

# Mapping Ocean Wealth in Saint Lucia

## Overview

Saint Lucia is home to a diverse array of natural features, ranging from inland rainforests, the iconic Piton mountains, over 4,000 hectares of coral reefs, and Ma' Kôté, the largest mangrove forest in the country. There is growing recognition that promotion of sustainable tourism is key to the country's already large tourism sector. In Saint Lucia, many people rely on reef fisheries for food and income, and there has been an increasing recognition in the region to better manage these resources, especially in the face of climate change. The value of coastal and marine resources are often overlooked, but can be considerable as highlighted below.

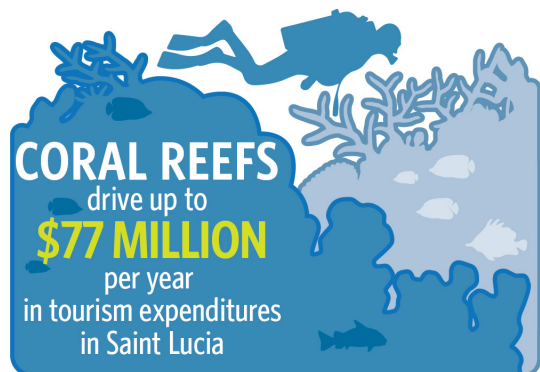
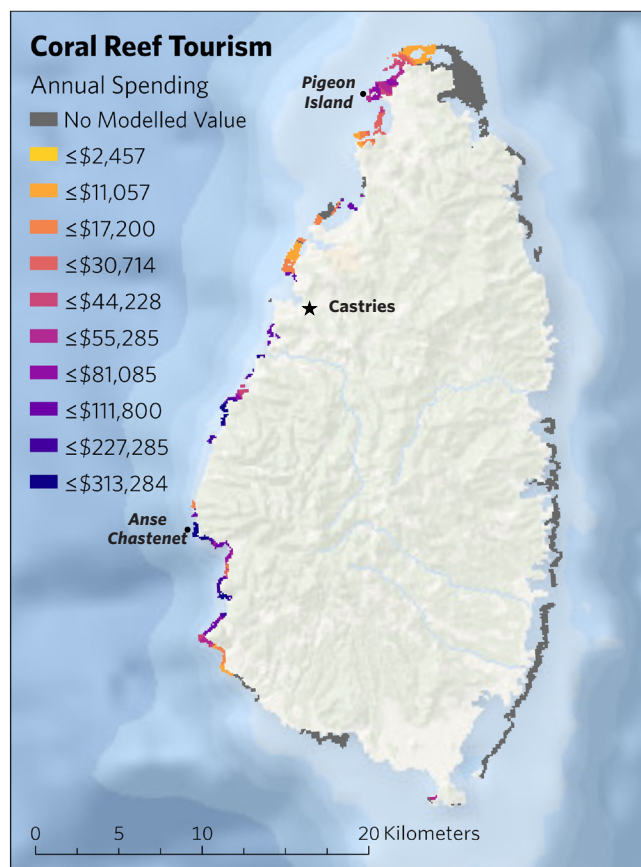
The maps and statistics highlighted here are only a brief synthesis but point to the utility of both enumerating and mapping tourism value. Such maps and numbers may be critical in building a Blue Economy in the region, providing guidance on the location of key national assets, enabling such assets to be fully incorporated into planning, empowering communities and other users.

## Coral Reef Tourism

Diving and snorkeling activities on coral reefs are estimated to generate \$77 million (USD) in tourism expenditures annually. High values are especially pronounced around the town of Soufriere, and these areas are protected as marine reserves within the Soufriere Marine Management area.

South of Soufriere, there is a unique opportunity to dive and snorkel against the backdrop of the Pitons, which give way to a steep underwater drop-off, especially near Jalou-sie Beach.

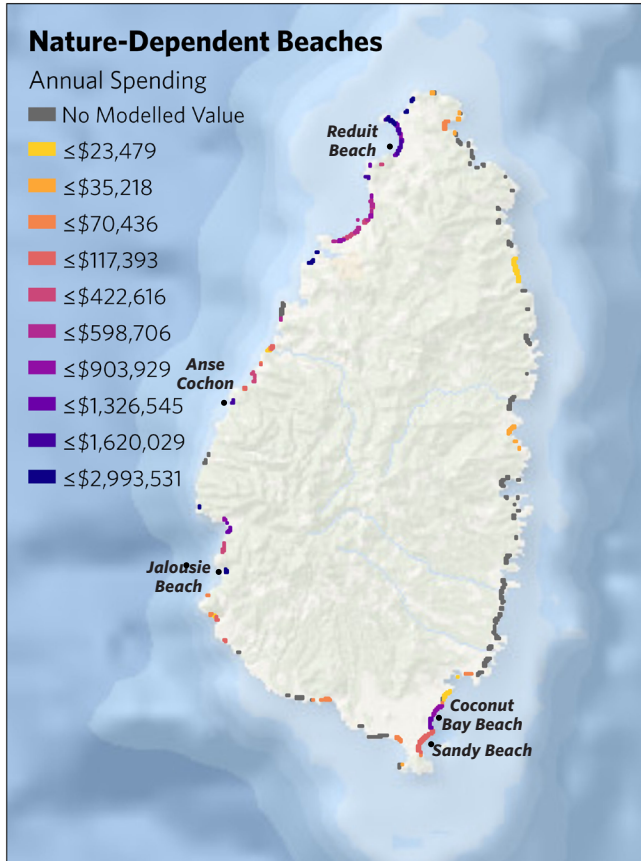
North of Soufriere, much activity concentrated around Anse Chastanet, which is home to both a popular dive resort offering opportunities for shore dives and access to popular dive sites like Turtle Reef and Coral Gardens. The reefs around Anse Chastanet generate an annual coral reef tourism value of ~\$11 million.



The dive sites in the north of the island are getting very popular, especially those around the Pigeon Island National Landmark and they are utilised by dive resorts in the north of the island. A number of shipwrecks and artificial reefs are being considered to complement and support coral reef tourism expeditions in the north to reduce pressure on some of the traditional snorkel and dive sites.

## Nature-Dependent Beaches

The natural values of Reduit Beach in Rodney Bay are some of the highest in the country (\$64 million/year), corresponding with the high number of tourists visiting this area who enjoy the beach's warm, shallow waters in close proximity to hotels. On a per unit area, other beaches are notable including Anse Chastanet (~\$3 million per ha per year). Jalousie Beach (~\$14 million/year) offers dramatic views of the nearby Pitons and also opportunities for snorkeling.

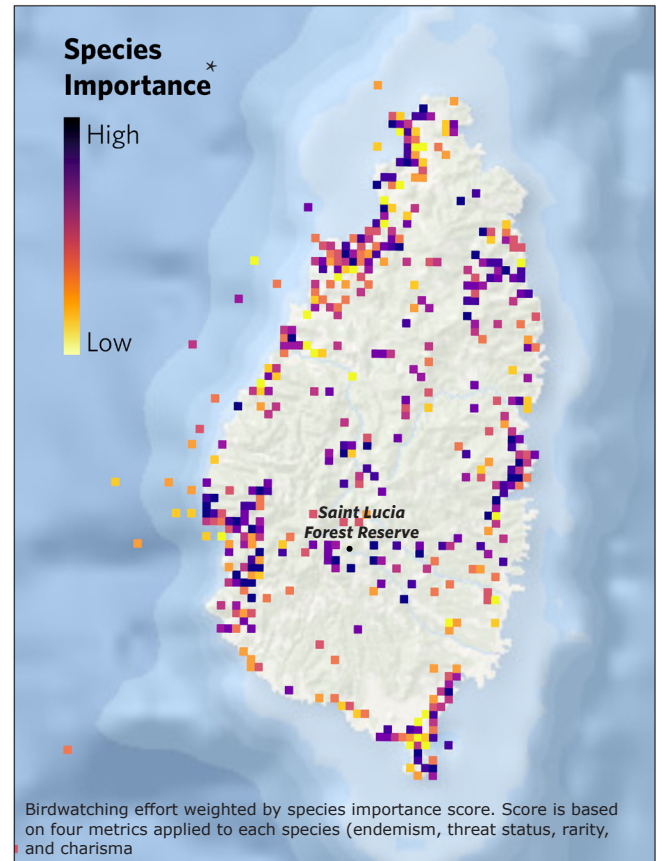
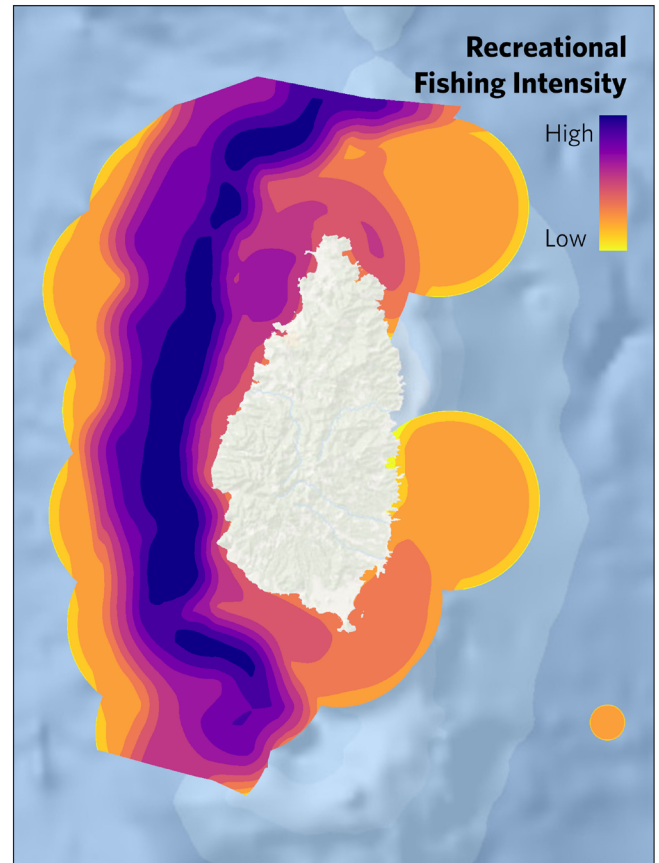


Anse Cochon (~\$6 million/year) is an extremely popular area for snorkelers, especially for cruise tourism, and the beach is used by craft vendors and other water sports activities to coincide with the cruise sector activities in the bay.

On the Southeast coast, the high values around Coconut Bay Beach (\$21 million/year) highlight the area's popularity with kitesurfers and kiteboarders. Just to the south, Sandy Beach is also known as an important beach for Saint Lucians, and these beaches on the southeast coast located within the Point Sable Environmental Protection Area (PSE-PA) benefit immensely from the extensive coral reef area including the Maria Islands Marine Reserves.

## Recreational Fishing

Charter fishing tours are popular with tourists and draw almost \$3 million in direct tourist expenditures annually. This work documented the activities of 46 operators, most of which depart from either Soufriere, Marigot Bay, Castries, or Rodney Bay, resulting in an area of high intensity of activity concentrated along 3000m depth contour off the



### A Note on Covid-19

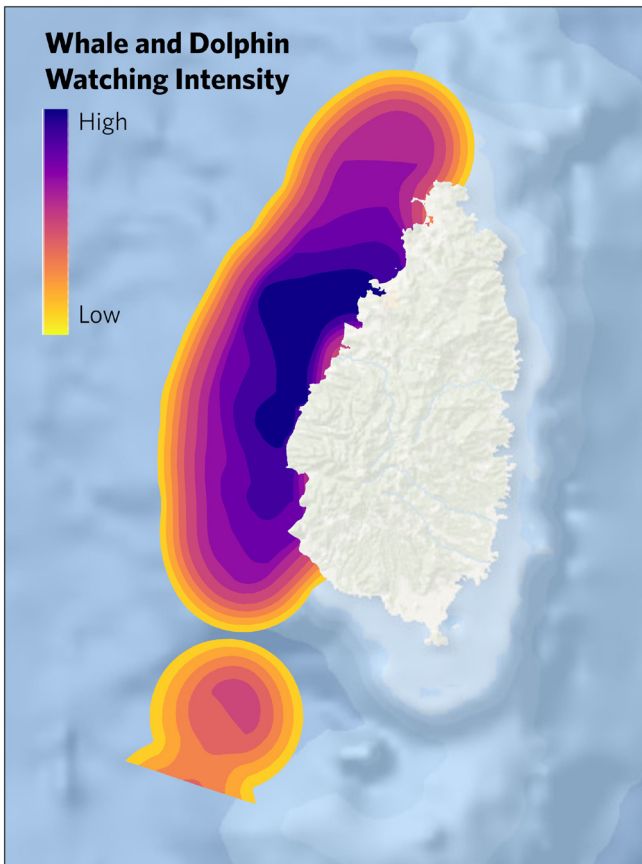
The pandemic has had a dramatic impact on tourism, and will likely have also impacted patterns and effort in fisheries. The longer-term impacts are too early to predict. It is likely that national dependence on reef fisheries may have increased, raising the urgency for active management to ensure long-term stability of these. For tourism, it seems likely that the natural values, especially in low density tourism areas, will prove a key driver in tourism recovery.



west coast. Passengers aboard these trips can catch barracuda, sailfish, dolphin, blue marlin, white marlin, wahoo, yellowfin tuna, skipjack tuna, and kingfish. Some operators offer fishing as one of many activities, including whale watching, offered in a half or full day charter.

## Wildlife

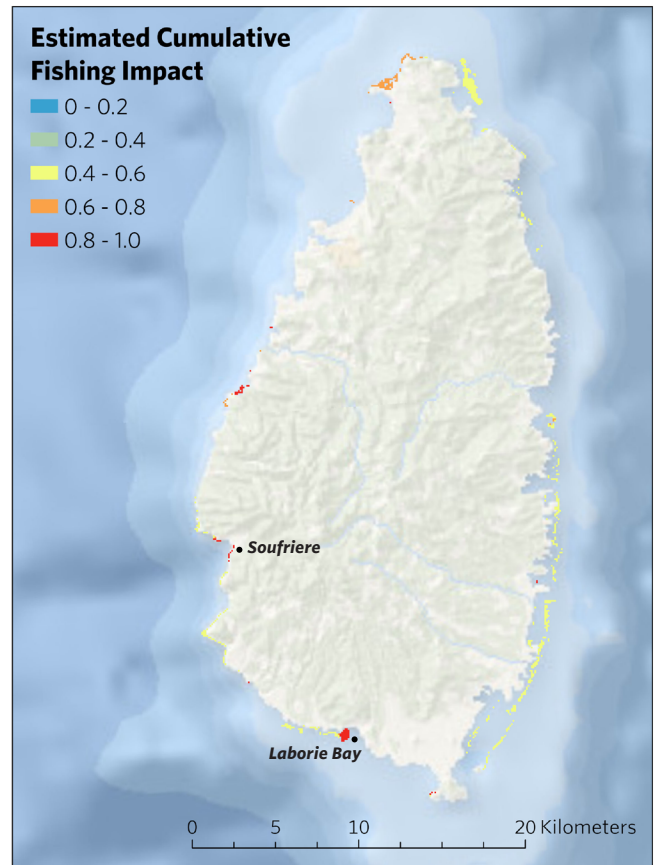
On Saint Lucia, the bird-watching community has recorded 140 bird species from almost 29,000 reported observations. The island is home to an endemic parrot, the Saint Lucia amazon, and the models show high levels of birdwatching activity within the Saint Lucia Forest Reserve where this animal can be found. The Saint Lucia black finch, Saint Lucia oriole, Semper's warbler, and white-breasted flasher are other endemic species that are sought after by bird-watchers.



Saint Lucia's whale and dolphin watching industry has benefited from the fact that its cruise port and other popular tourism destinations happen to be fairly close to where whales and dolphins can often be seen, and there is a high intensity area for this activity off the country's west coast between Soufriere and Castries. It is sometimes possible to see sperm and humpback whales, and spinner and bottlenose dolphins can be seen year-round. Whale and dolphin watching in Saint Lucia generates over \$3 million in estimated direct expenditures.

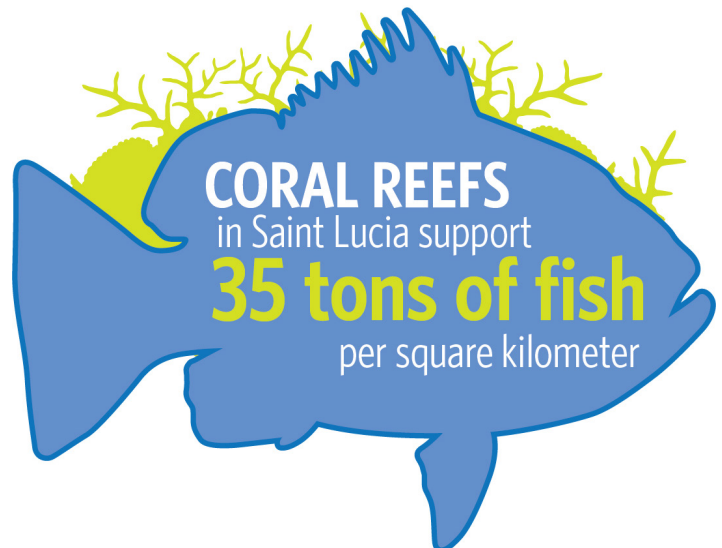
## Coral Reef Fisheries

The coral reefs of Saint Lucia support an estimated mean value of 5 g/m<sup>2</sup> for snapper and grouper species and 7 g/m<sup>2</sup> for parrotfish (35.7 g/m<sup>2</sup> for all surveyed species). The reef areas with the highest fishing impacts can be found near Soufriere and in Laborie Bay, both fishing ports con-



sidered main landing sites for artisanal fishers. Reefs near Anse la Ray are also highly impacted.

The modelled results that include all surveyed species show the highest biomass values off the east coast of the island. This may be due to access challenges resulting from unfavorable sea conditions, but also may reflect positive environmental conditions. Still, there are several reef areas off of Dennery Bay where reducing fishing impact could lead to a doubling of snapper and grouper species biomass, and there are similar opportunities to promote recovery of snapper and grouper species fish stocks on the northern tip of the island near Saline Point. Such efforts have the potential to benefit both habitats and the fishers who rely on them.



### Current Biomass of Snapper Grouper

- 2-3 g/m<sup>2</sup>
- 3-3.4 g/m<sup>2</sup>
- 3.4-4 g/m<sup>2</sup>
- 4-4.4 g/m<sup>2</sup>
- 4.4-5 g/m<sup>2</sup>
- 5-5.4 g/m<sup>2</sup>
- 5.4-6 g/m<sup>2</sup>
- 6-6.5 g/m<sup>2</sup>
- 6.5-7 g/m<sup>2</sup>
- 7-7.5 g/m<sup>2</sup>



### Potential Biomass of Snapper Grouper without Fishing

- 3.8-4.5 g/m<sup>2</sup>
- 4.5-5 g/m<sup>2</sup>
- 5-6 g/m<sup>2</sup>
- 6-6.6 g/m<sup>2</sup>
- 6.6-7 g/m<sup>2</sup>
- 7-8 g/m<sup>2</sup>
- 8-8.7 g/m<sup>2</sup>
- 8.7-9 g/m<sup>2</sup>
- 9-10 g/m<sup>2</sup>
- 10-11 g/m<sup>2</sup>



### Highlighted Statistics\*



On reef tourism such as snorkeling and SCUBA draws almost **60,000** visitors and some **\$77 Million** in spending, annually



Calm, turquoise waters, lush vegetation and other natural features of Saint Lucia's beaches are responsible for **211,000** visitors and over **\$207 Million** in annual spending



Saint Lucia has at least **46** sportfishing charter operators. Tourists spend **\$2,777,600** on sportfishing tours annually

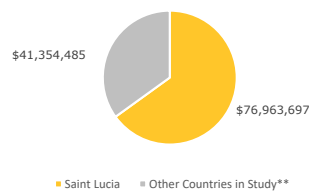


Saint Lucia has at least **15** whale/dolphin watching charter operators. Tourists spend **\$3.8 Million** on these tours annually

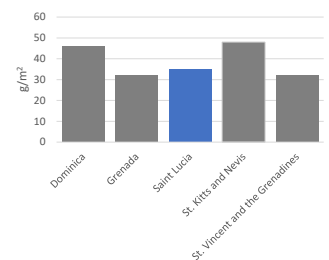


Saint Lucia's reefs support **35 g/m<sup>2</sup>** in fishable biomass when accounting for all surveyed species. The average predicted gain in snapper-group biomass under reduced fishing measures across all reef areas in **57%**

Saint Lucia's Contribution to Regional On-Reef Tourism Expenditures



Current Coral Reef Fish Biomass for All Surveyed Species



\*Models and statistics were built to reflect values for the period immediately preceding Covid-19 (2019). Models have been built from multi-year summaries up until this date. See technical reports for details

\*\* Dominica, Grenada, St. Kitts & Nevis, and St. Vincent and the Grenadines

### About This Project

The Global Environment Facility (GEF), the Organisation of Eastern Caribbean States (OECS) Commission, in partnership with the World Bank, is implementing the Caribbean Regional Oceanscape Project (CROP) to improve systems and put relevant structures in place in an effort to foster a Blue Economy and to promote greater consideration of the ecosystem functions and services which the ocean provides for member states. The project timeline was October 2017 - December 2021.

Under this project, The Nature Conservancy used the Mapping Ocean Wealth approach to develop ecosystem service models and maps at the scale of the Eastern Caribbean in support of CROP. The figures and statistics referenced in this summary are derived from the technical reports and datasets found at: [oceanwealth.org/project-areas/caribbean/CROP](https://oceanwealth.org/project-areas/caribbean/CROP)

**CROP Project Overview:** <https://oeecs.org/en/crop>  
**Map Viewer:** [maps.oceanwealth.org/oeecs](https://maps.oceanwealth.org/oeecs)