

# Chagos News

*The Periodical Newsletter of the  
Friends of the Chagos*

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## EDITORIAL

### The Expedition

It was a great success! Well done the Leader, Charles Sheppard, who reports briefly overleaf. Given the circumstances of the expedition, distances involved, dependence upon just two yachts, little time for much work, complicated change overs of people, difficult communications, minimal finance, weather, nautical hazard, risk of injury especially underwater, illness and general human failure then the fact that so little went wrong is a great achievement. Thanks are due to many people both present and absent and it is invidious to select names for special mention. Nonetheless we are all grateful to the owners of *Aztec Lady* and *Inga Viola* who not only provided their yachts but also ran them so successfully amidst the chaos of too many scientists with too much equipment.

### TREASURE ISLAND !

Over the years there have been many rumours of treasure hidden in Diego Garcia. Now **Fred Barnett**, who provided that fascinating article about Diego Garcia during World War II in *Chagos News* 3, has written to report a hidden cache of 10 bottles of gin (originally 12 but the B.S.M. Peter Quinn drank 2 straight from the bottle). They are buried no more than twelve

inches under coral on the High Water mark near the southern part of Eclipse Bay. See page 66 of "Peak of Limuria". Fred Barnett has provided a map with an X and 'Treasure near here'. Offers for the map should be forwarded....

### Coconut Crabs

During the Expedition 4 Coconut (i.e. Robber) Crabs *Birgus latro* were collected (carefully) and flown to London Zoo. Drop in and see them. Contact Paul Pearce-Kelly who is a Committee member.

### Contents

After Charles Sheppard's report there is an article by Sara Oldfield and then the first part of a fascinating account of the *Diego* shipwreck researched and produced by Nigel Wenban-Smith. All these three authors are members of the Committee. Finally Alistair McDonnell has provided a very interesting account of recent BIOT fishing.

### AGM

Look forward to seeing you 8 October at the Barley Mow in Horseferry Road when I hope there will be as interesting and lively conversation as last year!

*John Topp*

## THE 1996 CHAGOS EXPEDITION

by

*Charles Sheppard*

Earlier this year, four atolls and offshore banks in Chagos were visited by a total of nearly 30 scientists and technicians, PhD students and other invaluable helpers. We were supported by two 85 foot ketches, and carried out a research programme lasting a total of six weeks.

As described in an earlier *Chagos News*, several threads connected the research project. Permission to visit had centred on the requirement by the authorities for a conservation management plan. High on the agenda for this largely uninhabited region therefore was an assessment of where Chagos is in the Indian Ocean, in biogeographical terms; whether or not it is a stepping stone, a source or a sink for species in an ocean whose rim is seeing severe degradation. The approach taken was largely one of molecular biogeography, using insects, turtles, reef fishes, corals and shrimp. By plugging in to wider programmes, it is expected that the degree of isolation or mixing with other regions can be quantified. Extensive biological surveys and traditional taxonomic and ecological work was also done in time-honoured manner for these groups and more as well. The first results are being analysed now.

A span of 20 years since the area was last visited meant that change over this period could also be assessed. Changes on reef slopes were measured, and island vegetation and bird changes were assessed. In general, the islands' natural Indian Ocean hardwood trees are gradually recovering and replacing the coconut which was introduced when copra was a globally important product. A peat bog discovered 20 years ago was cored for analysis of its fossil pollen and hence pre-man vegetation. Nutrient exchange between island and reef, mediated mainly by birds, was also examined, and several marine and island botanical and productivity projects, some coupled with remote sensing, are attempting to derive estimates of atoll-scale production. Changes on the reefs look slight or negligible. As far as the reefs themselves are concerned, Chagos is in an extremely healthy state. The same may not be the case for higher predators such as sharks, however. We are gleaning as much quantitative information that we can from old dive log books dating back to the expeditions of the 1970's now, but it seems clear that the shark population, previously spectacular, has all but collapsed. Given the levels of shark fishing in the Indian Ocean as a whole, this is perhaps not surprising.

Several unexplained geological aspects of the islands and alleged raised reefs were examined, with fossil rocks, corals and soils recovered for dating. Additionally, a *Porites* coring programme recovered cores for estimating past sea temperatures. This is particularly important in Chagos, given that this region is now thought to be important in early stages of ENSO (El Nino Southern Oscillation) events which drive the world's climate.

Because Chagos is the most remote part of the tropical Indian Ocean, further projects examined species and sediments for trace contaminants. Given that perhaps half of all contaminants entering the marine system come via airborne and aerosol routes rather than from direct discharges, use will be made of Chagos to determine background levels of the world's equatorial region.

Generally, the expedition was extremely successful. It was also most enjoyable. Thinking of the future, many more scientists including a younger generation, have now had a chance to visit it, carry out research in it and develop an interest in it. The chances that it can remain an unspoiled oasis of life look good.

## **The UK Dependent Territories Conservation Forum**

Over the past few years Friends of the Chagos has worked closely with the UK Dependent Territories Conservation Forum with John Topp providing a link between the two organisations. John's knowledge of the Chagos has been valued from the outset by the Forum and, indeed, information he provided was used in the report *Fragments of Paradise. A guide for conservation in the UK Dependent Territories* (Oldfield, S.F. 1987 BANC/WWF Pisces Publications) which led to the initial establishment of the Forum.

The Forum is made up primarily of UK based conservation organisations. Members include the British Association of Nature Conservationists; Fauna and Flora International; Plant Life; Royal Botanic Gardens, Kew; RSPB; World Conservation Monitoring Centre; WWF and the Zoological Society of London. These organisations work together through the Forum to promote the co-ordinated conservation of the diverse and increasingly threatened plant and animal species and habitats of the UK Dependent Territories. The Forum aims to promote conservation by providing assistance in the form of expertise, information and liaison between non-governmental organisations and governments, both in the UK and in the Dependencies themselves.

A major recent achievement of the Forum has been the publication of *UK Dependent Territories: A Conservation Review* following an extensive period of consultation. The document sets out the work of the Forum and the organisations it works closely with. A brief profile of Friends of the Chagos is included! Profiles of the locally based conservation groups in the Dependencies are given based on the responses to a questionnaire survey designed to collect information on the status and needs of the organisations, including their achievements and goals. The overall impression is that a tremendous amount of progress is being made in conservation through voluntary efforts with limited financial resources.

The conservation review summarises the actions the Forum will take to support conservation initiatives in the dependencies over the next five years. A brief summary of the priority actions needed in each Dependent Territory is also provided. The section for the British Indian Ocean Territory notes the need for a comprehensive conservation plan and the need for the importance of conservation to be stressed to all visitors to the islands. It is good to know that these actions are already well underway through the work of the Friends of the Chagos.

***Sara Oldfield***

**SHIPWRECK OF THE SAILING VESSEL 'DIÉGO' ON EAGLE ISLAND**  
**20 JUNE 1935**

*Diégo was a three-masted barque, built in England in the 1880s. Originally christened Jane, she was 150 feet in length, with a displacement of 380 tons. She was capable of 11 knots in favourable conditions. Owned by the Diégo Company, she was used to service their coconut plantations on all the Chagos Islands. Owing to declining copra prices during the depression, the Company had been forced to abandon several of its permanent settlements, sending instead small groups of workers to gather the coconuts from deserted plantations and process them on Boddam or Peros Banhos. In 1932 Eagle Island had been abandoned, in part because its anchorage was less safe than that of Egmont (Six Islands). However, two years later, Egmont was closed and Eagle reopened. Why? Because the draught of the newly-acquired Diégo - 14 feet - was too great for the 2 fathom entrance to Egmont's anchorage.*

*The problems of mooring at Eagle Island are simply described. This sausage-shaped island, 2½ miles long and ½ mile wide, pointing roughly NNE/SSW, lies on the western extremity of the Great Chagos Bank. While the northwest trade winds blow, the best anchorage lies at the south-east tip of the island, where the aptly named Passe Bateau provides an adequate entrance through the reefs encircling the whole island. From May to December, the period of the S.E. trades, ships must anchor outside the reef on the western side, with passengers and cargo being transferred to the shore in canoes, via a narrow passage through the coral. Even in favourable conditions, dropping anchor is a tricky operation, especially for a sailing vessel, since outside the reef is a shelf, about 220 metres wide and dotted with coral heads, whose depth increases gradually from 2 fathoms at the reef edge to 8 or 9 fathoms, before plunging steeply to more than 400 fathoms. Once anchored, a vessel is safe only so long as the south east wind remains steady and exerts more force on the hull than the impulse of the swells steepening as they approach the coral.*

*So much for scene-setting. The events of 20 June 1935 are best described by one of 35<sup>1</sup> aboard: Father Roger Dussercle was a Catholic missionary based in Mauritius, who took a special interest in the populations of the Chagos Islands, describing his work - and the life of the islanders - in several books. In this article Nigel Wenban-Smith summarises and translates passages from Dussercle's 'L'Isle d'Aigle', published in Mauritius in 1936. We are greatly indebted to this indomitable man, to whose concern for the souls of these remote*

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<sup>1</sup> Seventeen crew members, including Captain J.H.Mazoué, his Mate, Captain R.Bérenger, and eighteen passengers, including Father Dussercle, four women and seven children.

*communities was added a keen interest in their daily lives and a remarkable capacity for vivid depiction of his experiences.*

"That morning, I could not say mass...the sky had clouded over and already, during the night, one wave had splashed over the deck of the vessel, which was bobbing about too much for things to stay put on my altar table...

"It's a feast-day, but here, on Eagle Island, they're working still - or trying to. The weather is sullen, contrary. Though mainly from the east, the wind keeps shifting. They've hardly managed to get two loads of copra aboard, what with interruptions from the sea, which also seems discontented, and a succession of torrential bursts of rain. There are clouds all around. A bit after noon, the boatman came to bring another load. Scarcely have they come alongside and climbed on deck, pausing against the galley to wipe the worst of the rain from their bare chests, than a cloud-burst descends. That allows an hour's respite. Then, as the downpour abates, the workers hastily tumble the bales of copra into the *Diégo's* belly, and, grabbing their paddles, head for shore, now disappearing in the troughs of the waves, now perched atop the rollers which begin to turn the sea into a mountainous confusion. They won't be back - the storm won't let them.

"The wind had oscillated between East and East-north-east, but at 2 p.m., without a moment's warning, backed violently to blow from the Northwest - now, at the end of June! And with full monsoon force!

"With the situation getting out of hand - for the vessel, formerly laying to the northwest, now swung round under the force of the wind, so that her stern faced the reef - the captain immediately let go the second (starboard) anchor. There could be no thought of getting clear - simple mechanics saw to that: weighing anchor would be as good as casting ourselves onto the shore. We could barely afford to pay out enough chain to ease the ship's movement; paying out more would put the vessel right among the breakers, so shallow was the water and so close the coral ledges."

*The anchors began to drag; the spare bower anchor was dragged to the foredeck, attached to a wire hawser, and let go; for a while it held as the storm worsened, until, around 5 p.m., the hawser parted; the two remaining anchors dragged, then held; soundings showed 3½ fathoms; but, in the violent seas, the *Diégo* momentarily struck bottom. It was now dark. Around 6.30 p.m. the wind abated, became more variable in direction, and then resumed steadily but feebly from the South-east. It seemed best to seek the relative safety of the open sea. Sails were set; and, anchors aweigh, the *Diégo* began to move ahead, only for the captain to discover that the ship's wheel no longer moved the rudder; it had shifted and jammed during the grounding. Then the wind died altogether. "I think' said Mazoué, as he let go the useless wheel, 'we're f\*\*\*\*d.'" (tbc)*

**BIOT FISHING**  
**1994 - 1996**  
*by*  
**Alistair McDonnell**

Large yellowfin tuna and, to a lesser extent, the smaller skipjack tuna, are both the target species of a seasonal and potentially lucrative purse-seine fishery in the western Indian Ocean. Within the BIOT Fisheries Conservation and Management Zone (FCMZ), December and January have proved to be the most likely months for the commercially important yellowfin to show, and, for two out of the last three seasons (roughly November to February) they have been caught in commercially viable quantities. As a result, the wide ranging Indian Ocean tuna fleet is expected to keep a close watch on the fishery over the next few years. How many years the fishery lasts may depend on the effectiveness of national and regional management of these highly migratory and wide ranging species. For its part, the BIOT Administration has implemented a comprehensive licencing regime and a scientific research programme for this and other fisheries in BIOT waters, and participates in regional initiatives in fishery management. Crucially though, for the 94/95 and 95/96 tuna seasons they also chartered a Fisheries Protection Vessel (FPV).

FPV Northern Horizon (94/95) and FPV Northern Desire (95/96) were originally built as white fish stern trawlers. In common with many of their 17 crew and officers, these vessels worked the cool waters of the North East Atlantic in their youth. Both the main engines and the men can find it hot work in the Indian Ocean. At about 65 metres long, and 1500 GRT, they seem rather big for the job of Fishery Patrol, but stability for the launching of boats, and endurance are key factors. Whilst primarily a platform for the boarding of fishing vessels the FPV also provides support for Britops. This is the name given to inshore and island patrols by the British military and civilian administration based on DG. In the 95/96 season, six Britops were conducted lasting between 3 and 6 days. All of the island groups were visited and where possible landings were made. Several were combined with logistical support for the Chagos 96 scientific expedition. Another important role for the FPV is the deployment and recovery of scientific observers who live and work aboard fishing vessels. Feedback from the observers and the rapport they build up with the fleets are essential to develop the understanding of the BIOT pelagic tuna fishery, which forms only part of the overall yellowfin tuna migration range.

**Offshore patrolling.** The FPV keeps track of the licenced fishery by means of vessel inspections, daily radio reports from the fishing vessels and by communication with observers aboard them. A good relationship has been built up with the fishing fleets over the last two years. Minor infringements by licenced vessels have so far been dealt with by warnings and the occasional administrative penalty. The more important role of the FPV is to deter unlicensed

fishing. Over the past two years we have chased a couple of suspect vessels. One was a Korean longliner, the other was a colourful Indonesian longliner registered in Jakarta which came as a bit of a surprise. An Australian colleague tells me that Darwin harbour is full of Indonesian vessels being held for unpaid fines. It seems they are being forced further afield to earn their living. Boardings of unlicensed vessels on innocent passage through BIOT Waters are also carried out. These are typically Asian longliners en-route to or from their markets via the Malacca straits, and unlicensed purse-seiners on passage between the Seychelles and fishing grounds to the East of BIOT. There are false alarms, as for instance when an unlicensed Taiwanese longliner was seen to be trailing lines from its stern. On closer examination it was confirmed that the only things attached to the lines were bundles of laundry.

During boardings, vessels are allowed to continue with their fishing activities and in the case of purse seiners there is no telling when the logbook checks etc, are going to be interrupted by the sighting of a tuna shoal. In these circumstances it is impossible not to feel the thrill of the chase and admire the co-ordination of the fishing team under the direction of the fishing master. He is the key player in the operation and the top men are highly respected, with salaries and bonuses to match. As the purser circles a large shoal of feeding yellowfin tuna, the side scan sonar displays the fishes' echo; now they are bunched up and the echo is bright red, but the yellowfin are moving too fast or in the wrong direction, then further frustration when the fragmented weaker echoes of orange, yellow and green appear as the shoal splits up and dives in the hunt for its baitfish prey, only to surface again a mile away. If all goes well however the purser starts speeding up to 15 or 16 knots, the fishing master crosses himself and orders the net to be shot away. A boat called a "panga", with an engine and propeller of tug-like proportions slips from the stern dragging the purse net off as it goes. The panga effectively anchors the free end of the purse net whilst the mother ship steams in a circle to meet up with it again and recover the hauling lines. Our purse net is now hanging like a cylindrical curtain 200 metres deep and 500 metres in diameter, but there is still an escape route below for diving fish. To close it, a drawstring wire is winched as fast as possible through heavy metal eyes attached to the bottom of the net. This creates the purse, or pouch as the French say, a rather apt name considering an average price tag on purse seine caught yellowfin is US \$1.50 per kilo and 200 tonne hauls are not uncommon. Quite frequently though there is nothing there at all. Adult yellowfin are fast swimmers and very hard to catch. It is worth mentioning in passing that the purse seiners in this part of the world avoid any tuna shoals associated with dolphins.

**Inshore Patrolling.** The inshore areas of the archipelago are relatively free of human activity but this lack of congestion is inevitably attractive to a wide range of users. These range from the privately-owned 120 foot motor cruiser with a helicopter and a startling array of satellite domes, down through the ordinary yachtsmen and women anchored in the Salomons, to the poor Sri-Lankan

(Singhalese) fisherman on his 12 metre boat, with his festering shark bites, no shoes and a diet of rice and dried fish.

Two Sri-Lankan skippers were successfully prosecuted in January 1996 for illegal fishing. Fishing gear and diaries were seized from two others. This provided the first solid evidence of unlicensed and nearly year round inshore fishing activity. How long this has been going on and to what extent it has affected the ecosystem may never be clear but certainly the fishermen were all targeting sharks and large reef species with longlines, using bait caught in 1.5 km long drift nets. One skipper estimated that he could catch in four days what would take him a month in Sri-Lankan waters. Evidence from other boardings backed up this approximation. Shark fins were said to be particularly valuable. If there has been any damage caused by the catching of top predators, let us hope that these catch rates indicate that there are still sufficient sharks around for the natural system to recover. No evidence was found of the Sri-Lankan fishermen landing on islands in the Chagos Group.

One can feel sorry for the fishermen themselves, but despite their apparent poverty, the substantial technological and financial investment in the fishing operation by the owners was apparent in the form of GPS satellite navigators and long range HF radios installed on the boats. On the plus side we now have detailed knowledge of the areas where these vessels like to fish and their fishing methods. Also, whilst awaiting trial the skippers (a father and son team) and the crews of the two vessels made use of their long range radios to communicate with their government, families, owners and other fishermen. In doing so, wide publicity was given to the activities of the FPV in BIOT waters. I hope that both this and the stiff penalties imposed will go some way to deterring illegal activity by the remaining small fishing boats in the 30,000 strong Sri-Lankan fishing fleet. I expect my sentiments will be echoed by the Royal Marines and Royal Overseas Police on DG who mounted a 24 hr guard on the boats in port and disposed of the rotting catch.

*Alistair McDonnell, of MRAG Ltd was the Senior Fisheries Protection Officer on the BIOT Fisheries Protection Vessel during the 1994/95 and 1995/96 tuna fishing seasons. The views expressed in this article are those of the author and do not necessarily reflect the views of MRAG or the BIOT Authorities.*

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