

To Barbara Schroeder

14 July 2009

Dear Barbara

**RE: Comments from Ronel Nel on the Status Review of Loggerheads for the US ESA.**

It was extremely informative to review this document. I can appreciate the complexities of this task as I have recently tried to do a review for the South-western Indian Ocean (SWIO) sea turtle populations. I regard this review as a fantastic piece of work with great credibility, based on the best knowledge currently available. I broadly agree with the assessments made, such as 9 DPSs for loggerheads, including one for the SWIO which is my particular area of expertise. Keep in mind that I am not a geneticist, but I do recognise that the best available genetic information was used. Furthermore, I am not a population modeller and can only comment from a basic understanding; again it seems like the best available, up-to-date protocols were used.

I would like to add a few specific comments for the SWIO:

1). Pg 48 – makes the claim that all loggerhead DPSs are declining rapidly. I find this hard to believe for the SWIO. Below is the current latest (unpublished) information for the South African rookery (a stronghold for the SWIO). There is a rapid increase in nesting numbers; Southern Mozambique is showing similar results – Madagascar may be declining but it is certainly not the case here. The population is small (<600 females per annum in South Africa) and therefore should be considered vulnerable. “Declining rapidly” – unlikely!

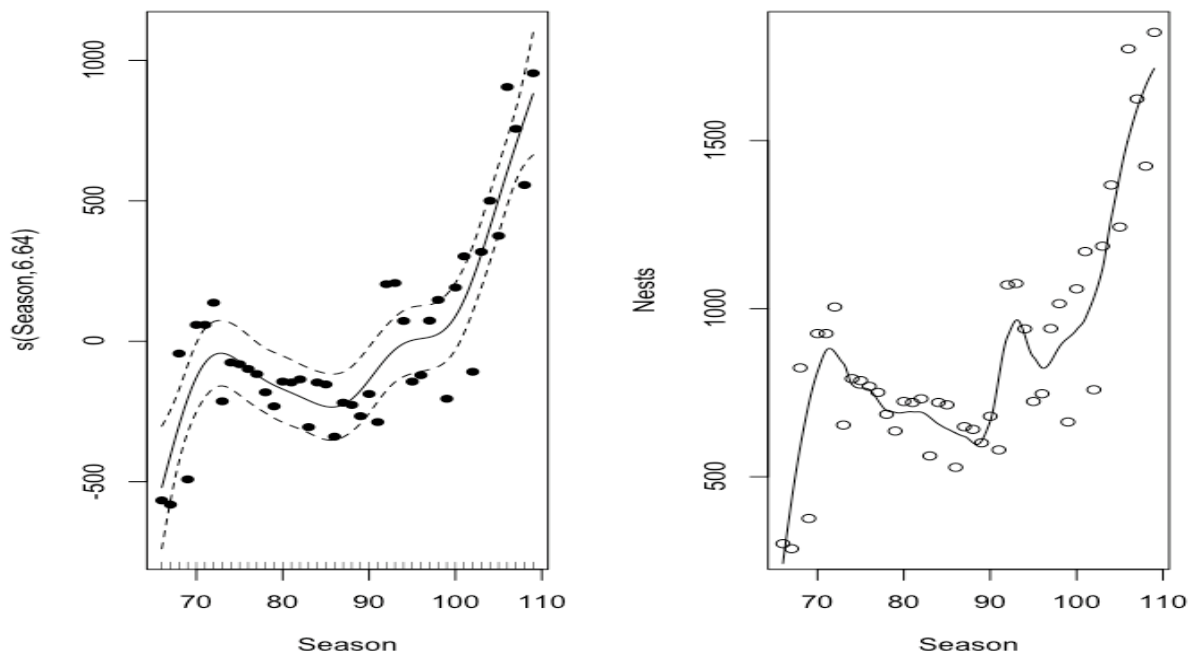


Figure: LOEs fit (0.25 tension) and GAM of number of nest over 44 years of nesting in index area of Maputland (1965/6 – 2008/9).

Furthermore, the contradiction of the two population methods used for the South Atlantic may be based on the assumption that the SWIO population is limited to the Indian ocean, and not feeding the southern Atlantic. This may not be the case. Petersen et al 2007 reported on large numbers of loggerheads caught by the SA longlining fleet. I have no concrete evidence to support this, but have always assumed that these turtles are from Maputaland, since the Cc : Dc ratio caught is resembling current nesting ratios for these two species. I agree that this is a tenuous assumption, but there is no reasons why they should not end up in either the subtropical convergence (Indian Ocean) or in the eddies moving up the Benguella (Atlantic) as leatherbacks do.

2) Pg 24 – South Africa has received ONE tag returns from Southern Somalia – so yes they do travel north of the equator – but not often. Hughes & Bartholomew 1996 reported one tag return from Burgabo Islands, in Southern Somalia? The only one ever – rest all southern hemisphere returns.

(Hughes, G.R. & W. Batholomew 1996. Annual research report: The Tongaland sea turtle project 1 April 1995 - 31 March 1996. Unpublished report for Natal Parks Board, 15 pp.)

3) Pg 34 – SA loggerheads likely to mature <25 years (**Tucek & Nel in prep**). 30 years is excessive for this population. This may affect the analysis. (The latest results that confirms this – through scute notching. (I can forward a draft manuscript if necessary).

4) Table one: Emergence success (number of hatchlings that emerge per nest) – substantially higher for the hatching nests in SA (~80%, unpublished information – currently being written up as 2 MSc's). However there is no information on the number of nests that survive.

5) Section 5.2. Considers the international instruments that are being used to manage sea turtles. The Africa Atlantic section is not considered for the SWIO. I understand the reasoning behind it, but South Africa is a signatory to both Atlantic and IOSEA MoUs and we do not manage the populations differently/separately along our coast. So even though it does not seem to have “jurisdiction” in the Indian ocean, it certainly has implication. Moreover, we have satellite tracking evidence that indicates LEATHERBACK turtles migrating routinely into Atlantic waters, and there is no reason to believe that the loggerheads don't as well.

6) Following from point 5) Petersen et al 2007 is referring to a loggerhead catches in the southern Benguella. The BRT is automatically attributing these catches to the Brazil population – however, they are much more likely to be loggerheads nesting in South Africa. The Agulhas current is bringing hatchlings down from the nesting ground, they are then either distributed eastwards in the subtropical convergence of the Aghulhas and southern oceans, or are migrating northwards in the rings/eddies which last as pockets of warm water up the Atlantic. The catches of loggerheads to leatherbacks in Petersen et al 2007 represents the nesting abundance on the east coast.

7) Section 5.2.5 may also consider including the Nairobi Convention in this section which aims to protect marine habitats including turtles, along the eastern seaboard of Africa. For example we have a joint scientific turtle working group established under the IOSEA and NC.

8) Pg 152 - "Little is being done to monitor and reduce fisheries from the neritic and oceanic fisheries from the south-western Indian ocean...". This statement is purely not true! There may not be much monitoring and the effectiveness is questionable, but there is an enormous effort/in this region. Review the IOSEA online database with respect to fisheries to see what is happening. There are a number of conservation programmes, turtles are protected throughout the region, there is specific implementation of TEDs (Madagascar / Mozambique) with a temporary moratorium on inshore trawling in Tanzania. South Africa and Reunion has monitored the impacts of longlining. There is also a SWIO Fisheries programme which is investigating the impacts of fisheries including bycatch. Loggerheads doing well in Southern Mozambique.. increased beach protection. Same for NGOs operating in Madagascar.

The conclusion that the SWIO is not currently under threat but will be in the near future is questionable. It may be the only subpopulation that is increasing significantly, and i find it hard, with the current effort in the subregion that this subpopulation is facing extinction. It is vulnerable because of the small size, but it is doing well.