ANAC
ADMINISTRAÇÃO NACIONAL DAS ÁREAS DE CONSERVAÇÃO

RESERVA ESPECIAL MAPUTO
MOÇAMBIQUE

FISHERIES IN PONTA DO OURO PARTIAL MARINE RESERVE: TOWARDS A HOLISTIC APPROACH TO MANAGEMENT

RESERVA MARINHA PARCIAL PONTA DO OURO
MOÇAMBIQUE

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CENTRO TERRA VIVA
Estudos e Advocacia Ambiental

MOZBIO
BIODIVERSIDADE E DESENVOLVIMENTO SUSTENTÁVEL

PEACE PARKS FOUNDATION
THE GLOBAL SOLUTION

BACKGROUND

REM / RMPPO

- 2009 – PPMR was established (first marine TFCA in Africa)
- MP – 3 distinct area – multi use, restricted and sanctuary
  - **No** semi and industrial fishing
  - **No** bottom fish fishing allowed
  - **No** shark fishing allowed

INSTITUTIONAL ARRANGEMENTS

REM / RMPPO

- ANAC – National Administration for Conservation Area
- MIMAIP – Ministry of Sea, Inland Waters and **Fisheries**
- INAMAR – Maritime National Institute

African Journal of Marine Science

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Quantifying the largest aggregation of giant trevally *Caranx ignobilis* (Carangidae) on record: implications for management

R Daly, CAK Daly, RH Bennett, PD Cowley, MAM Pereira & JD Filmalter

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FISHERIES

REM / RMPPO

- **Industrial – Not allowed**
- **Semi-Insdustrial – Not allowed**
- Artisanal
  - ❖ With deck and inner motor – not allowed
  - ❖ Without deck and inner motor – allowed
- Subsistence – Allowed
- Recreational and Sport fishing - Allowed

BIODIVERSITY RESEARCH

WILEY Diversity and Distributions

Refuges and risks: Evaluating the benefits of an expanded MPA network for mobile apex predators

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Abstract

Aim: Concurrently, assessing the effectiveness of marine protected areas and evaluating the degree of risk from humans to key species provide valuable information that can be integrated into conservation management planning. Tiger sharks (*Galeocerdo cuvier*) are a wide-ranging ecologically important species subject to various threats. The aim of this study was to identify "hotspots" of tiger shark habitat use in relation to protected areas and potential risks from fishing.

Location: Southwest Indian Ocean, east coast of South Africa and Mozambique.

Methods: Satellite tags were fitted to 26 tiger sharks. A subset of 19 sharks with an average period at liberty of 197 (*SD* = 110) days were analysed using hotspot analysis to identify areas of core habitat use. The spatial and temporal overlap of significant hotspots with current and planned marine protected areas as well as risks from fishing and culling was then calculated.

Results: There was a 5.97% spatial overlap between tiger shark hotspots and marine protected areas, which would increase significantly ($p < .05$) to 24.36% with the expansion of planned protected areas in South Africa and could be as high as 41.43% if Mozambique similarly expanded neighbouring protected area boundaries. Tiger sharks remained largely coastal, but only showed a spatial overlap of 5.12% with shark culling nets in South Africa. Only three sharks undertook open ocean migrations during which they were more likely to interact with longline fisheries in the region.

Main conclusions: This study demonstrates how spatial information can be used to assess the overlap between marine protected areas and the core habitats of top marine predators and highlights how congruent transnational conservation management can improve the effectiveness of protected areas. Core habitat use of marine apex predators may also be indicative of productive habitats, and therefore, predators such as tiger sharks could act as surrogate species for identifying key habitats to prioritize for conservation planning.

KEYWORDS
conservation, marine protected area, satellite telemetry, sharks, top predators

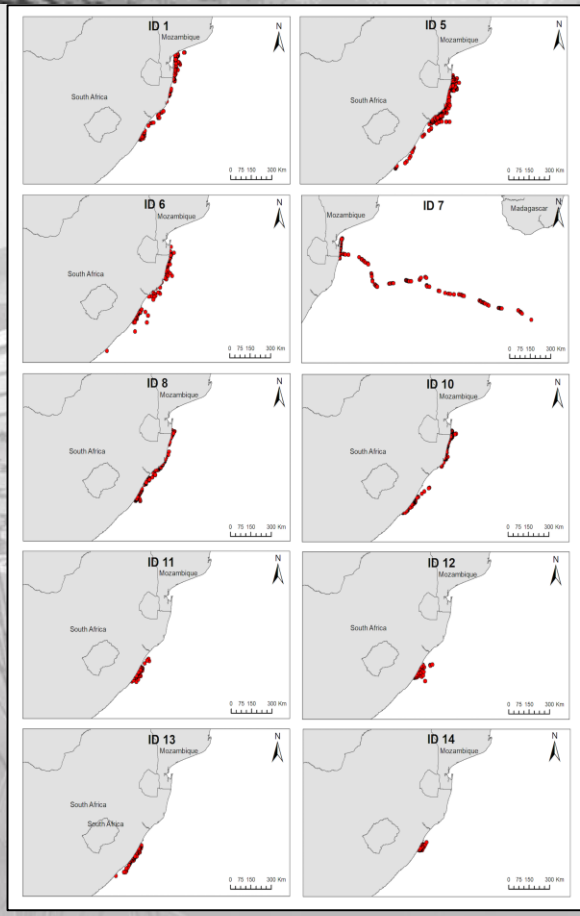
ARTISANAL & SUBSISTENCE

REM / RMPPO

- Open access
- Mesh size regulated
- Artisanal – licensing
- Artisanal – Rated propulsion
- No National Management Plan

Challenges

1. Poor control of fishing effort
2. CPUE ↓
3. No compliance with mesh size – overfishing of juveniles and larval
4. Lack of research on selectivity on minimum mesh size
5. Lack of research on biology growth
6. Intertidal invertebrates are poorly mentioned and largely undocumented
7. MP – specific measures need to be included
8. **Co-management with communities needs to improve (CCP – CFC)**



ARTISANAL & SUBSISTENCE

REM / RMPPO

- **PPMR Interventions**
- Socio-economic study
- Establishment of CCP's
- Fishing Management Plan by PPMR
- "Community Projects" conceived
  1. Community conservation area
  2. Alternative livelihoods
     - Aquaculture – Tilapia
     - Mariculture – Mussels
     - Ice machine and coldstore
     - Training in life skills (pluming, cooking, cutting & sewing , electricity, mechanic….)
     - MoU with 6 schools – environmental awareness
     - Conservation agriculture
     - Water supply

RESERVA ESPECIAL MAPUTO MOÇAMBIQUE

RESERVA MARINHA PARCIAL PONTA DO OURO MOÇAMBIQUE

RECREATIONAL AND SPORT FISHING

REM / RMPPO

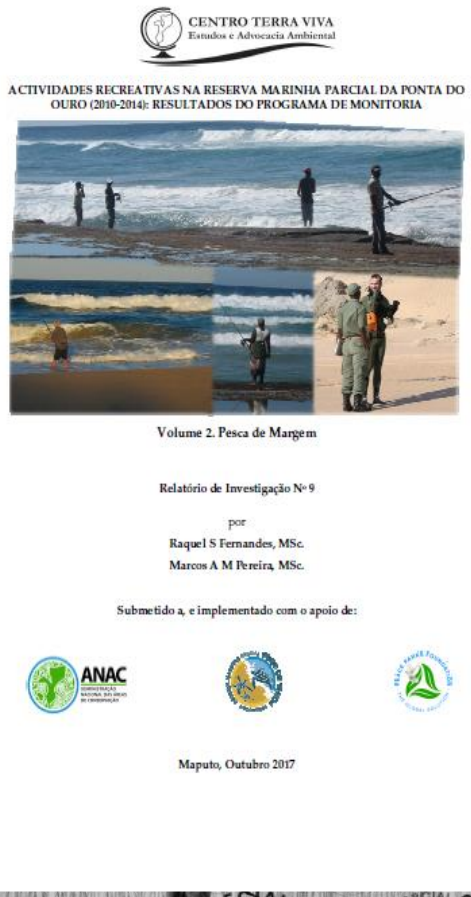
- Open access
- Due to licensing
- No National Management Plan
- Exist Regulation – Outdated

- **Challenges**

1. Poor control of fishing effort
2. CPUE ↓
3. Bag limit vs. Selling fish
4. Litter – discarding fishing lines and plastics

- **PPMR Interventions**

1. Research & Monitoring (coral reef health; fish catching)
2. Redefine bag limit & fishing effort
3. Guarantee licensing
4. Promote catch & release
5. **NO** go areas



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ACTIVIDADES RECREATIVAS NA RESERVA MARINHA PARCIAL DA PONTA DO OURO (2010-2014): RESULTADOS DO PROGRAMA DE MONITORIA

Volume 2. Pesca de Margem

Relatório de Investigação Nº 9

por

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TRAINING

REM / RMPPO

OBRIGADO


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