

Understanding Connectivity Conservation in the Context of Social-Ecological Systems: Perspectives from the Caribbean

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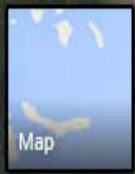
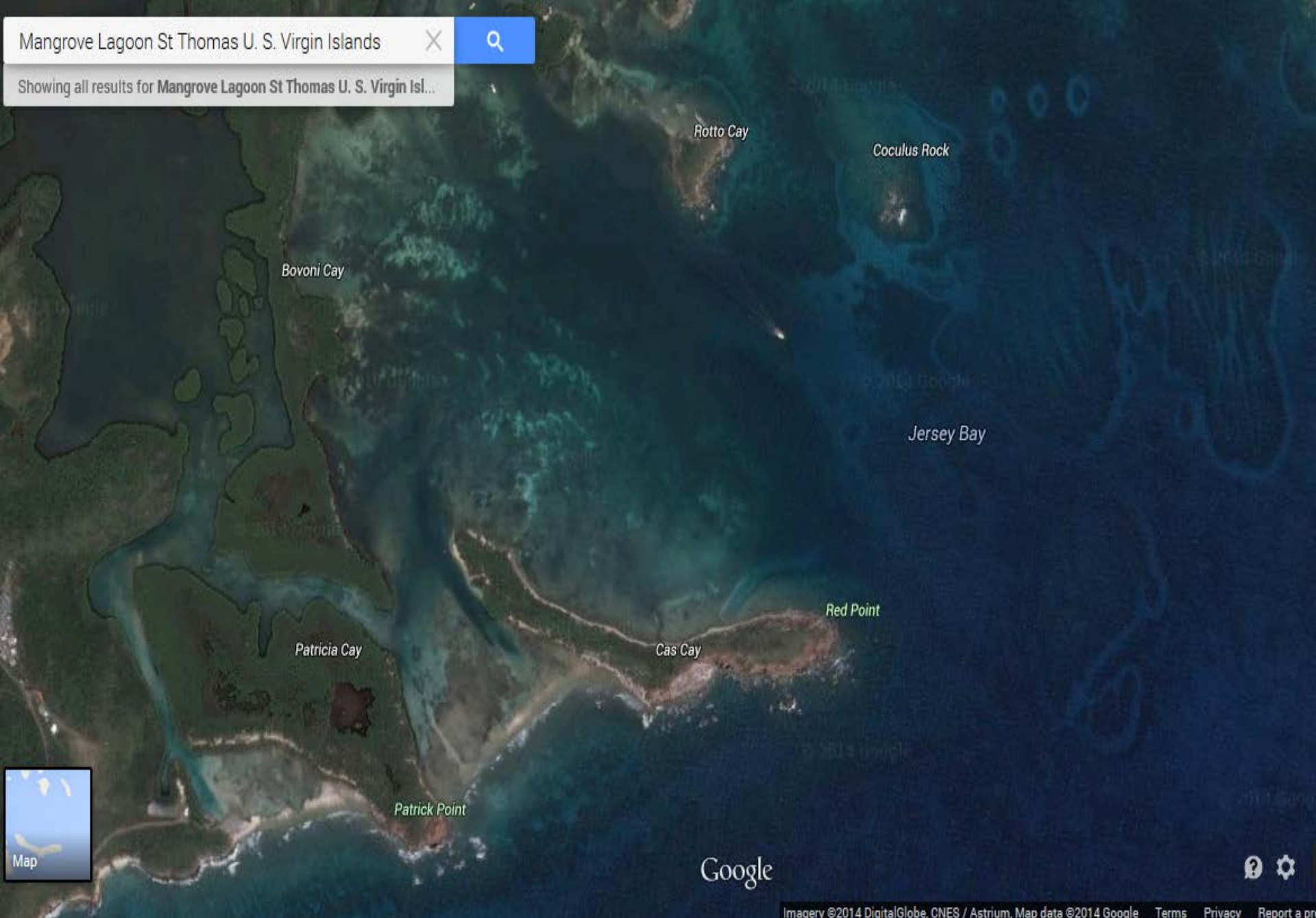
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Mangrove Lagoon St Thomas U. S. Virgin Islands



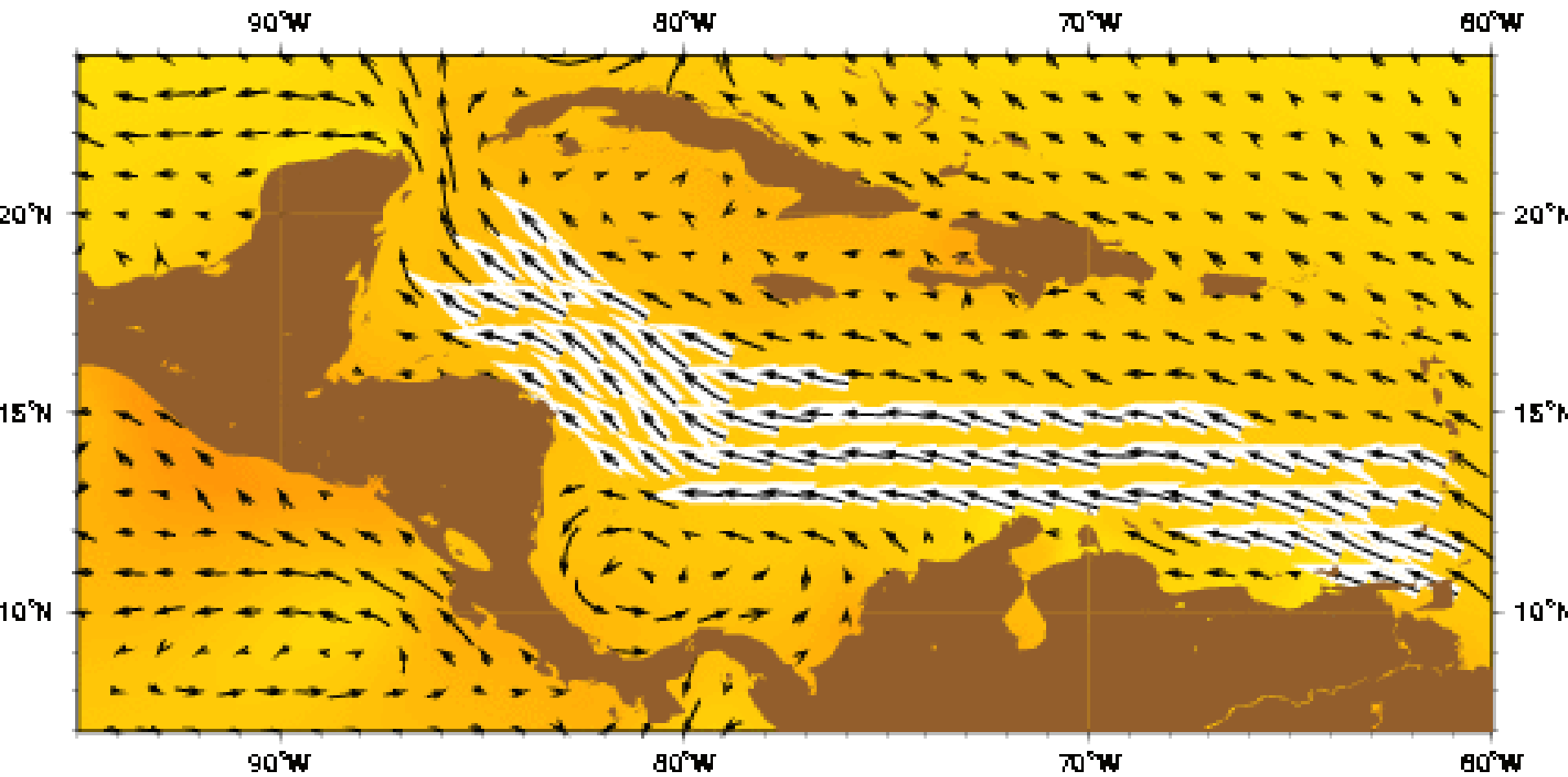
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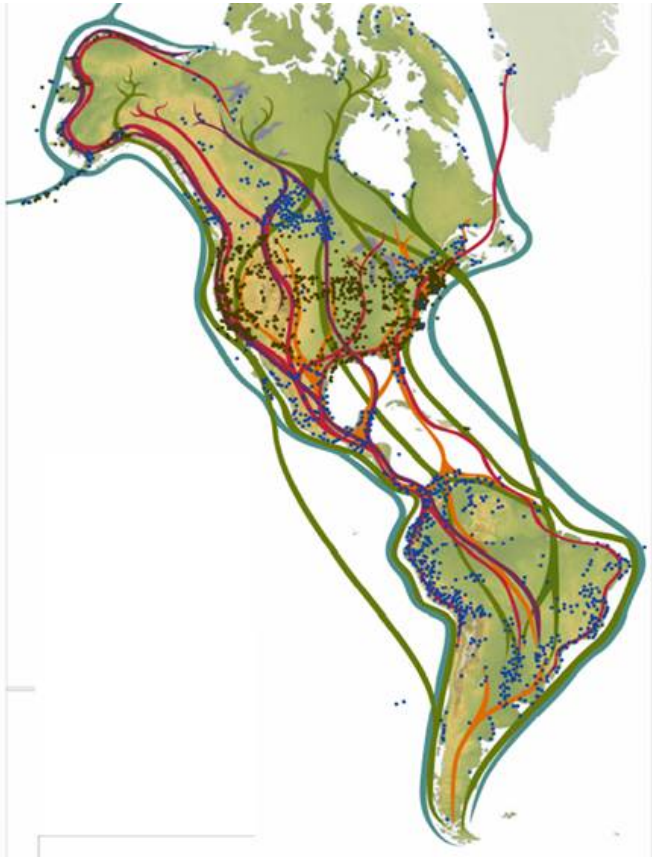
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- ▶ <http://oceancurrents.rsmas.miami.edu/caribbean/caribbean.html>



National Audubon Society:
Atlantic Flyways



Large-scale humpback whale
research, late 1960s-2013 (Kennedy,
2014)

Critical Habitat Protection

Protected Areas Coverage:

- ▶ **Terrestrial – 12.7% (2012) -> 15.4% (2014)**
- ▶ **Oceans – 1.6% (2012) -> 3.4% (2014)**

(Protected Planet 2012 & 2014)

Connectivity Conservation

- ▶ Establishes linkages/corridors between fragmented ecosystems,
- ▶ Maintains ecosystem functions in threatened areas, and
- ▶ Restores and re-connects habitats and ecosystems.

**Must incorporate both ecosystem dynamics and the economic imperatives that resulted in the degradation of the ecosystem in the first place
= > CC as a social construct**

Connectivity Conservation as Social Construct

“Apart from the economic importance of the ecosystem, it shapes the lives of all the inhabitants of the Caribbean in ways which defy statistical analysis. The Sea and its coasts form the stage on which the cultural, spiritual, and recreational life of the region is played out.” (CARSEA, 2007)

Social-Ecological Systems

Socio-ecological systems are ecological systems linked with and affected by social systems, and which in turn affect relationships between humans.

Connectivity Conservation: Ecological Issues

- ▶ **Habitat availability to support all life cycle stages**
- ▶ **Driving forces and status of the physical environment**
- ▶ **Migratory patterns**
- ▶ **Refugia – protection from, and recruitment after, extreme events**
- ▶ **Habitat migration and expansion of species range in response to global warming**

Connectivity Conservation: Social Issues

- ▶ **Cultural practices** - complement or conflict with resource management and PA strategies
- ▶ **Human migration** – understanding of social norms, rules –> impact on awareness, governance, enforcement strategy
- ▶ **Human motivations as facilitating or limiting social action** – level of understanding, fear, greed, cynicism, power –> impact on public policy development, support for PAs, management effectiveness
- ▶ **Governance** – site, national, regional

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