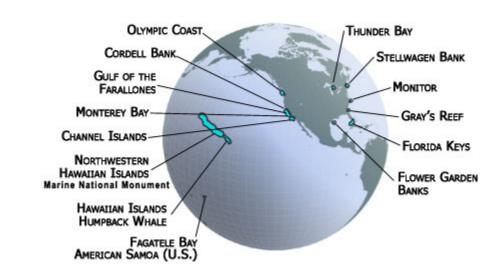
Figures

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25	NOTE: This information is distributed solely for the purpose of pre-dissemination peer
26	review under applicable information quality guidelines. It has not been formally
27	disseminated by the U.S. Environmental Protection Agency. It does not represent and
28	should not be construed to represent any agency determination or policy.
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Figures for Chapter 8, Marine Protected Areas

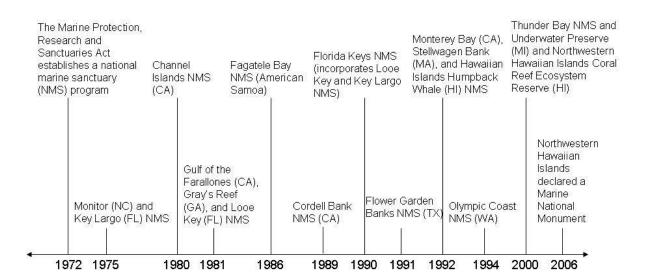
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Figure 8.1. Locations of the 14 MPAs that compose the National Marine Sanctuary System (National Marine Sanctuary Program, 2006c).



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Figure 8.2. Timeline of the designation of the national marine sanctuaries in the National Marine Sanctuary Program (National Marine Sanctuary Program, 2006a).



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- Figure 8.3. Map of the Florida Keys National Marine Sanctuary. The 1990 designation did not include the Tortugas Ecological
- 2 Reserve located at the western end of the sanctuary, which was implemented in 2001. The Key Largo NMS corresponded to the
- Existing Management Area (EMA) just offshore of the John Pennekamp Coral Reef State Park; the Looe Key NMS corresponded to
- the EMA surrounding the Looe Key Sanctuary Preservation Area and Research Only Area (National Oceanic and Atmospheric
- 5 Administration, 2007d).

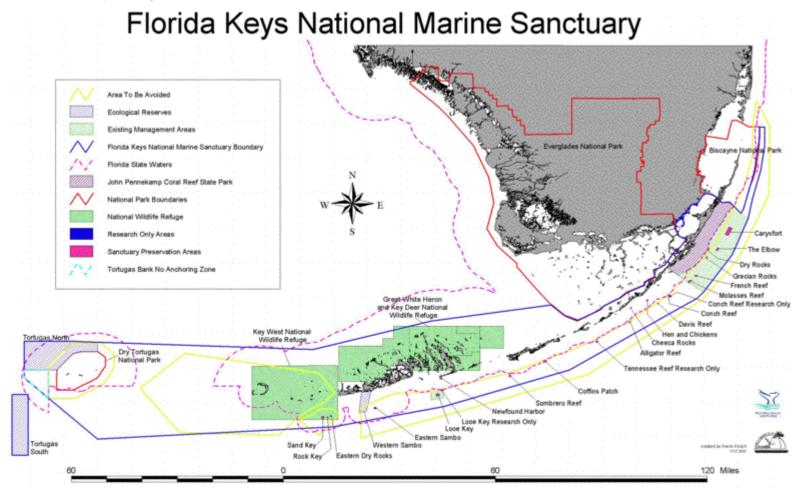


Figure 8.4. Organizational chart of the National Marine Sanctuary Program (NOAA National Ocean Service, 2006).

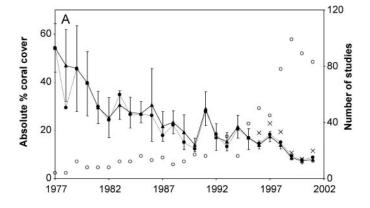
Level of Organization Jurisdiction NOAA The National Oceanic and Atmospheric Administration (NOAA), located within the Department of Commerce, focuses on the condition of the ocean and the atmosphere. National Ocean Service ▶ NOAA's National Ocean Service measures and predicts coastal and ocean phenomena, protects large areas of the oceans, works to ensure safe navigation, and provides tools and information to protect and restore coastal and marine resources. National Marine ➤ The National Marine Sanctuary Program manages and Sanctuary Program protects 13 Sanctuaries and one Marine National Monument (co-managed with the U.S. Fish and Wildlife Service) that together encompass over 150,000 square miles of U.S. ocean. → Each sanctuary maintains an on-site field staff that National Marine Sanctuary conducts research and monitoring, resource protection, education projects and other activities.

Adapted from http://www.oceanservice.noaa.gov/programs/

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Figure 8.5. Total observed change in coral cover (%) across the Caribbean basin over the past 25 years (Gardner *et al.*, 2003). A. Coral cover (%) 1977-2001. Annual estimates (\blacktriangle) are weighted means with 95% bootstrap confidence intervals. Also shown are unweighted estimates (\bullet), unweighted mean coral cover with the Florida Keys Coral Reef Monitoring Project (1996-2001) omitted (x), and the number of studies each year (\circ). B. Year-on-year rate of change (mean $\Delta N \pm SE$) in coral cover (%) for all sites reporting two consecutive years of data 1975-2000 (\bullet) and the number of studies for each two-year period (\circ).



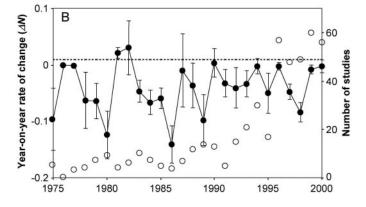
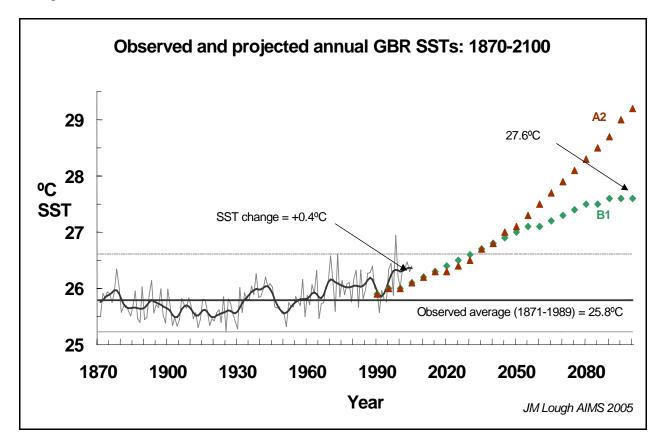


Figure 8.6. Map of the Great Barrier Reef Marine Park showing the adjacent catchment in Queensland. Modified from Haynes (2001) and courtesy of the Great Barrier Reef Marine Park Authority.

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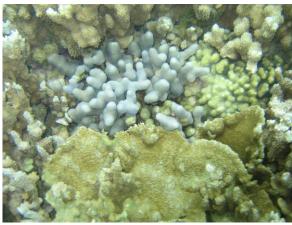
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1 **Figure 8.8**. Endemic species from the Hawaiian Islands. A. Masked angelfish,

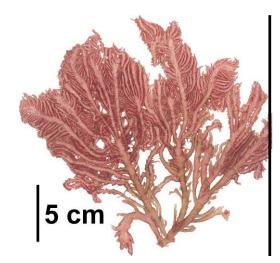
- 2 Genicanthus personatus (Photo: J. Watt), B. Rice coral, Montipora capitata, and finger
- 3 coral, *Porites compressa* (photo: C. Hunter), C. Hawaiian hermit crab, *Calcinus*
- 4 laurentae (photo: S. Godwin), D. Red alga, Acrosymphtyon brainardii (photo: P.

5 Vroom).









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Figure 8.9. a) NOAA Pathfinder SST anomaly composite during summer 2002 period of NWHI elevated temperatures, July 28–August 29. b) NASA/JPL Quikscat winds (wind stress overlayed by wind vector arrows) composite during summer 2002 period of increasing SSTs, July 16–August 13. The Hawaii Exclusive Economic Zone (EEZ) is indicated with a heavy black line; all island shorelines in the archipelago are also plotted (adapted from Hoeke et al., 2006).

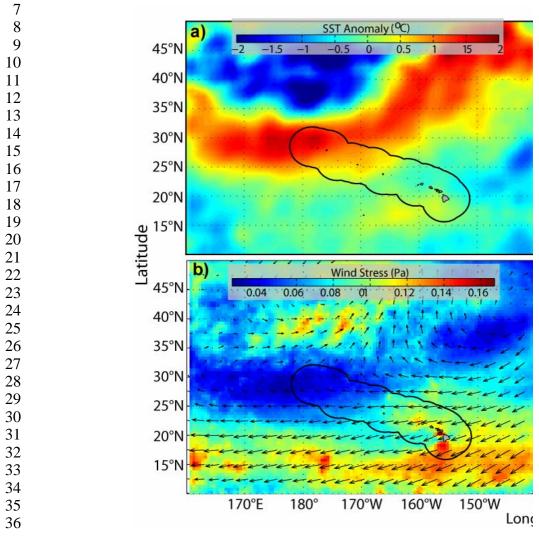
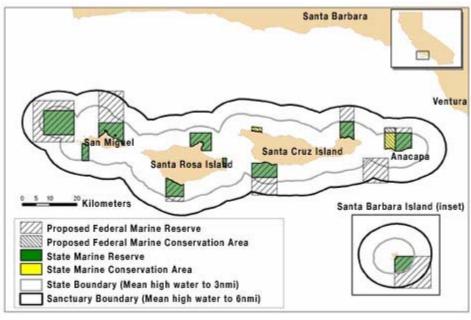


Figure 8.10. Map of the Channel Islands National Marine Sanctuary showing the location of existing state and proposed federal marine reserves and marine conservation areas (Channel Islands National Marine Sanctuary, 2007).



NOAA's preferred alternative for marine zones in the Sanctuary.