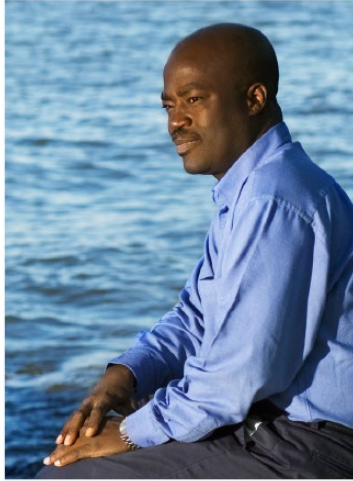# Why and How to Finance a Sustainable Ocean Economy

Por qué y cómo financiar una economía oceánica sostenible

Pourquoi et comment financer une économie océanique durable

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ABSTRACT

The ocean, which regulates climate and supports vital ecosystem services, is crucial to our Earth system and livelihoods. Yet, it is threatened by anthropogenic pressures and climate change. A healthy ocean that supports a sustainable ocean economy requires adequate financing vehicles that generate, invest, align, and account for financial capital to achieve sustained ocean health and governance. However, the current finance gap is large; we identify key barriers to financing a sustainable ocean economy and suggest how to mitigate them, to incentivize the kind of public and private investments needed for topnotch science and management in support of a sustainable ocean economy.

This talk will be based on the following paper: https://www.nature.com/articles/s41467-021-23168-y

Gulf and Caribbean Data Limited Reef Fisheries: New Approaches to Assessment for Effective Management

Pesquerías de peces arrecifes del Golfo y el Caribe con datos limitados: nuevos enfoques para una evaluación y gestión eficaz

Pêches récifales limitées dans le golfe et les Caraïbes : nouvelles approches pour Évaluation pour une gestion efficace

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ABSTRACT

Reef fishes provide numerous ecosystem services throughout the Gulf and Caribbean region, including artisanal, commercial, and recreational fisheries. Effective governance of these resources often requires assessment of stock status relative to biological reference points. However, state of the art integrated assessment models typically require long time series of multiple parameters which may not be available in the region, or when data do exist they are confounded by the multispecies nature of many reef fisheries. Numerous data-limited assessment approaches have been proposed in recent years that do not require time series of the age composition of landings, but most still require time series of catch, effort, or fish length estimates. Recent advances in relatively low-cost optical technologies, combined with Bayesian analyses for age validation and growth estimation, provide yet another approach to fisheries assessment that may be ideal for data-limited reef fisheries in the Gulf and Caribbean region. The focus of this talk will be to introduce these technologies and modeling approaches via recent applications to regional fisheries questions. The case studies to be presented were performed by multidisciplinary teams of ecologists, chemists, molecular biologists, and modelers. Such approaches may seem daunting for some scientists or agencies in the Gulf and Caribbean region. However, partnerships leverage the expertise and skills of collaborators to make studies more efficient and less expensive. Finally, the availability of modeling packages through the R Project for Statistical Computing puts the analytical tools required in the hands of regional scientists at no cost.

KEYWORDS: Reef fishes, data limited, stock assessment.

Towards effective and equitable marine conservation

Hacia una conservación marina eficaz y equitativa

Vers une conservation marine efficace et équitable

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ABSTRACT

Local and global threats are compromising the health of marine ecosystems and the ability of coastal communities to sustain their livelihoods and wellbeing from the ocean. This has led to calls for an increase in the size and number of managed marine areas, such as the recent IUCN target of 30% global coverage of marine protected areas (MPAs). However, marine conservation impacts are complex and nuanced, and rapidly increasing the size and number of restricted areas (e.g. no-take MPAs) is likely to have considerable social implications, particularly for resource-dependent populations. Here we present insights from ongoing research on evaluating the impacts of marine conservation, and discuss the role of management, governance, and context in shaping conservation outcomes. The goal of this work is to support decision makers and researchers with the knowledge and analytical tools to develop sustainable and equitable solutions to effectively conserve coastal ecosystems.

KEYNOTE: MPAs, conservation, management, governance