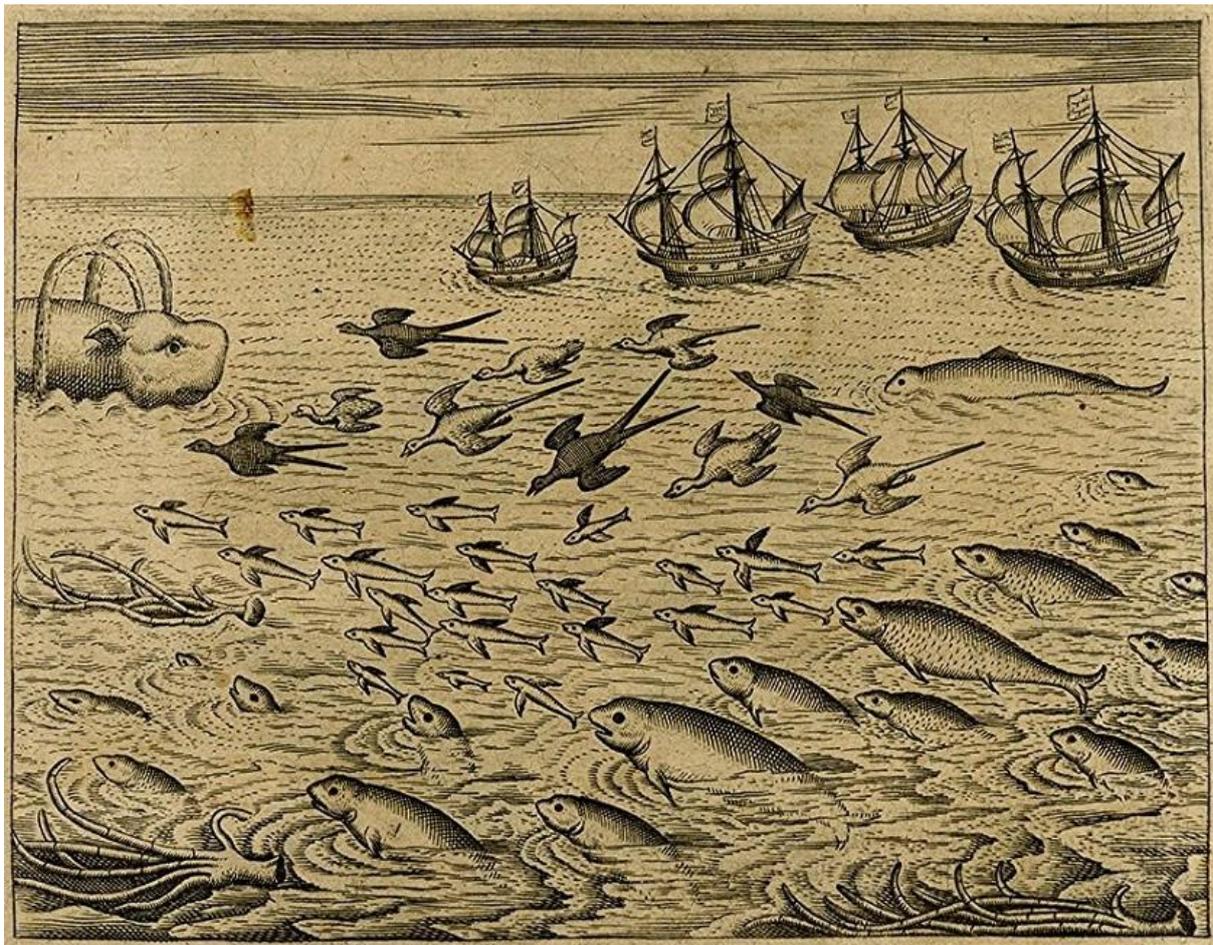




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# The Old Man and the Sea: the History of marine life around Ascension Island

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*Cover image/ Figure 1: Illustration from Linschoten's accounts of his travels (1596).*

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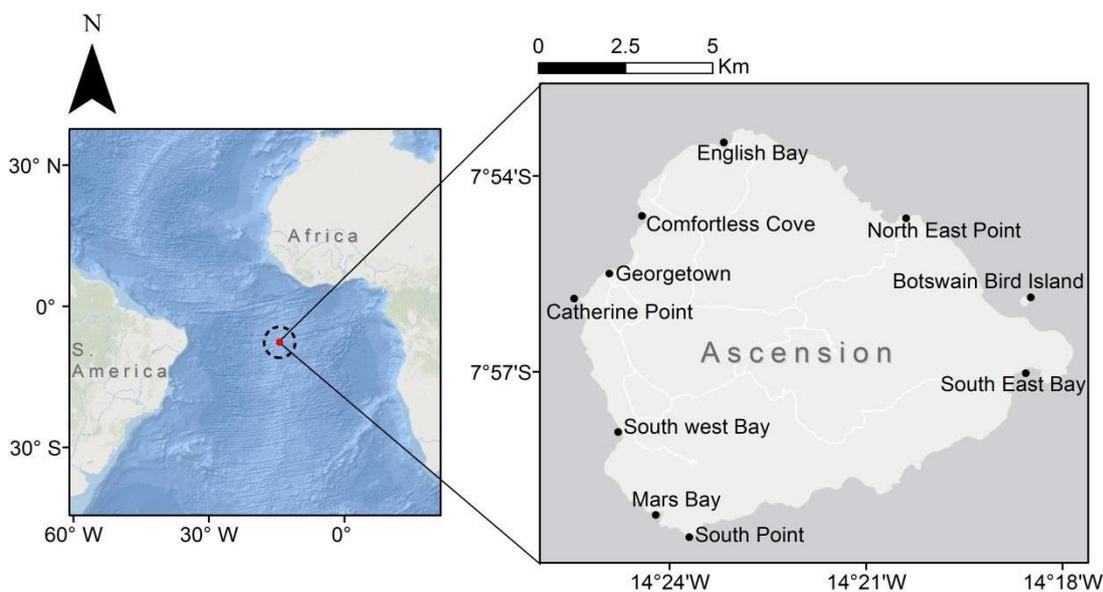


## Introduction

Ascension Island is a remote volcanic outcrop of 88 km<sup>2</sup> in the mid-Atlantic ocean, discovered in 1501 (Figure 2). The nearest land is another tiny island, St Helena, 1300 km southeast. Today, Ascension is a UK Overseas Territory with around 800 inhabitants, governed jointly with Tristan da Cunha and St Helena.

Throughout history, Ascension has been visited by generations of explorers, travellers, fishers, residents and scientists. All have consistently remarked upon the outstanding abundance of Ascension Island's marine life. From the very first observations in the 16<sup>th</sup> century all the way to the present, the prolific abundance of seabirds, turtles and fish have astonished all who have experienced them. It is no surprise then, that the island's wildlife initially attracted the attention of hunters and fishers, but more recently has united conservation bodies in efforts to secure protection.

In 2016, the UK government committed to creating a marine protected area closed to commercial fishing in 52.6 per cent of Ascension Island's exclusive economic zone (EEZ), an area almost as large as the UK. In 2019, the Chancellor of the Exchequer Philip Hammond announced that the UK government will financially support the call from the Ascension Island Council to protect 100 per cent of Ascension's waters, creating the largest fully protected marine reserve in the Atlantic.



*Figure 2: Location of Ascension Island with EEZ shown by dashed line and zoomed in view to show key locations on the island.*

This research brief documents the findings of an investigation into the environmental history of Ascension, from discovery to the present. The research was supported by BLUE Marine Foundation and was undertaken to inform and support deliberations around Ascension's protection. Understanding the past is essential to overcome "shifting baseline syndrome" – a term used to describe an inter-generational shift in perception of the natural



state of the environment. The findings confirm that Ascension Island has immense conservation importance as a rare survival of prolific marine life in an ocean more often characterised by declines.

## Methods

The history of the island's marine life was pieced together by a detailed examination of the historical archives supplemented by interviews of local residents. Interviews examined people's experiences of marine life and sought to document if and how their perceptions of that life had changed over their lifetimes.

These semi-structured questionnaires were employed during a field trip to St Helena and Ascension between July and September 2017. In total, 139 people were interviewed for the study. 92 were current residents of Ascension (equating to over 10 per cent of the population). 44 interviews were conducted on St Helena and three further interviews were conducted via Skype with people no longer resident on either island.

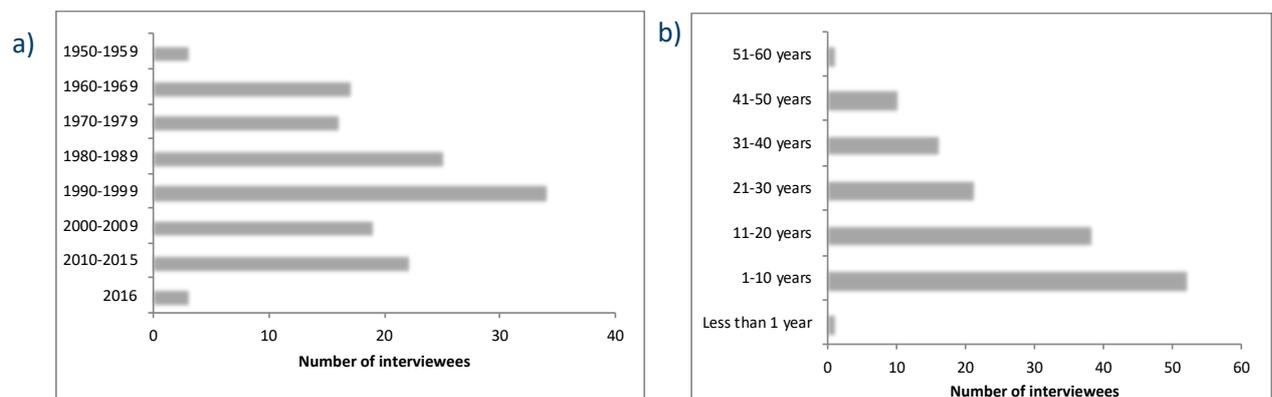


Figure 3: a) number of interviewees broken down by their first year on Ascension and b) length of time spent on island.

114 (82 per cent) respondents were male and 25 (18 per cent) female. Interviewees duration of experience on island are shown in Figure 3.

## Findings

Findings from the archival research show that the earliest explorers found Ascension to be extraordinarily rich in marine life (Figure 1 and Box 1). Large numbers of birds and turtles were frequently commented on. The exceptional fishing was remarked upon early on in historical accounts. Over time, commercial fishing pressure around Ascension has been lower than most other places and, although there were changes in fish species composition, high abundance was a constant theme. It would appear that throughout Ascension's history there have been multiple periods when sharks were not only abundant but aggressive, including an account of a shark attack in 1879.



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Naturally, there have been changes over time and. Ascension has not escaped impacts felt in other places. Over time, accounts come to note dramatic declines as a result of human intervention (Figure 4 and Box 3). As the only commodity on an unoccupied, largely barren and waterless island, turtles were one of the main reasons passing ships stopped at Ascension. Once permanently occupied in 1815, turtle hunting became organised and numbers thereafter dwindled until it was no longer worthwhile. Seabirds and their eggs were also taken, though it would seem the main factor in their decline was the introduction of rats and later cats. Following protection, both turtles and seabirds are on the increase again.

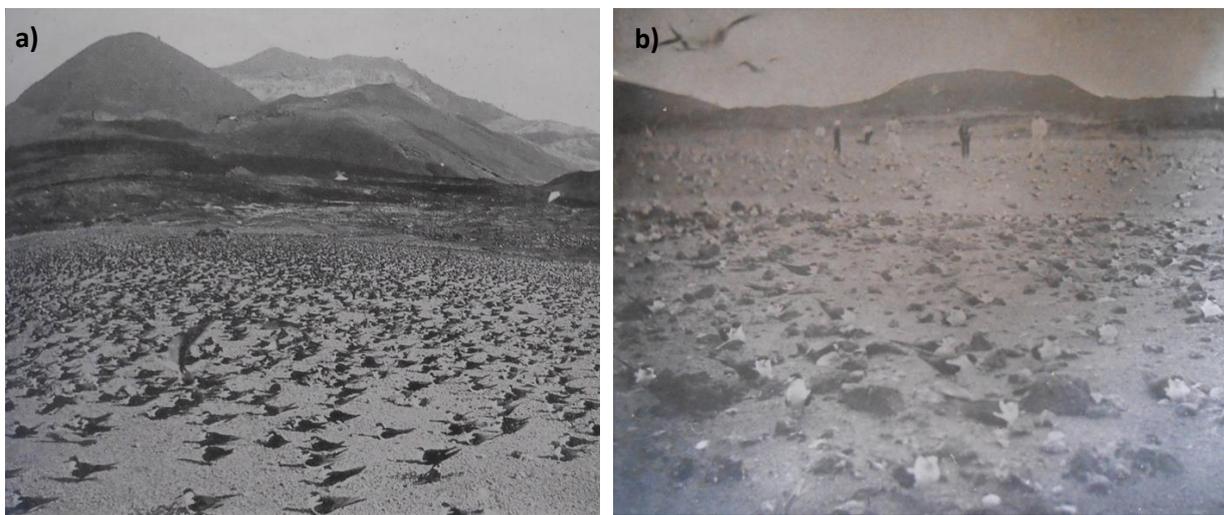


Figure 4: Wideawake Fairs (sooty tern, *Onychoprion fuscatus*) in a) circa 1912 compared with b) 1974.

*Box 1: Selection of historical quotes*

1589: "It hath certain faire and white Sandes about it, and great store of Fish, wherein it surpasseth S. Helena, but in it there are no beastes at all, onely by reason of the great quantitie of Fishes ther are so many birds in it yt." (Linschoten, 1596)

1634: "...there is not soe much as fresh water upon it, verie bare and nothinge to bee had there but Sea Fowle and fish, of which there is abundance." (Mundy et al., 1907)

1684: "And at the time when the turtle resort to these places to lay their eggs, they are accompanied with abundance of Fish, especially sharks..." (Dampier & Masefield, 1906)

1715: "We spent two or three hours in the Pinnacle near the Rocks, where we caught a prodigious number of various Fish; which were so plenty, that in one Hour there were more caught than was sufficient for forty Men to eat in a day..." (Beeckman, 1718)

1775: "The rocky black lava was the residence of numberless men of war birds and boobies, which sat on their eggs, and suffered us to come close to them." (Forster, 1777)



1858: "Sharks are so numerous in these latitudes that it is only when very smooth (a rare occurrence) that one can venture with safety to plunge in to the sea under shade of a rock." (Burnett, 1858)

1868: "The sandy shore adjoining George Town, I was informed, is no longer so rich and profitable a beach as it once was, the reason probably being that turtle, like birds of passage, return again and again to the same spot to deposit their eggs; and on this beach, as being the most accessible, the greatest number have been turned, so that but few visit it at present." Collingwood, 1868

1871: "Very many years ago, sea fowl must have covered the island, and deposited plenty of guano, as is evident from the marks upon the clinker, but for many years they (with the exception of the "wide-awake") have been confined to Botswain Bird Island, the Gillar rocks, and other small islet[s] round the coast, and to the parts of the island which are almost and quite inaccessible." (Kerby, 1871)

1879: "Both [men] were probably pulled off by the sharks of which there were several near." Referring to Goring & Cook, men involved in boat wreck off Ascension. (Haggard, 1879)

1918: "Fishing - the amount of fish in Inland waters has been very small this year and many blank days have occurred, especially of late." (Holroyd-Doveton & Burke, 1918)

1927: "There is such an abundance of fish on the anchorage that the unfortunate, black and blue striped fish can be grasped by hand from the boat." (Diels et al., 1927)

1934: "In the clear waters, the sandy bottom can be seen teeming with fish; from the shark, the albacore and the tiger conger to the dainty five finger, the waters abound with their natural inhabitants." (Bartlett, 1972)

1942: "A small boat with riflemen could contend with one or two sharks, but when a dozen sharks moved close to the line there was no humane way to keep swimmers in the water." (Clarke, 1942)

1956: "I glanced down and saw that the sea was alive with hundreds of them [blackfish], struggling to reach some piece of floating rubbish with such vigour that the fish in the centre of the moving mass were lifted partially out of the water by the press from all sides." (Packer, 1983)

1980: "At one time Ascension was the breeding ground for millions of sea-birds, and the guano-splashed sides of rocks covering the low-lying parts are a clear indication that these now unvisited areas were covered with vast numbers of birds." (Cross, 1980)

Contemporary interviews with past and present residents of Ascension reveal a dynamic ocean with few consistent upward or downward trends in abundance. Many respondents felt there had been a decline in tuna catches and in the productivity of popular shore fishing sites. However, others reported compensating increases in abundance among different fish groups.



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Figure 5: Photograph showing “turned” turtles in turtle ponds on Ascension.

171 observations of a perceived decline in productivity for fishing somewhere on the island, in comparison to 11 observations of increased productivity and 35 who said they had not seen any change. When asked whether any species had changed in abundance, significantly more people felt something had decreased than increased.

Many residents commented on changes in the behaviour of sharks in light of two recent attacks. Explanations proposed varied, from reduced fishing to reduced abundance of the fish that sharks prey upon.

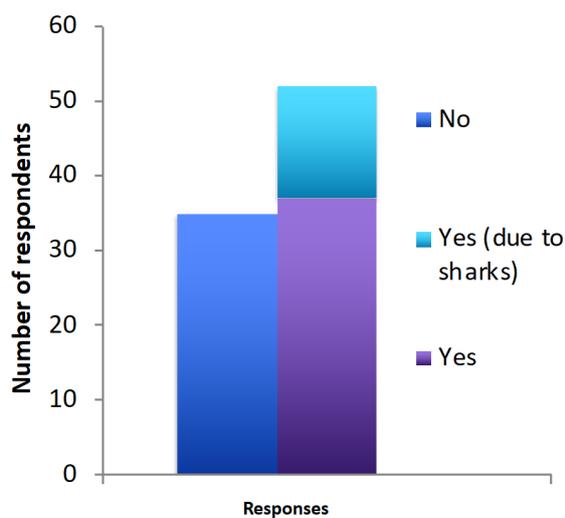


Figure 6: Responses when asked whether the amount of effort people had to put in to catch a fish had changed over time (All those who said ‘yes’ said it was an increase in effort)



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Historical commentaries and interviewees concur, however, that sharks have always been abundant and attacks have been noted in the distant past. Recent attacks are therefore not a consequence of changes to fishing in Ascension's waters.

Based on interviewee perceptions, long-term variations in ocean conditions may have led to reduced prey abundance, offering a plausible explanation for recent aggressive behaviour by sharks. If so, when prey abundance swings upwards again, shark behaviour should return to normal.

## Conclusions

The combination of historical research and local knowledge reveals Ascension to be an island where the marine life was considered exceptional (although not unchanged) from the time of discovery through to the present.

Seabirds and turtles were prominent in early accounts, declined over time and, more recently, have seen some recovery. Fish were also noted to be prolific early on, and many species remain so, probably spared from intensive commercial fishing by the island's extreme isolation and recent protection. Interviews with locals show few consistent changes in marine life, though the decline of tuna and fry were common themes, and several popular fishing spots were considered to have become less productive. These recent changes warrant management attention to ensure their reversal.

The most noteworthy change commented upon was the aggressive behaviour and increasing abundance of Galapagos sharks inshore, which could be an indication of larger-scale changes in the Atlantic marine environment, particularly when taken in combination with the perceived reduction in fry runs around the island. However, it can safely be concluded that recent partial protection for Ascension's seas cannot be linked with changes to shark aggression, nor will future protection change the likelihood of shark attacks.

Ascension represents a unique survival of abundant marine life in a world characterised by rapid losses over the last half century. It therefore has extraordinarily high conservation significance, and truly warrants the highest level of protection in a marine protected area that covers all of Ascension's waters.

A marine reserve around Ascension Island would have profound significance for global efforts to protect the sea. While there are growing numbers of large protected areas in the Pacific, and Chagos offers protection in the heart of the Indian Ocean, the Atlantic Ocean is woefully under protected. Ascension will therefore plug an enormous gap in ocean conservation in the centre of the Atlantic.



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## Acknowledgements

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