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Contents

GOOD NEWS FOR ANTELOPES AND AQUATIC WARBLERS - JOINT ACTION FOR MIGRATORY SPECIES

Busy times for CMS. Ongoing habitat destruction and unsustainable use of wildlife are pushing species further towards extinction. The case of the Aquatic warbler, an extremely endangered bird species, was addressed at an intergovernmental meeting in Minsk, Belarus. Thanks to the Environment Ministry of Belarus, BirdLife International and the constructive work of the representatives of the Range States, a Memorandum of Understanding (MOU) and Action Plan for the Aquatic warbler was concluded on 30 April.

Migratory species conservation issues must be given more focus across the globe. Africa is clearly a continent with a traditional focus for CMS. Increasing human population, unsustainable land use, droughts, desertification and excessive hunting are negative factors, while law enforcement is a problem because of the vast distances involved. These factors contribute to dramatic declines of Sahelo-Saharan antelopes. Five years after the conclusion of an Action Plan and the "Djerba Declaration" (Tunisia, 1998), a CMS-based meeting of the Range States took place in Agadir, Morocco, at the beginning of May - with good results (see insert).

Conservation versus utilisation?

All global biodiversity-oriented conventions, including CMS, aim at the "conservation and management" of migratory species and their habitat. CMS prioritises restoration of species to a favourable conservation status in order to allow, where applicable, their sustainable use thereafter.

However, some authorities, organisations and individuals seem to have a very different understanding of what CMS actually is. A while ago, the official representative of a CMS non-Party country called CMS "a protectionist convention". And only recently, somebody expressed embarrassment about the author of this article suggesting in an alleged fundraising letter that antelopes in Northern Africa would qualify for the

development of tourism, even for subsistence and sport hunting, once the species had completely recovered in their historical areas of distribution. Both views are wrong. And the individual quoted above is recommended to read the preface to the Djerba Action Plan for the Sahelo-Saharan Antelopes.

Human activities will continue to put a considerable proportion of biodiversity at serious risk. A number of flagship species have recovered in some of their distribution areas thanks to enormous efforts of Range and supporting State authorities, IGOs and NGOs. However, there is evidence of a large number of species suffering from over-exploitation. In some African regions, e.g. Elephants, Gorillas, Antelopes, Wildebeests, Zebras and Buffalos are the "raw material" for bushmeat, while hunting and poaching is posing a severe threat to Saiga antelopes in Central Asia, Antelopes in Northern Africa and Houbaras throughout Asia and Africa. There is no excuse for State authorities to allow overexploitation of their countries' natural resources. World-wide, nature will always be the basis for our survival and wellbeing. Every species is an irreplaceable component, and every lost species an option less for food supply, medical care or technical progress.

I would like to draw the reader´s attention to the growing number of external experts who write articles for the CMS Bulletin, providing their knowledge to governments, IGOs, NGOs, scientists and journalists who are increasingly using the CMS instruments. This is the right place to thank these experts.

Busy times for the CMS Secretariat's staff, especially since CMS has not been able to advertise any open post owing to a new UN recruitment system. Therefore a number of CMS projects are in delay. I am confident that the CMS Focal Points and co-operating organisations will find out which ones.

Arnulf Müller-Helmbrecht, Executive Secretary

26th CMS STANDING COMMITTEE MEETING

The forthcoming 26th Meeting of the CMS Standing Committee will take place in Bonn, Germany, from 17 to 18 July. It will address some key issues for the Convention including the Secretariat report on inter-sessional activities since COP7 as well as reports from Standing Committee members, working groups, Agreement secretariats and observers. CMS administrative and institutional matters dealing with the CMS Headquarters Agreement and Secretariat legal personality will also be discussed. Furthermore, collaboration with other organisations and conventions, namely UNCCD, CITES and IUCN and preparations with regard to the CMS 25th Anniversary are on the agenda.

The CMS Standing Committee will review the current status of the CMS Trust Fund contributions, CMS budget and resources and matters arising from CMS COP7 Resolutions and Recommendations. Scientific Council topics will be re-examined as they relate to the work of the Standing Committee. Finally, the date and venue of the next meetings of the Conference of the Parties, the Scientific Council and the Standing Committee will be discussed.

NEWS FROM THE SECRETARIAT

Douglas Hykle, long-time Deputy Head of the Secretariat, has been appointed Coordinator of the Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Indian Ocean and South-East Asia (IOSEA). He has been establishing CMS's first outposted office within the UNEP Regional Office for Asia and the Pacific (ROAP), Bangkok, since early April. The new CMS office will be the focal point for the implementation of the IOSEA MOU. At a reception in his honour, Douglas noted: "The important work of the Convention on Migratory Species will benefit from having a regional presence, which the Bangkok office will bring." This would be very welcome, not least in terms of increased membership in the Convention in Asia.

The entire CMS Secretariat team takes this opportunity to thank Douglas for his support, commitment, hard work and substantive guidance for the benefit of the Convention. He takes with him all our wishes.

Anja Pauls terminated her successful work in January as Associate Information Officer at the Bonn office of the United Nations Information Centre Bonn, just one floor below the CMS Secretariat. Ms. Pauls agreed to join CMS with a fixed-term appointment in March 2003. She is going to deal with a few targeted information issues, especially the preparations for the 25th anniversary of the Bonn Convention next year and the further development of information tools.

We all thank **Dirk Hendricks** who had been working with CMS for more than a year on various projects. He set up the first picture database and updated the CMS PowerPoint presentation material both of which are essential tools of CMS information policy. Moreover, he organised the concept and production of a new common exhibition of CMS and the Agreements. It was on display for the first time at the COP7 in September 2002. He is now helping some of the Agreement Secretariats with their organisation of Committee meetings and MOPs. We wish him all the best for his future in an international environment.

Bernd Bruhns joined CMS for a short-term commitment especially to work on the COP Proceedings. He made a major contribution to the time consuming-process of formatting the Proceedings. Without his support we would not have been able to post the Proceedings, including a large number of country reports, on the CMS web site. We hope that he will soon find a new assignment in his preferred area of work.

Ephraim Kariuki has been working with United Nations Office at Nairobi (UNON) in the Budget and Financial Management Service for approximately 20 years. At present, he is on secondment for one year in UNEP/CMS focusing on the budgetary and financial matters of the Secretariat. With his experience of the UN financial regulations, his work ethos and team spirit, he is an asset for the common service unit for CMS and Agreement Secretariats.

Markus Losi was contracted as a consultant in Finance and Administration in December 2002. His main task was to provide financial service for the AEWA and ASCOBANS Secretariats and handling the obligations reports to the HQ. Furthermore, he assisted an expert from the HQ with the implementation of the new Financial System and helped his colleagues with his German language skills. We thank him for his support and wish him a lot of success for the future.

The recruitment of new professional staff has been delayed due to the introduction of the new "Galaxy" recruitment system. Work capacity and internal work organisation will not reach full performance levels before early 2004.

FUR TRADE AND THE SNOW LEOPARD IN AFGHANISTAN

By Charudutt Mishra

A casual walk through the Chicken Street Market in Kabul is enough for one to realise that a very lucrative trade in wildlife pelts exists in Afghanistan. At least half a dozen shops here are trading exclusively in pelts, and an equal number deal in pelts in addition to carpets and handicrafts. The main species in trade are the Common leopard, Wolf, Lynx, Foxes, and the endangered Snow leopard *(Uncia uncia)*. Additionally, pelts of numerous smaller mammals such as otters and small cats are also being traded. Is it true that the international community in Afghanistan is responsible for the thriving fur market on Chicken Street? Easy to find out. Pretend to be a prospective buyer and ask the fur-dealers a few casual questions. They will be only too happy to tell you that their main customers are the soldiers of the international security assistance force and workers of the international aid agencies. Ironically, the international community, the same people who are there to help rebuild Afghanistan, are helping wipe out its magnificent wildlife to extinction.

Like most serious conservation issues, however, the problem is more complex than this. It is important to take a closer look at the issue, perhaps from the perspective of the Afghan who is directly or indirectly involved in the trade. Let us begin with the thirteen-year-old boy who runs his father's shop, one of the several small nondescript shops in the bustling Faizabad *bazaar* in northern Afghanistan. The little shop is reasonably priced and well stocked with a variety of commodities – matchboxes, cooking oil, salt and spices, buttons for your torn shirt, detergent, batteries, little plastic toys and a lot more. Mostly harmless, daily household use items. The three shining Iranian made shot-guns prominently displayed in the shop, however, are no harmless plastic toys. Pay the boy US$ 50 and you can become the owner of one of these lethal weapons, go to the mountains and hunt chukar, ibex, and even a Snow leopard. Not that you really need to buy a weapon in Faizabad to go hunting; most villages even in the remotest corners of Afghanistan are awash with arms, thanks to the three decades of relentless conflict and civil strife.

Drive east from Faizabad on a battered road for two days and you will reach the quiet and remote Wakhan Corridor, a stark contrast to the busy streets of Faizabad. Wakhan is amongst the poorest areas anywhere, its population afflicted with extreme poverty, chronic food insecurity, and opium addiction among a cross-section of the society. The *Wakhi* agro-pastoral people, who scratch out a living in the harsh landscape of the Hindukush and the Pamirs, depend heavily on livestock as the most important source of protein, cash, wool, and other products and services. Hunting ibex, urial and partridges – all natural prey of the Snow leopard – also provides valuable protein supplements.

Young boy selling shotguns in Faizabad.

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As the prey populations get wiped out by relentless hunting, the Snow leopards increasingly take to killing livestock, intensifying the conflict between people and wild predators. Arms are in plenty, and whenever people get a chance, Snow leopards are shot or hacked, not really to make money from the fur trade, but largely in retaliation against livestock losses. After killing the predator, the hunters preserve the pelt, which eventually finds its way to Chicken Street through itinerant traders. The few tens of dollars that the trader pays the local hunter is more money than what the latter would be able to earn in a whole year. The commission that the trader himself gets from the fur-dealer is an attractive bonus. As the demand for pelts increases, the more enterprising fur-dealers send their own people to procure pelts directly from the hunters. The market is lucrative; the fur-dealer can sell the pelt for two to twenty times the amount that the local hunter is paid for it. This lethal market is rapidly spreading its tentacles, and killing Snow leopards, formerly an act of desperation and retaliation, is swiftly transforming into a business enterprise. For the record, the fur trade is not new to Afghanistan. In the 1960s, there was a sizeable market for furs that supplied the local tourist market, as well as markets in Western Europe and United States. In 1973, the Afghan Government issued a ban on the sale of carnivore furs. The market continued despite the ban, and in the mid 1970s, almost all the provincial centres of Afghanistan, not just Kabul, were trading in fur. This market apparently died down in the years of conflict following the Russian invasion in 1979. The market was again not much in evidence in Kabul during the *Mujahideen* era or the Taliban years, although it did perhaps continue on a low key. The recent influx of foreigners has given this dying market a new life.

Do the Snow leopard and Afghanistan's other magnificent wildlife have any future? First and foremost, the international community needs to be made more aware, answerable, and responsible. Curtailing the fur trade has to become the top priority for wildlife conservation, and there is perhaps no better way of doing it than by removing the demand. However, let us be very clear that this will not be enough. It is absolutely essential that community development programmes in Afghanistan incorporate environmental concerns. People already on the brink of starvation are bearing heavy costs inflicted by wildlife. These costs need to be offset by addressing human-wildlife conflicts. Wildlife conservation needs to start benefiting the Afghan people. Perhaps no other place is as much in need of long-term commitment and financial assistance from the international conservation community as Afghanistan is today. And only this commitment and assistance can secure the future of the Snow leopard in Afghanistan.

The author is an ecologist at the Nature Conservation Foundation, India, and Director of the India Program of the International Snow Leopard Trust, USA. He has been involved in post-conflict environmental assessments in Afghanistan as a consultant to the United Nations Environment Programme.

Editor's note

Norbert van Heyst, Lieutenant General of the German-Dutch Corps of the International Security Assistance Force (ISAF), the peacekeeping mission in Afghanistan sanctioned by the UN Security Council, has issued an order enforcing an ISAF ban on all purchases of pelt and other body parts of the Snow leopard and other endangered species.

The CMS Secretariat is pleased to host an article that shows the impact armed conflicts have on migratory animals, especially on the Snow leopard in Afghanistan. Snow leopards live in border regions, where mountain chains make up the boundary between states. Populations often extend over several countries. Therefore transboundary co-operation is critical to the Snow leopard's survival.

The Snow leopard is listed in CMS Appendix I. COP7 designated it for concerted action. Tajikistan was invited by the Scientific Council to lead the concerted action, which should bring further international attention to the plight of the Snow leopard. For example, it may result in CMS-supported research or conservation projects. The concerted action in turn could be anchored by a CMS agreement developed and implemented by the Range States. In its Post-Conflict Environment Assessment (par. 118 (d) UNEP recommended that Afghanistan ratifies relevant biodiversity-related conventions inc. CMS, mentioning the Snow leopard among the threatened species. The report can be downloaded from www.unep.org under "Publications".

MIGRATION PATTERNS AND HABITAT USAGE OF WHITE SHARKS TAGGED IN CALIFORNIA

By Andre M. Boustany and Kevin C. Weng

For anyone who has ever seen a White shark *(Carcharodon carcharias)* face to face, the notion that it may need protection from us seems unfathomable. The sheer size, speed and power of these animals make them appear invulnerable, especially to creatures as out of place in the ocean environment as humans. But in addition to these traits, White sharks also possess beauty, grace and mystery. It is mystery and lack of understanding that may pose the greatest threat to the White shark. That mystery extends to many aspects of White shark biology, and we must improve our understanding of this species if proper management strategies are to be enacted. Knowledge of life history parameters, population dynamics and movement patterns is essential in understanding the potential threats that White sharks may face. Like most sharks, this species is slow to mature, is long lived and has a low reproductive output. These traits make it especially susceptible to any increases in mortality, either human-induced or otherwise. In addition, lack of knowledge regarding movement patterns will make it difficult to assess potential threats such as fishery interactions or depletion of food resources. Until recently, collecting information on the movement patterns of a submerged animal, which could not be directly observed, had not been possible.

Recent advances in tracking technology have helped to shed light on some important unknowns in White shark biology. Our group has been tagging White sharks off the central California coast since 1999 with pop-up archival transmitting (PAT) tags. These tags record the depth of the animal, the temperature of the water and light intensity. Light level data allow us to reconstruct the times of sunrise and sunset, which, in conjunction with sea surface temperature measured by the tag, give an estimate of geoposition of the tagged animal, allowing us to see where it went for the duration of the track. At a pre-programmed time, these tags detach from the shark and transmit summaries of stored data to satellites, which then send the data to scientists in the lab. To date, 14 of these tags have been successfully deployed and returned data on the behaviour, habitat preference and migration patterns of White sharks.

White shark

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The main question we were hoping to answer was, where do the sharks go when they are not prowling the shores near the seal and sea-lion colonies of the Farallon and Año Nuevo Islands? White sharks are present at these sites from late summer to early winter but absent at other times of the year. Conventional wisdom has long held that white Sharks were primarily coastal animals, but our tagging results showed us a lifestyle reaching far into the open ocean. One shark travelled from central California to Hawaii in a period of approximately 30 days, highlighting the speed at which these sharks can travel between distant coasts. These results corroborated other earlier genetic findings that showed movement of White sharks between South Africa and Tasmania. An even more surprising finding from our tagging data was the extent to which White sharks use the open ocean, not only as a highway between distant coastal zones, but as an important habitat itself. All other White sharks tracked for prolonged periods spent eight months or more per year in the pelagic ocean, hundreds to thousands of miles from land in a region of the subtropical eastern Pacific. During this time, White sharks exhibited deep diving (up to 700 metres) and experienced a large range in temperatures (4-26 degrees C). It remains unclear why these sharks travel to this area, but the extended period of time spent in the open ocean suggests that this habitat is as important in the life history of California White sharks as the more studied near-shore habitat. Researchers in Australia and South Africa have initiated tagging studies in those areas, and it will be interesting to see if these sharks exhibit a similar usage of the pelagic ecosystem. The ability of White sharks to travel between distant coasts and the large amounts of time spent in international waters mean that management strategies would be most successful if enacted at the international level.

© Kevin Weng

Andre Boustany and Kevin Weng are marine scientists at the Tuna Research and Conservation Center of Stanford University, USA. Their study on migration patterns of the White shark involved marine scientists from three California institutions: Burney Le Boeuf and Scott Davis at the University of California Santa Cruz (UCSC), Peter Pyle and Scot Anderson of the Point Reyes Bird Observatory (PRBO) in Stinson Beach, California, USA, and Barbara Block of Stanford University.

Editor's note

The CMS Secretariat is pleased to host an article by marine researchers from Stanford University highlighting the needs of improving our understanding of the species in order to implement proper management strategies. Upon the proposal of Australia, the White shark has been included in Appendix I and II during COP7. Although we know about the important role of the White shark in marine life, its migration routes are still largely unexplored. Since the animal's habitat stretches between the Central California Coast, the shelf waters of the mid-Atlantic Bight, the Great Australian Bight, South Africa, New Zealand, Australia, the eastern North Pacific, the western North Atlantic and the Mediterranean, there is a need for an efficient conservation strategy at international level.

TRACKING TURTLES IN WEST AFRICA

By Brendan J. Godley, Annette C. Broderick and Paulo X. Catry

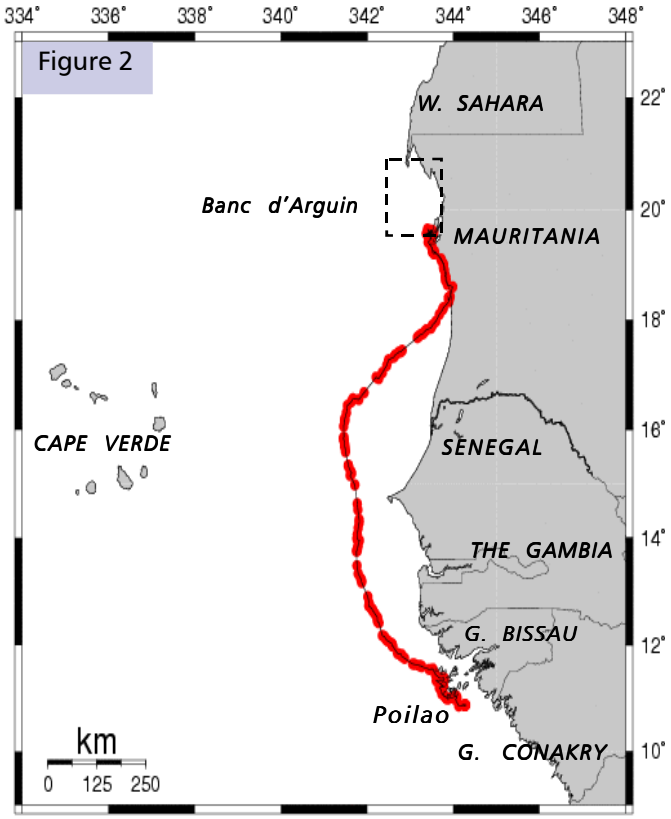
Recent surveys have shown that the small island of Poilão, located amongst the islands of the Bijagós archipelago, Guinea Bissau, hosts the largest Green turtle *(Chelonia mydas)* rookery on the west coast of Africa. It also ranks among the largest in the Atlantic Ocean. Traditionally, Poilão has been regarded as a sacred site by the Bijagós people, and this, along with its remoteness, has contributed to marine turtle conservation. However, an emerging threat is the rapid development of industrialised fisheries in this region. A clear conservation priority was to identify important marine areas used by the Green turtles from this large rookery. Satellite tracking via the ARGOS system was the obvious technique to use to allow insights to be gained rapidly.

Figure 1

Green turtle returning to sea following ST6 attachment.

In late 2001, a multinational team including a wide range of local stakeholders (Figure 4) mounted an expedition to Poilão to allow the attachment of ten satellite tracking units (Figure 3). This work was supported by a large number of organisations with the key financial donors being CMS, Fondation Internationale du Banc D'Arguin and the People's Trust for Endangered Species (see http://www.seaturtle.org/mtrg/projects/guinea_bissau/ for a full listing of project partners). Within a very short time, unparalleled insights into the at-sea movements of the turtles were obtained.

Figure 2



Track of turtle Poilão-Mauritania.

The ten turtles followed via satellite (Figure 1) demonstrated a diversity of behaviours. Four females migrated from Poilão to the Parc National du Banc D'Arguin, Mauritania, where they remained until the transmitter units failed (Figure 2). Data gathered gave insights into the migration paths and habitat utilisation in one of Africa's most important national parks. A further two individuals travelled to Senegalese waters, while the last four individuals were recorded making shorter range movements in the waters of Guinea Bissau before premature cessation of transmissions, probably due to damage to the units, a common problem when turtles remain in coastal waters. The findings illustrate the need for international collaboration for the protection of marine turtles with at least four nations (Gambia, Guinea Bissau, Mauritania and Senegal) clearly sharing responsibility for this population.

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Additional, locally relevant management data were obtained in Guinea Bissau. Turtles usually lay multiple clutches in any given breeding season. For six turtles, we were able to record their behaviour between nestings. During this period, most turtles stayed very close to Poilão within the bounds of the recently declared João Vieira / Poilão National Marine Park. However, at least one turtle moved extensively within the Bijagós Archipeligo during the internesting period.

It is recommended that the João Vieira / Poilão Marine National Park (Guinea Bissau) and the Parc National du Banc D'Arguin (Mauritania) continue to receive utmost support for conservation and management. It is clear from these and other findings that these two protected areas constitute key elements of the range of the single largest Green turtle nesting aggregation in West Africa. Given the migratory nature of this species, it is important that direct and incidental catch in both artisanal and industrialised fisheries throughout the region be assessed. Support should be given for additional studies which through telemetry or molecular techniques allow a fuller assessment of additional foraging areas for Green turtles in West Africa. Ongoing monitoring of marine turtles at Poilão should be undertaken to allow a fuller assessment of the current status and trend in population size.

Figure 3

Castro Barbosa (GPC) with Telonics ST-18 and ST-16.

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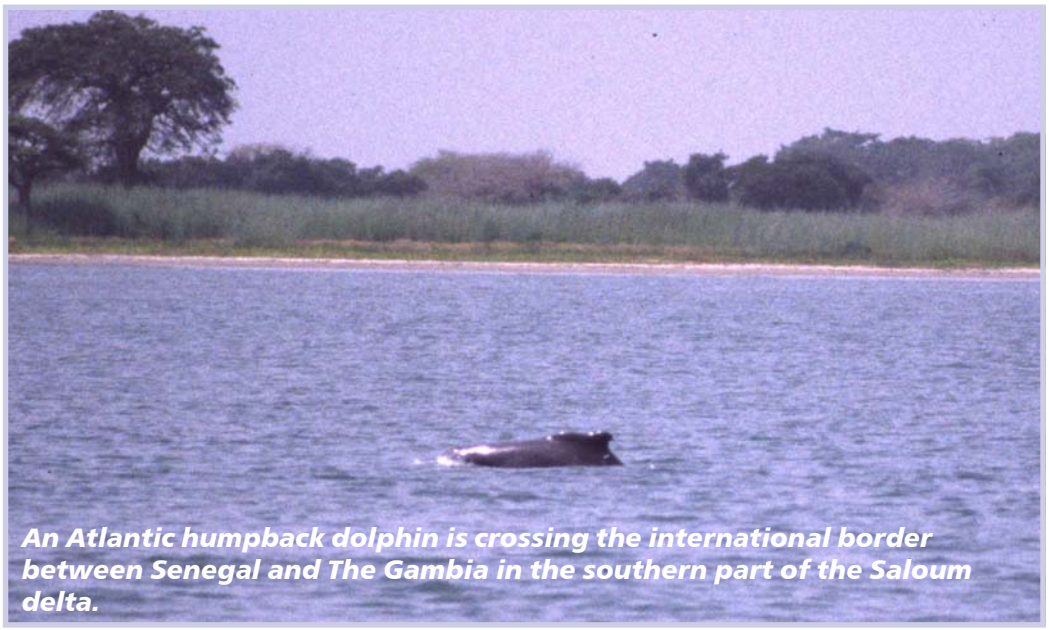
Figure 4

Project Field Team. Back row: Paulo Catry (UICN, ISPA), Januário da Silva (Canhabaque), Preto João Perrida (Canhabaque), Amadeu Almeida (CIPA); front row: Castro Barbosa (GPC), Bucar Indjai (INEP); out of shot: Brendan Godley (MTRG).
For details of organisations see project website.

THE ATLANTIC HUMPBACK DOLPHIN: IN RETREAT?

By Koen Van Waerebeek, (Peruvian Centre for Cetacean Research, Museo de los Delfines, Pucusana, Peru)



An Atlantic humpback dolphin is crossing the international border between Senegal and The Gambia in the southern part of the Saloum delta.

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The Atlantic humpback dolphin *(Sousa teuszii)* is the only small cetacean endemic to (sub)tropical eastern Atlantic inshore waters off West Africa. Described in 1892 from a shark-damaged carcass retrieved in Cameroon, second and third specimens were collected in Senegal in 1925 and 1943. Since then, this dolphin has been found in another six countries. *S. teuszii* used to be referred to as the Cameroon river dolphin, a misnomer as it occupies no true riverine habitat. Suggestions of conspecificity with the Indo-Pacific humpback dolphin from east Africa (nominal *S. plumbea*) are unsupported. Moreover populations are separated both geographically and ecologically by the cold water barrier the coastal Benguela Current forms.

By-catches in coastal gillnet fisheries as well as environmental degradation, including overfishing, are thought to be the main threats to the species' survival. The IUCN Cetacean Specialist Group has long accorded it a high priority for studies in view of its endemism, narrow ecological niche and low population size. No estimates exist partly because of scarce resources, encounter rates too low for effective line transect surveying, a shallow water habitat hardly accessible to survey boats, and extensive coastlines. Aerial surveys may be hampered by low visibility in muddy waters, and positive identification may be problematic. Most authors have assumed a continuous coastal range along West Africa, but field work during CMS/WAFCET-2 and -3 Projects suggests that Atlantic humpback dolphins may occur in a number of subpopulations with more or less pronounced (relative) distribution gaps stretching from Dahkla Bay to northern Angola. If reproductive isolation is confirmed, long-term prospects of the stocks would be sombre.

Northernmost, Dahkla Bay community off Western Sahara is thought to be very tiny, counting a few dozens of animals, possibly a mere remnant of a once stronger Northwest African foothold. The Banc d'Arguin represents the main area of regular occurrence in Mauritania, with two 'hotspots', the baie d'Arguin in the north, and the shallow waters off Iwick in the south. This stock was reported to be small in 1980, possibly 100. Recently, one scientist suggested a more optimistic number of at least high hundreds of individuals. By-catch is a confirmed cause of mortality in Mauritania, and some people occasionally consume dolphin meat. In Senegal, the only area of regular encounters is the Saloum delta. Maigret estimated this population as to count no more

than 100 animals in 1980. Group size ranged from 10–37 individuals (averaging at 23) in 1999-2000, and an educated guess from relative encounter rates could range anywhere from a 100 to a few hundred individuals. Multiple sightings at Djinack creek are probably of a single group. Our records cover the dry season November through February, but locals say the species is present throughout the year.

In 1996 three carcasses were found hauled together on a remote beach of Sangomar Island, their meat untouched, and may have been offered to the island's 'Esprit' in a religious ritual still widely observed among Saloum fishers. Dolphins in The Gambia's Niumi National Park share range with Senegal's Saloum community, hence the name 'Saloum-Niumi' stock. Individuals seem to cross the national borders on a near-diurnal basis, and thus can claim CMS 'migratory' status.

Atlantic humpback dolphins prefer outer estuaries with significant tidal sea-water intrusions like the Gambia river and Gabon estuary. The Saloum and Bandiala, for instance, are no functional rivers at all but huge tidal creeks with little freshwater input, tending even to hypersalinity. Claims of sightings inside the Niger, Senegal and Casamance rivers are unsupported. One or two confirmed records exist from the mouth of the Casamance, but dolphins reliably identified upstream the Casamance and Gambia rivers have all been bottlenose dolphins. Confusion between these species is a major problem, and I suspect it has contributed to insouciance about abundance. The relatively undisturbed waters and extensive mangrove forests of Guinea-Bissau support what is the more robust stock 'Canal do Gêba-dos Bijagos', counting at least several hundreds of animals. In 1953 Cadenat sighted the species in the silt-laden waters of Guinée-Conakry, but since then there has been no sign of it. And yet Guinée features plenty of appropriate habitat, a wide continental shelf with mangrove forests around four river mouths, generating hope that a healthy Guinée population persists.

There is no cetacean information for Sierra Leone and Liberia, and earlier work in Ivory Coast did not find the species. WAFCET-3 Project monitors fisheries in Ghana and Togo for captures of cetaceans and while more than ten species of small cetaceans have been identified, again, there is no sign of humpback dolphins. Unconfirmed fishermen reports point to possible sightings off western Togo, and it is hoped that recently initiated field work around the Volta delta (eastern Ghana), a potential biotope, will meet with more success. Brief whale surveys by the author in coastal Benin in the winters of 2000-2003 and perusal of marine biological collections were negative, although the species could still be a rare visitor. Several authors cite Nigeria as a Range State, apparently based on a 19th century reference so exceedingly vague as to point to any aquatic mammal including the West African manatee, whose range of greatest abundance is precisely the Niger river and its tributaries. It is quite plausible that humpback dolphins inhabited the wider channels of the outer Niger delta, but not the river itself. The 110-year-old holotype from Cameroon was the first and only record, and the obvious question begs whether it still occurs there.

The Humpback dolphin is unknown from Equatorial Guinea (inc. Rio Muni), São Tomé and Príncipe, The People's Republic of the Congo and the Democratic Republic of the Congo. Admittedly, however, there is no marine mammal research in these countries. The Parc national des Mangroves at the mouth of the Congo river would deserve some survey effort. In Gabon, a single specimen was collected from the eastern end of the Gabon estuary. Numerous reports from divers on oil rigs and pilots flying the area suggest they would occur off northern Angola and Cabinda. One of them cites a sighting 150km north of Luanda in the early 1990s. However, evidence is lacking. We provisionally discern five extant management stocks from records clustered around a core locality: Dahkla Bay, Banc d'Arguin, Saloum-Niumi, Canal do Gêba-Bijagos, and southern Guinée. Gene-flow between areas may be restricted, especially in the north. The single historical specimens from Cameroon and Gabon do not permit any conclusions. As work progresses with CMS/WAFCET-3 and hundreds of captured dolphins are examined, the practical absence of the species over important stretches of coastline in the northern Gulf of Guinea is emerging. The likelihood of the bleak picture being the result of human impact is high and the Range States, classified as 'confirmed-contemporary' (Morocco/Western Sahara, Mauritania, Senegal, The Gambia, Guinea-Bissau); 'confirmed-historical' (Guinée-Conakry, Cameroon, Gabon) and 'unconfirmed-contemporary' (Angola and Togo) should be particularly concerned.

In the absence of abundance estimates, unknown life history parameters, and without any strategy at hand to drastically reduce by-catches in the near future, much less stop human littoral expansion, national and intergovernmental organisations and NGO's should brace for a worst-case scenario: a combined size of the five northern stocks as low as 1,500-2,000 individuals, increasingly isolated reproductive units with gradual loss of haplotypes and a high risk of extinction. *Sousa teuszii* is a legitimate candidate to reap benefits of the precautionary principle. I recommend consideration of a CMS Appendix I listing to help avoid that this little-known mammal becomes an endangered species in a near future, if it is not already.