



THE INDO-PACIFIC SEA TURTLE CONSERVATION GROUP

February 2004 Newsletter

A Busy Turtle Nesting Season for IPSTCG volunteers

During December two teams of IPSTCG volunteers participated in the annual turtle nesting survey of the remote Coringa-Herald National Nature Reserve in the Coral Sea. There was plenty of turtle action to keep everyone busy each night of the expedition – see Mark Hallam’s report on page 2 and Alice Hurlbatt’s account on pages 3 and 4.

In mid January, five IPSTCG volunteers went to Rattlesnake and Herald Islands (*another* Herald island!) just north east of Townsville, along with bird experts and botanists contributing to an environmental report for the Defence forces. Since these small islands are used for live firing practice we were accompanied by armaments officers tasked with ensuring we did not accidentally step on any explosive left-overs.



Deb, Tim and Meredith record the location of a turtle body pit on Herald Island J Hazel photo

Heavy rain and wind had unfortunately obliterated most turtle tracks and made it difficult to identify body pits with certainty. Therefore the 30 nesting locations that we recorded may have slightly under represented nesting effort on the two islands.

Sadly, one nest had been destroyed, apparently by humans, shortly before the eggs were due to hatch. Another four turtle nests had apparently been predated by animals, probably goannas.

The number of turtles reported nesting near Townsville this summer was also disappointing. Three nests were confirmed at Pallarenda, none at the Strand and only one on Magnetic Island, although other nesting may have occurred that was not reported to IPSTCG.

At the end of January, IPSTCG’s annual beach monitoring at Cape Ferguson (“AIMS beach”) concluded with the disappointing result of only one marked turtle nest. See page 2 for more.



Flatback turtle eggs, very close to hatching, were scattered around one of the few nests on Herald Island, north east of Townville J Hazel photo

Diary Dates



Sunday 15 February 2004, 10:30am, IPSTCG AGM, to be held at the Reef HQ aquarium complex in Townsville, conference room 1. All members invited to attend - come and review the past year’s achievements and get involved in new activities for the year ahead.

29 March – 7 April 2004, IPSTCG volunteers will have the opportunity to assist with post-hatching evaluation of turtle nests in the Coringa-Herald National Nature Reserve – see email notices for details.

Turtle nesting at Cape Ferguson

By *Tim Harvey*

IPSTCG volunteers observed only one nesting turtle this season at AIMS beach, Cape Ferguson, on 13 December when Reef HQ volunteers were with us.

This was a green turtle with curved carapace length of 95.8cm, and she laid 95 eggs. She was tagged with tag number K24045.

Between 31 October and 13 December our volunteers recorded 24 definite sets of tracks, ranging in width from 85-109cm. After 13 December the rain made tracks difficult to identify and measure but about 12 sets of tracks were noted between 20 December and 9 January, giving an average of 3-4 sets per week for this monitoring season (2003-2004). From the track widths it seems the turtles coming up on the beach at Cape Ferguson were a mixture of Flatbacks and Greens, which is usual for this beach.

We would like to thank the security staff at AIMS for their co-operation during this nesting season, and the various staff members at AIMS who reported tracks during the times we could not be there. Without their help this recording would not be possible.

Coral Sea Patrol – December 2003

By *Mark Hallam*

While Alice had her team on NE Herald Islet, and Tim had his team on SW Herald Islet, Sarah Lowe, Ann Caillaud and myself ventured to 3 other islets in and near the Reserve. We visited Coringa Islet, where we counted nesting seabirds and turtle tracks along the beach, then went on to Willis Islet, a weather station that provide early cyclone warnings for far north Queensland.

We took some of the islet-based crew on a walk after dark and came across 5 green turtles on the beach. Two, surprisingly, had tags from previous visits – remarkable since only a few turtles have been tagged previously out there. Both had been tagged in December 1996, at Willis Islet.

With the help of the islet crew, we tagged the other three and talked about how they could assist us with our monitoring work in the Coral Sea. After watching a weather balloon launch we returned to NE Herald Islet via SE Magdelaine Islet where we also did bird counts.



Coral Sea volunteers L-R: (back) Candice, Shaun, Leanne, Sarah, Mariana N, Peter, Mariana F; (front) Anne, Alice, Aurelie, Melissa and Tim - Mark was behind the camera M Hallam photo

Overall, it was an excellent season for nesting on the Coral Sea islets. This was most surprising as the sand was very dry during our first week. Monitoring results for our patrol are summarised below.

North East Herald Islet

- 254 encounters with turtles over 18 nights of monitoring, average 14 encounters per night
- 69 new turtles tagged
- 32 turtles tagged in previous seasons returned to nest this year
- 49 nests laid by 47 different turtles were surveyed and will be re-surveyed in the March/April patrol of 2004 to estimate hatching success

South West Herald Islet

- 37 encounters with turtles over 4 nights of monitoring, average 9 encounters per night
- 21 new turtles tagged
- 3 turtles tagged in previous seasons returned to nest this year
- 4 nests laid by 4 different turtles were surveyed and will be re-surveyed in the March/April patrol of 2004 to estimate hatching success

Willis Islet

- 5 encounters with turtles over 1 night of monitoring
- 3 new turtles tagged
- 2 turtles tagged in previous seasons returned to nest this year
- no nests were laid during the time we were monitoring

The Method Behind the Coral Sea Madness - Turtle Tagging Trips Explained

By Alice Hurlbatt

Apart from lazy days in the sun there is some serious work that goes on after dark to get information about the nesting status of the population of Green Sea Turtles (*Chelonia mydas*) that utilises the Coringa-Herald National Nature Reserve.

The aim of the project is to gather reliable information on the number of turtles using the islets, where they nest and how often they return. Additional nesting information collected includes the number of eggs in a clutch, the diameters of a sample from the clutch, the nest depth and location of the nest as well as which turtle laid the eggs.

This information helps to support management of the Coral Sea Reserves by the Department of Environment and Heritage (formerly Environment Australia).

The data is gathered at night by IPSTCG volunteers, who walk the beach looking for nesting turtles and follow fresh tracks up from the waters edge to the turtle. The turtles are usually engaged in one of several nesting behaviours:

- Body Pitting - flicking away dry sand to get down to the damp sand below
- Egg Chambering - scooping out sand with their hind flippers to create an egg chamber
- Laying - actually in the process of laying their eggs
- Filling - covering over the nest with sand and disguising it (while flicking as much sand into the volunteers hair and eyes as possible!)
- Returning/Wandering - returning to the water after nesting or meandering around the beach looking for a suitable nesting site.

With minimal disturbance to the turtles, we check if they are already tagged, look for any damage/identifiable features, measure their carapace, count the eggs and measure nest depth. Finally, if the turtle is not tagged, we apply a titanium tag to their front flipper. The ideal time to do all this is while they are filling their nest, when they have finished all the crucial parts of their nesting procedure and are in a hormonally driven “mental torpor”.



Leanne and Aurelie undertake a clutch count immediately after a turtle has completed nesting, while another Coral Sea turtle (background) is laying eggs close by M Hallam photo

This process is repeated for as many turtles as we can find each night, and occasionally we have a ‘recapture’ of a turtle that has been previously tagged. Recaptured turtles provide us with information such as growth rate, nesting season intervals, changes in clutch sizes and nesting locations over time. We also do daily/nightly track counts to determine how many turtles have come up the beach to nest each night.

In short, there is lots of hard, rewarding work, with lots of sand flicked around and lots of eggs to count and holes to be dug at three in the morning while you are upside down in a body-pit. But as they say, “It’s all part of the Coral Sea Experience!”



Leanne takes egg measurements by the light of her head torch M Hallam photo

“They Said What?”

By Alice Hurlbatt

For anyone who is not fortunate enough to have managed to beg, cajole, bribe, threaten or sweetly praise their way onto a Coral Sea Turtle Tagging Trip, you may often be left wondering exactly what goes on during these exhausting, but utterly rewarding sojourns.

Instead of wishing you were a booby-bird on a branch having been privy to the social interactions occurring every day in that little island paradise, North East Herald Islet, wonder no more, because here is a small insight into the delightfully bizarre nature of conversation out there.

On Wildlife

“Did you know that you are more likely to be bitten by a New Yorker than by a shark?” *(Tim Harvey, discussing statistics at the start of the trip)*

“Oh my @\$&*# God! I am never going swimming again, I have just seen a massive @\$&*# shark between me and the beach!” *(Peter Fossan running up the beach on the last day of the Group 1 trip)*

“Well Peter, being eaten on the last day is much better than being eaten on the first day, at least you got to do some stuff.” *(Alice to Peter while looking sceptically at the now uninhabited water- I didn't see one lousy shark the whole trip!)*



“What was that?” “Oh gross, there's a booby-bird above me!” *(Said by most of us at one point or another during the trip while crawling under an Argusia bush after an elusive turtle.)*

On Tents

“Luckily I found the hermit crab in my tent before I went to sleep tonight... if it had crawled over me in the middle of the night, I would be dead now... I would have just died of fright!” *(Peter Fossan while removing the unfortunate crustacean squatter from its prime location on his mattress)*

“Peter...PETER...PETER...can you come help there's a turtle in our tent!” *(A frantic Mariana Fuentes shortly before one of our dear scaley friends began attempting a body pit in Mariana and Peter's nice new (borrowed!) tent.)*



Background to those bizarre conversations - the turtle monitoring camp on the beach at North East Herald Islet in the Coral Sea M Hallam photo

On Food

“Eewwww, gross! - - - (insert practically any fresh fruit/vegetable/protein source here) - - - has gone off and is stinky in the fridge!” *(Said fairly regularly by anyone whose turn it was to cook)*

“Can you please pass the Nutella.” *(Said very regularly by everyone who was anywhere near the campsite, regardless of what time it was)*

“Hmmm, this is yummy.” ... “What is it?” ... “Nutella on Burrito Tortillas!” *(Melissa Varoy before starting the new trend of smearing Nutella over anything even remotely edible)*

“Those who complain don't get any!” *(Alice on the suspicious and questioning looks from the others over my dismal camp cooking efforts)*

The rest of our time was spent snorkelling, reading, swimming and sleeping away the balmy days on our tropical beach after a tiring but thoroughly enjoyable night ... Oh, and the view's not too bad either, so definitely try to bribe, cajole or sweet-talk your way onto the next trip and come and enjoy yourself. A BIG thank-you also goes to everyone who put in the hard work, both on the trips and behind the scenes, to make these expeditions work, full credit to you! It's a wonderful opportunity to make good friends, maybe catch up with old friends, see some beautiful places and most importantly of all, do some fantastic work with those lovely critters, the turtles.