

The artisanal shark fisheries in the Andavadoaka region of south west Madagascar: results from a year of catch monitoring



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Introduction

by 1992 they were almost 50 metric tons. Exports have since declined to around 15-20 metric tons per annum (Cooke 1997; 2003). The cause of this decline remains unclear, however it is thought likely that The number of sharks taken by the local fisheries remains unartisanal fisheries of northwest Madagascar highlighted a decline in numbers and the collapse of the fishery (Earthwatch 2000).

conservation programme was initiated by Blue Ventures working in collaboration with Madagascar's national research institute, Institut the remote southwest of Madagascar. This research programme is monitoring the status of sharks fisheries in 12 villages, inhabited by



Materials and methods

The monitoring programme employs trained local collectors in each of the villages in the research region to record the biological and fisheries data. Data are collected for each shark catch that is landed;

specific information. Sampling also incorporates the novel use of digital cameras; this not only allows the checking of recorder accuracy collating and verifying all data collected each month.

Informal interviews with fishermen from the sampling area has

Results



Figure 2. The number of shark landings recorded per month in all villages Note: This is not the total catch and whilst the smaller villages are able to record 100% of the sharks landed others estimate that they are only recording between 50 -70% of the landings

have been recorded of which approximately half appear on the IUCN Red List (Table 1; Figure 3).

Shark species	IUCN Status	Percentage of recorded catch
Sphyrna lewini (Scalloped hammerhead)	Lower Risk – Near Threatened	33%
Rhynchobatus djiddensis (Giant guitarfish)	Vulnerab l e	3 %
Carcharhinus melanopterus (Black tip reef shark)	Lower Risk – Near Threatened	2.5%
Pliotrema warreni (Sixgill Sawshark)	Near Threatened	0.6%

Figure 3. Pliotrema April 2007 and two n August 2007, nave been caught in the waters around

• Mean precaudal length (PCL) of *Sphyrna lewini* recorded is 78cm for females and 85cm for males (Figure 4 & 5). · Therefore likely that majority of sharks landed have not



Figure 4. Graph showing the mean precaudal length (PCL) in cm of male



• Fins are priced by kilogram depending on their quality; a factor of size and species (Table 2). Single fin can weigh from 300g

Table 2: The prices paid by the fin collectors for the different qualities of fin, including guitarfish. The table also shows the price the fin collector expects to obtain form the African and Asian traders for 1 st quality and guitarfish fins.								
	1* ^t quality	2 nd quality	3 rd quality	4 th quality	Guitarfish	Guitarfish		
Fin height or weight	>25cm	20-24cm	16-19cm	<16cm	Total weight of fins >2kg	Total weight of fins <2kg		
Price paid to fisherman	≈\$78/kg	≕\$28 to \$39/kg	≈\$9 to \$16/kg	≈\$6/kg	≈\$112/kg	≈\$78/kg		
Price paid to fin collector	≈\$ 95/kg				≈\$135/kg			

Conclusions

- Over 1300 sharks from 50km of coastline specialised gill-nets, known locally as "ZDZD"
- Ancedotal reports suggest that the number of sharks and their size has been declining throughout the region over the last ten years (McVean 2005; Vezo fishermen pers comm 2007).

This project will continue until 2010 and aims to increase the knowledge base of shark fisheries along a larger stretch of coastline



Literature cited

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Acknowledgments

For further information

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