

SUBJECT: WILDLIFE INTERACTION REPORTING ACROSS SOUTH AUSTRALIAN FISHERIES 2019/20

DATE: MAY 2021

KEY ISSUES:

- A policy for reporting wildlife interactions with any threatened, endangered, and protected species (TEPS) covered by Part 13 of the *Environment Protection and Biodiversity Conservation Act 1999* within commercial fisheries was introduced by PIRSA Fisheries and Aquaculture in July 2007. SARDI Aquatic Sciences has been designated the responsibility to collect, collate, and enter these interactions and report to PIRSA Fisheries.
- This advice note outlines protected species interactions reported in South Australian Managed Fisheries Wildlife Interaction Forms (WIFs) for the period 1 July 2019 to 30 June 2020.

BACKGROUND:

As part of the ongoing requirements under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*, from 1 July 2007 licence holders in all South Australian fisheries are required to report any interactions with listed TEPS that occur during fishing operations. Species listed under the EPBC Act include all marine mammals and seabirds, marine and freshwater reptiles and some protected fish species, including White Sharks and Sygnathids (seahorses, pipefish).

In addition to reporting requirements under the EPBC Act, US Government legislation requires nations importing seafood into the US to demonstrate that they have a regulatory program for reducing impacts on marine mammal comparable in effectiveness to the US standards. To comply with US standards, the new rule under the United States *Marine Mammal Protection Act 1972* (MMPA) requires reasonable proof from the government of any nation from which fish or fish products will be exported to the United States of the effects on ocean mammals of the commercial fishing technology in use in the fishery from which that product derives. As part of these requirements, a summary of marine mammal interactions with South Australian managed fisheries across six financial years, by fishery and marine mammal species is provided.

A Wildlife Interactions Reporting Logbook is provided to all licence holders to ensure all interactions are correctly reported. If any interaction occurs, a Wildlife Interactions Form (WIF) must be filled out on the day of the interaction and sent with the commercial fishing log to SARDI Aquatic Sciences, Fisheries - Information Services unit. SARDI Aquatic Sciences collect, collate, and enter these interactions and report information to PIRSA Fisheries and Aquaculture.

RESULTS/DISCUSSION

Summaries of the protected species interactions reported in South Australian Managed Fisheries, WIFs for the period 1 July 2019 to 31 June 2020 are attached

Dr Mike Steer
Research Director, Aquatic Sciences

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Protected species interactions reported in South Australian Managed Fisheries Wildlife Interaction Forms (WIFs) for the period 1 July 2019 to 30 June 2020.

Total number of TEPS interactions (and individuals) reported to interact with each South Australian managed fishery for the period 1 July 2019 to 30 June 2020, summarise by broad tax groupings.

Fishery	Cetacean	Pinniped	Bird	Reptile	Fish	Total
Abalone					2 (2)	2 (2)
Blue Crab						
Charter Boat						
Lakes & Coorong		363 (1473)		1 (1)		364 (1474)
Marine Scalefish	2 (6)					2 (6)
SG Prawn					26 (31)	26 (31)
GSV Prawn						
WC Prawn						
Sth Zone Rock Lobster	1 (1)					1 (1)
Nth Zone Rock Lobster						
Sardine	122 (455)					122 (455)
Total	125 (462)	363 (1473)	0	1 (1)	28 (33)	517 (1969)

Total number of reported TEPS interactions by taxonomic group and species, including interaction type, life status and fate reported interacting with all South Australian managed fisheries for the period 1 July 2019 to 30 June 2020.

All South Australian Fisheries

Group	Common name	Events (individuals)	Interaction type		Life status		Fate		
			Caught/ entangled/ impacted	Other	Alive, alive/ injured	Dead	Released/ discarded	Retained	Other
Cetacean	Common dolphin	67 (243)	2	241	241	2	241	2	
	Dolphin (unid.)	57 (218)	3	215	216	2	216	2	
	Humpback whale	1 (1)	1		1		1		
	Total	125 (462)	6	456	458	4	458	4	
Pinniped	Long-nosed fur seal	363 (1473)		1467	1473				1473
	Total	364 (1473)		1467	1473				1473
Fish	Great white shark	2 (2)		2	2				2
	Common sea dragon	2 (4)	4		4		4		
	Pipefish	11 (11)	11		9	2	10		1
	Seahorse	13 (16)	16		15	1	16		
	Total	28 (33)	31	2	30	3	30		3
Reptile	Leatherback turtle	1 (1)		1	1				1
	Total	1 (1)		1	1				1
	All taxa	517 (1969)	6	1926	1962	7	488	4	1477

Total number of reported TEPS interactions by taxonomic group and species, including interaction type, life status and fate reported interacting with each South Australian managed fishery for the period 1 July 2019 to 30 June 2020. *Note: no interactions were report in the Blue Crab, Charter Boat, Gulf St Vincent Prawn, West Coast Prawn, and Northern Zone Rock Lobster Fisheries.*

Abalone Fisheries

Taxa group	Common name (species)	Events (individuals)	Interaction type		Life status			Fate		
			Caught/ entangled/ impacted	Other	Alive, alive/ injured	Dead	Unknown	Released/ discarded	Retained	Other
Fish	GREAT WHITE SHARK	2		2	2					2
	Total	2		2	2					2

Both white shark interactions involved sightings from abalone boats.

Lakes & Coorong Fishery

Taxa group	Common name (species)	Events (individuals)	Interaction type		Life status			Fate		
			Caught/ entangled/ impacted	Other	Alive, alive/ injured	Dead	Unknown	Released/ discarded	Retained	Other
Reptile	LEATHERBACK TURTLE	1		1	1					1
	Total	1		1	1					1
Mammal	LONG-NOSED FUR SEAL	1473	6	1467	1473					1473
	Total	1473	6	1467	1473					1473
	All taxa	1474	6	1468	1474					1474

The single reptile interaction was a leatherback turtle (45 cm shell diameter) apparently resting on a net float. It swam off unharmed.

Long-nosed fur seals are estimates by fishers of the number of seals involved (on days when seals were recorded, the average estimate was 4 seals involved). All interactions were seals preying on fish caught in gill-nets and damaging nets, no seals were caught.

Marine Scalefish Fishery

Taxa group	Common name (species)	Events (individuals)	Interaction type		Life status			Fate		
			Caught/ entangled/ impacted	Other	Alive, alive/ injured	Dead	Unknown	Released/ discarded	Retained	Other
Mammal	DOLPHIN	6	6		6			6		
	Total	6	6		6			6		

While recorded as Marine Scalefish Fishery on Wildlife Interaction Forms (and, therefore, in the database) - these interactions were from 2 encirclement events by purse-seiners, so were part of the South Australian Sardine Fishery. Accordingly, they could be taken from here and added to the South Australian Sardine Fishery data (presented below).

Spencer Gulf Prawn Fishery

Taxa group	Common name (species)	Events (individuals)	Interaction type		Life status			Fate		
			Caught/ entangled/ impacted	Other	Alive, alive/ injured	Dead	Unknown	Released/ discarded	Retained	Other
Fish	COMMON SEADRAGON	4	4		4			4		
	PIPEFISH	11	11		9	2		10		1
	SEA HORSE	16	16		15	1		16		
	Total	31	31		28	3		30		1

Southern Zone Rock Lobster Fishery

Taxa group	Common name (species)	Events (individuals)	Interaction type		Life status			Fate		
			Caught/ entangled/ impacted	Other	Alive, alive/ injured	Dead	Unknown	Released/ discarded	Retained	Other
Mammal	HUMPBACK WHALE	1	1		1			1		
	Total	1	1		1			1		

This whale was sighted entangled in the rope to a lobster pot. Fishers cut the pot free and reported ‘the whale swam off’.

South Australian Sardine Fishery

Taxa group	Common name (species)	Events (individuals)	Interaction type		Life status			Fate		
			Caught/ entangled/ impacted	Other	Alive, alive/ injured	Dead	Unknown	Released/ discarded	Retained	Other
Mammal	COMMON DOLPHIN	243	125	118	241	2		241	1	1
	DOLPHIN	212	68	144	210	2		210	2	
	Total	455	193	262	451	4		451	3	1

A purse-seine net fishery. All dolphins are assumed to be common dolphins. The only other dolphin in the region is the bottlenose dolphin, which has not been recorded to associate with this fishery. Interactions with dolphins in the Sardine Fishery are also reported in Kirkwood et al. (2020). https://pir.sa.gov.au/_data/assets/pdf_file/0010/374446/Sardine_Fishery_Dolphin_Interactions_2020.pdf. Numbers here are raw logbook records and differ slightly to those reported in Kirkwood et al. (2020).

Most dolphins were encircled by purse-seine nets - some fishers record this as ‘caught’ other fishers record this as ‘other’. Net shots were aborted when dolphins were sighted so most dolphins were released alive.

Total number of reported marine mammal interactions by financial year (F/Y), fishery and species, including interaction type, life status and fate interacting with all South Australian managed fisheries for the period 1 July 2014 to 30 June 2020.

F/Y	Fishery	Taxo Group	Common name (Species)	No. of animals	Nature of Interaction			Status			Fate				Summary			
					Caught	Entangled	Other	Alive	Dead	Injured	Released	Retained	Discarded	Other	Mortality	Released injured	Released uninjured	
2014/15	Lakes and Coorong Fishery	PINNIPED	LONG-NOSED FUR SEAL	7190 ^a			7190	7190						7190	0	0	7190	
2015/16	Lakes and Coorong Fishery	PINNIPED	LONG-NOSED FUR SEAL	2393 ^a			2393	2393						2393	0	0	2393	
2016/17	Lakes and Coorong Fishery	PINNIPED	LONG-NOSED FUR SEAL	1781 ^a			1781	1779		2 ^b				1781	0	2 ^b	1779	
2017/18	Lakes and Coorong Fishery	PINNIPED	LONG-NOSED FUR SEAL	2771 ^a			2771	2771						2771	0	0	2771	
2018/19	Lakes and Coorong Fishery	PINNIPED	LONG-NOSED FUR SEAL	2714 ^a			2714	2714						2714	0	0	2714	
2018/19	Lakes and Coorong Fishery	CETACEAN	DOLPHIN	5 ^c			5	5						5	0	0	5	
2019/20	Lakes and Coorong Fishery	PINNIPED	LONG-NOSED FUR SEAL	1473 ^a			1473	1473						1473	0	0	1473	
2019/20	Marine scalefish ^d	CETACEAN	DOLPHIN	6			6	6						6			6	
2014/15	Sardine Fishery	CETACEAN	COMMON DOLPHIN	59	21 ^e	5	33 ^e	56	3			56	3		3	0	56	
2014/15	Sardine Fishery	CETACEAN	DOLPHIN ^f	136	75 ^e	2	59 ^e	135	1			135	1		1	0	135	
2014/15	Sardine Fishery	PINNIPED	COMMON SEAL ^g	1		1		1				1			0	0	1	
2015/16	Sardine Fishery	CETACEAN	COMMON DOLPHIN	47	16 ^e	1	30 ^e	47				47			0	0	47	
2015/16	Sardine Fishery	CETACEAN	DOLPHIN ^f	148	62 ^e	5	81 ^e	145	1	2		139	1		8	1	2	145
2016/17	Sardine Fishery	CETACEAN	COMMON DOLPHIN	71	43 ^e		28 ^e	70	1			70		1	1	0	70	
2016/17	Sardine Fishery	CETACEAN	DOLPHIN ^f	130	47 ^e		83 ^e	129		1		130			0	1	129	
2016/17	Sardine Fishery	PINNIPED	AUSTRALIAN SEA LION	1	1			1				1			0	0	1	
2017/18	Sardine Fishery	CETACEAN	COMMON DOLPHIN	126	6 ^e	1	119 ^e	126				126			0	0	126	
2017/18	Sardine Fishery	CETACEAN	DOLPHIN ^f	205	20 ^e	3	182 ^e	202		3		205			0	3	202	
2017/18	Sardine Fishery	PINNIPED	LONG-NOSED FUR SEAL	2			2	2				2			0	0	2	
2018/19	Sardine Fishery	CETACEAN	COMMON DOLPHIN	152	82 ^e	2	68	145	7			145	1	5	1	7	0	145
2018/19	Sardine Fishery	CETACEAN	DOLPHIN ^f	210	84 ^e	5	121 ^e	201	2	7		208	2		2	7	201	
2019/20	Sardine Fishery	CETACEAN	COMMON DOLPHIN	243	123 ^e	2	118 ^e	241	2			241	1		2	0	241	
2019/20	Sardine Fishery	CETACEAN	DOLPHIN ^f	212	65 ^e	3	144 ^e	209	2	1		210	2		2	1	209	
2019/20	Southern Zone Rock Lobster	CETACEAN	HUMPBACK WHALE ^h	1		1				1		1			0	1	0	
2016/17	Spencer Gulf Prawn Fishery	CETACEAN	DOLPHIN ⁱ	1			1		1					1	1	0	0	

^aAll interactions are fishers 'estimates' of number of seals involved - often no seals were seen, often one or two - estimates by fishers range up to 50-100 (each day for a month).

^b2016/17 entry of Injured (2) likely to be a mis-entry (should have been recorded as alive?) - there are no comments on how seals could have been injured.

^cThis was a mis-entry. The comments indicate these were long-nosed fur seals not dolphins.

^dWhile recorded as Marine Scalefish in the database - these were purse-seine net encirclements, and should be added to Sardine Fishery data

^eAll non-entangled records are encircled by purse-seine net. Some fishers record this as 'caught', others record this as 'other'

^fAssume all dolphins to be common dolphins. The only other dolphin in the region is the Bottlenose and these have not been recorded associating with this fishery

^gLikely to be a Long-nosed fur seal (to a US citizen, a common seal is a harbour seal, they don't occur in Australia)

^hSighted entangled in rope to lobster pot. Pot was cut free and whale swam off

ⁱHit by propeller