

Saving Nemo

Larry Crowder

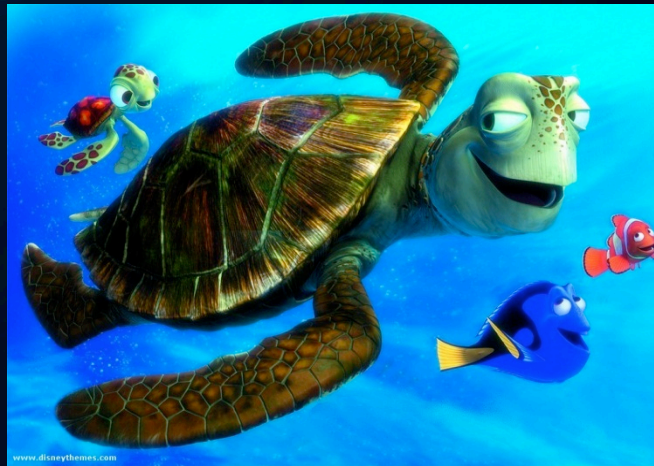
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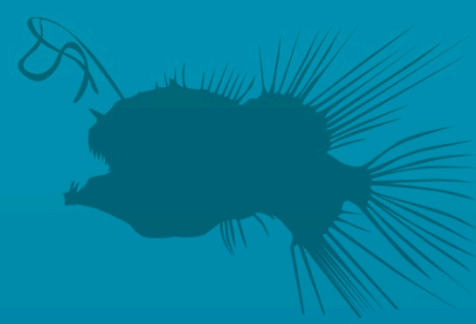
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Saving Nemo: New Approaches to Ecosystem Management for Oceans



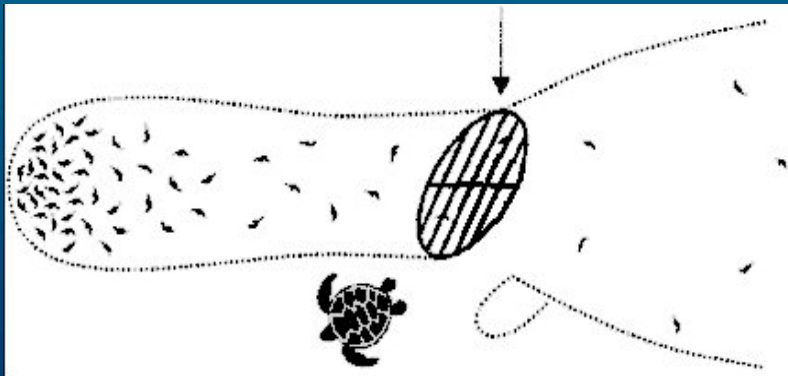
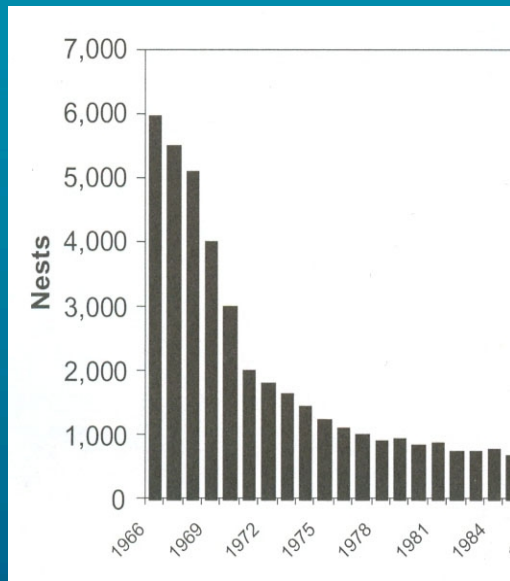
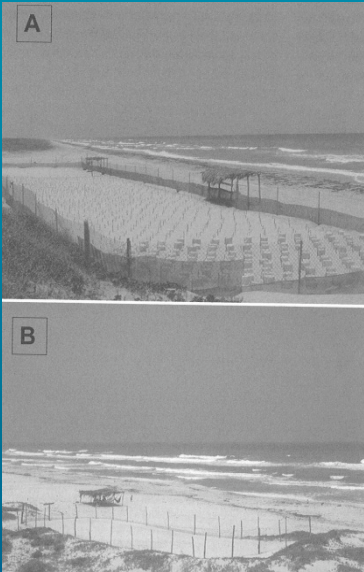
Larry Crowder
Center for Ocean Solutions
October 4, 2011
Woods New York City Salon



The Center for Ocean Solutions mission is to integrate cutting-edge science and technology with economic, social and political expertise to develop practical solutions to the challenges facing the oceans.

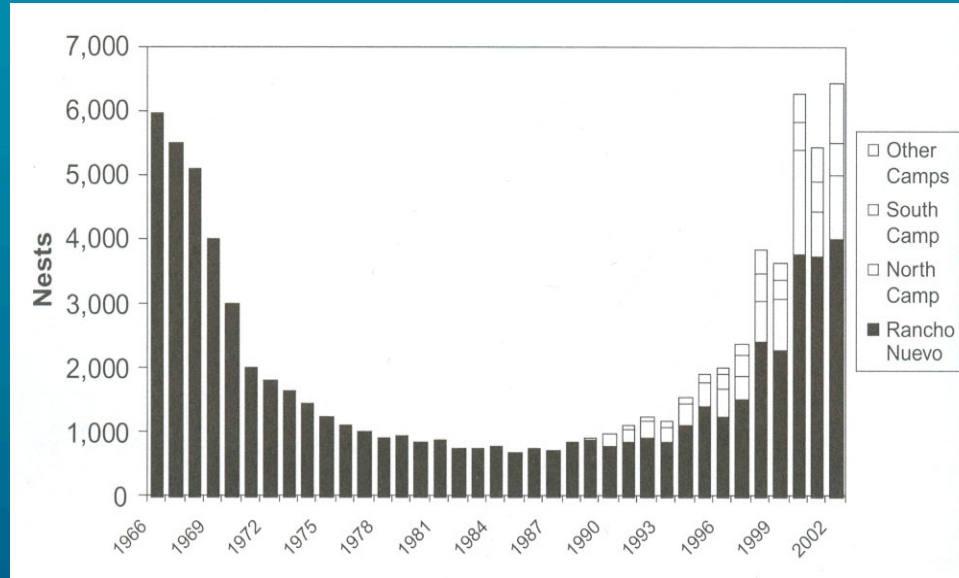
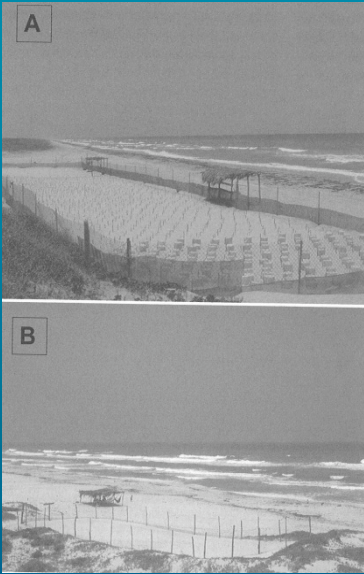
Packard Foundation-supported Big Think—
Designing solutions and strategies: Realizing a future for the oceans where the needs of people and nature are aligned.

Success Stories in Marine Conservation

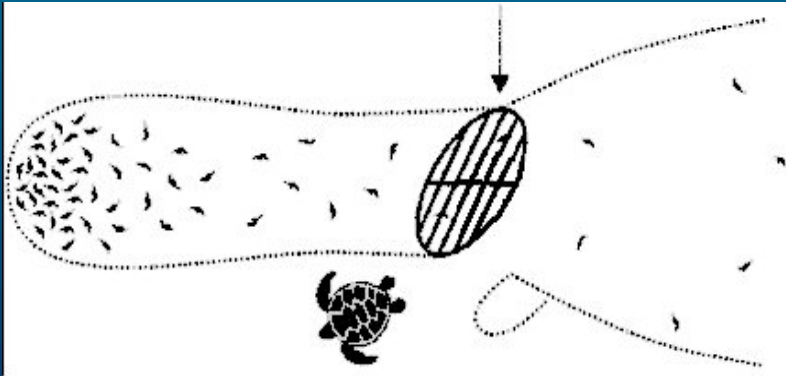


Kemp's Ridley Sea Turtle declined to ~300 nesting females in 1986.

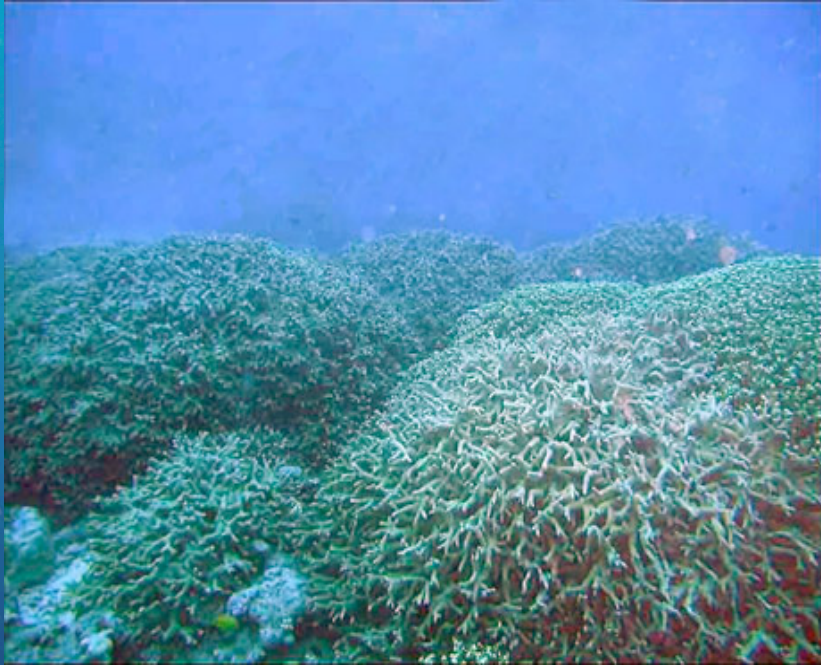
Success Stories in Marine Conservation



Beach protection and TEDs promoted recovery to >21,000 nests last year



Reasons for Hope and Caution



Richards et al. (2008)



Robert Simmon, NASA



Looking Ahead...

Projections for 2050 and beyond are cause for Urgent Action

- Trends in Human Population, Consumption, Urbanization and Technology and Implications for Global Security
- Trends in Ocean Commerce and Energy Development Climate Change Emissions Projections and Related Impacts on Oceans



Strategies and Tools

Targeted Strategies	Fisheries Reform	Integrate Fisheries and MPAs	Open Ocean Conservation	MPAs	Marine Spatial Planning	Natural Habitats as Climate Adaptation	“Development by design”	“Conservation-a-culture”
Supporting Strategies	<p>Capacity building and strengthening institutions</p> <p>Community-based conservation and community involvement</p> <p>Providing alternative livelihoods</p> <p>Adapting to climate change</p> <p>Making conservation pervasive through market reform</p> <p>Fostering innovation</p> <p>Ensuring outcomes through compliance and enforcement</p>							
Tools	<p>MPAs</p> <p>Reduce Counterproductive Market Signals (e.g., subsidies)</p> <p>Increase Enforcement and Compliance (e.g., co-management)</p> <p>Reduce Pollution</p> <p>Adjust Capacity of Fishing Fleets</p> <p>Control Ballast Water Discharge</p> <p>Reduce By-catch through Marine Spatial Planning and Technologies</p> <p>Marine Spatial Planning (e.g., Shift Shipping Lanes)</p> <p>Change Institutions and Build Capacity through Education and Sustained Effort</p> <p>Use Social Pressure</p>							

Designing Solutions and Strategies

Work With Nature: Invest in Natural Coastal Habitats as a Climate Adaptation Strategy



Gary Griggs



Surfrider Foundation

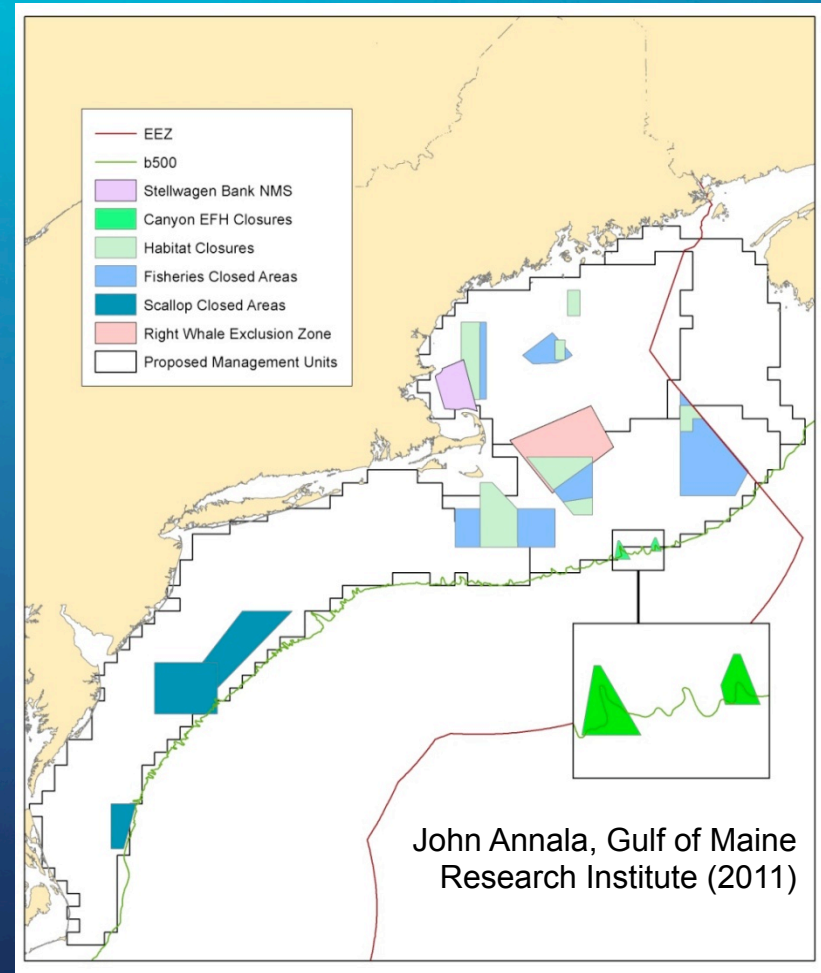
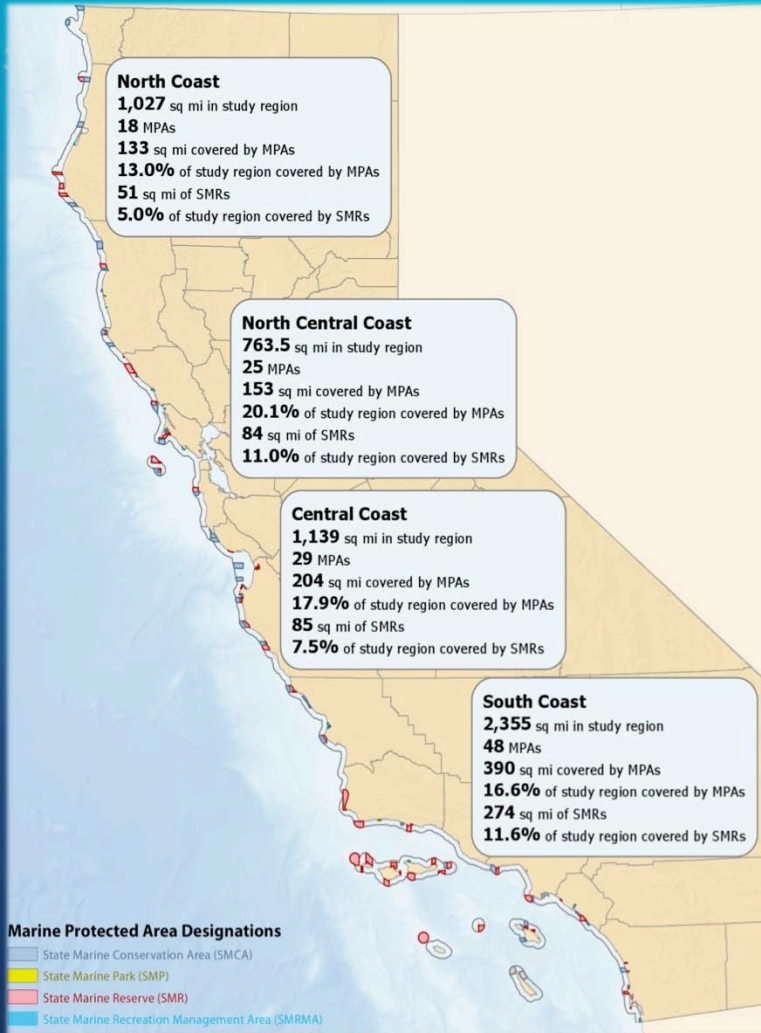
Designing Solutions and Strategies

Work With Nature: Invest in Natural Coastal Habitats as a Climate Adaptation Strategy



Designing Solutions and Strategies

Strategy Fusion: Integrate Conservation Areas (MPAs) and Fisheries Management





...to sum up

- Mainstream marine stewardship into the everyday work of infrastructure and energy planning and development, human settlement development, climate change adaptation.
- Time-tested strategies, like MPAs and fisheries reform, deserve continued support and innovation. These strategies take time to bloom.
- Fuse, or link, strategies and tools.

Acknowledgments

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