



We like to fish: characterising the recreational fishing population and designing messages to improve compliance

This Marine and Coastal Hub project report details a new evidence-based approach to public messaging to improve the compliance of recreational fishers with Australia's 'no take' marine conservation zones.

By investigating 'who' fishes, 'why' they fish, and 'what' their attitudes are to compliance, we identified three distinct 'types' of recreational fishers, differentiated by the extent to which they are likely to follow zoning laws. We found that of the Australian fishers surveyed more than half support sustainable fishing practices such as 'no take' zones, and another third have a neutral attitude.

We partnered with the Great Barrier Reef Marine Park Authority (GBRMPA) to leverage this goodwill, developing and testing bespoke campaigns to engage fishers with positive messaging and connect them to the information, apps and maps they need to locate and avoid 'no take' zones – with promising results.

Engaging Australia's recreational fishers in sustainable fishing practice is critical. Although the 'catch' or 'take' of individuals is small, the combined impact of the 4.2 million or so Australians who fish is significant. In some areas, the intensity of recreational fishing can threaten

target species or even local marine biodiversity. Total recreational fishing catches can also exceed those of commercial fishing in popular regions.

Alongside quotas, bag limits and other strategies, fishing zones that tell fishers where they can and cannot fish play a vital role in the sustainable management of Australia's marine environments. However, 'no take' zones are challenging to monitor and enforce as fishers and fishing grounds are widely dispersed along the vast Australian coastline. And, while the extent of illegal recreational fishing is difficult to quantify, the number of offences reported is growing.

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Types of recreational fishers and likely compliance with zoning laws

Promoters (52%)

> likely to promote sustainable fishing practices

- enjoy fishing with children and extended families along with other nature-based activities such as camping and boating
- many learned to fish from family members
- the best fishing trips are those when everyone has a good time
- likely to promote sustainable fishing practices

Passives (32%)

> neutral or passive attitude to sustainable fishing practices

- unlikely to fish with children but likely to fish with friends or older family members
- many live in metropolitan areas, travelling >80 km
- having a good time is important, but so too is catching fish
- may 'fish the line' (harvest the plentiful fish around the edges of marine reserves)
- Neutral or passive attitude to sustainable fishing practices.

Detractors (16%)

> unlikely to promote sustainable fishing practices

- primary focus is maximising the catch
- likely to be dissatisfied with their fishing trips
- dissatisfied with the environmental management of their fisheries

Who are Australia's recreational fishers?

Australians love to fish. To better understand the 18% of adult females and 25% of adult males who fish at least once a year, we partnered with Parks Australia and the Great Barrier Reef Marine Park Authority to develop and distribute questionnaires to collect information about fishers' characteristics, perceptions, motivations and attitudes (towards zoning and sustainable fishing practices). We followed up with focus groups to elicit personal stories. We identified three types of fishers – promoters, passives and detractors – differentiated by the extent to which they are likely to 'comply' with zoning laws (see box above).

Driving compliance to enhance conservation through behaviour change

Given the prohibitive cost of deploying compliance officers to monitor activities across Australia's vast marine estate, strategies to encourage fishers to comply with zones of their own accord are an essential part of the marine management mix.

Our research and pilot campaign demonstrated that bespoke messaging enables fishers to 'see themselves' in authentic stories and images that leverage the emotions connected to different aspects of fishing. By better personalising the fishing experience and appealing to fishers' genuine good intentions, our pilot campaign achieved greater engagement and better value for money, than previous awareness campaigns for mass audiences.

The Project 2.5 report describes our research and provides guidance and key recommendations for end-users seeking to build relationships with recreational fishers and to support more fishers to self-comply with 'no take' marine conservation zones.

About our research methods

Our research focused on recreational fishers active in waters managed by GBRMPA with well-established 'no take' zone, and in the Geographe Bay Marine Park and Two Rocks Marine Park in Western Australia, where 'no take' zone have been implemented more recently. The diversity in locations, marine park longevity, and in fishers' familiarity with 'no take' zones was important to ensure our results can be generalised to inform future compliance campaigns Australia-wide.

We distributed more than 800 online questionnaires to fishers in Queensland and southern WA, followed up with focus groups and analysed data using various statistical methods (non-parametric tests, clustering analysis, structural equation modelling). As our main aim was to find new ways to encourage compliance, we needed to better understand how demographics, fishing patterns and motivations, and other factors, related to individual or group intentions to comply with 'no take' zones.

It is difficult, if not impossible, to measure intentions to fish illegally, or to accurately quantify illegal fishing. We needed a proxy. Here we applied the Net Promoter Score (NPS), a concept common to consumer research, to predict the behaviours of individuals, and identify fishers' behavioural intentions towards sustainable fishing practices such as 'no take' zones.

The resulting NPS scores grouped our respondents into ‘promoters’ of sustainable fishing, ‘passives’ (neutral) and ‘detractors’. We were then able to broadly describe the characteristics and motivations of each group and learn more about core drivers of their behaviour, needs and values, and how to build positive relationships with them. This laid the foundations for new recommendations to guide the development of bespoke compliance campaigns. These were taken up and piloted by GBRMPA in May/June 2023.

Piloting bespoke messaging with the Great Barrier Reef Marine Park Authority

The key aim of the pilot campaign was to help GBRMPA build positive relationships with recreational fishers. This engagement would in turn reinforce or enhance positive attitudes to compliance among the recreational fishing community by:

1. Emphasising the positive role ‘no take’ zones play in securing fishing stocks and a sustainable ‘fishing lifestyle’ into the future (‘fish for their future’, ‘love the reef’).
2. Providing fishers with the information, apps and maps they need to locate and avoid ‘no take zones’ (‘fish the right zone’).

Campaign approach: new targeted messages and ‘creatives’ for a diverse fishing community, represented in the pilot campaign by images of families and friends. The campaign departed from previous GBRMPA campaigns (single set of campaign resources, predominantly male target audience) that used general ‘awareness’ messages highlighting zoning and fines. The campaign did not seek to target ‘detractors’ of compliance with fishing zones.

Campaign type/timing: social media campaigns, May/June 2023

Target audience: a review of previous recreational fisher literature and GBRMPA campaigns identified fishers as 18 to 64-year-old males. From our survey results we recommended widening the view of who fishers are in the campaign scope. For the pilot, we targeted males and females aged 18–54 in Queensland locations, with contextual targeting (serving content to those interested in fishing, boating etc).

Campaign platforms: we placed campaign content as banner, meta, and YouTube ads.



Educational and relationship-building posts trialled by GBRMPA featured positive framing and simple text tailored to family and friend groups.

Recommendations taken up in GBRMPA pilot campaigns

campaign type	imagery	focus	messaging	tone	call to action
educational and relationship-building campaign tailored to family groups	capturing a sense of quality time as a family on the water	supportive and non-judgmental highlight value of no-take zones in maintaining fish stocks and fishing lifestyle	<i>existing:</i> ‘fish the right zone’ <i>new:</i> ‘fish for their future’	positive framing, simple text	get free maps, app, and more at gbrmpa.gov.au (one-stop information source)
educational and relationship-building campaign tailored to groups of friends	capturing a the sense of enjoyment and fun from a day together fishing	supportive and non-judgmental education and information resources to enable compliance	<i>existing:</i> ‘fish the right zone’ <i>new:</i> ‘love the reef’	positive framing, simple text	get free maps, app, and more at gbrmpa.gov.au (one-stop information source)





Survey participants were interested in seeing a greater physical presence of compliance officers, and in being given the opportunity to interact with officers on the water and at land-based community events.

Additional recommendations: leveraging insights about 'detractors' of 'no take' zones

Detractors are unlikely to engage with messaging from marine management authorities. They are more likely to respond to peers, especially through fishing clubs. This means managers need to build long term relationships, possibly through their identified tendency to be members of clubs. Where the source of detractors' beliefs are science based uncertainties, another approach may be to demonstrate that more and bigger fish are available in marine parks with effective 'no take' zones and linking compliance with securing future fishing opportunities. Connecting with detractors was not an objective of the GBRMPA pilot campaign.

What role for compliance officers in bespoke messaging?

Compliance is driven by actual consequences, such as fines, and by the fishers' perceived risk of being caught. Including information about fines in messaging is one approach. However, participants in our studies emphasised there was currently a low perceived risk of being caught. They were interested in seeing a greater physical presence of compliance officers, and in being given the opportunity to interact with officers on the water and at land-based community events.

Recommendations

Use both messaging and physical activities to enhance the visibility of compliance officers wearing recognisable uniforms. This includes the presence of compliance officers at popular fishing spots and community events to build relationships, as well as featuring compliance officers' stories in the traditional and online media.

Fishers hooked up with the right information and resources

- The campaign reached the right audience with the right imagery and calls to action.
- The new targeted text and images (creatives) resonated with a broad demographic of recreational fishers, driving click throughs to GBRMPA resources pages and good to excellent engagement with available tools and resources.
- Facebook and YouTube were relevant platforms for GBRMPA's target audience.
- The inclusion of female fishers extended the campaign's reach.

A more positive and effective approach to compliance

- Overwhelmingly positive comments/feedback related to Facebook ads, with users 'seeing' themselves or friends in the posts and tagging others in, positively amplifying the message.
- Click through rates from Facebook to the GBRMPA resources page exceeding past campaigns.
- Excellent retention rates on the GBRMPA resources page (up to 90% for our best performing 'Family' creative).
- A five-fold improvement in the cost efficiency of reaching GBRMPA's target audience, compared with past campaigns.