



# A CENTURY OF SHARK FISHING IN SOUTH AFRICA





environment, forestry & fisheries

Department: Environment, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA



# Shark fishing has a long tradition in South Africa



- Traditional shark fishery has operated >100 years
- Longline targeting sharks introduced in the 1990s
- Increased shark targeting in other fisheries mid 2000s



**Fig 1.** Time-series of estimated catch in metric tons (t) for soupfin sharks *Galeorhinus galeus* (1952-2018) showing the linefish historical data (Line\_gans\_SFSH),

commercial linefish data (Line\_SFSH), trawl catch data (Trawl\_SFSH) and demersal shark longline catch data (DemLL\_SFSH).





# Shark fishing in South Africa today

#### **Target Fisheries**

- Demersal shark longline
- Commercial linefishery
- Beach-seine and gillnet fisheries
- **Recreational linefishery** ٠
- Bather protection fishery ٠

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Illustrations from: Heemstra, Phillip C., and Elaine Heemstra. Coastal fishes of southern Africa. NISC (PTY) LTD, 2004.



### Continued...

#### **By-catch fisheries**

- Inshore trawl fishery
- Offshore trawl fishery
- Small pelagic fishery
- Hake longline fishery
- Prawn trawl fishery
- Tuna and swordfish pelagic longline fishery
- Pelagic shark longline fishery





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# Shark management in the large pelagic longline fishery

Permit conditions:

- CITES Appendix II species are prohibited
- In addition: dusky sharks *C. obscurus* are prohibited
- Shark and Large pelagic fishery amalgamated
- PUCL (2000 t dressed weight)
- No wire traces allowed
- Finning prohibited
- Sharks designated as by-catch

\* South Africa is internationally recognized at RFMOS for best practices and submission of high quality information





#### Science based management

- Movement and telemetry
- Biology
- Heavy metal contamination of shark meat
- MPAs
- Climate change
- Genetics
- Assessments

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#### The current status and management of South Africa's chondrichthyan fisheries ${}^{\mbox{\tiny \$}}$

C da Silva<sup>1,2\*</sup>, AJ Booth<sup>3</sup>, SFJ Dudley<sup>1,4</sup>, SE Kerwath<sup>1,2,5</sup>, SJ Lamberth<sup>1,6</sup>, RW Leslie<sup>1,2</sup>, ME McCord<sup>7</sup>, WHH Sauer<sup>3</sup> and T Zweig<sup>7</sup>

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Short Communication

#### First documented southern transatlantic migration of a blue shark *Prionace glauca* tagged off South Africa

C da Silva1\*, SE Kerwath1.2, C Wilke1, M Meÿer3 and SJ Lamberth1.4

	Fisheries Research 206 (2018) 292-295	
	Contents lists available at ScienceDirect	Fisheries Program
	Fisheries Research	
ELSEVIER	journal homepage: www.elsevier.com/locate/fishres	

Short communication

DNA barcoding of chondrichthyans in South African fisheries

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natureresearch

Acid-base adjustments and first evidence of denticle corrosion caused by ocean acidification conditions in a demersal shark species

Jacqueline Dziergwa<sup>1</sup>, Sarika Singh<sup>2</sup>, Christopher R. Bridges<sup>1</sup>, Sven E. Kerwath<sup>3,4</sup>, Joachim Enax<sup>5</sup> & Lutz Auerswald<sup>3,4\*</sup>

# Soupfin shark stock assessment is very pessimistic

Data rich species - requires details on biology, catch data and abundance data



Figure 2. Kobe plot the stock status estimates of fishing mortality relative to  $F_{MSY}$  and biomass relative to  $B_{MSY}$  for soupfin sharks *Galeorhinus galeus* 

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Figure 3. Projections based on JABBA Base Case for Soupfin sharks



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#### Risk assessment are available for data poor species



- Data poor species very limited data requirements to show a change in abundance
- Risk assessments completed for 21 species and used for 2019-2020 IUCN red list assessments





# **THANK YOU!**

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