Site fidelity of yellowfin tuna in the central South Atlantic Ocean





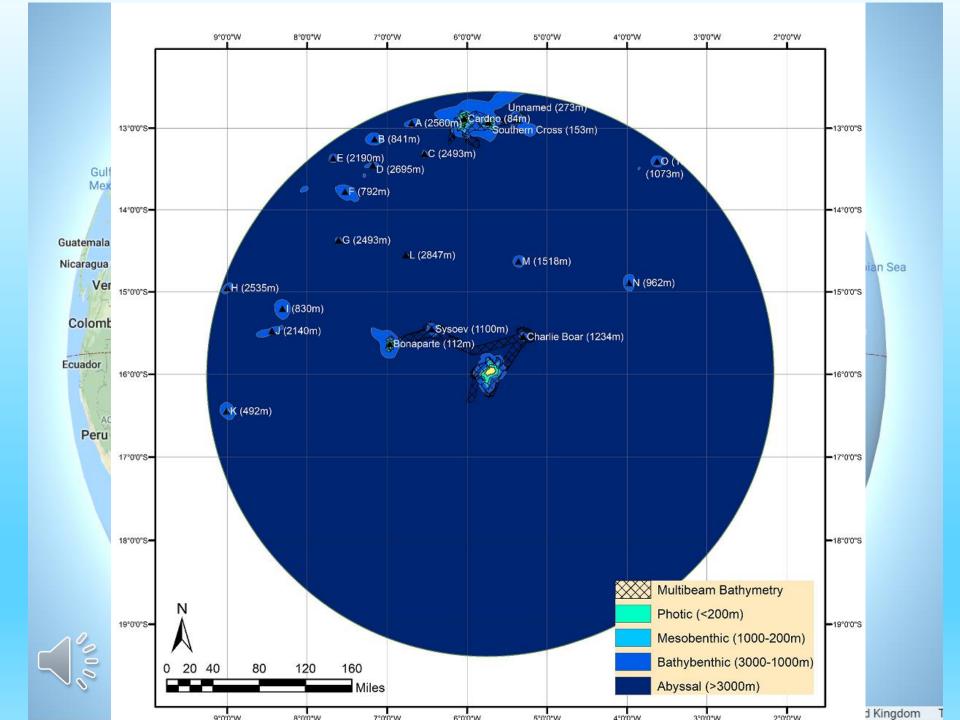
Rhys Hobbs

Marine and Fisheries
Conservation Officer
St Helena Government













Overview & Aim

- Improved understanding and knowledge
- Locally appropriate management methods

<u>Aim</u>

Gathering more detailed data and information on tuna species, leading to more informed management decisions







Programme Schedules

		Year					
Activity	Programme	2016	2017	2018	2019	2020	2021
Tagging	Darwin						
	Blue Belt						
	ICCAT						
	SHG						
Analysis							



Tag types

Conventional (dart)





Satellite



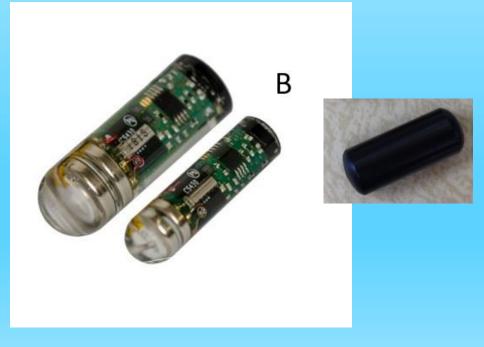
Data storage



Acoustic







Conventional (dart) tags

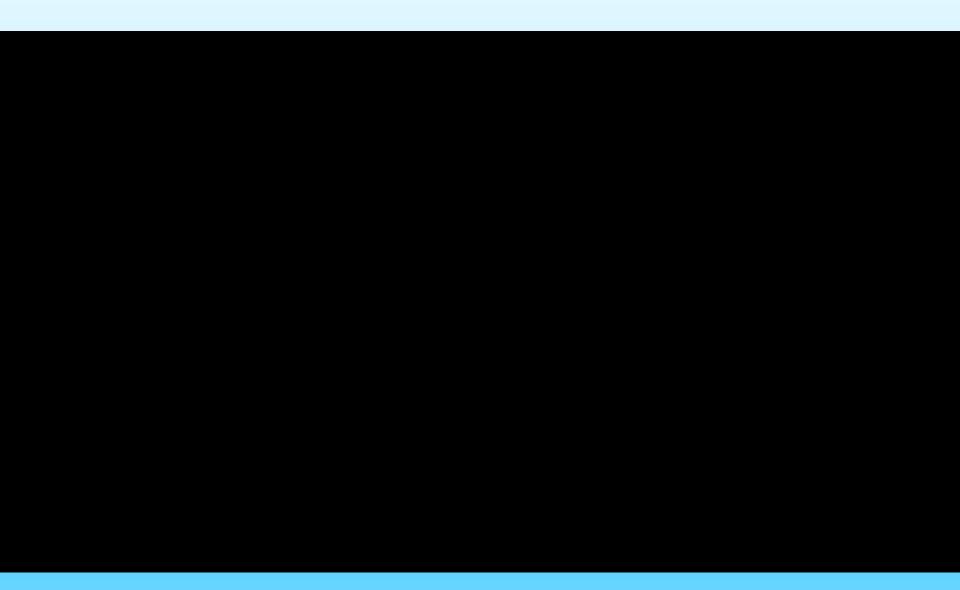


Satellite tags



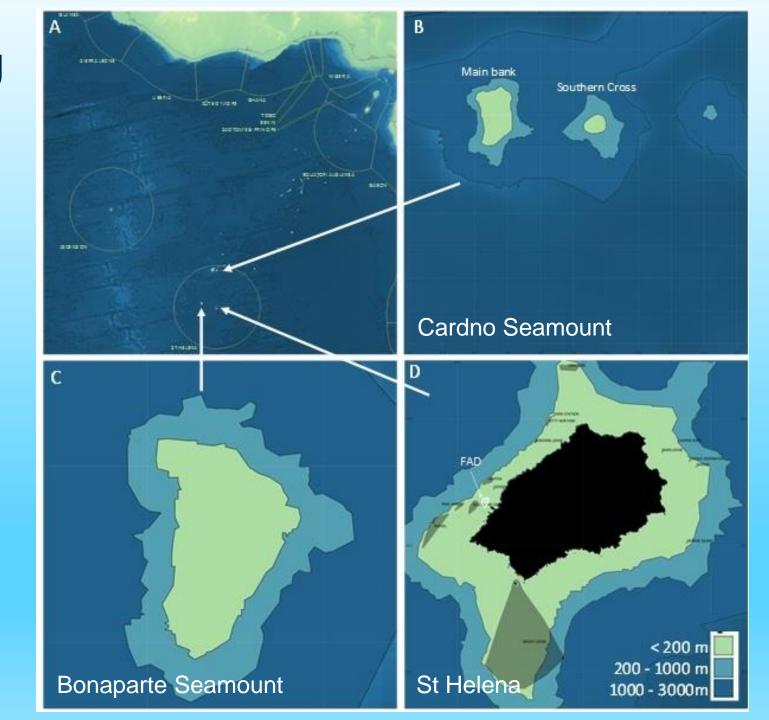








Fishing areas

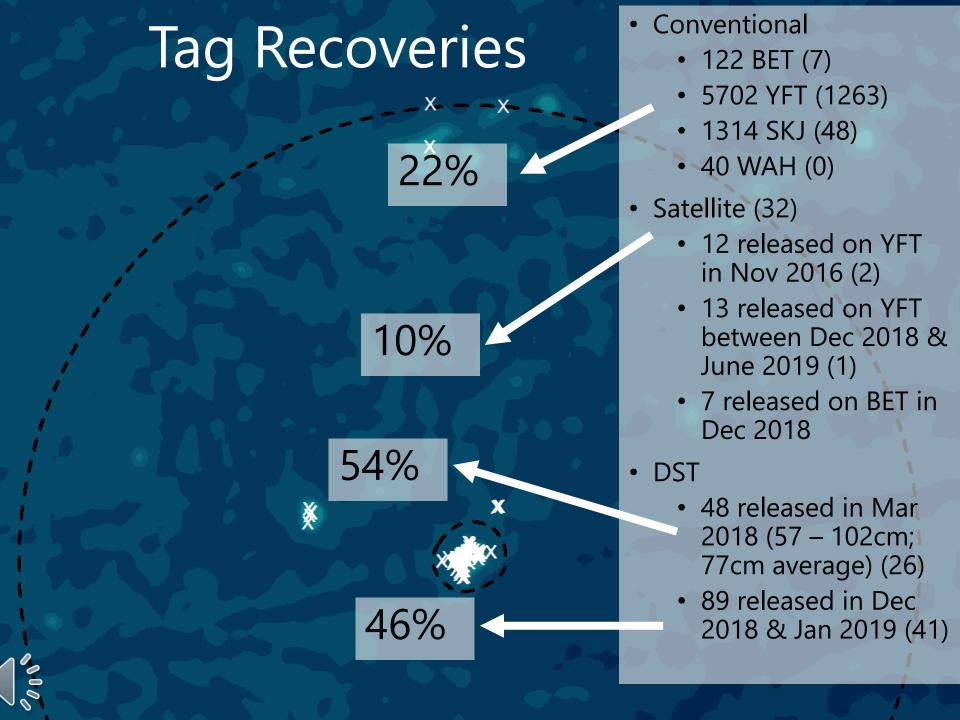




Tags released (2015 to April 2020)

		Recapture						
Year	Released	2016	2017	2018	2019	2020	No Date	%
2015	30	10	0	0	0	0	0	30
2016	537	33	41	1	0	0	17	17
2017	371	0	24	22	0	0	6	14
2018	1858	0	0	198	145	10	14	20
2019	1617	0	0	0	531	57	16	37
2020	1474	0	0	0	0	205	10	15
Total	5887	43	65	221	676	272	63	23

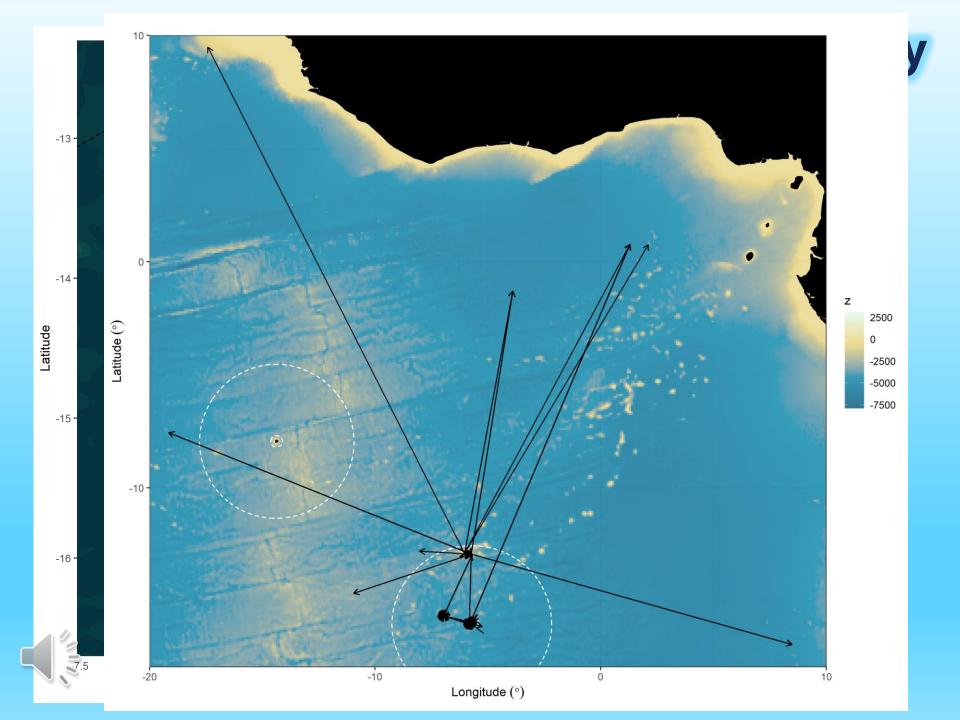


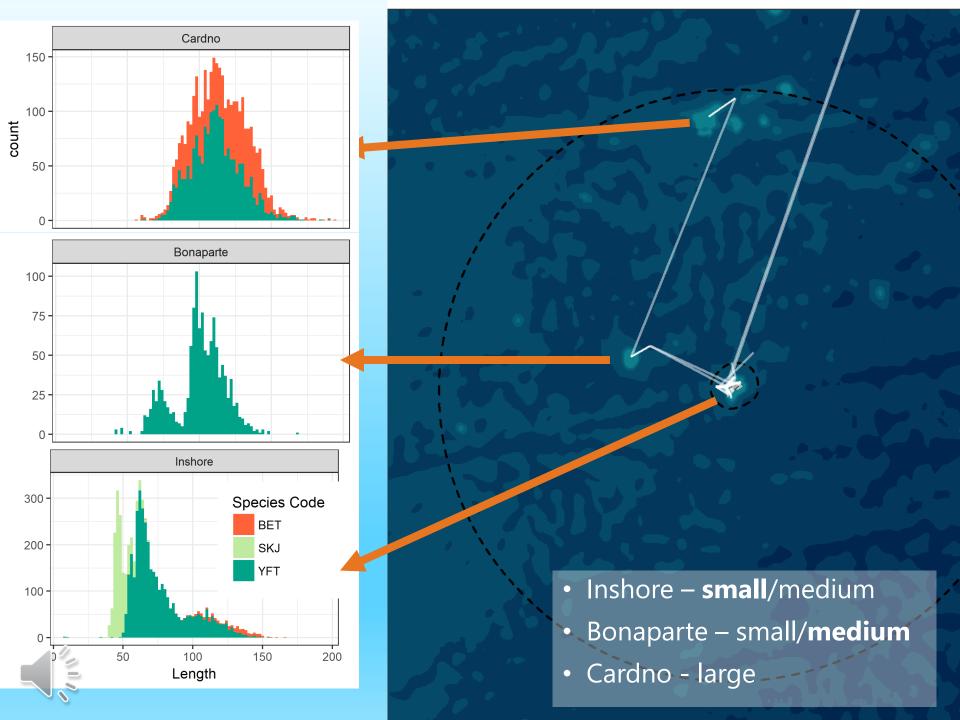


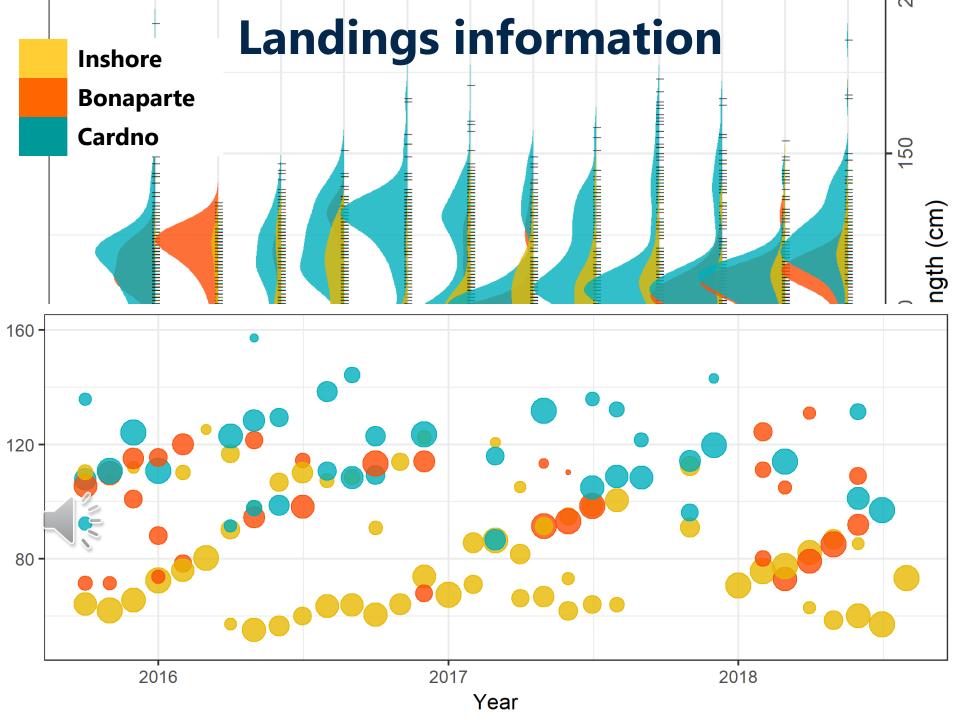
Recapture rates by region, where, $L_{50} = 85.7$ cm*

Release area	Release	Recapture	Recapture area					
	Size	Number	Inshore	Bonaparte	Cardno	Outside EEZ		
Inshore	<l<sub>50</l<sub>	74	99%	0%	0%	1%		
	>L ₅₀	12	83%	17%	0%	0%		
Bonaparte	<l<sub>50</l<sub>	2	0%	100%	0%	0%		
	>L ₅₀	22	0%	95%	5%	0%		
Cardno	<l<sub>50</l<sub>	8	0%	0%	50%	50%		
	>L ₅₀	43	0%	0%	88%	12%		
Outside	<l<sub>50</l<sub>	1	100%	0%	0%	-		

Increased residency for individuals <L₅₀, except Cardno (50%: n=8)







Summary

- Studies Series of scientific programmes undertaken to study
 YFT in St Helena
- Fidelity High proportion of tagged individuals remain close to their release locations
- Residency Tuna spend prolonged periods (years) within St Helena waters
- Movement Movement within the EEZ and some limited movement to outside of EEZ
- Mortality Fishing mortality from pole and line only but can exceed 40%
- Management practices Introduction of a minimum landing size (MLS) and Total Allowable Catch (TAC)



Thank you for listening and to all the tagging teams and crew involved in the work to date

