Mapping Ocean Wealth

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The Nature Conservancy

U.S. Coral Reef Task Force Meeting
August 11, 2017
The science of ecosystem service modelling and mapping

AGBt ha\(^{-1}\) = 0.295*BIO10 + 0.658*BIO11 + 0.0234*BIO16 + 0.195*BIO17 − 120.3

R\(^2\) = 0.267
How does one arrive at a map of coral reef tourism benefits? *Ask a tourist for directions!*

Spalding et al. 2017, Marine Policy
Coral Reef Tourism

maps.oceanwealth.org
Coral Reef Tourism

Quick Stats for Florida
- Value of coral reefs per year (USD): $1,152,313,000
- Total Visitation value: 3,239,471
- Highest value reefs (top 10%) generate $3,336,000 per km² per year
- 1,179 km² (89%) Total reef area, 1,052 km² Reefs used for tourism

maps.oceanwealth.org
Coral Reef Tourism

maps.oceanwealth.org
70% of jurisdictions have million dollar reefs.

>3 Million Trips

$304M On-reef Tourism

$848M Reef-adjacent Tourism

55 Countries with $3M+ Dollar Reefs
70 Million Trips

$19B On-reef Tourism

$16B Reef-adjacent Tourism

71 Countries with Million Dollar Reefs

From Local to Global: Revealing the Big Picture

TOURISM for TOMORROW
AWARDS 2017
WORLD TRAVEL & TOURISM COUNCIL
WINNER INNOVATION AWARD 2017

Mapping Ocean Wealth, The Nature Conservancy

No effect Low (up to $4000 per annum) Medium

MAX 100000000

0 250 500 750 1000 Kilometers

Service Layer Credits: Esri, DeLorme, GEBOO, NOAA NGDC and other contributors
Healthy coral reefs are good for tourism – and tourism can be good for reefs

Tourism is one of the world’s largest industries, contributing trillions of dollars to the global economy and supporting the livelihoods of an estimated one in ten people worldwide.

Much of that tourism depends on the natural world—on beautiful landscapes and seascapes that visitors flock to in search of escape, a second wind, and a direct connection with nature itself.

Coastal and marine tourism represents a significant share of the industry and is an important component of the growing, sustainable Blue Economy, supporting more than 6.5 million jobs—second only to industrial fishing. With anticipated global growth rates of more than 3.5%, coastal and marine tourism is projected to be the largest value-adding segment of the ocean economy by 2030, at 26%.
We’ve provided in-person and online training to managers working in 75% of the 103 countries and territories with coral reefs.
KEY TAKE AWAY MESSAGES

• A range of ecosystem benefits associated with reefs has been mapped through the Ocean Wealth project
• There is quite a bit of spatial variation in tourism benefits, globally and in Florida
• ‘On-reef’ and ‘reef-adjacent’ tourism benefits are not necessarily attributable to the same reefs
• Globally, just 30% of coral reefs provide tourism value – in Florida, tourism value is provided by 90% of reefs, underscoring Florida’s dependency on reefs for its coastal economy.
• Spatial data on ecosystem benefits are being incorporated into trainings offered through the Reef Resilience Network, and can inform conservation and management investment decisions.
Mapping Ocean Wealth

THANK YOU!

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