RCV gave an overview presentation on the organisation's reef monitoring activities in Vanuatu and arranged for a field-trip to a coral planting site near Luganville.

The main focus of the northern monitors' workshop however, was to strengthen the work of the monitors at the community level. A monitor from north Efate was invited to the workshop to share his experience in working with his local community to set up their village Environment Committee that is responsible in undertaking environmental activities in the village and report it to the North Efate Tasi-Vanua environment network which is affiliated to the Vanua-Tai Resource monitors network.

From the structure that the Vanua-Tai monitors' programme is now operating on in north Efate communities, the northern monitors were thoroughly informed on how they can set up similar environment committees and networks in their respective islands or areas to strengthen their conservation and resource management activities in their communities. Before the end of the workshop the monitors were assisted in drawing up the structures of their environment committees that they will return to set up and work through to implement their yearly action plans.

Under this new structure the monitors' activities will be well coordinated by environment committees that will either report via a bigger local area or island environment network or directly to the Vanua-Tai network programme at WSB.

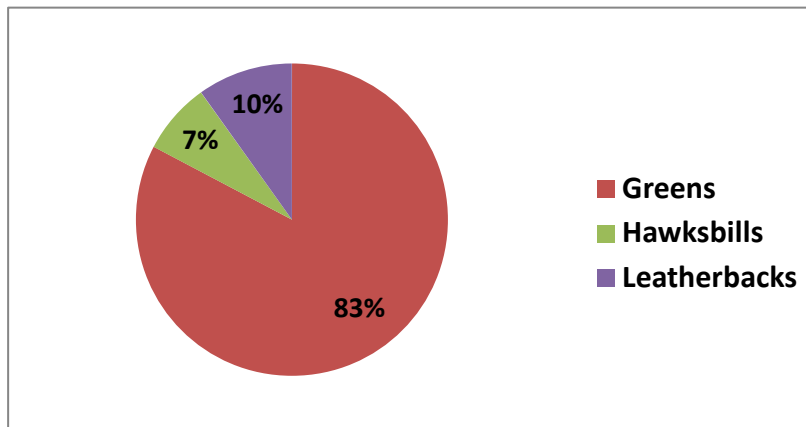
3. TURTLE TISSUE SAMPLING AND SATELLITE TAGGING

3.1. Turtle tissue sampling

Training on the collection of turtle tissues for genetics laboratory work was conducted during the pre-season beach survey and turtle tissue sampling training in November 2010 at Wiawi. The exercise was carried out specifically for monitors from the five major nesting sites after the general training by Karen Frutcheby from NOAA at the 2010 Vanua-Tai Resource Monitors annual workshop.

This is part of NOAA's project on Pacific-wide analysis of marine turtles with the focus study of green turtle genetics. The training in Wiwia was more of a hands-on training where monitors practically went out to the turtle foraging site and catch turtles and collect tissues from. Monitors were given tissue vials at the end of the training to collect tissues over the nesting season at their respective nesting sites. A total of 63 tissues were collected from the five beach survey sites with the green turtle being the targeted species for tissue collection. The tissues were put together with 19 tissues collected from past beach surveys making a total of 82 tissues that were sent to Nancy FitzSimmons in Australia for genetics analysis.

Figure 1: Percentage of tissues collected by species



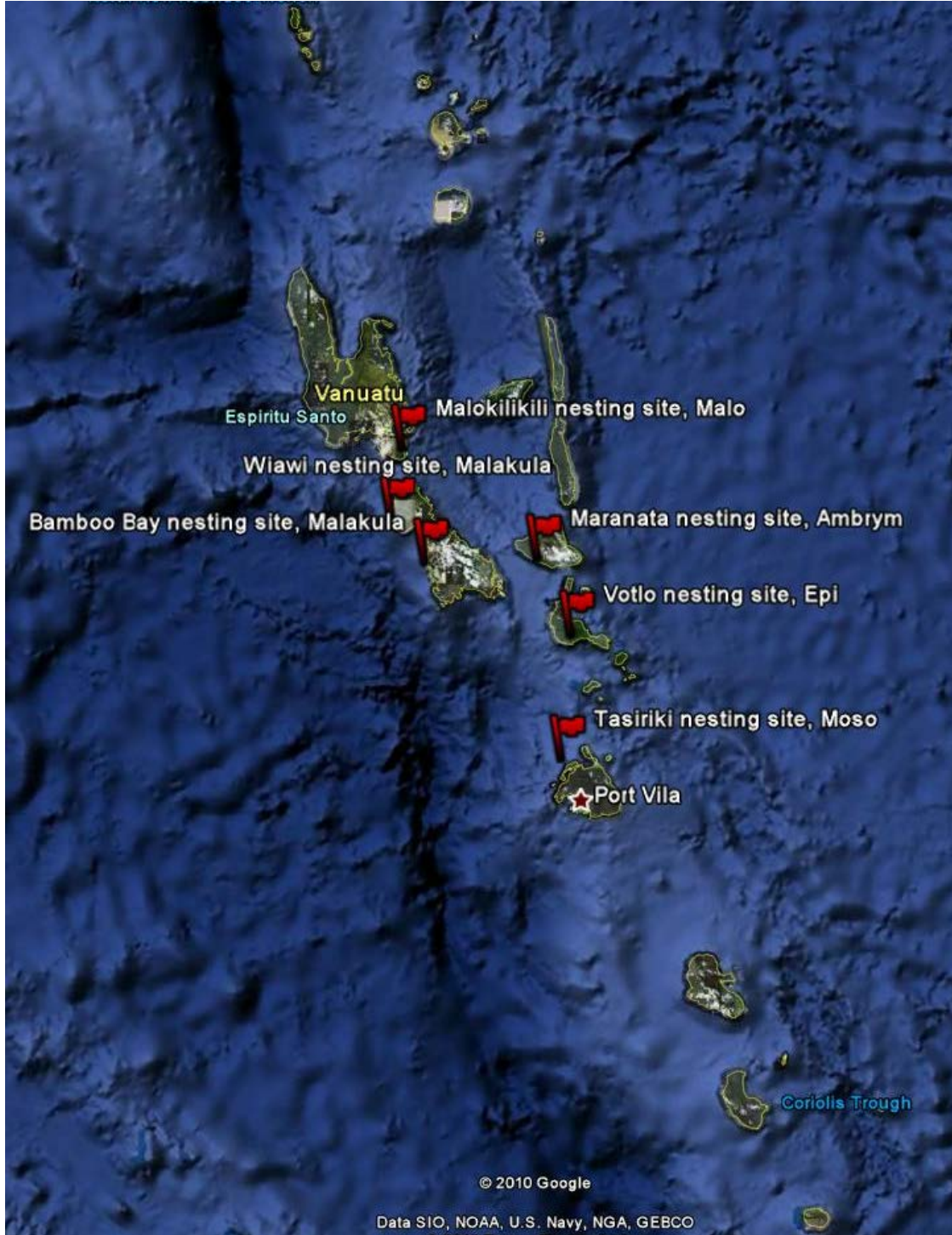
3.2. Satellite tagging

A significant activity that took place in February of 2011 during the Bamboo bay follow-up visit was the deployment of a satellite tag. The satellite tag was given by SPREP to Vanua-Tai to be specifically used in Bamboo bay. This was successfully put into operation when the satellite tag was deployed on a green nester in Bamboo bay on 17th February 2011. After the first six days from its deployment the satellite tracking map of the turtle located it close to New Caledonia. The map of the next six days showed the turtle foraging on the western part of the northern province of New Caledonia. After some more updated mappings of its location within the same locality it was assumed that this specific area in New Caledonia is the turtle's feeding and foraging ground and Bamboo bay its nesting site.

4. FINANCIAL REPORT

See Appendix 5 for the financial record of the grant.

Appendix 1: 2010/11 Nesting Season Major Beach Survey and Monitoring sites



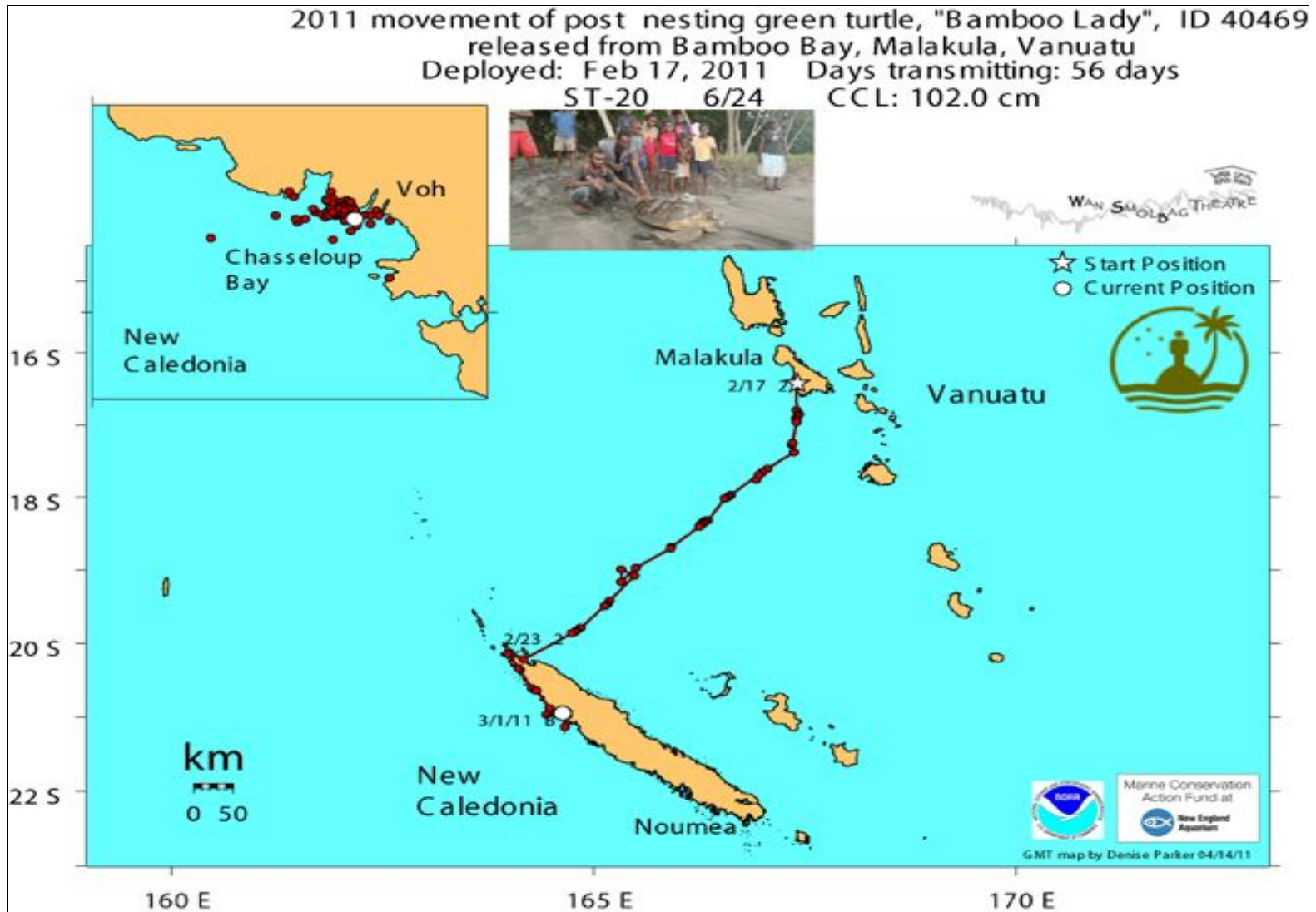
Appendix 2: Summary of 2010-2011 Nesting Beach Surveys.

	Tasiriki	Bamboo Bay	Wiawi	Maranata	Votlo	Malokilikii	Lonmei
survey period	Oct. 2010 - Mar. 2011	Oct. 2010 - Mar. 2011	Jul. 2010 - Feb. 2011	Nov. 2010 - Feb. 2011	Sep. 2010 - Feb. 2011	Oct. 2010 - Jan. 2011	Aug. - Dec. 2010
# Leatherbacks tagged	0	0	0	0	2	0	0
# Leatherback nests laid	0	0	0	4	41	0	0
# Leatherback nests hatched	0	0	0	1	8	0	0
# Greens tagged	2	14	27	0	1	0	0
# Green nests laid	1	134	57	2	4	0	2
# Green nests hatched	1	113	51	0	2	0	1
# Hawksbills tagged	21	2	3	0	1	0	0
# Hawksbill nests laid	67	75	24	0	10	11	2
# Hawksbill nests hatched	65	71	23	0	4	11	2
# return tagged nesters	7	0	0	0	3	0	0
# damaged nests (by waves)	2	16	1	5	3	0	1
# predated nests	0	9	0	0	3	0	0
Total # Hatchlings from leatherback nests	0	0	0	68	277	0	0
Total # Hatchlings from green nests	184	12,108	6,580	0	196	0	190
Total # Hatchlings from hawksbill nests	11,654	5,149	2,748	0	676	1,178	334
Total # Hatchlings from all turtle nests	11,838	17,257	9,328	68	1,149	1,178	524

Appendix 3: Sample of the turtle tissue collection data sheet.

DEIT (d/m/y)	BIJ	AELAN	KAEN TOTEL (G/H/L/U)	SEX (M/F/U)	TAG NAMBA (RH: ____/ LH: _____)	LONGFALA MO WAED BLONG TOTEL (L: __/ W: __)	NAMBA BLONG VIAL/SMOL BOTEL)	TOTEL ISTAP MEKEM WANEM TAEM YU KASEM	YU USUM WANEM BLO KASEM TOTEL	MAMA TOTEL WE I KAM PUTUM EKK	MAMA TOTEL WE I SWIM LO SOLWOTA	MAN TOTEL	YANGFALA TOTEL	PIKININI TOTEL WE I JES DET INSAED LO NEST	PAT BLO TOTEL WE YU KAREM TISSUE LO EM	OL KOMEN

Appendix 4: Satellite tracking map of Bamboo Lady



Appendix 5: Financial Report.

Summary of All Vanua-Tai Activities Spending							
Funder	Annual Workshops	Outer Island Workshops	Outer Island Tours	Beach Surveys	TOTAL	US	ex rate
GVI	0	0	0	2,511,600	VT2,511,600	\$26,438	95
NOAA	0	76,760	164,600	309,600	VT550,960	\$5,799	95
General	0	0	0	0	0	0	95
NZ-Aus	2,871,504	1,201,662	667,937	1,232,874	VT5,973,977	\$62,884	95
TOTAL	2,871,504	1,278,422	832,537	4,054,074	VT9,036,537	\$95,121	

Appendix 6: Vanua-Tai Resource Monitors Project 2011/2012 Planned Activities.

MONTH	ACTIVITY
JULY 2011	- Pentecost monitors workshop
AUGUST 2011	- Moso pre-season beach survey trainings
SEPTEMBER 2011	- Torres monitors follow-up workshop - Tour to set up new monitors in Gaua
OCTOBER 2011	- Launching of north Pentecost monitors network (sub-working committee) - Nesting beach surveys on index and potential nesting sites
NOVEMBER 2011	- Nesting beach surveys on index and potential nesting sites
DECEMBER 2011	- Nesting beach survey training (Matantas, Santo) - Nesting beach surveys on index and potential nesting sites
JANUARY 2012	- Nesting beach surveys on index and potential nesting sites
FEBRUARY 2012	- Nesting beach surveys on index and potential nesting sites
MARCH 2012	- Follow-up visits to nesting beach survey sites
APRIL 2012	- Follow-up visits to nesting beach survey sites
MAY 2012	- Launching of west Ambrym monitors network (sub-working committee) - Gaua Island monitors workshop
JUNE 2012	- Southern Provinces monitors Annual workshop
JULY 2012	- Northern Provinces monitors Annual workshop
AUGUST 2012	- Annual report to NOAA

