

# Ascension Conservation Quarterly

Issue No: 13

Date: June 2006

**Edited by:** Tara Pelembe, Ascension Island Government Sea fisheries/Conservation Officer

**Assistant Editor:** Natasha Williams, Conservation Office assistant.

**Photographer:** Anselmo Pelembe, Seabird Restoration Project fieldworker

**Website:** [www.ascensionconservation.org.ac](http://www.ascensionconservation.org.ac)

**Funded by:** Ascension Island Government

**Contact:** Georgetown, Ascension Island ASCN 1ZZ

email: [conservation@atlantis.co.ac](mailto:conservation@atlantis.co.ac)

Tel: (247) 6359



Hi everyone,

It has been another busy three months, and we things are continuing to progress on Ascension. You will see all of our project updates inside, everything seems to be going well. It is great to be working with St. Helena and the Falklands on some of our projects. We hope that these cross-territory links will develop even more over time.

We are happy to have had three students from the University of Exeter Masters course on Conservation and Biodiversity doing research on the island for the last three months. You can read more about their work inside.

Enjoy this edition, we would be interested to have your feedback.

Tara

## April-June 2006

Derek Brown, RSPB Consultant visits the Island.

Stedson Stroud attends ACAP conference in the Falklands and CMS conference in Brazil

Masters students from the University of Exeter are here doing Projects on the turtles, landcrabs, and seabirds

Ascension Island Green Turtles... Update.

A New Part-time worker joins the team.

This year the Turtle season is the busiest ever.

Update on monitoring scheme and awareness programme about Seabirds and Turtles at St Helena.

Information about the Island and water by John and Jane Bingeman.

ASA Productions (UK) Ltd visit to make a DVD for Ascension Conservation

Norman Ratcliffe (RSPB) visits island to advise on seabird monitoring

OPEP ASC 301 – Improving Access to Green Mountain kicks off to a good start

## Conservation News from Neighbouring St. Helena



### A Monitoring Scheme and Awareness Programme for Seabirds and Turtles at St Helena

Contributed by Emma Bennett, Fisheries Section, ANRD tel: 4724 email: [fishdir@anrd.gov.sh](mailto:fishdir@anrd.gov.sh)

#### **MARINE AWARENESS WEEK – 11<sup>th</sup> to 18<sup>th</sup> Feb 2006**

We had a successful Marine Awareness Week which took up most of our time, but it was well worth it. We had favourable comments, and some that would help us in our preparation for future marine weeks. Thanks to all of you who came to the display area, took part in the collage competition and in general, all who supported us.

#### **MONITORING SCHEME**

Egg Island – well, what can we say about this. For the past 2-3 months, Egg Island has been the home of hundreds of Black Birds (Brown Noddies) – some of our helpers might class it more as “potentially hazardous Black Birds”, due to the fact that while there were eggs and downy chicks present, there were many occasions where one really needed a “hard head”!! Most of the chicks have now fledged, with only the stragglers left behind

The other interesting seabird on Egg Island at the moment is a near fledged Trophy Bird (Red-billed Tropicbird). It is an amazing bird, huge in size with a yellow beak as opposed to that of a red beak when adult.



*Red-billed tropicbird adult on Egg island*

### Staffing Changes

**Simon Emson** who joined the team, as Conservation Office Assistant while Tara Pelembe was away on training has now left the department. We thank him very much for all his time and effort; he did a splendid job.



**Ian Close** who was a part time worker has gone onto work for another company, we wish him the best, and he also did a great job. Both Ian and Simon still help the Conservation, Ian is member of the Turtle Group and a Tour Guide. Simon is a Volunteer.

**Darren Roberts** has left the team. We thank him for his excellent contribution to the seabird restoration project.



**Natasha Williams** has just started working here, “So far I am enjoying it very much, with all the different things to do and meeting new people. It’s fun and interesting. When I first thought of Conservation I just thought it just meant looking after birds and cats I had no idea there was more to it.”



**Anselmo Pelembe** has returned to work as a seabird restoration fieldworker. We welcome him back to the team.

**Colin Cranfield and Carl Richards** have joined the department as field workers on Green Mountain, primarily to upgrade the paths in the new National Park

### **Diving around Ascension**

*Contributed by Mark Allen*

*Editors note: The Ascension Conservation Department has a project to tag Hawksbill turtles. This species of turtles only occurs on Ascension during its juvenile stage, therefore it doesn't nest here. To tag the turtles they need to be caught underwater. Diving Expeditions to the island often help to catch turtles for the tagging programme. Here is the account of one Exped divers successful attempt at catching a hawksbill turtle for tagging.*

It was my first dive of the day and my wife's (Kerry) second dive on the Island ever. We went in form a rib on to the shot of the Derby wreck once all ok we both descended to the sea bed and landed in the area of the boiler having had a look around it we than swam to the bow of the wreck, as we swam we both saw lots of Black fish as well as squirrel fish and some morays. Turning back to swim to the stern past the big boiler I looked into the rocks and saw the Turtle, and turning to the wife it was a case of honey it's a turtle. Suddenly thinking I need to catch it I started to swim after it but I had a buddy line on between the wife and I, quickly releasing myself from her I signalled to her to swim after me. As I swam after the turtle it seemed to be in a I don't care mood not trying to get away. After a swim of some 25 yards I got to the turtle and grabbed it with both hands (Care should be taken when trying to hold on to them as they have spikes in some areas around the shell ), I started towards the surface with the wife raising me in a Controlled manor. At the surface you should get the front flipper out of the water and the turtle will come down very fast. Just take care and stay away from the flippers as if it kicks out it will hurt you if your hit.

On arrival the rib was called over and the turtle was placed in the boat for transit back to the Exped centre, so it could be tagged and recorded. This is the third Turtle I have caught for the Conservation Office and some 12 in all for four different Expeds. The first I caught was named after my wife and the last was named after me. There is something special about diving on Ascension and I have come to fall in love with the Island. The people on the island are very helpful and the wildlife should be looked after to be savoured by all.

### **ASCENSION ISLAND AND WATER**

*Contributed by John & Jane Bingeman*

Since the Island was first occupied by the Royal Navy in 1815, drinking water has always been a problem. It was only in the mid-1960s that the BBC improved the situation by building the Power Station at English Bay with a desalination plant. The provision of water is closely connected with the Island's history. In 1701, before the Island was populated and after the loss of his ship *Roebuck*, Captain Dampier and his marooned sailors followed a goat to find water. Today, we have Dampier's Drip to remind us of this event. It is very questionable whether Dampier's Drip is the actual location where water was found. Captain Dampier and his sailors were rescued six weeks later.

The descendants of the donkeys brought to the Island to transport the barrels of water from Breakneck Valley around the side of Green Mountain to Georgetown, are with us today. For this hot and tiring journey, resting places were established at "Two Boats" and "One Boat", now historic landmarks. In 1831, a wrought iron pipe line was completed from the Farm Area to Georgetown via Dampier's Drip. It is recorded that it took one hour and thirty-five minutes for the water to reach Georgetown. Parts of this water pipe can still be seen with a manufacturer's date of 1830.

The Tunnel was completed in 1832 to enable a water pipe to connect the Breakneck Valley wells to the system completed the previous year from the Farm to Georgetown. An unexpected pleasure this year was walking through the Tunnel with its new lighting - an important National Park improvement. Now we can see the tool marks and appreciate the Marines' achievement cutting this 920-foot tunnel by hand. At Dampier's Drip water installations, the remains of the 19<sup>th</sup> century Marines' settlement can be seen cut into the mountainside. This water system remained in use until modern times and if you examine the water pipes here, you will see the last pipes were manufactured in 1960 just pre-dating the arrival of the BBC. By this time there was a complicated series of pipes and tanks to connect the Breakneck Valley wells and the rain catchments that made up the Island's water system.



*Breakneck Valley rain catchments, these are no longer used.*



*The Windmill used to pump water through the Tunnel from the wells in Breakneck Valley, photographed in 1979. Today, the vanes have fallen off and the structure is rusting away.*

Some years ago, John recalls talking to the late Sonny Francis, the Motor Transport Foreman. As a boy, he remembers helping his father caulk the joints of the wrought iron water pipes with lead using special caulking tools. The lead was heated until it just burnt a piece of wood indicating its right temperature. This was a vital task to keep the hundreds of joints leak free to protect the limited water supplies. The infrastructure of water pipes and tanks does great credit to the Naval and Marine personnel who manned HMS Ascension, a genuine “stone frigate” from 1815 until de-commissioned in 1922, when the Commonwealth Office reluctantly took over responsibility for the Island from the Admiralty.

Packer’s Guide records serious droughts in 1839 and again in 1857 when cattle died. There are stories of water rationing and you can understand why the Two Boats water tank is called “God Be Thanked”. In contrast, in 1859 nine inches of water fell in one day destroying roads and crops. There were further major deluges in 1934 and more recently in 1984. During the Falklands

War in 1982, the rapid increase in the Island’s population caused another water shortage; extra desalination plants were brought out from the UK.

Fresh water will always remain the Island’s Achilles heel.

### **University of Exeter Masters Student projects on Ascension island.**

*Contributed by Kate Saunders, Kathryn Pintus and Claire Pooley*

Hi Everybody, We are the three students from the University of Exeter in Cornwall studying for a Master’s in Conservation and Biodiversity. We have been here for seven weeks now and some of you may be wondering what we are up to! We are here to undertake research for our Master’s theses. We are each focusing on a different aspect of Ascension Wildlife. Here is a summary of what we are doing....

#### **The Land Crabs of Ascension Island**



Hi, my name is Kate Saunders and I am here studying the land crabs, *Johngarthia lagostoma*, of Ascension. Little is known about the land crabs and I am here to find out whatever I can about them. To do this I am walking the whole

island to find the areas where they like to inhabit and areas where they like to breed. Any crab I find I measure and mark using a permanent pen, and record their position using a hand held GPS unit – therefore you may see some with black writing on their shells! This allows me to know which ones I have measured and will also let me trace their tracks if I am able to recapture them. I will also be dividing the island into different habitat types and then selecting a number of areas in these different types to carry out a burrow survey and enable an estimate of crab burrows according to habitat type to be made.

As well as this I have been finding that the markings on the crabs’ shells have been rubbing off so I plan to carry out a small pilot study with PIT tags – these are small microchips which can be inserted into animals and will give them a unique identification number which can be read using a handheld reader. This will enable the

crabs to be studied throughout their life cycles as the pen markings will disappear when the crabs shed their shells – an event which happens annually.

I'd really like to get some information on any small juvenile crabs as it is unknown how and when they make their way back onto land after being released into the sea, so if anyone sees any tiny land crabs I would be very grateful if they could tell the Conservation Office – thanks very much!

### Nest Relocation in Green Turtles



I'm Kathryn Pintus, and I'm here to study the green sea turtles, with the focus of my research being on the effects of nest relocation on hatching success. Many of the turtles which come ashore to lay

their eggs do so below the high-tide line, and these are known as 'doomed nests' because the eggs run a high risk of being washed away as large waves erode away big chunks of the shoreline. With over a hundred eggs being laid per clutch, even losing just one nest this way means the death of many baby turtles. This is where my work comes in!

Over a three week period I moved eggs from doomed nests, and relocated them to safer spots further up the beach using two different methods – the first was to collect the eggs as the female was laying them, and the second was to dig the eggs up as soon as the female had covered up her nest and moved off (those of you who have trekked down Long Beach recently will have seen white posts dotted about marking where I relocated the eggs to).

When these nests hatch, I will collect a sample of hatchlings from each one, and I'll weigh and measure them before setting them free. Then it's onto the smelly part! Once the hatchlings have emerged, I have to excavate each nest and count how many eggs there are in total, and what proportion of these have successfully hatched –

with 75 nests to excavate, any help would be much appreciated, though a strong stomach or blocked nose is recommended!! By comparing figures from natural, undisturbed nests with those from relocated nests, I can figure out if relocation has had an effect on hatching success, and determine which of the two methods has been most effective. If moving the nests does not affect the number of eggs which hatch, then relocation could well be a method which could be implemented regularly in order to help conserve the green sea turtles.

### Spatial and Temporal Patterns of nesting in Green Turtles

My name is Claire Pooley and I am studying the green turtles of Ascension Island. My MSc project is to measure how many green turtles are currently nesting on Ascension Island and also where they are nesting. To work out how many turtles there are I need to count the tracks that are created when they emerge onto the beach to lay their eggs and then return to the sea (with the help of Ascension Islands turtle conservation group). When a turtle emerges onto the beach it may not always lay a clutch of eggs and therefore it is necessary to determine the proportion of tracks which result in a successful nest. To calculate the nest success for each beach I have to assess a portion of tracks on each beach. In addition to measuring the nesting density I am also using GPS to map the location of where the green turtles are nesting.

If anyone has anymore questions about what we are doing or would like to help out you can contact us at Clarence House or through the Conservation Centre.

### Protected Areas Update: Green Mountain National Park

*Contributed by Assistant Conservation Officer Stedson Stroud*

This time last year May 2005, saw the final work being done on the Shade Houses and Nursery on Green Mountain in readiness for the opening of our National Park. The importance of the nursery was a race against time to save our critical endangered plants from extinction due to the spread of alien invasive species on Green Mountain. Apart from the *Pteris Adscensionis* that was on the critical endangered red list, there

was also a special endangered endemic grass that needed attention *sporobolus caespitosus*. The *Pteris Adscensionis* was the first endemic plant the Conservation Department saw as priority since there were only 50 plants in the world in the wild on Ascension.

Now a year on and we have propagated over 500 and this work is still ongoing. It was necessary to divert our attention to the *sporobolus caespitosus* this is being successfully propagated in our nursery on Green Mountain. An area around Green Mountain has been identified and soon the recovery work will go to the reintroduction of this special Ascension grass species into the wild.

---

### **Otep Project Updates**



#### **Sea Bird Restoration Update**

*Contributed by Raymond Benjamin and Anselmo Pelembe*

We have completed 2 years of monitoring the island for feral cats using set monitoring lines. During this period we have found 6 cats, all of which have been found to be pet cats. Therefore there have been no known feral cats since March 2004.

We are now in the process of changing baits, as most of the monitoring has been done with fish bait. We are storing new baits and will then go around the island using non-fish bait. The purpose of this is to ensure that we have not missed a feral cat that is no longer attracted to fish bait.

In addition, we are walking new lines, to see if there is any cat sign in some of the valleys, gulleys and hills that have not been walked regularly during the 2-year cat monitoring period. These lines are being recorded by GPS to show coverage.

We have also done training in rat indexing. We will use this training to rat index mainland seabird sites to keep track of rat population increases or decreases in these areas.

We had the wonderful opportunity of going to Boatswainbird island, and went to clean up the

old gantry and see the birds after special permission had been given to the BBC planet earth team to film there.



*Masked Boobies on BBI – Photo by Anselmo Pelembe*

The seabirds are continuing to return to the mainland and the Masked Boobies are nesting on letterbox.



---

### **Ascension Environmental Information Operational Utility (AEIOU) Otep ASC 201**

*Contributed by Alan Mills*

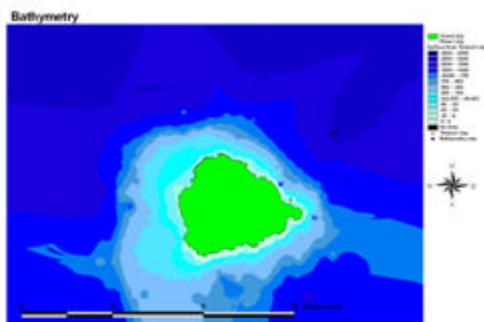
This project, begun in April 2005, is now approaching its concluding stages. In the next six months, the database of information will be consolidated, a computer program written for everyone in government to use and the web based interface for Two Boats School will be created. The two Geographical Information Systems (GIS) consultants, Dr Edsel Daniel from Vanderbilt University in the USA and Mr Alan Mills from UK, will be visiting in November 2006 to install, train and explore new possibilities for the system.

AEIOU is funded by the UK Department for International Development (DFID) Overseas Territories Environment Programme (Otep). It aims to provide a way of showing environmental information as a series of computerised maps. The two GIS consultants visited in September 2005 to scope the range of services to provide and gather initial data, and since then have been working with on island and international researchers to define datasets and databases to be

used. Major amongst these has been the creation of new digital topographical maps of the island at 1:25 000, and the acquisition of a high resolution satellite image from which we hope to gain useful information about the environments, habits and threats to the bird, turtle and other wildlife on the island. The best way to show you what is happening is to show you a few maps.

We have been given permission to map the bathymetry of Ascension by the UK Hydrographic Office in Taunton, and from those maps, have interpolated a draft map (below) showing the small shallow shelf to the west of Ascension. The final system will involve marine as well as landward resources. (Map 1)

The Conservation Office team have been collecting GPS data on the cat baiting work they have been doing, and we have integrated their data into the GIS (Map 2).



Map 1 bathymetry of Ascension



Map 2 – Cat monitoring lines on Ascension

Finally, we have not just limited ourselves to the Conservation Offices needs. We also have data from various other departments that are being inputted into the system, we are grateful for the support from The Administrators Office, the

Police, Technical Services, Merlin, Environmental Health, Ports Authority, the Historical Society, Two Boats School and Cable and Wireless for all their input and help. We hope to work with you all more closely in the final run up and you can have a play, learn and inform yourselves of the geography of Ascension Island before the close of the year.



**Overseas Territories Environment Programme (OTEP) XOT 202 Environmental Education**

*Contributed by Ali liddle*

Following on from my visit to Ascension Island in October/November I have been back in the Falkland Islands putting together teaching packs for use in the Primary sector of Two Boats School.

I identified a number of units of work in Science and Geography that could be delivered with an emphasis on local habitats, wildlife and plants and put together lesson ideas and the resources required to help teach these units of work with an emphasis on the local environment. These resources included fact sheets about the birds and most common plants, insects and marine species of Ascension Island, photocopyable activity worksheets, posters using photographs taken around the island and even jigsaw puzzles of local wildlife.

I then put these resources together in teaching packs that the staff at school can then access easily and deliver to the students in class. I made sure that there were enough activity packs for the children to work in small groups in class and that all the resources were produced in a way to ensure they are going to last for many years to come.

During this short visit to Ascension Island I have delivered these teaching packs to the school and spent time with the relevant staff to talk through the resources so they can begin to get an idea of how they can be used in class. The feedback from the staff involved has been very positive,

which is great, and their enthusiasm for their work will ensure that these resources are used effectively in school thus allowing the children to begin to develop a greater understanding about their local environment. Thanks to all the staff for their time.

I have also met with the Science teacher in the secondary sector of the school to begin to find out how I can help support and resource the Science curriculum in Key Stage 3. When I return to the Falkland Islands I will begin researching this subject area and will put together some lesson ideas and supporting resources to give a local environmental slant on some aspects of the curriculum. I also hope to do the same with the Geography curriculum.

So a busy few months ahead but I'm looking forward to the challenge and looking forward to returning to Ascension for my final visit towards the end of the year.

Thanks to the staff at Two Boats School and I'll see you all again soon.



Colin Cranfield (Green Mountain National Park Fieldworker)

We've been working for the Conservation at the National Park improving the access to Mountain National Park. This involved starting off by clearing the paths, for instance now we are working on Elliot's which involves trimming overhanging trees to make the path more accessible. On some sections of the path the areas are made wider to make them safer for people to walk along. We will then work on the other paths around National Park to make all around the mountain more accessible.



**Improving Access to Green Mountain National Park (OTEPE) ASC 301**

*Contributed by Carl Richards & Colin Cranfield*



Carl Richards (Green Mountain National Park Fieldworker)

**New Items for sale in the Conservation Centre**

**National Park Commerative goods:**



Pens	£3
Key rings	£1.50
Fridge magnets	£1.50
Hats	£7.00
T-shirts (adults)	£9
T-shirts (children)	£6