



NINGALOO MARINE DEBRIS REPORT

*A Summary Report by Salty Times
covering 30 Marine Debris Surveys of the
Ningaloo Coastline.*

Report Contents

What:

Marine Debris surveys have been conducted along the Ningaloo Marine Park coastline from the Southern boundary of Red Bluff to the Northern boundary of The Muiron Islands.

These surveys were completed by walking and surveying a recorded distance along the beach at both the low tide and high tide lines. Any debris along either line was collected and recorded in the various categories of the Tangaroa Blue Marine Debris Collection sheets. The data has been submitted to the Australian Marine Debris Initiative database.

30 Marine Debris Surveys totalling 31.9 km of the Ningaloo Marine Park coastline were completed between 2016 and 2017 during a sailing expedition and a kayak expedition allowing access to remote beaches along the coast.

Why:

The aim of these marine debris surveys was to document quantities and types of debris, as well as highlight any marine debris hotspots found along the Ningaloo Coast. This contributes to a baseline dataset that has been added to the National Database for Marine Debris - The Australian Marine Debris Initiative.

These cleanups and surveys were also done to clean up any debris found and to raise awareness about the impacts of plastic and other debris in our oceans and on our beaches through public outreach.



Where:

North West Cape **24**

23

30

29

22

21

20

19 Yardie Creek

18

17

28

16

Point Cloates

27

15

26

14

13

12

11 Coral Bay

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9

25

8 Warroora

7

6

5

Farquhar

4

Gnaraloo Bay

3

2

1

Red Bluff



White - 2017 Surveys

Blue - 2016 Surveys

What was found

Locations surveyed

Number	Location Name	Meters Surveyed	# of debris items
1	Red Bluff	500m	10
2	Tombstones Car Park	30m	106
3	<u>3 mile camp beach</u>	550m	50
4	Gnaraloo Bay	600m	75
5	Cape Farquhar	1500m	62
6	South Waroora	1000m	11
7	Alison Point	2778m	17
8	Pelican Point South	1000m	13
9	Pelican Point North	950m	4
10	Sandy Point	400m	12
11	Point South of Coral Bay	500m	32
12	Coral Bay	100m	3
13	Maud's Landing	795m	15
14	Janes Bay	5500m	5490
15	North Point Cloates	685m	600
16	Shearing Shed	370m	10
17	Point Edgar	185m	7
18	Bundera Point	1100m	15
19	Yardie Creek	926m	8
20	Osprey Bay South	2220m	23
21	Turquoise Bay	925m	30
22	Tantabiddi	1000m	14
23	Hunters	575m	17
24	North West Cape	600m	20
2016 Beach Survey Data			
25	Sandy Point	2000m	1
26	Jane's Bay	2000m	354
27	Point Cloates North	1700m	105
28	Norwegian Bay	500m	8
29	Tantabiddi	1000m	9
30	Town Beach	1000m	7

Distances Surveyed

2017 - 24 789m

2016 - 7200m

Total: 31 989m

When?

2017 - May and June

2016 - June and September

of Surveyors

All cleanups had between 1 - 4 ppl

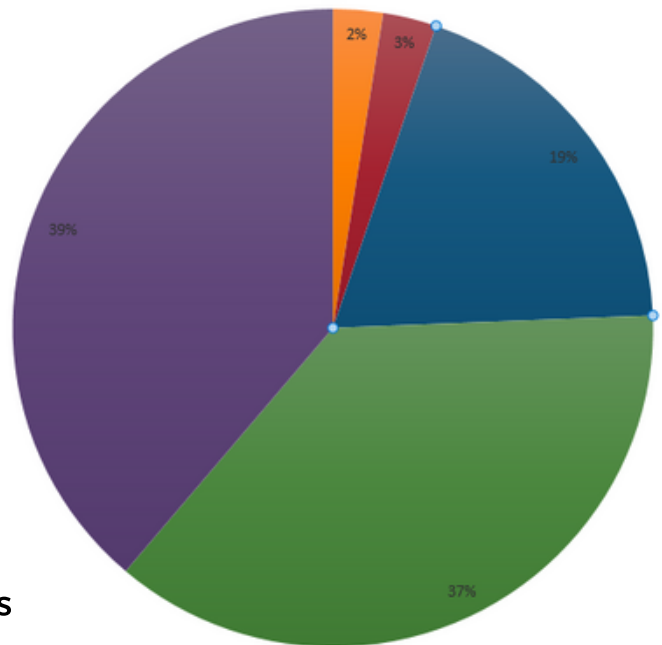
Jane's Bay had 19 volunteers

Thanks to Sea Shepherd



Top 5 types of debris found

- Foam insulation & packaging - 212 pcs
- Rope Length in m - 228 m
- Plastic pieces hard and solid - 1614 pcs
- Rope & net scraps 3103 pcs less than 1 metre (Nylon)
- Plastic film remnants (bits of plastic bag, wrap) - 3269 pcs



3 Marine Debris Hotspots

Jane's Bay - Southern facing bay 8686 pieces in 5500m

A mix of hard plastic fragments and synthetic rope coming from ocean-based debris, (not from beach users and campers). Historically documented as a natural wreck trap. The Ningaloo current plays a roll in bringing debris into this bay. It is an observed location where whalesharks and manta rays frequent due to upwelling and food availability. Microplastic surveys in 2016 found 13 pieces in 1 sqm.

Point Cloates North - Point, and Western facing beach. Light plastics, plastics bags, and industrial plastic sheets deposited on this beach. Many light plastics buried in the sand. This debris is being deposited from the ocean and not coming from campers or beach users.

Gnaraloo Bay - North Facing Bay. presence of fishermen and launching site for boats. Half of the debris appeared to be ocean-based debris and the other half from beach users and campers nearby.

Observations

- Much of the Ningaloo coast has limited marine debris coming in from the ocean. The Ningaloo coast has many clean beaches with very little debris. It is possible that the reef protects many of the beaches and currents sweep the marine debris into a few isolated places along the coast which we have identified as hot spots.
- In areas with high usage such as camping, boating, fishing and beach activities there is considerably more debris found on the beach and in adjacent car parks. People disposing of rubbish incorrectly poses a threat to the marine life along the Ningaloo Reef.
- The location with the highest volume of marine debris along the Ningaloo Coast was identified at Jane's Bay on Ningaloo Station. From two annual surveys in this area, it is clear that the debris found on the beach is not coming from land, but is being washed from the ocean. Debris that had labels of Indonesian origin, as well as Australian packaging, was found. Commercial fishing debris was another source of debris. Many items were broken down and degraded and could not be identified due to their exposure to the sun and ocean (see Future Actions).

Future Actions

- Resurvey Marine Debris Hot Spots - to collect further data on hot spots along the coast such as Jane's Bay and Point Cloates. In water Manta Trawl surveys in this area would also provide valuable information about quantities of microplastics in the water
- Parts of the coast with high usage by campers, boaters, fishermen and beach users are where future debris surveys and cleanups would most be beneficial. Having rubbish bins and signage in this areas will help to minimize debris left behind.
- The road from Exmouth to Yardie Creek and the Road from Coral Bay to Exmouth is another area where debris cleanups are needed due to visible quantities from the road, which can then blow into the ocean.
- The breeding seasons of beach-nesting birds and turtles needs to be taken into consideration if conducting marine debris cleanups along the Ningaloo Coast. This is something we were aware of and took steps to minimize our impact at all times.
- A report from the three coastal stations in the southern section of Ningaloo is being compiled after surveying the waste management practices at each station.

A Focus on Solutions

Community-directed education on alternatives to single-use plastic is one of the most effective ways to reduce the consumption of single-use plastics.

Salty Times in collaboration with the Cape Conservation Group of Exmouth are organizing 'The Salty Blue Creation Station for Ningaloo' which is a 'Precious Plastic' Micro Recycling and Waste Reduction Education Space.

The mission of 'The Creation Station' is to educate community members about low waste living. To communicate this education and attract people to learning about a topic like waste is the concept of 'Precious Plastic' being used as a tool to start conversations about waste reduction.

Educate
Refuse
Reduce
Reuse
Recycle

The Salty Blue Creation Station for Ningaloo



A Plastic Waste Solution Centre -Turning Plastic into Precious Items.

A waste reduction education space where you can see micro recycling on site, take workshops on plastic-free living and find out all the tips and tricks to living with less waste.

A center to raise awareness, foster collaboration, and reduce waste going to landfill and into our environment. Modeled after the global movement started by Dave Hakkens - www.preciousplastic.com

Follow The Salty Blue Creation Station for Ningaloo on Facebook to stay updated on the project's progress.

Who We Are:



Saltytimes is run by a husband and wife team – Jamie and Base Van Jones.

Jamie and Base are sailors, surfers, divers and above all ocean conservationists. They believe we need to give back to the ocean for all we receive from it. The days of glassy pumping surf, perfect anchorages and diving in amongst beautiful corals are all the gifts received from being in, on or near the ocean. To give back to our oceans Saltytimes takes on projects to aid in Ocean health and raise awareness about the state of our oceans through projects that incorporate ocean adventures and exploration.

Jamie and Base work as expedition guides around the world and through this role Jamie lectures on marine debris and plastic pollution providing up to date statistics and information as well as focusing in on the solutions to this global problem. Base is a geologist and commercial Yachtmaster, he lectures on geology and coastal processes.

In 2016 Base and Jamie sailed over 2500kms up and back down the Western Australian Coast from Fremantle up to the North West, to the islands off of Karratha. During this trip, Saltytimes anchored themselves along the Ningaloo Reef and Exmouth Gulf for 3.5 months. Over the course of their 8.5 months of sailing the West Australian Coast, the couple completed and recorded 45 beach marine debris surveys including microplastic surveys. While there were many beautiful clean beaches along the Ningaloo Marine Reserve, there were also some surprising marine debris hotspots identified - See the Salty Times Report on Marine Debris Observations for the West Australian coast - www.saltytimes.com/citizen-science

All data has been recorded and is available on www.saltytimes.com but also in the Australia Marine Debris Initiative Database through Tangaroa Blue.

In 2017 Jamie and Base decided to do more to learn about, explore and protect the Ningaloo Reef, they did this by kayak sailing the 280km of the Ningaloo Marine Reserve in a project called A Salty Voyage – Ningaloo Reef. Along this voyage, Jamie and Base sought to answer the question 'How healthy and resilient the Ningaloo Reef Ecosystem is?' and the question of 'What can we do to help protect Ningaloo?'. During this intimate exploration of Ningaloo Reef, they surveyed 25 remote beaches for marine debris and recorded the data they found as well as surveying the reef and doing Reef Health Checks. They are currently making a film to document this journey.

Salty Times is now focusing on solutions to the Plastic Pollution issue in Exmouth and around the Ningaloo Reef by implementing a Precious Plastic Project in the community of Exmouth.

*This Report is Self-funded Citizen Science
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