Great White Shark
Conservation

Flinders Research Centre for
Climate Adaptation and Animal
Behaviour

Problem: Sharks are top predators that stabilise marine ecosystems, yet humans have a fear of sharks and persecute them. As the result, many shark species are threatened, including the Great White Shark.

Opportunity: Collaborative research projects with shark cage diving industry and pure science on shark movements and feeding behaviour.

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Research Ideas:

- Monitor shark populations and movements using acoustic and satellite tags
- Determine feeding strategy and ecology
- Determine the impact of wildlife tourism
- Assess population size using mark-recapture techniques
- Quantify human attitudes towards sharks
- Oceanic currents and shark migration pathways: are there implications of climate change to ocean currents and shark movement?

Benefits:

- The outcomes will inform shark conservation and human survival with sharks by understanding shark movement and foraging
- Opportunity for State funding of Honours, PhD, and Postdoc positions

Strategic Significance:

- Sharks are top predators that stabilise ecosystems. Australia relies on fisheries, aquaculture and tourism as revenue generators. Shark populations will have an
influence on all of these economic activities in Australia. However, sharks are generally highly vulnerable to anthropogenic impacts due to their slow reproductive rebound potential.

- We could develop interpretative displays for the Victor Harbour Whale Museum
- Radio, television, media interviews and profile

Current Projects:
- Honours student Dirk Holman: Characterisation of white shark approach to cage-diving baiting operations (supervisor Charlie Huveneers)
- PhD student Crystal Beckmann: Using fatty acid signature analysis to assess feeding ecology in Elasmobranchs (supervisor Charlie Huveneers)
- PhD student Matt Heard: Assessment of Thresher Shark (Alopias spp.) vulnerability to the Australian commercial and recreational fisheries
- PhD student Mick Drew: The impacts of the South Australian fisheries on bronze and dusky whaler sharks (Carcharhinus brachyurus and C. obscurus)
- The influence of the cage-diving industry on the swimming behaviour of white sharks
- Proposed ARC Linkage: Innovative methods to evaluate the population size of an elusive top predator: implications for the white shark cage-diving industry