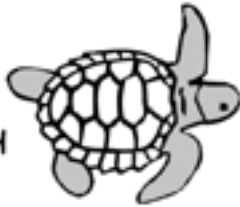


# AusTurtle

SEA TURTLE RESEARCH  
AND CONSERVATION



# Newsletter

Volume 3

October 2005

## Upcoming AGM

We encourage all members to attend our upcoming annual general meeting. We hope for more people actively supporting the organisation in the upcoming year. Please come and bring anyone along who is interested in joining AusTurtle.

Our AGM will be held at the meeting room of Casuarina Public Library at 6:30pm on Tues 1st November. The order of business for the AGM is as follows:

- (a) first – the consideration of the accounts and reports of the Committee;
- (b) second – the election of new committee members;
- (c) third – any other business requiring consideration by the Association at the meeting.

As stated in our constitution anyone wanting to nominate for a position must notify the secretary (Nirmala Nath) 7 days before the meeting. Nominations for all positions will be accepted. We just need a note stating your willingness to stand for election. Please email this to [austurtle@austurtle.org.au](mailto:austurtle@austurtle.org.au)

The committee consists of:

- President
- Vice President
- Secretary
- Treasurer
- Promotions officer
- Membership officer

## Merchandise update

We now have a quite substantial array of merchandise including caps, sunglass straps, books, magazines, hat pins, plush turtles, greeting cards and laminated photos.

Our merchandise has been the driving force behind raising funds to promote the aims of our organisation.

### Books

**Australian Geographic Magazine** \$15.00  
*With article on Bare Sand Island*



**Turtle Tricks** \$5.00  
*Kids Book by Steve Parish*



### Blank Greeting Cards

A6 sized cards \$2.50 (3 for \$6.00)



### Laminated Photos

A5 size photos



### Hats

Three designs  
Various colours



\$20.00



### Sunglass straps



\$5.00

An assortment of colours  
Text: "Bare Sand Turtle  
Research"

Graphic: "Turtle" & "Clipboard"

### Clutch pins



Large turtle



Small turtle



Dugong

### Splat turtles

Soft turtles with suction hands

\$6.00



To order any merchandise please contact us via email, post or visit our website at [www.austurtle.org.au](http://www.austurtle.org.au).

Order forms can be downloaded from our website.

# Bare Sand Island Sea Turtle Research 2005

*By Mick Guinea*

Bare Sand Island is never boring and always different. This year was no exception. A small advanced working party consisting of Nick Shaw, Andrew Raith and I headed out to Bare Sand Island on 10 June. Having loaded - no overloaded - Maxwell's "Mad Mullet" the day before in Darwin. That was the easy part. After carrying the gear - almost a tonne of it - over that sand dune to the camp site I was questioning just what I was doing. Feelings of exhaustion soon passed when we erected the dome. That was just a 30 minute job. We stood back and admired our handy work. Setting up the composting toilet was another 10 minute job and even more time was spent admiring our achievements. Another 10 minute job was the making of the fire places out of the 60 L drum with time set aside for admiration and communal adulation. In all, the small 10 minute jobs took nearly three days.



Photo Mick Guinea

Our Odyssey Travel guest, Dan Hoops, was whisked off to the airport by Andrea Koch, April Stevens and Hannah Brodie-Hall for the flight to Dum in Mirrie Island and the boat ride to Bare Sand Island. The research began in earnest with turtles to be tagged, nests to be marked, tracks to be crossed, hatched nests to be dug, hatchlings to be mothered, GPS receivers to be mastered, data sheets to be recorded, daily summaries to be collated, kit bags to be organised, meals to be prepared, sleep to be had, washing to be done, boat to be fixed, photographs to be taken, fire wood to be gathered, experiments to be set up, yoga to be practised and still there was more to be done. At the end of the first week we were still all happy campers.

Andrea arrived with the Conservation Volunteers for another two weeks of research. April stayed on the island while the rest of us returned to reality. Andrea gave a sea turtle talk to the guests of the "Oceanic Princess" before they came ashore for a look at the camp, the volunteers, the turtles and the project. I welcome our new members from the "Oceanic Princess" and remember warmly our members from previous "Coral Princess" and "Oceanic Princess" visits.

The 4<sup>th</sup> July saw the changing of the research teams again. The Conservation Volunteers returned to Darwin after two weeks of research leaving April on the island again. They were replaced by a group of our members and students. Joan Loftus, a long term member and financial sponsor joined us as did Keith McIntosh who was unable to make the Odyssey trip. Others included my son, Daniel, and this friend, Andrew Malone, my wife, Nirmala Nath and Marissa Ellis from Charles Sturt University. Andrew, Nirmala and Daniel returned to Darwin after a week and the following day Shirin Ghafari-manjili and Mark joined us for the last week. The camp was deconstructed in less time than it took to construct. On Monday morning, 18 July, sitting along the shoreline under the Casuarina tree was about one tonne of gear waiting to be packed into Maxwell's boat when it arrived. In what seemed too soon we were back to reality once again.

What did we achieve this year at Bare Sand Island? Approximately 208 turtles came ashore on the island during the five weeks of our camp. Of these 31 were turtles that we had not seen before. The others carried either tags or a scar to indicate where a tag had been. Sixty seven nests had hatched during the five weeks. Approximately 200 nests were marked with external nest markers and their locality recorded using the GPS receiver. April, Andrew and Andrea returned to Bare Sand Island over the next two months and accounted for all the nests that had been laid during our visit. This gives us the first indication of the hatching success of nests laid in the peak of the nesting season. It also provides us with incubation durations for these nests. What are we planning for next year? All I can say at this stage is that it is going to be big!

Regards and thanks to all who helped this year including the group to the right.

Mick Guinea



**Flatback sea turtle hatchlings**

Photo Andrew Raith



## Bare Sand Island Experiences

*By April Stevens*

I will never forget seeing the island for the first time, nor my experiences there. The gorgeous contrast of stunning buff sand merging into the dazzling blue ocean was quite a welcome site, especially after just coming from a particularly cold winter back in Canada. How could I possibly have gotten so lucky to have such a beautiful island as a field study site for my Honour's thesis?!

Our first night there, the beginning of a 5 week spell for myself, was filled with excitement and anticipation. I had to keep pinching myself to know that my dream of working with sea turtles was finally beginning. I remember placing a head torch on my head and getting ready to patrol the beach and felt as if I were in a daze, so much so that I couldn't even turn the simple torch on! With Mick Guinea as our fearless leader our group left camp, heading into the starry night to look for nesting females. As Mick, Andrew and Nick had actually arrived a couple days previously, they walked with a knowing grin on their faces while Mick described to the rest of us what to look for.



Photo Len Zell

*Andrew, April, Dan and Mick catching turtles.*

It was not long before we crossed the surprisingly visible and very distinctive tracks of a female making her seemingly arduous journey from sea to dune. We eagerly followed the track to where the flatback turtle was already digging her body pit. She was so big! No descriptions, details, stories or pictures ever prepare one for seeing the real deal; I couldn't believe her size as I'd only seen small hawksbill and green turtles before while scuba-diving. Hannah, Dan and I crawled up behind her so that we could watch her lay her eggs. I was astounded at how wonderfully controlled her egg chambering efforts were. For some reason I had believed that sea turtles just randomly flung sand away to dig a pit into which they laid their eggs. What a marvellous surprise to witness her right hind flipper flicking the previously dug sand and then gently stretching her left into the chamber, cupping the end just as you or I would cup our hands, and carefully scooping out the next bit of sand. I was star-struck, and to this day, unexplainably so, thinking of those most adorable hind flippers scooping sand brings a smile to my face.

As amazed as I was by the egg chamber formation, watching the first egg fall into the nest was phenomenal. All of us watched with awe as she contracted and two or even three eggs would fall out at a time. After having laid her clutch she then began to cover up, and finally departed on her trip back to the ocean.

And to think, this was just the beginning!!

This was just the first of many exciting, but yes, exhausting! nights for the next 5 weeks. During this time I was lucky enough to witness several turtles come back for their second and some even their third time for the season. Thanks go out to the many wonderful volunteers who gave their dedication, hard work and sleepless nights to Bare Sand Island turtle work.



Photos by Mick Guinea and Keith McIntosh

# Species Profile: The Hawksbill Turtle

## *Eretmochelys imbricata*

### Species Description

The carapace is high domed with imbricate or overlapping scales. The margin of the carapace forms sharp projections on the posterior edge. The colour of carapace is variegated with brown, reddish, yellow and black markings. Adult females have an average curved carapace length of 82 cm and weight of 50kg. Hatchlings measure approximately 4 cm in carapace length and weigh 14g. Hawksbill turtles are characterised by four costal scales, 2 pair of pre-frontal scales, no preocular scales and 3 post ocular scales. Adult females have an alternate gait on land.

### Generalised Life Cycle

Hawksbill turtle hatchlings emerge from the nest, run down the beach and enter the sea. It is during this time that they are thought to be imprinted with the characteristics of the beach to enable them to return to breed when mature. For several days they swim directly out to sea guided by the direction of the onshore waves. After this period they begin a planktonic phase, that may last approximately 5 years. When they reach about 30 cm in curved carapace length, they enter shallow benthic foraging habitat comprising coral or rocky reefs. Both males and females migrate to nesting areas to mate. After mating the males return to the foraging area while the females return at the end of the breeding season. All of the hard shelled sea turtles have a similar life cycle.

### Population Distribution

Hawksbill turtles are found in tropical and subtropical waters throughout the world. In Australia, two main nesting populations exist; one in the northern Great Barrier Reef and the other in Western Australia. Australia's nesting population comprises approximately 5000 adult females.

### Reproduction

Females nest on sandy tropical and subtropical beaches. They lay 1 to 6 clutches per season, at 14 day intervals, with each clutch containing approximately 122 eggs. Nesting seasons are at intervals of between 2 and 4 years. The incubation period is approximately 59 days. The sex of the hatchlings is determined by the temperature of the nest. Warmer nests producing females, cooler nests producing males.

### Habitat

Foraging habitat includes coral and rocky reefs. Nesting habitat is most on tropical sandy beaches. Most important nesting areas in Australia occur on islands.

### Diet

Hawksbill turtles are omnivores consuming both animal and plant material. Some evidence suggests they are specialist spongivores. In Australia, they consume both sponges and algae.

### Threats

A variety of threats affect hawksbill turtles and include a number of commercial fishing activities, excess indigenous harvest of eggs and adults, illegal harvesting neighbouring countries, destruction of nests by feral animals, marine litter, habitat destruction and boat strike.

### Status

Internationally they are listed as Critically Endangered and nationally they are listed as Vulnerable.



By Scott Whiting

## Tag Return Poster

As part of the EWI Rainforest to Reef Conservation Research Initiative, they have produced several posters for distribution to island and coastal communities.

The poster reads

*“Marine turtles are very important to our culture and nutritional needs. For many years our Islander and Aboriginal people throughout the region have been helping Queensland Parks and Wildlife Service, Secretariat of the Pacific Environment Program (SPREP) and others to tag turtles. By tagging turtles we can find out how many there are, where they nest and feed, and their migratory patterns. Turtles face many threats to their survival, and with your help we can make sure there will be turtles around for future generations.*

*If you find or catch a turtle with a tag on its flipper please inform someone from your local Fisheries agency, Parks and Wildlife service or SPREP; or send the tag to the address engraved on it.*

*Let us know the location where you found the turtle and what it was doing before you caught it. (Please do not remove tags from living turtles).”*

Please contact AusTurtle if you would like a poster to put up for your local community.



## Turtle News - [www.seaturtle.org](http://www.seaturtle.org)

Seaturtle.org is a fabulous website focusing on sea turtles worldwide.

As well as being one of the most informative online resources for sea turtle biology and conservation (along with several hundred links to other great pages), seaturtle.org provides an online mapping tool which allows everyone to view the paths of turtles recently applied with satellite transmitters.









With over 600 animals tracked worldwide, this gives very interesting insight into the movements of sea turtles within our oceans.

Recent tracking projects within Australia include:

- Hawksbill turtles off Groote Eylandt
- Olive ridley turtles off the Tiwi Islands
- Green turtles off Scott Reef, Western Australia

Check it out, it's well worth the visit.

## Our aims...

-  To support sea turtle research and conservation
-  To support the objectives of the National Sea Turtle Recovery Plan through Research, Threat Abatement and Education
-  To support the preservation of sea turtle habitat and their associated biota
-  To engage in sea turtle education
-  To engage in fundraising to support the above aims
-  To support the continuation of a long-term research project at Bare Sand Island, Northern Territory
-  To collaborate and form partnerships with other organisations and institutions to apply for funds to support the above aims
-  To participate in discussions regarding sea turtle management, conservation and research at all levels including local, regional, national and international.



*Promoting sea turtle research and conservation in northern Australia*

PO Box 34u, Charles Darwin University, NT Australia 0815  
Ph. 0438 192 507 Email. [austurtle@austurtle.org.au](mailto:austurtle@austurtle.org.au) Web. [www.austurtle.org.au](http://www.austurtle.org.au)