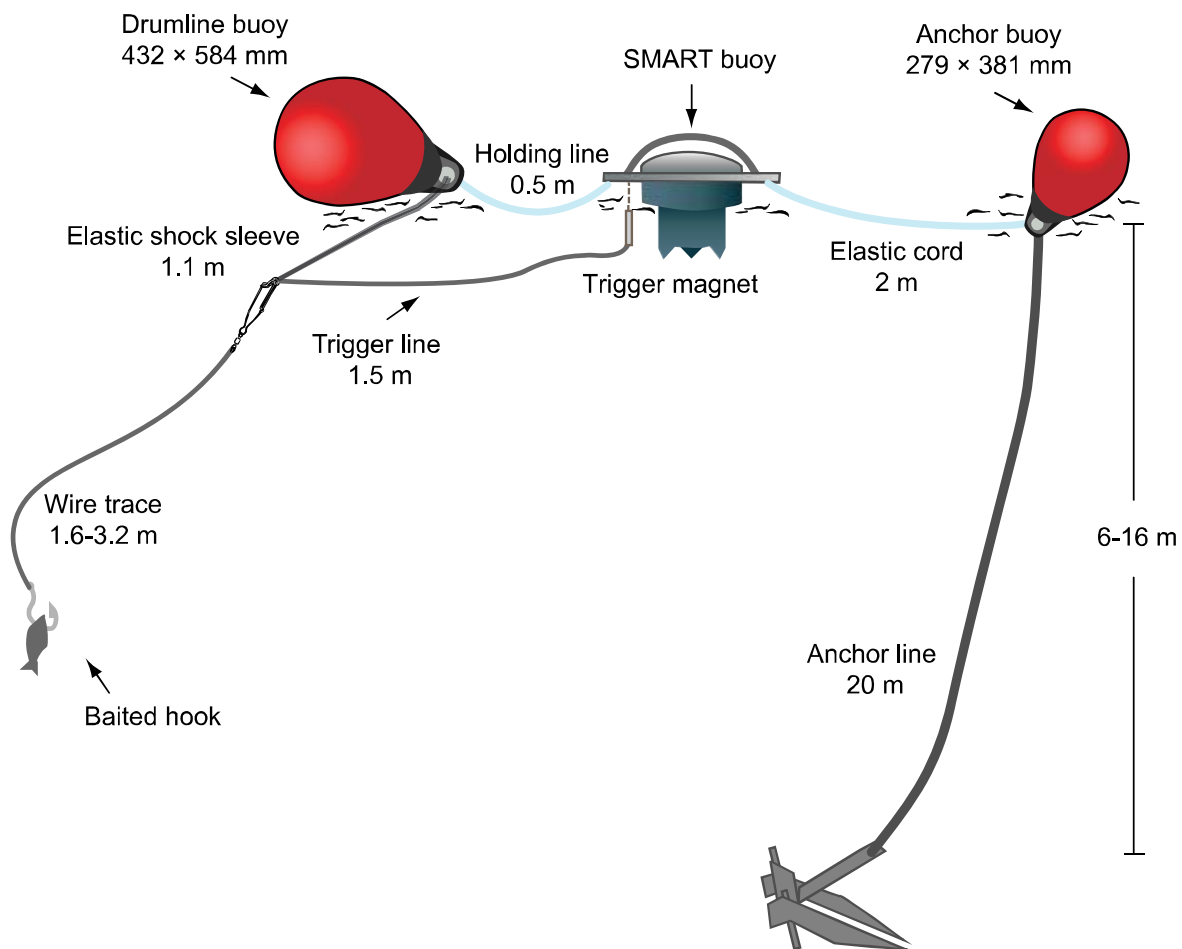
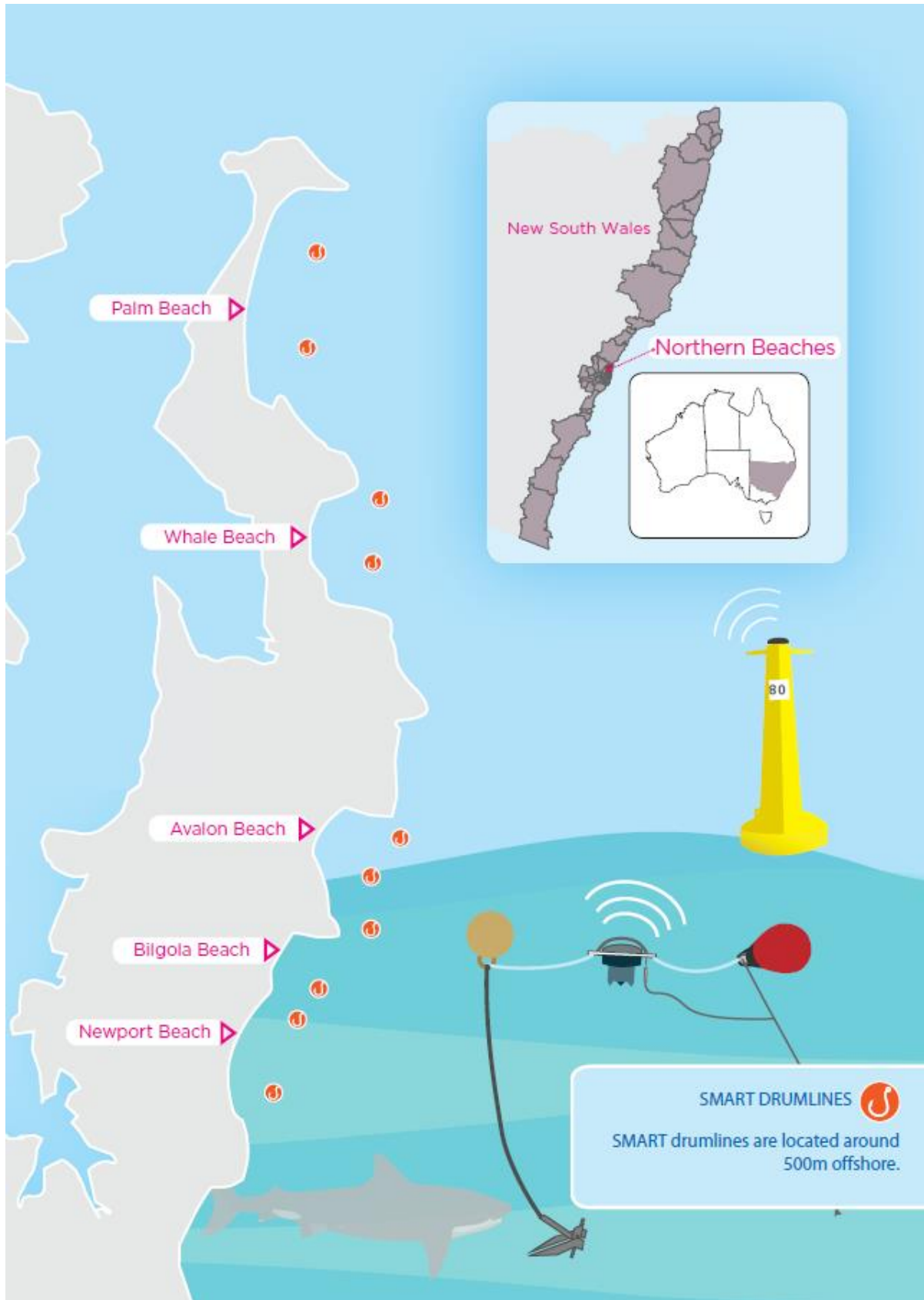
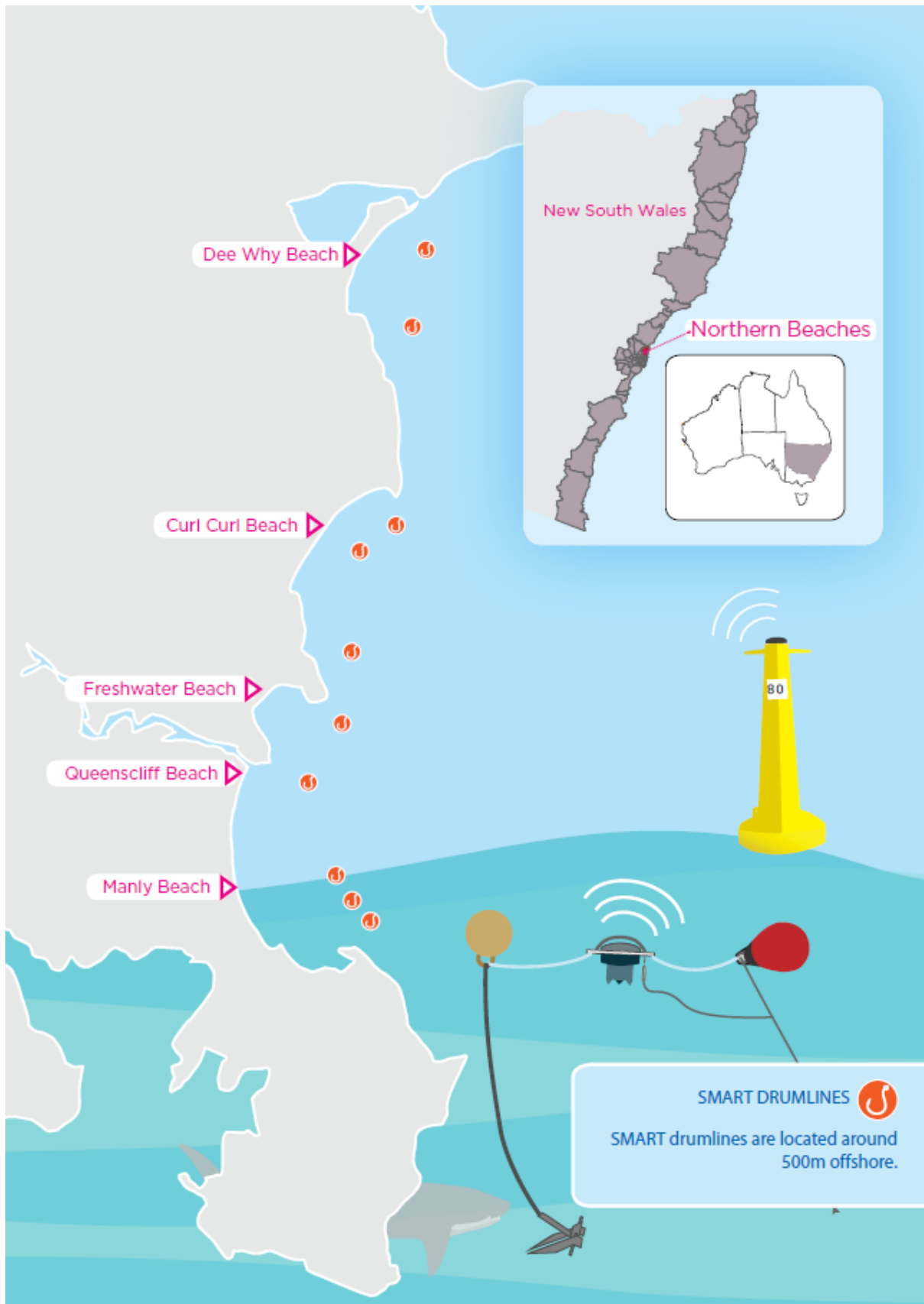


# SMART drumline trial results for Sydney, February – May 2019

Paul Butcher, NSW Department of Primary Industries







**Figure 1:** Map showing positions of the SMART drumlines in the two areas (Barrenjoey-Newport and Manly-Dee Why) of the Sydney trial, 10 February - 11 May 2019.

## **Operation**

During the trial from 10 February to 11 May 2019 in two areas of Sydney's Northern Beaches (Figure 1), weather and ocean conditions allowed SMART drumlines to be deployed by DPI contractors for 85 days (94% of days) at Barrenjoey–Newport and 80 days (89% of days) at Manly–Dee Why.

Environmental conditions determined how long SMART drumlines were deployed on any given day in each area, ranging from 5:08h to 11:58h at Barrenjoey–Newport and 4:12h to 12:23h at Manly–Dee Why. On average, SMART drumlines were deployed for 9:19h/day at Barrenjoey–Newport and Manly–Dee Why.

## **Total catches**

A total of two target sharks were caught (Tables 1 & 2): one male and one female Tiger Shark were caught at Dee Why Beach and Newport Beach, respectively. No White or Bull sharks were caught at either area of this Sydney trial.

A total of 13 non-target animals were caught (Tables 1 & 2), including 10 Dusky Whalers and a Bronze Whaler, Smooth Hammerhead and an unidentified whaler shark. The Smooth Hammerhead was found dead on the line at the end of the day having failed to trigger an alert, and the unidentified whaler shark (most probably a Dusky Whaler) ejected the hook and escaped whilst securing the animal next to the boat. All other sharks were released alive and in good condition.

## **Comments**

When the contractors responded to alerts that had no catch, 14 at Barrenjoey–Newport and 17 at Manly–Dee Why, they found that 2 hooks at Barrenjoey–Newport and 11 at Manly–Dee Why had no bait, and 12 hooks at Barrenjoey–Newport and 6 at Manly–Dee Why had the bait fully intact.

The Smooth Hammerhead Shark failed to set off an alert at Whale Beach on 15 March 2019. When the contractor arrived at the respective drumline for retrieval at the end of the day, the shark was found dead on the line (Table 1). The trigger was still intact and had not been dislodged by the movement of the shark. The other 14 sharks triggered alerts as normal.

The contractors arrived at the SMART drumlines within an average of 29 minutes at Barrenjoey–Newport and 18 minutes at Manly–Dee Why following an alert. The Barrenjoey–Newport average response time was relatively long as the vessel had mechanical problems when an alert was

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triggered, which resulted in the line being unattended for 2 hours. No shark was present on the line and 100% of the bait remained. All other response times were well within the contract requirement of 30 minutes.

**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 Sydney, 10 February - 11 May 2019.

Beach name	Date	Time	Species	Size (TL) and sex	Status
<b>Barrenjoey - Newport</b>					
Whale Beach	15/03/2019	13:30	Smooth Hammerhead*	2.4; Male	Dead
Avalon Beach	10/02/2019	15:07	Dusky Whaler	1.6; Female	Alive
	07/05/2019	10:03	Bronze Whaler	2.6; Male	Alive
Newport Beach	26/02/2019	15:22	Unidentified Whaler	1.6: Unknown	Alive
	09/05/2019	14:07	Tiger Shark	3.5: Female	Alive
<b>Manly – Dee Why</b>					
Manly Beach	10/02/2019	18:18	Dusky Whaler	1.5; Female	Alive
	20/03/2019	17:25	Dusky Whaler	1.3; Female	Alive
	25/03/2019	16:30	Dusky Whaler	1.6; Female	Alive
Dee Why Beach	14/02/2019	08:35	Dusky Whaler	1.4; Female	Alive
	01/03/2019	11:02	Dusky Whaler	1.4; Female	Alive
	16/03/2019	13:27	Dusky Whaler	1.7; Female	Alive
	05/04/2019	17:04	Dusky Whaler	1.5; Female	Alive
	11/04/2019	12:23	Tiger Shark	2.4; Male	
Curl Curl Beach	18/02/2019	14:23	Dusky Whaler	2.5; Male	Alive
	06/03/2019	09:48	Dusky Whaler	1.1; 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 Sydney SMART drumline trial, 10 February to 11 May 2019.

Common name	Barrenjoey–Newport	Manly–Dee Why
<b>TARGET SHARKS</b>		
White Shark	0	0
Tiger Shark	1	1
Bull Shark	0	0
<b>Sub-total</b>	<b>1</b>	<b>1</b>
<b>NON-TARGET ANIMALS</b>		
Dusky Whaler	1	9
Bronze Whaler	1	0
Smooth Hammerhead	1 <sup>d</sup>	0
Whaler Shark - <i>unidentified</i>	1	0
<b>Sub-total</b>	<b>4</b>	<b>9</b>
<b>TOTAL</b>	<b>5</b>	<b>10</b>

Note: all animals released alive unless otherwise noted by 'd'.