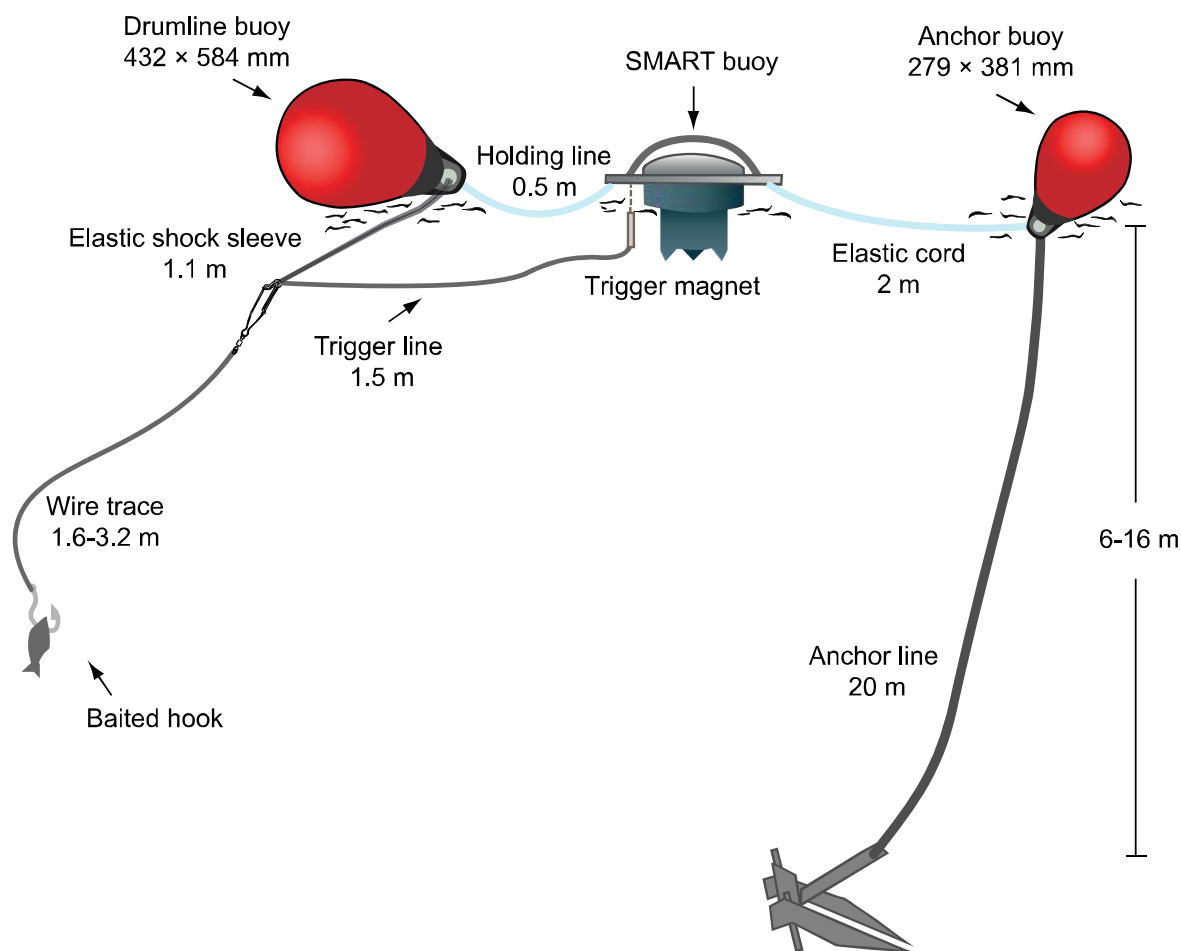


SMART drumline trial results for Newcastle, February – April 2019

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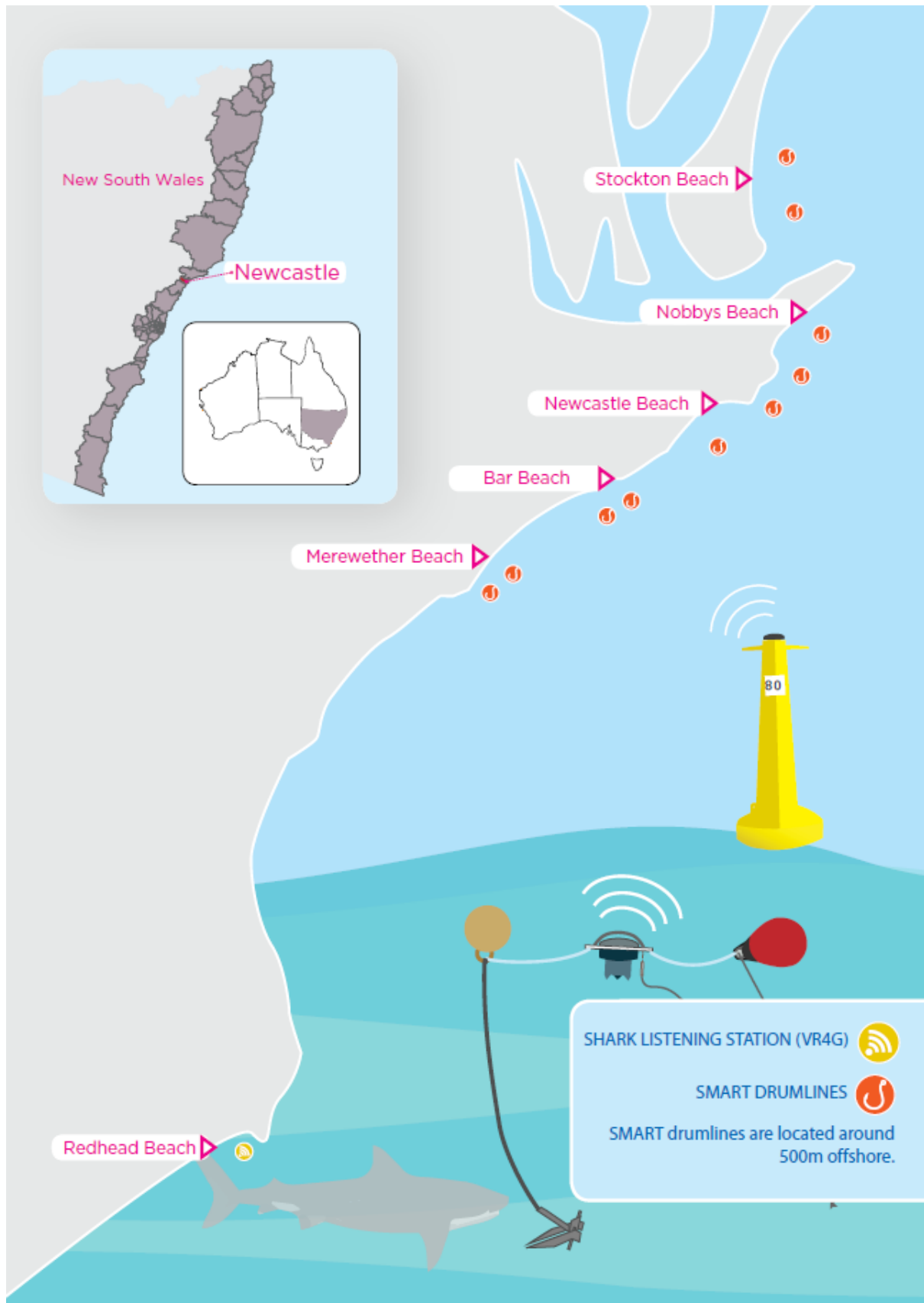


Figure 1: Map showing positions of the SMART drumlines during the Newcastle trial, 1 February - 30 April 2019.

Operation

During the three month trial from 1 February to 30 April at Newcastle (Figure 1), weather and ocean conditions allowed SMART drumlines to be deployed by DPI contractors for 77 days (86% of days). Environmental conditions determined how long SMART drumlines were deployed on any given day, ranging from 7:27h to 12:34h. On average, SMART drumlines were deployed for 10:05h/day.

Total catches

No target sharks were caught in this trial at Newcastle. A total of four non-target animals were caught (Tables 1 & 2), including a Dusky Whaler, Common Blacktip, Mako Shark and Smooth Hammerhead.

The Common Blacktip Shark died despite the contractor attending to the SMART drumline within 11 minutes of the alert. The shark was hooked in the mouth as expected, but it had everted its stomach into the buccal cavity in the short time before the contractor arrived, indicating an unusual and severe stress response from capture. This is the first instance this has been reported in more than 25,000 sets of the SMART drumlines since the trials began in the Bellinger River in December 2015. All other sharks were released alive and in good condition.

Comments

When the contractor responded to two alerts that had no catch, they found that 1 hook had no bait, and 1 hook had 40% of the bait remaining. The contractor arrived at the SMART drumlines within an average of 15 minutes following an alert.

One shark failed to set off an alert at Stockton Beach on 5 February 2019. When the contractor arrived at the respective drumline for retrieval at the end of the day, a Dusky Whaler was found alive on the line (Tables 1 & 2). The trigger was still intact and had not been dislodged by the movement of the shark. The other 3 sharks triggered alerts as normal.

Table 1: The date and time of capture of species and their sizes (total length in m), sex and status during the SMART drumline trial in Newcastle, 1 February - 30 April 2019.

Beach name	Date	Time	Species	Size (TL) and sex	Status
Stockton Beach	05/02/2019	16:32*	Dusky Whaler	1.0; Female	Alive
Nobbys Beach	16/02/2019	12:58	Common Blacktip Shark	2.3; Male	Dead
	27/03/2019	13:19	Mako Shark	2.7; Female	Alive
Bar Beach	20/03/2019	11:29	Smooth Hammerhead	1.9; Female	Alive

*No alert. Time is indicative of when the contractor arrived to pick up the gear at the end of the day.

Table 2: Cumulative totals of animals caught in the Newcastle SMART drumline trial, 1 February to 30 April 2019.

Common name	Newcastle
TARGET SHARKS	
White Shark	0
Tiger Shark	0
Bull Shark	0
Sub-total	0
NON-TARGET ANIMALS	
Dusky Whaler	1
Common Blacktip Shark	1
Mako Shark	1
Smooth Hammerhead	1
Sub-total	4
TOTAL	4