

PROTECTING OUR SEA 'GREEN' BORDERS



By MERRAN TEALE

Stopping illegal fishing boats in their tracks, intercepting people and drug smugglers and protecting Australia's borders from illegal activity are two of the higher profile roles of the Customs National Marine Unit and Customs Coastwatch.

But it is the "greener" and more delicate roles of Customs that are helping Australia's tourism, recreation and commercial fishing industries and protecting the environment as well as the border.



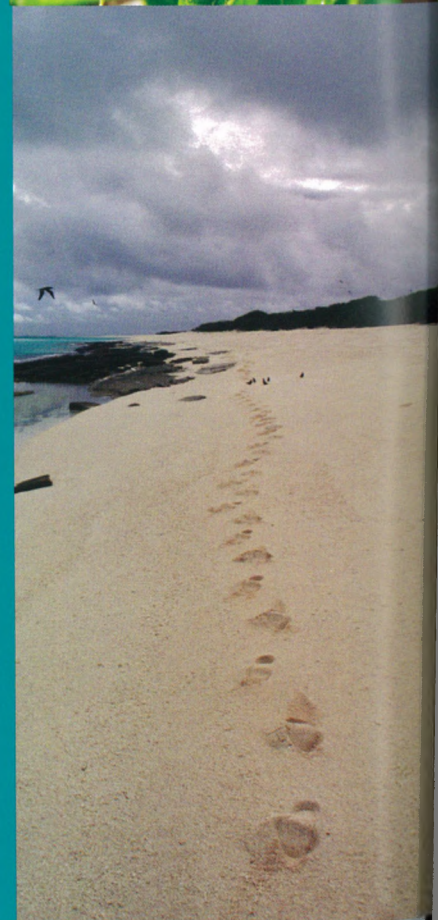
As the official "eyes and ears" of these remote sandy cays and islets, Customs National Marine Unit (NMU) and Coastwatch officers provide regular information on the Coral Sea Nature Reserves and identify problems for environmental organisations which rely on them to protect the largest marine park in the world, the Great Barrier Reef.

The Coral Sea Nature Reserves lie directly east of Cairns, with the Coringa-Herald Reserve 400km off the mainland. This reserve is protected by the World

Conservation Union and is categorised as a "strict nature reserve". This means fishing is not permitted, coral must be protected from boats and divers and the flora and fauna must not be removed or put at risk in any way.

With six islets and cays ranging in size from 16 to 37 hectares, the Coringa-Herald Reserve is mainly made up of coral sand, rocks and coral rubble and the islands are no more than about five metres above sea level. There are thick forests on some of the islets.

The seclusion of the Coral Sea islands makes an attractive breeding and nesting ground for over 628 species of fish, 27 species of



seabirds, 745 species of molluscs and a number of corals, marine turtle species and cetaceans (dolphins, dugongs and whales).

To protect this medley of wildlife specimens and unique landscape, organisations such as Environment Australia, the Australian Fisheries Management Authority and the Great Barrier Reef Marine Park Authority call on Customs to assist with the research and monitoring of environmental activity in this area.

The monitoring tasks provide measures against threats such as coral bleaching and crown of thorns starfish and give indications of the impacts of global warming and threats such as overfishing.

Over the past year, Customs has supported environmental research at Ashmore Reef National Nature Reserve, Cartier Island Marine Reserve and Coringa-Herald National Nature Reserve. With a substantial proportion of the Great Barrier Reef destroyed already, it is now more important than ever to protect these world heritage marine parks from further damage.

Long-term support has been given by Customs at the Coringa-Herald Reserve in exercises such as monitoring the use of the islands via visitor logs, observing the effects of insect pests, assisting with the placement of signs and collecting rubbish off the beaches to reduce the incidence of injury to wildlife.



Customs has also helped with recording and monitoring numbers and health of bird populations, marine turtles, whales and trees and bushes used by birds for nesting.

Bottles, plastic bags, footwear and fragments of nets discarded from passing ships and from the mainland all wash up on these stunning tropical islands. The rubbish poses a major threat to both flora and fauna. Some species, including turtles, can confuse plastic bags with jellyfish and die after



eating them. Various species become entangled in net fragments, plastic strapping and discarded fishing gear.

For the officers patrolling these waters and maintaining the maritime border, cleaning up the environmental pollution is all in a day's work.

"If we weren't doing the rubbish collection task, the islands would be a real eyesore," NMU Engineer Chris Everden said. "It's all about maintaining equilibrium."

Fellow NMU officer Marcellus Mills, from Thursday Island, has assisted with tasks such as collecting water samples for testing and rubbish collection.

On a patrol to the Coringa-Herald Reserve with Australian Customs Vessel *Corio Bay* last year, Marcellus said, "The Herald cays are a lot cleaner this time. On a recent patrol I saw a baby turtle caught in a net. Saving it gave me a real boost."

Brian Muhamad, NMU officer also from Thursday Island, agreed that the environmental tasks made the job more interesting and rewarding.

"It's good to see the other side of the job, the work the other agencies do," he said. "I've done three environmental tasks so far - one was at Lord Howe Island where we looked at the reefs and removed nets from a shipwreck to save the sea life."

Concerned about the effects of scale insect and hawkwing caterpillar moth on the native *Argusia* and *Pisonia* forests on NE Herald Cay and other islets in the region, Environment Australia asked Customs officers to take photographs of the vegetation and any evidence of insect attack while on a patrol in the Coringa-Herald area.



On the first island visited in the Coringa islets, Chilcott Islet, a large amount of rubbish was collected and visitors' log books were checked. While ashore on NE Herald Cay, the crew collected rubbish and then swam out into the warm waters of the Great Barrier Reef to record water temperature readings and levels from previously placed markers.

The amount of bird life on the islands was overwhelming and the officers had to tread carefully in case they stepped on unattended eggs in the sand. Each bird species has preferred nesting sites. Some prefer trees and bushes while others like sand and open beach. Some species build burrows under the shrubs and trees.

Three species of booby birds, two species of frigatebirds and the red-tailed tropicbird were all potentially sitting on chicks while the officers were ashore. If the parent birds left their nests at that time the chicks would have been very vulnerable to heat stress and may have died within a few minutes.

After landing the tender vessel on NE Herald Cay, a turtle nest was discovered by NMU officer Lisa Pugh. With a marine science and quarantine background, Lisa was familiar with the discreet signs left in the sand by the turtle and was careful not to tread into the nest in case eggs were still buried there.

The islets and cays are breeding areas for the green turtle, which is listed as a threatened species under the *Environment Australia Protection and Biodiversity Conservation Act 1999*.

The female turtles come ashore, usually between November and April, to lay their eggs in nests dug in the sand above the high water mark. They lay more than 100 eggs on average. Eight weeks later, the eggs hatch but few survive to adulthood as predators take most of the newborn soon after leaving the nest.

In such a harsh but fragile environment, great care needs to be taken by visitors and Environment Australia has now trained over 40 Customs officers to become Environmental Wardens.

The wardens are empowered to enforce Environment Australia's legislation and have a more in-depth understanding of the natural environment and native and migratory species.

For NMU officer Kerry Millard, from Brisbane, becoming an Environmental Warden gave him a better understanding of the varied role of Customs at the border. "I think the (monitoring) tasks are very worthwhile," he said. "It wasn't until I'd done the Environment Australia Warden course though that I appreciated the environmental tasks.

"It adds to the overall enjoyment of the job. You're not stuck on the one job all the time. Only wardens can arrest a person on environmental breaches. Although I haven't used them yet, I have full powers under the Environment Australia legislation."

Increasingly, Customs is providing compliance and enforcement support for environmental purposes. While the NMU officers are protecting the border from illegal activity such as people and drug smugglers, they are also keeping a watchful eye over the reef for any environmental crimes.

"It's not all compliance - Customs does tasks that protect the environment as well as the border," Lisa Pugh said.

Fellow NMU officer Shaun Conway, a former marine biologist, said Customs role on the sea borders had expanded into intelligence gathering. "Our environmental work is less compliance and more research," he said.

This intelligence not only helps to protect the environment but also safeguards Australia's tourism, recreational and commercial fishing industries.

Having previously worked for over 16 years in the commercial fishing industry, NMU Engineer Chris Everden realises the importance of protecting Australia's waters from illegal fishing vessels.

"It's the industry we really want to protect," he said. "The





fishing industry can be a viable and eco-friendly industry if we do it properly. The last thing we need is for someone to go in open slather.

"On a patrol last year we took four illegal fishing vessels into Darwin. Apprehension of illegal fishing vessels is the most interesting work for me.

"The environmental work is an important part. We are used as a platform for other agencies to improve the process of protecting the marine environment."

The versatile role of the NMU and Coastwatch and their ability to take on tasks from other agencies ensures Customs resources and technologies are being used in the most efficient way.

Tasks received by other agencies are mostly interwoven and on most occasions the needs of several clients can be met with the one patrol. Working on a prioritisation system, Coastwatch assesses the specific operational needs of an agency and then allocates resources, such as the NMU, to carry out the tasks in the most practical way.

"The system we have in place for doing jobs for other agencies brings a lot of variety to our work," Shaun Conway said.

As the chosen "eco-inspectors" for Australia's spectacular coastline, a

typical multi-task patrol can include investigating stranded vessels on reefs that are leaking oil and pollutants into the water, reporting vessels within two nautical miles of pink, orange and green shipping zones, identifying navigation hazards and reporting locations of long liners (tuna and marlin fishing vessels) operating within five nautical miles of a park boundary.

Michael Thomson, NMU officer from Brisbane, said, "Our work is a mix of all different agencies' taskings. We are a platform to all agencies - whoever wants to use us."

With highly skilled officers and their fusion of environmental and marine science knowledge, the NMU and Coastwatch fleets are in a key position to safeguard Australia's prized reefs. Their enthusiasm and enjoyment of the job makes the vital service they offer other agencies even more effective.

Roaming the white sands of a deserted Coral Sea island off the coast of far north Queensland may seem like an ideal holiday but, for some, it is challenging and fascinating work.

