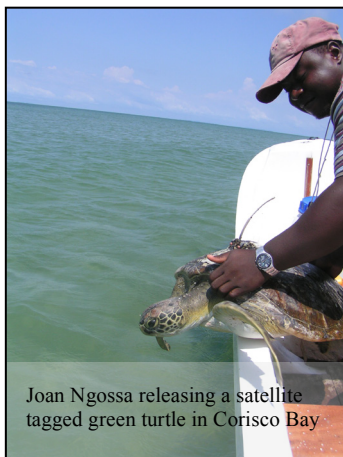




Studying the Green Turtles of Corisco Bay

Corisco Bay, situated on the border of Gabon and Equatorial Guinea, is one of the regions unsung ecological treasures. This large, yet shallow, bay features several small islands, rocky fringing reefs, trailing sand bars, and abundant algae making it central West Africa's most important foraging grounds for green, hawksbill, and olive ridley turtles. Funding from the Darwin Initiative has allowed Projet Manga, a community based conservation organisation founded in the village of Cap Esterias on Corisco Bay's southern tip, to launch Gabon's first in-water study of marine turtles.

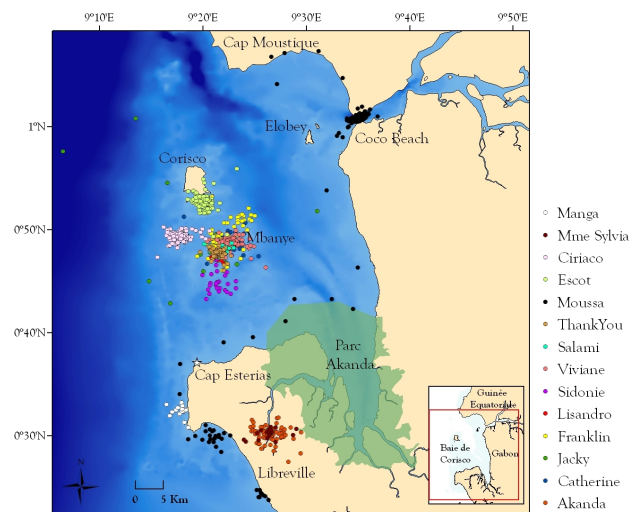


One of the jewels of the research program involves tracking juvenile and sub-adult green turtles with satellite telemetry to study their movements and habitat use. Fourteen turtles of various sizes have been tagged so far; two in Equatorial Guinea and twelve in Gabon, including two in the upper reaches of Akanda National Park's mangroves.

It appears that green turtles reside year-round in the Bay showing strong fidelity to their capture locations. One exceptional individual moved along the coast crossing into Equatorial Guinea for a brief period before returning to Gabon and establishing residency near Coco Beach. Based on the data so far green turtles stay in water depths less than five metres in both rainy and dry seasons.

These findings provide the first insights into the at-sea lives of green turtles in both Gabon and Equatorial Guinea and will as such aide in the creation of a trans-border protected area in Corisco Bay, assist in raising conservation awareness in the surrounding communities, and provide an empirical baseline of the habitat requirements of juvenile and sub-adult green turtles.

Green turtle populations in this region are threatened by incidental capture in clandestine industrial trawl fisheries, directed capture by local fishers for traditional uses and for sale in urban markets, disease, entanglement in or ingestion of marine debris. The Darwin Initiative is playing a key role is advancing conservation efforts in Corisco Bay through capacity building and biodiversity research.



Map of daily locations of 14 turtles tracked by satellite.

C-Pods in Mayumba National Park

While Gabon's waters are most well known for migratory humpback whales and leatherback turtles that visit coastal waters to reproduce, these habitats also support the critically endangered humpback dolphin, or Sousa, whose range is thought to be limited to a few small coastal sections along the western and central African Atlantic coast. Describing the distribution of this cryptic species is challenging and

has been the focus of Darwin funded researcher Tim Collins (see next article).

In addition to traditional visual wildlife census methods, using boats and planes, emerging cost-effective technologies may also help to gain greater insight into understanding the patterns of distribution of difficult to detect species, and one such technology is the C-Pod. These devices detect the characteristic

echo-location clicks made by dolphins and whales, which are used to find food and communicate. The Darwin Gabon project has provided 2 C-Pods for deployment in Mayumba National Park. The C-Pods will provide a continuous time-line of information on the presence/absence of cetaceans within the park. At present, Sousa are seen infrequently by members of Park staff and as such detailed knowledge of their distribution and relative abundance, both seasonally and across years is lacking

Outreach Actions for Marine Mammal Protection

During 2011 research on marine mammals continued to focus on inshore dolphins, particularly the rare Atlantic humpback dolphin (*Sousa teuszii*). Project objectives include development of abundance estimates and assessment of spatial and temporal habitat use for not only Gabon, but neighbouring Congo Republic as well. An area of particular focus has been the transboundary protected area composed of Mayumba National Park (Gabon) and Conkouati-Douli National Park (Congo). Data collected by shore-based observers affirm that dolphins crossing the national border are a wholly shared resource. Unlike Mayumba NP, which is largely uninhabited, Conkouati NP is home to approximately 5000 people, of whom half rely on marine resources for traditional subsistence and cash income. Activities include gill net artisanal fishing, and a recent census of coastal landing sites identified 42 fishermen who utilised approximately 240 nets. Using hand paddled pirogues, nets are typically set within 5km of shore, with their placement determined by seasonal fish distribution patterns; during the rainy season (October- April) they can be set as close as 300 m from shore.



This animal was the last of 5 humpback dolphins killed within Conkouati in 2011. Clearly these takes have to be stopped as soon as possible if the species is to survive at all in the Mayumba-Conkouati protected area

Nets represent a major threat to inshore dolphins as well as feeding and breeding marine turtles and research surveys by researchers in Conkouati have identified occasional takes (kills). Although individual fisher experience of dolphin capture is rare, collectively they have a enormous capacity to impact small, local populations of dolphins and our data suggest that of a local population of approximately 30-35 humpback dolphins, research suggests at least five

The C-Pods have been deployed in the north and south of the Park using simple moorings built of rope, chains and inflatable marker buoys, which aid relocating the equipment at sea. The devices can be maintained using the rigid inflatable boats operated by Parks' staff. It is hoped the C-Pods will deliver great insights in the forthcoming months, providing much needed information to help in the managements of the species.

were killed during 2011; this is clearly unsustainable. Of additional concern has been the seizure of dolphin bushmeat at park control posts on the road to Pointe Noire; the shift from accidental to directed take for the bushmeat trade is blamed for the species decline elsewhere in West Africa.



The Conservator of Conkouati Douli National Park, Roland Missilou, describing to local fishers where dolphins have been captured with the park

Accordingly the focus of this project shifted during the latter half of 2011, culminating in a December outreach 'tour' of every coastal village and landing site within Conkouati Douli National Park. Led by the Conservator, the team included representatives from a local fisheries NGO (COGEREN), outreach staff and Tim Collins. All fishers, vendors and other interested adults were invited and discussion ranged from a description of the problem at hand, aspects of biology and emphasis of the species protection under national law. A key clause is that any dolphin captured is presumed to have been targeted unless an independent expert assessment of the intact carcass can be made. Representatives from COGEREN were able to translate the discussion into local Vili for those who did not speak French or Munukutuba. Over 200 people attended these meetings and the reception was excellent and positive. Many fishers, although able to identify humpback dolphins, were completely unaware of either their exclusively coastal distribution, or their rarity. Some expressed shame, others offered to record sightings. The immediate follow-up will include development of a coastal outreach program, and identification of a source of a funding to support a dolphin reporting network that incorporates sightings by fishers.