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An aerial photograph of the Ningaloo Reef coastline. The image shows a mix of dark green and brown land on the left, a winding road, and a sandy beach meeting the turquoise and dark blue waters of the reef. The reef's intricate patterns are visible in the water.

The Role of Emotional Experiences on  
Ningaloo Reef (a World Heritage listed area) in  
Facilitating Conservation Outcomes

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The Role of Emotional Experiences on a Ningaloo Reef in  
Facilitating Conservation Outcomes

# The current state of coral reefs globally



- They are '**perhaps the most globally endangered ecosystem**' (Mumby and Steneck, 2008: 555)
- Approximately 75 % of coral reefs worldwide are threatened by a combination of global and local stressors.
- Mass coral bleaching has now occurred in every region in the world
- These systems are collectively considered a comprehensive indicator of global ocean health and **the prognosis for their future is unanimously seen as bleak**' (Bischof, 2016:51)



# Marine Tourism



**TABLE 1. Indicators of Positive Experiences on Marine Wildlife Tours**

Beneficiary	Indicator
Tourist	Satisfaction and enjoyment Education and learning Attitude or belief change Behavior or lifestyle change
Marine environment	Minimization of disturbance Improvement of habitat protection Contribution to long-term health and viability of ecosystem

# Ningaloo Reef





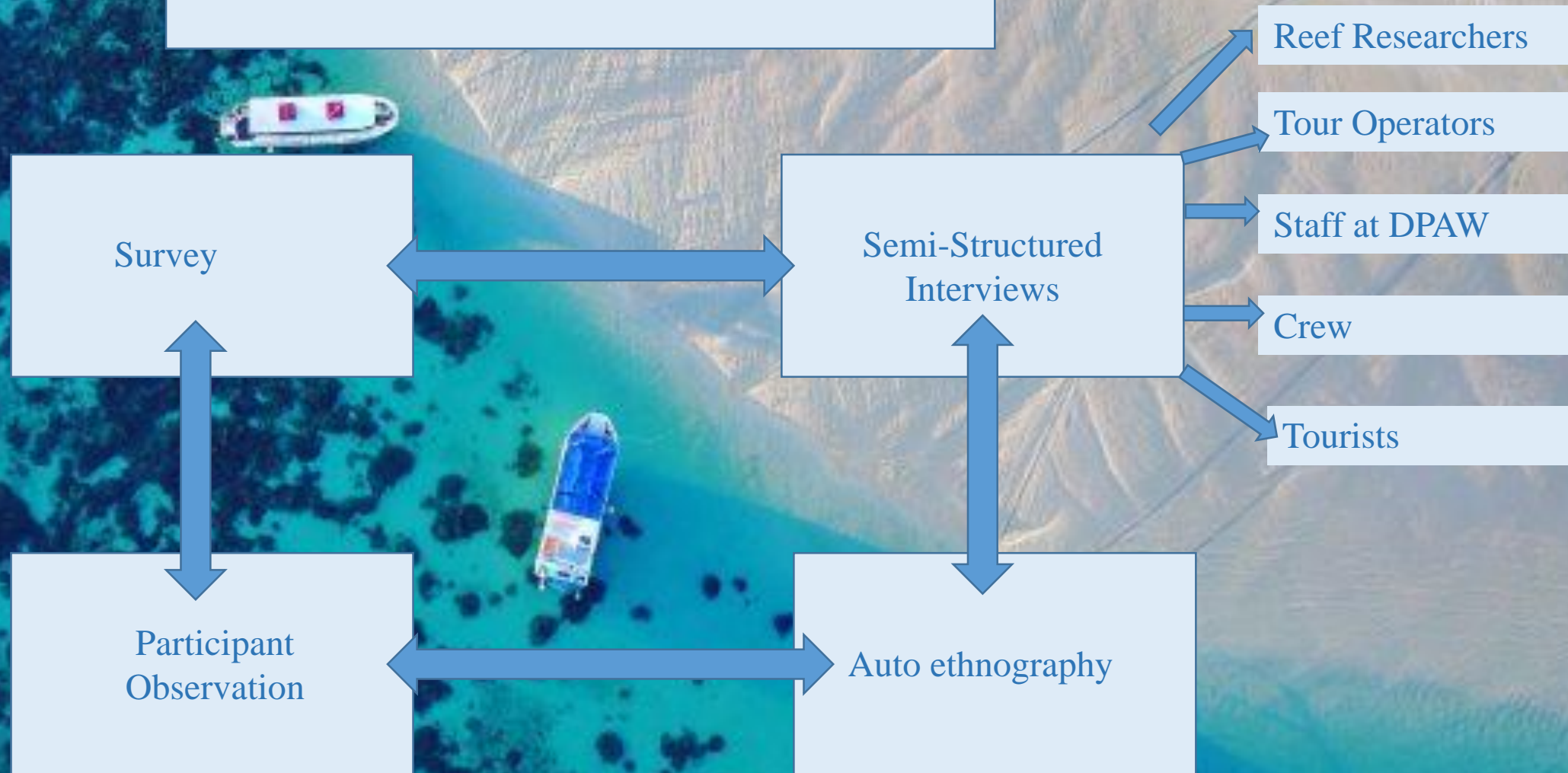


## Research Questions

- 1) In what ways do emotions shape tourist and other reef users embodied experiences on coral reefs? For example – do they provide transformative experiences for human relationships with coral reefs?
- 2) How might emotional and transformative marine experiences of reefs lead to conservation outcomes?
- 3) What kind of emotions emerge in embodied experiences on coral reefs?



# METHODS





# Survey

Question: Thinking of your Ningaloo Reef experience today, please describe how you felt and any emotions you experienced while you were in the water.

**Response #1:** ‘Complete awe and love for the animals’

**Response #2:** ‘Excitement followed by amazement when we watched the whale shark swim by, really special moment’

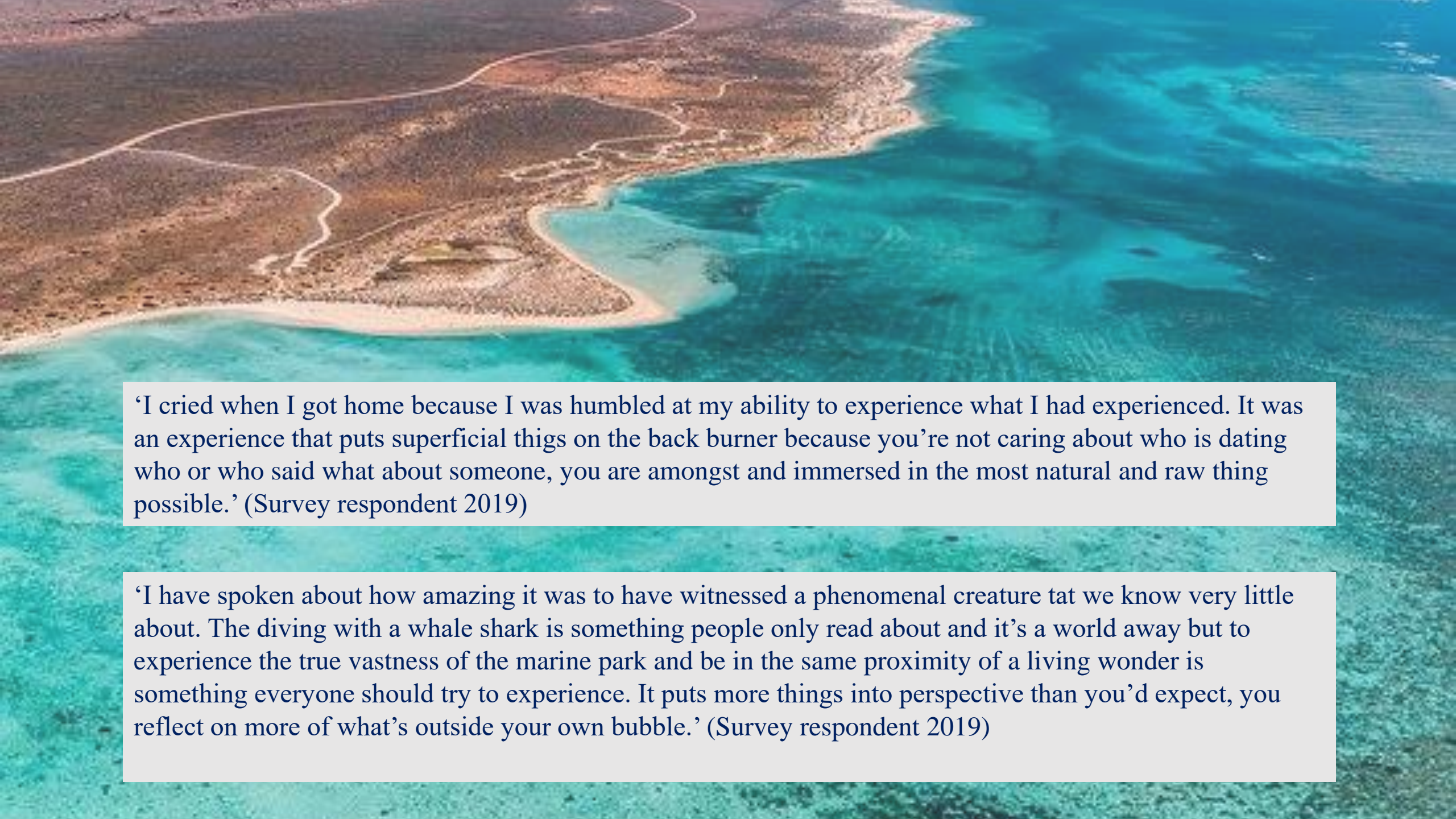
**Response #3 :** ‘Peace, elation’

**Response #4:** ‘I was anxious and nervous, scared, excited and happy all at the same time. Which in itself was overwhelming – but a great time’.

**Response #5:** ‘Amazement, pure pleasure, delight, awe and wonder’







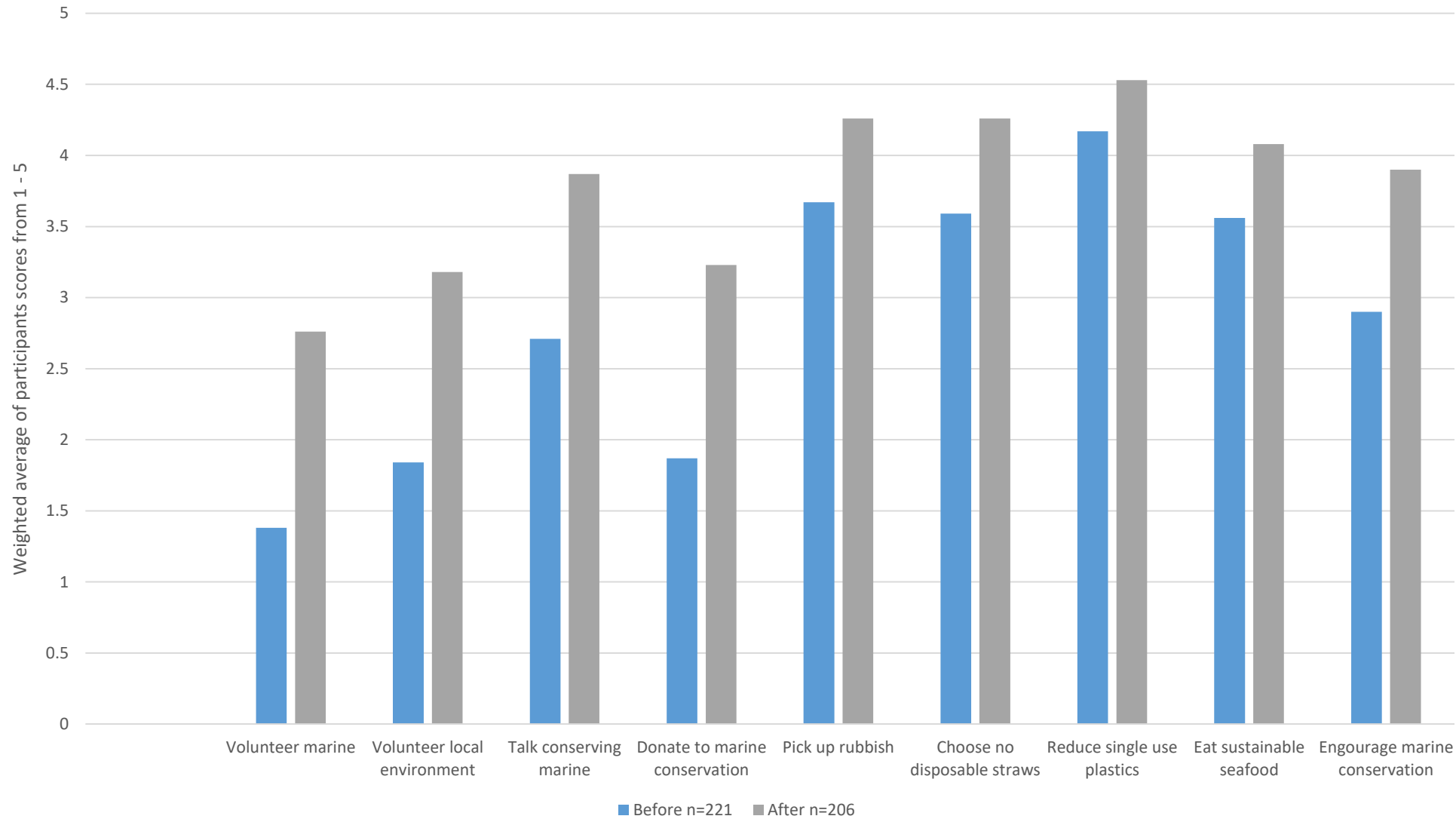
‘I cried when I got home because I was humbled at my ability to experience what I had experienced. It was an experience that puts superficial things on the back burner because you’re not caring about who is dating who or who said what about someone, you are amongst and immersed in the most natural and raw thing possible.’ (Survey respondent 2019)

‘I have spoken about how amazing it was to have witnessed a phenomenal creature that we know very little about. The diving with a whale shark is something people only read about and it’s a world away but to experience the true vastness of the marine park and be in the same proximity of a living wonder is something everyone should try to experience. It puts more things into perspective than you’d expect, you reflect on more of what’s outside your own bubble.’ (Survey respondent 2019)

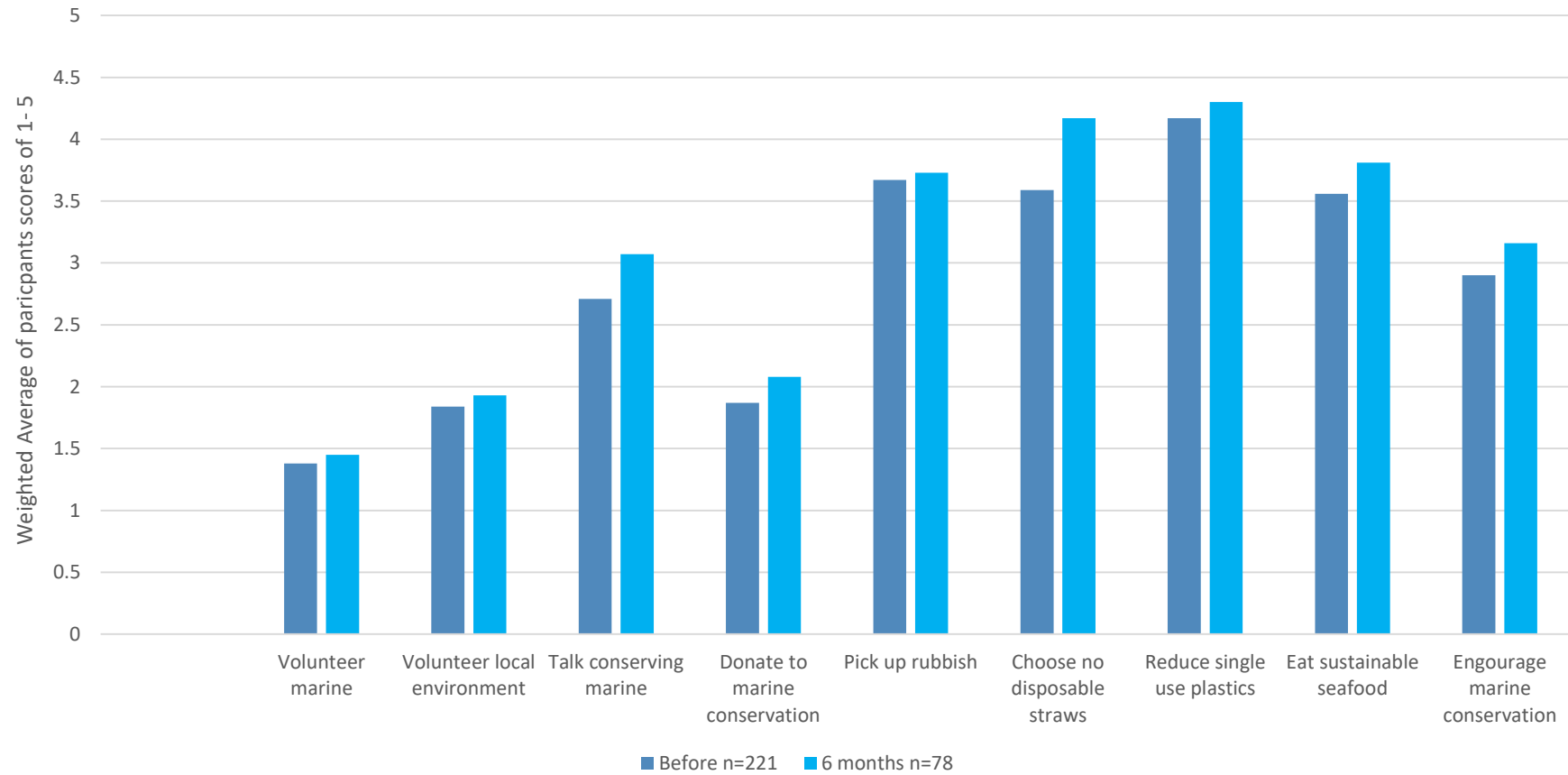
Thinking of your Ningaloo Reef experience today, please describe how you felt and any emotions you experienced while you were in the water.

excited nervous whale shark close experience appreciate amazement  
excitement grateful water shark whale shark  
relaxed happy fish amazed peace excited cold  
awe calm felt humbled swim beauty overwhelmed  
anticipation wonder coral joy nervous animals awesome peaceful  
calm peaceful lucky privileged





Responses before and immediately after in-water experience,  
indicating behavior intentions



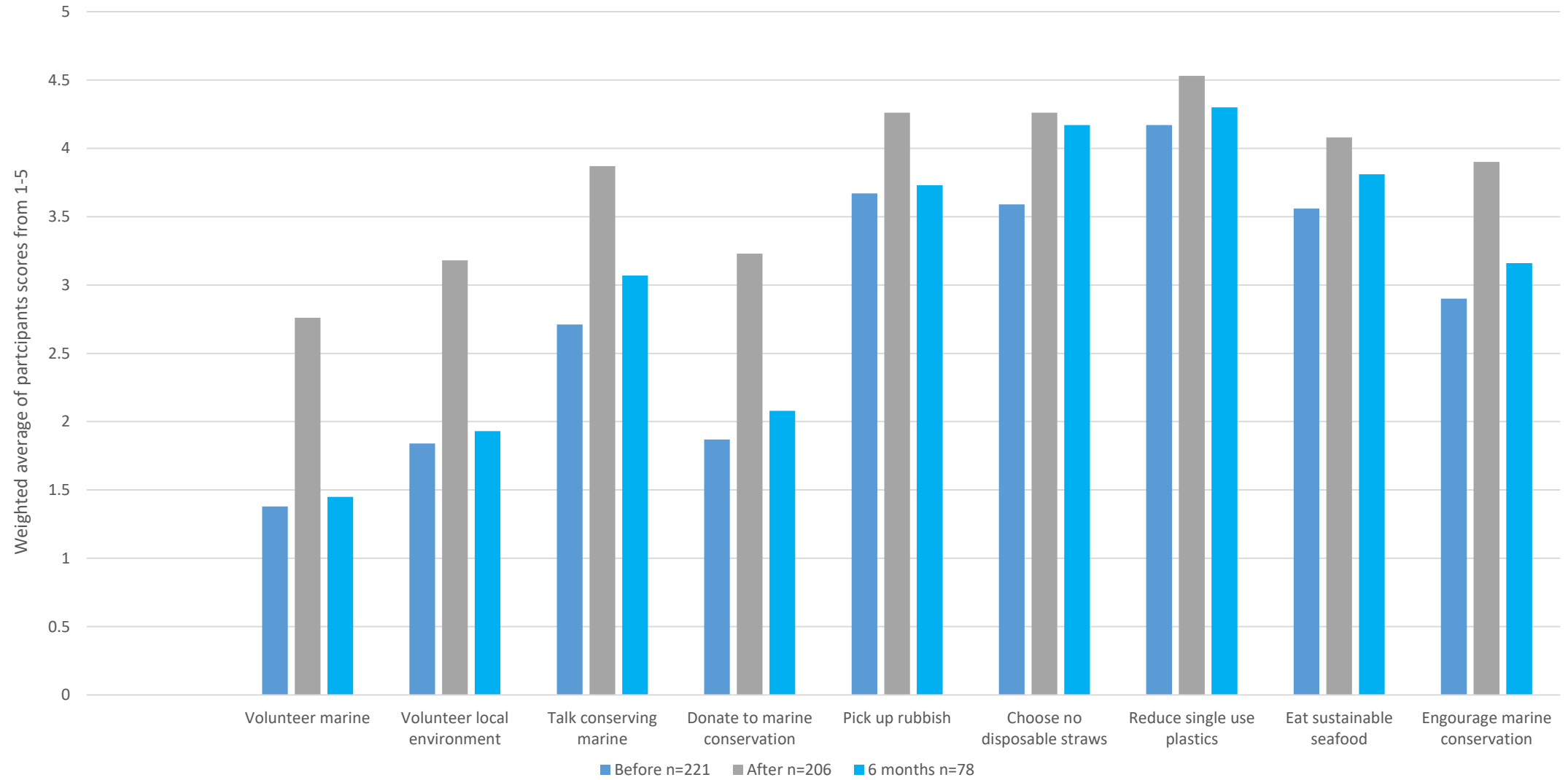
Responses before and 6 month after in-water marine experience



## ENVIRONMENTAL BEHAVIOUR CHANGE


**‘There is increasing evidence, however, that stated intentions to engage in conservation behaviours rarely manifest as actual behaviour, and that visitors’ on site-enthusiasm and commitment tend to wane following their visit.’  
(Hughes, 2013:43)**

**‘The factors that have been found to have some influence positive, or negative, on pro-environmental behavior’ include things ‘such as demographic factors, external factors (e.g.. Motivation, pro-environmental knowledge, awareness, values, attitudes, emotion, locus of control, responsibilities and priorities).’  
(Kollmuss & Agyeman 2002: 240).**



## The three stages of survey responses



An underwater photograph showing two divers in the upper left, one in a pink wetsuit and the other in a dark wetsuit, swimming towards the right. Below them, two large humpback whales are swimming in the same direction. The water is clear blue with some sunlight filtering through. The text is overlaid in the top right corner.

To experience firsthand and be personally inspired or influenced by all that I saw has brought me to make the extra effort. I made an effort before but everything I used and do now, I think if there is a way to do it that reduces the negative impact I make on the environment.'

*Survey Respondent*



Thank you

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## ACADEMIC SOURCES

Ballantyne, R., Packer, J. and Sutherland, L.A., 2011. Visitors' memories of wildlife tourism: Implications for the design of powerful interpretive experiences. *Tourism management*, 32(4), pp.770-779.

Hughes, K., 2013. Measuring the impact of viewing wildlife: Do positive intentions equate to long-term changes in conservation behaviour?. *Journal of Sustainable Tourism*, 21(1), pp.42-59.

Kollmuss, A. and Agyeman, J., 2002. Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. *Environmental education research*, 8(3), pp.239-260.

Zeppel, H., 2008. Education and conservation benefits of marine wildlife tours: Developing free-choice learning experiences. *The Journal of Environmental Education*, 39(3), pp.3-18.

## PICTURE SOURCES

Australia's Coral Coast (2018) Ningaloo Coast, image, Australia's Coral Coast, viewed 3rd July 2019  
<https://www.australiascoralcoast.com/destination/ningaloo-marine-park>

Beattie S. (2018) Sea the key in Exmouth tourism boom, image, Pilbara News, viewed 3rd July 2019, <https://thewest.com.au/news/pilbara-news/changes-in-whale-rules-aid-summer-tourism-ng-b88992113z>

Exmouth Dive and Whalesharks Ningaloo, image, Exmouth Dive and Whale sharks, viewed 3rd July 2019 < <https://www.exmouthdiving.com.au/>>

Geyer, L. (2018) 5 Reasons to Book your next Holiday to Ningaloo Reef, image, Hunter and Bligh, image, viewed 3rd July 2019, <https://www.hunterandbligh.com.au/travel/5-reasons-to-book-your-next-holiday-to-ningaloo-reef/>

Google Maps (2019) viewed 3rd July 2019, <https://www.google.com.au/maps/@-23.1412586,113.7552024,4914m/data=!3m1!1e3>

Kydd, A. (2018) Ningaloo Marine Interactions, image, photographed by A. Kydd while on tour with Ningaloo Marine Interactions

Meyer, R. (2017) Ruins, Not Reefs: How Climate Change is Fast Forwarding Coral Science, image, The Atlantic viewed 3rd July 2019, <https://www.theatlantic.com/science/archive/2017/04/how-catastrophe-is-changing-the-science-of-coral-reefs/522648/>

Morrison (2017) Recreational boaters risk death to swim with humpbacks off WA's Ningaloo Coast image, ABC News, viewed 3rd July 2019  
<https://www.abc.net.au/news/2017-10-16/amateur-whale-tour-operators-risk-death-swimming-with-humpbacks/9054916>

Zycher A. Ningaloo Reef Australia for Women Travelers, image, Woman Going Places, viewed 3rd July 2019, <https://womangoingplaces.com.au/ningaloo-reef/>