



Introduction

The Mapping Ocean Wealth (MOW) project aims to develop ecosystem service models and maps at the scale of the Eastern Caribbean in support of the Caribbean Regional Oceanscape Project (CROP). The theory of change behind the MOW approach is that developing and improving access to accurate and spatially explicit metrics of the value of natural ecosystems provides a critical tool in encouraging efforts to use nature sustainably, and work towards its protection, maintenance or restoration. The CROP countries (Dominica, Grenada, Saint Lucia, St. Kitts & Nevis, and St. Vincent & the Grenadines) have all made strong commitments to developing and enhancing their Blue Economies and are in the process of developing strategies and governance approaches, including marine spatial plans, to build a sustainable future centered on their marine and coastal resources. The MOW data, with its provision of detailed information on ecosystem service values, particularly relating to fisheries and nature-based tourism, together with tools and training, will be a critical component for these activities.

The Caribbean is more dependent on the travel and tourism sector than any other region worldwide, accounting for over 10% of GDP, and 15.2% of jobs in the region. The CROP countries are among the most dependent in the Caribbean, with tourism contributing to between 32% and 68% of GDP pre-pandemic. The sector is almost entirely focused on coastal areas, notable through beach-based activities, cruise tourism and in-water activities including sailing and diving and other vessel-based activities.

Wildlife tourism is still considered a niche market in most of the Caribbean, but one with a diverse consumer base and a high potential for growth. Stakeholder feedback indicates that wildlife tourism around birds, turtles and marine mammals, (i.e. whales and dolphins) are an important draw for tourists visiting CROP countries and also warranted more consideration for the perspective of sustainable tourism development. The information presented here gives an indication of the current importance of these activities but can also be seen as an indication of the considerable potential which this sector holds for future development.

The region's interesting and diverse avifauna provides a unique selling point for certain visitors choosing between various destinations. The region has a significant opportunity to tap into the growing interest in birdwatching, especially from US and European based tourists. The opportunity to see whales and dolphins in the wild is a clear draw for many CROP counties, especially Dominica, where sperm whales inhabit the country's deep offshore canyons. This work presents, for the first time, map-based data depicting the distribution and intensity of these activities across CROP countries.

Data used to map these activities were derived from a combination of crowd-sourced information—eBird, TripAdvisor and Flickr—complemented by participatory mapping and survey data from charter vessel operators and stakeholder information and guidance. Results are maps of birdwatching and whale and dolphin watching intensity for CROP countries, as well as several complementary summary statistics intended to further emphasize the importance of these sectors to the region's economy.

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Main Findings

Most birdwatching activity is concentrated along the coast of each island, largely corresponding with the locations of tourist attractions and hotels.

Bird watching

Birder footfall (an indicator of birdwatching tourism intensity) information showed trends of most birdwatching activity being concentrated along the coast of each island, largely corresponding with the locations of tourist attractions and hotels (Figure 1). At the same time, a subset of species considered to be of key importance to birdwatchers (and hence likely important in tourist destination choice and visitor satisfaction) **point to the particular importance of natural habitats, notably mountains and wetlands.** These areas may thus be critical in maintaining or enhancing the attraction of bird-watching in CROP countries. Although the maps highlight

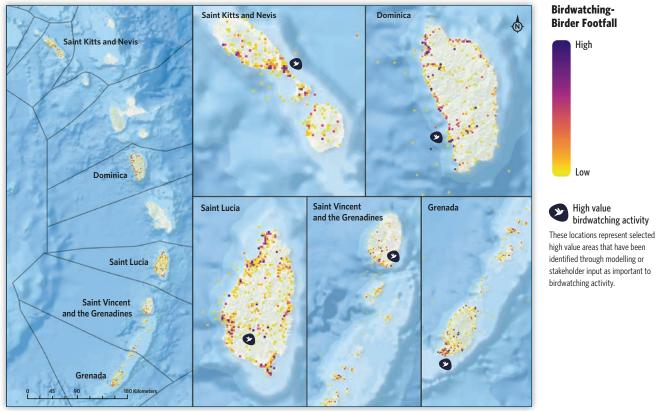


Figure 1: Birdwatching-Birder Footfall

points of high use intensity, often representing prime bird viewing locations, it is important to note that birds enjoyed in these locations depend on much larger surrounding areas and this needs to be considered in environmental planning and management. Birdwatching as an activity is perhaps the most spatially widespread of any nature-dependent tourism in the CROP countries.

Whale and dolphin watching

The highest level of marine mammal watching activity was located off the western, leeward coasts of Saint Lucia and Dominica. In Dominica, a higher intensity correlated to the location of deep offshore canyons, where sperm whales are frequently spotted. In Saint Lucia, whale and dolphin watching was concentrated along the west coast (Figure 2).



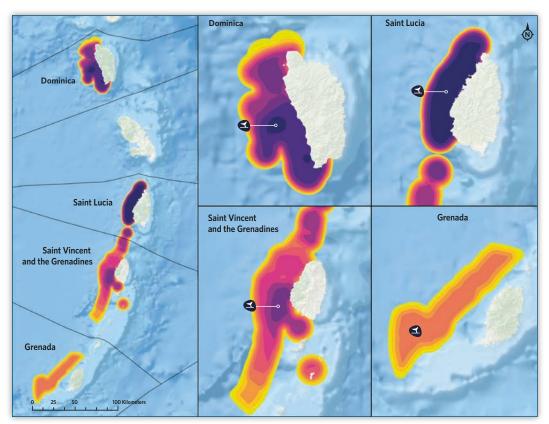
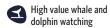


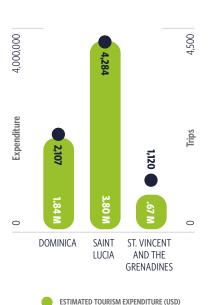
Figure 2: Whale and Dolphin Watching

Whale and Dolphin Watching





These locations represent selected high value areas that have been identified through modelling or stakeholder input as important to whale and dolphin watching.



TRIPS PER YEAR

The estimated calculation of tourism expenditure, shows that marine mammal watching accounts for over US\$ 6.3 million per annum in direct expenditure across in the three CROP countries for which data was found. Saint Lucia and Dominica had the highest concentration of expenditure on this activity, and while Saint Lucia dominates the total expenditure it is noteworthy that in terms of its overall contribution to tourism, and to GDP, this activity is considerably more important for Dominica. This is not considered an important activity in St. Kitts and Nevis and hence it is not shown on the maps.

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Conclusions

These maps highlight the importance of wildlife viewing as a component of tourism with a large spatial footprint. These lower density, more exclusive activities help to draw in high value visitors with particular interests in these activities. They also generate memorable tourism experiences for a much wider range of visitors, experiences which are widely regarded as critical in generating return visits, publicity and in shaping destination reputation.

Data limitations prevented the extrapolation of monetary values to the maps. Even so it must be considered that wildlife watching will have a considerable monetary value, especially when factoring accommodation and travel on top of the direct expenditure on tours. It is, of course, critical to consider potential impacts of wildlife watching in CROP countries, but it is clear that the utilization of nature must also be sustainable in order not to threaten such activities in future.



Given the current impact of Covid-19 on tourism in the Caribbean, and especially the likely changes in demands coming from a recovering tourism sector it is highly likely that future tourism will have, if anything, a greater dependency on natural values and lower density locations and so our sites of high natural value will likely show an increasing proportional relevance for the recovering sector.

You can use this data to:

- Help raise awareness on nature-dependent tourism in the region.
- Support planning by enabling the consideration of wildlife
 watching as a key economic activity alongside other
 potential activities across all sectors, that may be compatible
 or challenging.
- Encourage and increase conservation measures to safeguard natural landscapes and seascapes as a means to protect birds, whales and dolphins, as well as to encourage wildlife watching.
- Inspire the sustainable growth of this sector, with benefits to local livelihoods and the wider economy.



FIND OUT MORE HERE

For access to the high-quality maps and the full technical report, please visit the Mapping Ocean Wealth platform https://oceanwealth.org/project-areas/caribbean/crop/wildlife-viewing/.



