



THE INDO-PACIFIC SEA TURTLE CONSERVATION GROUP

April 2005 Newsletter

Is it a 'bill'?



Yes... it's a 'bill'!

By Tim Harvey

A shape in the water blurred as it sped away from our turning boat, *Turtle 2*. As I crouched on the bow, my eyes tracked ahead trying to keep the fast swimming turtle in sight.

Ian Bell's shout *Yes, it's a 'bill'!* became almost a mantra. Distinguishing a swimming hawksbill from a juvenile green turtle was a constant challenge. The distinctive whirring of the smaller front flippers of the hawksbills and their long neck and beak were only recognisable when we were very close.

We were based at Ingram Island to undertake a project supported by the Earthwatch Institute's Rainforest to Reef Conservation Research Initiative.

The island lies in the Howick Group off the east coast of Cape York Peninsula. This area supports one of the largest concentrations of foraging hawksbill turtles on the Great Barrier Reef and possibly the world.

Two teams of Earthwatch volunteers, a diverse group from across the globe and around Australia, helped with this monitoring project.



Sunday June 5, 10am-5pm: Eco Fiesta

Queens Gardens, Townsville. Volunteers needed to help with IPSTCG stall. This annual environmental festival is renowned as a great day out for all ages.

August 27-28: Thuringowa River Festival

Watch local papers for details. Please offer to help with IPSTCG stall if you can.

Bowen monitoring of foraging turtles

One or more trips to Bowen likely over the winter months. IPSTCG members will receive details by email when dates have been set.



Photo above by Helen Garnham: Earthwatch volunteers help chief investigator Ian Bell with weighing turtles during monitoring in northern Great Barrier Reef waters

Photo top left by Tim Harvey: Close up view of a hawksbill turtle, one of many tagged in the Howick Group

Each team spent approximately a fortnight on the island during July and August 2004.

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Howick hawksbills - continued from page 1

Everyone became used to the early starts, the 'hands-on' approach and the difficult conditions.

The days were mostly clear and sunny but very windy, which made it more difficult to catch turtles in the choppy water. However volunteers quickly became adept at hawksbill spotting – there was no lack of opportunity to practise.



The research team busy with turtle laparoscopy (rear) and turtle measurements on Ingram Island Tim Harvey photo

In total we caught, tagged and measured 79 hawksbills, 152 green turtles and five loggerheads. (We also included six dugong!)

Hawksbill turtles were our main focus and all except one small juvenile were laparoscopically examined to determine their sex, maturity and breeding status.

The majority (94%) of hawksbills that we monitored in the Howick group were female: About a third of these were adult, just over half were sub-adult pubescent and only three were juveniles. The four male hawksbills we caught comprised one adult, two sub-adult pubescent and one juvenile.

Among the hawksbills already wearing tags, twenty five percent had previously been tagged in the Howick group.

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A Coral Sea nester found alive and well and living in Edgcumbe Bay

During October 2004 IPSTCG volunteers again turned out to help with the ongoing turtle monitoring program in Edgcumbe Bay near Bowen. This is a joint project operated by the Giru Dala Council of Elders and Queensland Parks and Wildlife Service.

Twenty four green turtles were captured, measured and released, and 22 of them received new tags. One turtle was a local recapture, having been tagged previously in the same area by the Giru Dala team.

The other recapture was especially exciting for IPSTCG people: This large female turtle had been tagged at North East Herald island in November 2003.

At that time IPSTCG's Coral Sea volunteers recorded her presence on the nesting beach on 27/11, 28/11 and 30/11/2003 when she presumably laid a clutch of eggs. She was recorded again on the same beach on 12/12/2003, probably preparing to lay her next clutch. After nesting she would have had to swim about 1000 km across deep ocean waters to reach her foraging grounds in Edgcumbe Bay.



Michael O'Leary measures the curved carapace length of an Edgcumbe Bay green turtle that was tagged during the October monitoring trip J Hazel photo

Fibropapilloma discovered in turtle population near Bowen

Regrettably the Edgumbe Bay tagging weekend in October 2004 produced bad news as well as the happy discovery of a Coral Sea nester (see page 2).

During the monitoring work, fibropapilloma was recorded for the first time in this area. Four of the 24 green turtles that the team inspected had external tumours typical of this debilitating and often fatal disease.

Despite expert studies it's still unclear why some turtles, predominantly greens, become infected by the fibropapilloma virus. Links with poor water quality and increased human use of coastal waters have been suggested but not yet confirmed.

Turtles with fibropapilloma symptoms were infrequently seen when the disease was first described in Atlantic waters in the 1930s. In some parts of the world the incidence of fibropapilloma has increased greatly in recent decades.

The fibropapilloma discovery near Bowen raises the concern that an increasing trend may be under way in our northern waters.



Edgumbe Bay green turtle affected by fibropapilloma
Michael O'Leary photo

Art for turtles' sake

Students at local schools produced an inspiring range of art work for *Turtles in Trouble* exhibitions held late in 2004 at Pinnacles Gallery and Perc Tucker Gallery.

Pictures selected from the exhibited works feature in the 2005 calendar that IPSTCG produced with the support of Thuringowa and Townsville City Councils.



Kasmira Corporal's art appears on the November page of the "Turtles in Trouble" calendar

Temporary interruption to Coral Sea monitoring program

Annual monitoring of turtle nesting at islands in the Coringa-Herald National Nature Reserve was unfortunately not possible this past summer, due to changes in government policy regarding trips to these remote islands.

Coral Sea monitoring has been a major event on the IPSTCG calendar for several years and is expected to resume next summer, with some modifications to logistical arrangements in order to conform to the new policy framework.

An IPSTCG tag enabled the identification of a turtle from the Coral Sea nesting population that was subsequently found foraging in Edgumbe Bay (see page 2), confirming the long term value of this monitoring program.

IPSTCG continued local monitoring over the 2004-2005 turtle nesting season with regular weekend surveys at the "AIMS beach" at Cape Ferguson, one trip to Rattlesnake and Herald Islands and aerial surveys of the mainland beaches north and south of Townsville.

Downward trend for Milman Island nesting hawksbills

By Ian Bell

Spending five weeks, in the middle of summer, on an uninhabited sand cay at the far northern end of the Great Barrier Reef may not be everybody's idea of a good time, but for a team of sea turtle researchers from the Queensland Parks and Wildlife Service, volunteers from Earthwatch and students from Thursday Island, this is exactly where they want to be.

Milman Island lies off the north-eastern tip of Cape York and its warm sands incubate the eggs of possibly one of the worlds largest nesting populations of *Eretmochelys imbricata* or hawksbill turtle. Turtle nesting has been monitored on the island for 13 of the past 14 years.

The project supports the involvement of local indigenous people and three students from Thursday Island High School were offered Earthwatch fellowship places and spent their nights walking the beaches tagging and measuring sea turtles. They also helped count and measure eggs, clean up rubbish washed up on the island and participate in all aspects of field camp life.

Hawksbills are modern-day living relics of our ancient past; in fact 120 million year old fossils have shown that turtles were quite happily swimming in the oceans before dinosaurs even set foot on land!

Unfortunately today the story is different, global hawksbill turtle populations are classified as "Critically Endangered" under the International Union for the Conservation of Nature. Over the last 80 years populations have crashed.

The main cause of the decline has probably been over-harvesting of hawksbill shells to make jewellery. Unsustainable harvest of hawksbills and their eggs by indigenous communities, the accidental by-catch in commercial fisheries and nest destruction by feral animals are just a few of the other threats facing these turtles.



The IPSTCG calendar (see page 3) draws attention to problems that underlie the decline in turtle populations.

Population monitoring to ascertain whether turtle numbers are increasing or decreasing is essential in determining whether or not conservation strategies are actually working. Night after night just before high tide the team were on the beach waiting for the turtles to emerge from the water and lay their eggs.

Once laying was completed turtles were measured and titanium tags, inscribed with a unique serial number and a return address, were fastened to each front flipper. These tags should stay on the turtles for the next 15 – 20 years so each one can be identified when she comes back to lay more eggs in future nesting seasons, usually at about seven year intervals. Additionally, if she is captured after she returns to her feeding area, hopefully the tag will be reported to QPWS so a picture can be pieced together of where these animals travel to between nesting events.

Some of the results from the 13 years of surveys have been quite remarkable. While most turtles remain within the Great Barrier Reef, several have swum up to 2500 kilometres across to Vanuatu. Others have gone to New Caledonia, the Solomon Islands, PNG and Indonesia.

Unfortunately the information researchers have collected on the numbers of turtles nesting at Milman Island indicates the population is declining by about 4% per year.

It is hoped that young hawksbills growing up within the protection of the Great Barrier Reef Marine Park and other conservation initiatives will eventually reverse this trend when they mature and come to Milman Island to lay their eggs. There may even be a team of researchers waiting for them!