

## NOTES

### Preface

1. Julia M. Wondolleck, *Public Lands Conflict and Resolution: Managing National Forest Disputes* (New York: Plenum Publishers, 1988); James E. Crowfoot and Julia M. Wondolleck, *Environmental Disputes: Community Involvement in Conflict Resolution* (Washington, DC: Island Press, 1990).
2. Steven L. Yaffee, *Prohibitive Policy: Implementing the Federal Endangered Species Act* (Cambridge, MA: MIT Press, 1982); Steven L. Yaffee, *The Wisdom of the Spotted Owl: Policy Lessons for a New Century* (Washington, DC: Island Press, 1994).
3. Steven L. Yaffee et al., *Ecosystem Management in the United States: An Assessment of Current Experience* (Washington, DC: Island Press, 1996); Julia M. Wondolleck and Steven L. Yaffee, *Making Collaboration Work: Lessons from Innovation in Natural Resource Management* (Washington, DC: Island Press, 2000); [www.snre.umich.edu/ecomgt/collaboration.htm](http://www.snre.umich.edu/ecomgt/collaboration.htm).
4. This is also a conclusion that Morgan Gopnik reached after studying ecosystem management on public lands and in the context of marine spatial planning. See Morgan Gopnik, *From the Forest to the Sea: Public Land Management and Marine Spatial Planning* (London: Earthscan/Routledge, 2015).

### Chapter 1

1. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
2. Quoted in World Wildlife Fund, “Florida Residents Give Thumbs Up as Largest No-Fish Zone in the US Gets the Nod,” April 25, 2001, accessed March 26, 2016, [http://wwf.panda.org/wwf\\_news/?2243/Florida-residents-give-the-thumbs-up-as-largest-no-fish-zone-in-the-US-gets-the-nod](http://wwf.panda.org/wwf_news/?2243/Florida-residents-give-the-thumbs-up-as-largest-no-fish-zone-in-the-US-gets-the-nod).
3. See, e.g., Tundi Agardy et al., *Taking Steps toward Marine and Coastal Ecosystem-Based Management—an Introductory Guide* (Nairobi, Kenya: United Nations Environment Programme, 2011); Katie K. Arkema, Sarah C. Abramson, and Bryan M. Dewsbury, “Marine Ecosystem-Based Management: From Characterization to Implementation,” *Frontiers in Ecology and the Environment* 4 (2006): 525–32; Richard Curtin and Raul Prelezo, “Under-

- standing Marine Ecosystem Based Management: A Literature Review,” *Marine Policy* 34 (2010): 821–30; Verna G. DeLauer et al., “The Complexity of the Practice of Ecosystem-Based Management,” *Integral Review* 10 (2014): 4–28; Sue Kidd, Andy Plater, and Chris Frid, eds., *The Ecosystem Approach to Marine Planning and Management* (London: Earthscan, 2011); Sarah E. Lester et al., “Science in Support of Ecosystem-Based Management for the US West Coast and Beyond,” *Biological Conservation* 143 (2010): 576–87; James Lindholm and Robert Pavia, eds., “Examples of Ecosystem-Based Management in National Marine Sanctuaries: Moving from Theory to Practice,” Marine Sanctuaries Conservation Series ONMS-10-02 (Silver Spring MD: US Department of Commerce, NOAA, 2010); Karen L. McLeod and Heather M. Leslie, *Ecosystem-Based Management for the Oceans* (Washington, DC: Island Press, 2009); Mary Ruckelshaus et al., “Marine Ecosystem-Based Management in Practice: Scientific and Governance Challenges,” *BioScience* 58 (2008): 53–63.
4. N. L. Christensen et al., “The Report of the Ecological Society of America Committee on the Scientific Basis for Ecosystem Management,” *Ecological Applications* 6 (1996): 665–91; R. Edward Grumbine, “What Is Ecosystem Management?” *Conservation Biology* 8 (1994): 27–38.
  5. See, e.g., Peter A. Larkin, “Concepts and Issues in Marine Ecosystem Management,” *Reviews in Fish Biology and Fisheries* 6 (1996): 139–64; National Oceanic and Atmospheric Administration, *New Priorities for the 21st Century: National Marine Fisheries Service Strategic Plan, Updated for FY 2005–FY 2010* (Washington, DC: U.S. Department of Commerce, 2004.)
  6. Pew Oceans Commission, *America’s Living Oceans: Charting a Course for Sea Change* (Arlington VA: Pew Oceans Commission, 2003); U.S. Commission on Ocean Policy, *An Ocean Blueprint for the 21st Century* (Washington, DC: U.S. Commission on Ocean Policy, 2004).
  7. Exec. Order No. 13547. Stewardship of the Ocean, Our Coasts, and the Great Lakes. 3 C.F.R. 13547 (2010).
  8. California Ocean Protection Act, 26.5 *California Public Resources Code* 35500–35650 (2004); Massachusetts Oceans Act, 114 *Massachusetts General Laws* 35HH (2008).
  9. Canada’s Oceans Act, S.C. 1996, c. 31.
  10. See, e.g., Steven A. Murawski, “Ten Myths Concerning Ecosystem Approaches to Marine Resource Management,” *Marine Policy* 31 (2007): 681–90; Heather Tallis et al., “The Many Faces of Ecosystem-Based Management: Making the Process Work Today in Real Places,” *Marine Policy* 34 (2010): 340–48; Steven L. Yaffee, “Three Faces of Ecosystem Management,” *Conservation Biology* 13 (1999): 713–25.
  11. Karen L. McLeod et al., “Scientific Consensus Statement on Marine Ecosystem-Based Management,” signed by 217 academic scientists and policy experts with relevant expertise and published by the Communication Partnership for

- Science and the Sea (2005), [http://compassonline.org/science/EBM\\_CMSP/EBMconsensus](http://compassonline.org/science/EBM_CMSP/EBMconsensus).
12. See, e.g., Charles Ehler and Fanny Douvere, *Marine Spatial Planning: A Step-by-Step Approach toward Ecosystem-Based Management*, Intergovernmental Oceanographic Commission and Man and the Biosphere Programme, IOC Manual and Guides No. 53, ICAM Dossier No. 6 (Paris: UNESCO, 2009); and Tundi Agardy, *Ocean Zoning: Making Marine Management More Effective* (London: Earthscan, 2010).
  13. Other researchers have used a cross-case analysis approach to study MEBM. See, e.g., Agardy et al., *Taking Steps toward Marine and Coastal Ecosystem-Based Management—an Introductory Guide*; Peter J. S. Jones, *Governing Marine Protected Areas: Resilience through Diversity* (London: Earthscan/Routledge, 2014); and McLeod and Leslie, *Ecosystem-Based Management for the Oceans*.
  14. Julia Wondolleck and Steven Yaffee, “Marine Ecosystem-Based Management in Practice” (Ann Arbor: University of Michigan, 2012), <http://www.snrc.umich.edu/ecomgt/mebm>.
  15. Wondolleck and Yaffee, “Marine Ecosystem-Based Management in Practice.”

## Chapter 2

1. Gulf of Maine Council on the Marine Environment, “The Gulf of Maine in Context: State of the Gulf of Maine Report” (June 2010), 3, accessed March 28, 2016, <http://www.gulfofmaine.org/state-of-the-gulf/docs/the-gulf-of-maine-in-context.pdf>.
2. Maine Audubon, “Conserving Maine’s Significant Wildlife Habitat Shorebirds,” (Spring 2009), accessed March 26, 2016, <http://maineaudubon.org/wp-content/uploads/2012/08/MEAud-Conserving-Wildlife-Shorebirds.pdf>.
3. Lawrence P. Hildebrand, Victoria Pebbles, and David A. Fraser, “Cooperative Ecosystem Management across the Canada–U.S. Border: Approaches and Experiences of Transboundary Programs in the Gulf of Maine, Great Lakes and Georgia Basin–Puget Sound,” *Ocean and Coastal Management* 45 (2002): 421–57.
4. Gulf of Maine Council on the Marine Environment, “Agreement on Conservation of the Marine Environment of the Gulf of Maine between the Governments of the Bordering States and Provinces,” (1989), 19, accessed March 26, 2016, <http://www.gulfofmaine.org/2/wp-content/uploads/2015/12/GOMC-Reference-Guide-December-2015.pdf>.
5. The SeaDoc Society, “Salish Sea Facts,” accessed March 28, 2016, <http://www.seadocsociety.org/Salish-Sea-Facts/>.
6. Stefan Freelan, “Map of the Salish Sea and Surrounding Basin,” accessed March 26, 2016, [http://staff.wvu.edu/stefan/salish\\_sea.shtml](http://staff.wvu.edu/stefan/salish_sea.shtml).
7. U.S. Environmental Protection Agency and Environment Canada, “Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem 2008–2010 Action Plan,” (November 2008), accessed March 28, 2016,

- [https://www.epa.gov/sites/production/files/2015-09/documents/salish\\_sea\\_soc\\_action\\_plan\\_2008-2010.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/salish_sea_soc_action_plan_2008-2010.pdf).
8. U.S. Environmental Protection Agency and Environment Canada, "Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem 2008-2010 Action Plan."
  9. Nicholas Brown and Joseph Gaydos, "Species of Concern within the Georgia Basin Puget Sound Marine Ecosystem: Changes from 2002 to 2006," *Proceedings of the 2007 Georgia Basin Puget Sound Research Conference*, accessed March 28, 2016, [http://staff.wvu.edu/stefan/SalishSea/SpeciesOfConcern\\_brown-gaydos\\_07.pdf](http://staff.wvu.edu/stefan/SalishSea/SpeciesOfConcern_brown-gaydos_07.pdf).
  10. David Fraser et al., "Collaborative Science, Policy Development and Program Implementation in the Transboundary Georgia Basin/Puget Sound Ecosystem," *Environmental Monitoring and Assessment* 113 (2006): 49–69.
  11. Jamie Alley, "The British Columbia–Washington Environmental Cooperation Council: An Evolving Model of Canada–United States Interjurisdictional Cooperation," in *Environmental Management on North America's Borders*, ed. Richard Kiy and John Wirth (College Station: Texas A&M University Press, 1998), 55; Environmental Cooperation Council, "2003 Annual Report," April 7, 2004, accessed March 26, 2016, [http://www.env.gov.bc.ca/spd/ecc/docs/annual\\_reports/ecc03.pdf](http://www.env.gov.bc.ca/spd/ecc/docs/annual_reports/ecc03.pdf).
  12. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
  13. Gulf of Maine Council, "Mission and Principles," accessed March 28, 2016, <http://www.gulfofmaine.org/2/mission-and-principles/>.
  14. Alley, "The British Columbia–Washington Environmental Cooperation Council," 54.
  15. Alley, "The British Columbia–Washington Environmental Cooperation Council," 54.
  16. Alley, "The British Columbia–Washington Environmental Cooperation Council," 56.
  17. Alley, "The British Columbia–Washington Environmental Cooperation Council," 58–59.
  18. Alley, "The British Columbia–Washington Environmental Cooperation Council," 59.
  19. Alley, "The British Columbia–Washington Environmental Cooperation Council," 63.
  20. After five years of hearings and consultation, the International Joint Commission released its judgment in 1984 to designate the specific boundary, commonly referred to as the Hague Line after the Netherlands venue where it was developed. The line extends out to the 200 nautical mile EEZ limit and awards the United States the majority of Georges Bank, designating only the east-

- ernmost portion of the bank to Canada. Lawrence J. Prelli and Mimi Larsen-Becker, "Learning from the Limits of an Adjudicatory Strategy for Resolving United States–Canada Fisheries Conflicts: Lesson from the Gulf of Maine," *Natural Resources Journal* 41 (2001): 445–85.
21. GoMOOS was handed off to the Gulf of Maine Research Institute in 2009 and is now part of the Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS). NERACOOS, "Welcome GoMOOS users!," accessed March 28, 2016, [http://www.neracoos.org/gomooos\\_retired](http://www.neracoos.org/gomooos_retired).
  22. Alley, "The British Columbia–Washington Environmental Cooperation Council," 58.
  23. Gulf of Maine Council, "Gulfwatch Contaminant Monitoring Program," accessed March 26, 2016, [http://www.gulfofmaine.org/2/gulfwatch-home\\_page/](http://www.gulfofmaine.org/2/gulfwatch-home_page/).
  24. Transboundary Georgia Basin–Puget Sound Environmental Indicators Working Group, "Ecosystem Indicators Report" (Spring 2002), accessed March 26, 2016, <http://www.env.gov.bc.ca/spd/docs/gbpsei.pdf>.
  25. Transboundary Georgia Basin–Puget Sound Environmental Indicators Working Group, "Ecosystem Indicators Report."
  26. U.S. Environmental Protection Agency, "Health of the Salish Sea Ecosystem Report," accessed March 26, 2016, <https://www.epa.gov/salish-sea>.
  27. Naureen Rana, "The Puget Sound–Georgia Basin International Task Force," in *Transboundary Collaboration in Ecosystem Management: Integrating Lessons from Experience*, ed. Elizabeth Harris, Chase Huntley, William Mangle, and Naureen Rana (Ann Arbor: University of Michigan, 2001), accessed March 27, 2016, [http://www.snre.umich.edu/ecomgt/pubs/transboundary/TB\\_Col\\_lab\\_Full\\_Report.pdf](http://www.snre.umich.edu/ecomgt/pubs/transboundary/TB_Col_lab_Full_Report.pdf).
  28. Gulf of Maine Council, "Opportunities," accessed March 28, 2016, <http://www.gulfofmaine.org/2/opportunities/>.
  29. Georgia Basin/Puget Sound International Task Force, "ECC Update," (April 2003), accessed March 26, 2016, [http://www.env.gov.bc.ca/spd/ecc/docs/2003April/Gb\\_PS\\_ITF\\_Update.pdf](http://www.env.gov.bc.ca/spd/ecc/docs/2003April/Gb_PS_ITF_Update.pdf).
  30. Georgia Basin/Puget Sound International Task Force, "ECC Update," (February 2004), accessed March 26, 2016, [http://www.env.gov.bc.ca/spd/ecc/docs/2004Feb/Gb\\_PS\\_ITF\\_Action.PDF](http://www.env.gov.bc.ca/spd/ecc/docs/2004Feb/Gb_PS_ITF_Action.PDF).
  31. Georgia Basin/Puget Sound International Task Force, "ECC Update," (February 2004).
  32. Georgia Basin/Puget Sound International Task Force, "ECC Update," (February 2004).
  33. BC/WA Environmental Cooperation Council, "Record of Discussion for ECC Meeting," (October 28, 2005), accessed March 28, 2016, [http://www.env.gov.bc.ca/spd/ecc/docs/2005Oct/record\\_of\\_discussion\\_05oct28.pdf](http://www.env.gov.bc.ca/spd/ecc/docs/2005Oct/record_of_discussion_05oct28.pdf).

34. BC/WA Environmental Cooperation Council, "DRAFT Record of Discussion for ECC Meeting," (November 29, 2006), accessed March 28, 2016, [http://www.env.gov.bc.ca/spd/ecc/docs/2006Nov/record\\_of\\_discussion.pdf](http://www.env.gov.bc.ca/spd/ecc/docs/2006Nov/record_of_discussion.pdf).
35. Washington/British Columbia Coastal and Ocean Task Force, "Terms of Reference" (June 2007), accessed March 28, 2016, [http://www.ecy.wa.gov/climate\\_change/docs/gov\\_20070608\\_BCMOUappendices.pdf](http://www.ecy.wa.gov/climate_change/docs/gov_20070608_BCMOUappendices.pdf).
36. British Columbia/Washington Coastal and Ocean Task Force, Three Year Draft Work Plan (April 2008), accessed March 26, 2016, [http://www.env.gov.bc.ca/spd/ecc/docs/2008April/COTF\\_workplan.pdf](http://www.env.gov.bc.ca/spd/ecc/docs/2008April/COTF_workplan.pdf).
37. Gulf of Maine Council, "Gulf of Maine Restoration and Conservation Initiative," 3, accessed March 26, 2016, <http://www.gulfofmaine.org/gomrc/BriefingPaper093009.pdf>.
38. National Ocean Council, Executive Office of the President, "National Ocean Policy Implementation Plan" (April 2013), accessed, March 26, 2016, [http://www.whitehouse.gov/sites/default/files/national\\_ocean\\_policy\\_implementation\\_plan.pdf](http://www.whitehouse.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf).
39. Gulf of Maine Association, "Gulf of Maine Association," accessed April 14, 2016, <http://www.gulfofmaine.org/2/gulf-of-maine-association-homepage/>.

### Chapter 3

1. National Ocean Service, NOAA, "Gulf of Mexico at a Glance" (Washington, DC: U.S. Department of Commerce, 2008), accessed August 24, 2016, [http://gulfofmexicoalliance.org/pdfs/gulf\\_glance\\_1008.pdf](http://gulfofmexicoalliance.org/pdfs/gulf_glance_1008.pdf).
2. Gulf of Mexico Foundation, "Gulf of Mexico Facts," accessed March 16, 2016, <http://www.gulfmex.org/about-the-gulf/gulf-of-mexico-facts>.
3. Bryan Walsh, "The Gulf's Growing 'Dead Zone,'" *Time*, June 17, 2008.
4. Ian R. MacDonald, John Amos, Timothy Crone, and Steve Wereley, "The Measure of a Disaster," *New York Times*, May 22, 2010, A17.
5. Governor Jeb Bush, Letter to Governor Haley Barbour (April 26, 2004), personal copy.
6. "Testimony of Bryon Griffith, Director, Gulf of Mexico Program before the Senate Committee on Environment and Public Works" (November 9, 2009), accessed August 27, 2016, [https://www.epw.senate.gov/public/\\_cache/files/9a43bfb3-0cde-4b24-8a46-ef028e38e288/bryongriffith11909leghearinggulfofmexicotestimonyfinal.pdf](https://www.epw.senate.gov/public/_cache/files/9a43bfb3-0cde-4b24-8a46-ef028e38e288/bryongriffith11909leghearinggulfofmexicotestimonyfinal.pdf).
7. These accomplishments were outlined in Governor Jeb Bush, Letter to Governor Haley Barbour (April 26, 2004), personal copy.
8. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
9. Governor Jeb Bush, Letter to Governor Haley Barbour (April 26, 2004), personal copy.

10. U.S. Commission on Ocean Policy, *An Ocean Blueprint for the 21st Century* (Washington, DC: U.S. Commission on Ocean Policy, 2004).
11. “U.S. Ocean Action Plan: The Bush Administration’s Response to the U.S. Commission on Ocean Policy,” 2004, 5, accessed August 27, 2016, [https://data.nodc.noaa.gov/coris/library/NOAA/other/us\\_ocean\\_action\\_plan\\_2004.pdf](https://data.nodc.noaa.gov/coris/library/NOAA/other/us_ocean_action_plan_2004.pdf).
12. 148 Cong. Rec. S9834 (Oct. 2, 2002) (testimony of Sen. Landrieu).
13. Gulf of Mexico Alliance, “Governors’ Action Plan for Healthy and Resilient Coasts: March 2006-March 2009,” accessed March 16, 2016, [http://www.gulfofmexicoalliance.org/pdfs/gap\\_final2.pdf](http://www.gulfofmexicoalliance.org/pdfs/gap_final2.pdf).
14. Currently, the GOMA Priority Issue Teams focus on Coastal Resilience, Data and Monitoring, Education and Engagement, Habitat Resources, Water Resources, and Wildlife and Fisheries. Three cross-Priority Issue Team regional initiatives were added in 2014: Comprehensive Conservation, Restoration and Resilience Planning, Ecosystem Services, and Marine Debris. Accessed March 16, 2016, <http://www.gulfofmexicoalliance.org/our-priorities>.
15. Gulf of Mexico Alliance, “Governors’ Action Plan III for Healthy and Resilient Coasts: 2016–2021,” 40, accessed August 28, 2016, <http://www.gulfofmexicoalliance.org/documents/APIII.pdf>.
16. Gulf of Mexico Alliance, “Business Advisory Council,” accessed August 24, 2016, <http://www.gulfofmexicoalliance.org/partnerships/pdfs/GOMA%20BAC%20Function%20and%20Format.pdf>, 2.
17. Gulf of Mexico Alliance, “2015 Annual Report,” accessed August 24, 2016, <http://gulfofmexicoalliance.org/documents/goma-misc/2015/2015-annual-report.pdf>, 1.
18. Laura Bowie, “10 Years of Building Partnerships for a Healthier Gulf,” *Gulf of Mexico Alliance Newsletter* (June 12, 2014), accessed March 16, 2016, <http://www.gulfofmexicoalliance.org/2014/06/10-years-of-building-partnerships-for-a-healthier-gulf>.

#### Chapter 4

1. Daniel Suman, Manoj Shivilani, and J. Walter Milon, “Perceptions and Attitudes Regarding Marine Reserves: A Comparison of Stakeholder Groups in the Florida Keys National Marine Sanctuary,” *Ocean & Coastal Management* 42 (1999): 1019–40.
2. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Sanctuary Program, *Channel Islands National Marine Sanctuary Management Plan* (Silver Spring, MD: NOAA, 2009), 19–28.
3. Leslie Abramson et al., “Reducing the Threat of Ship Strikes on Large Cetaceans in the Santa Barbara Channel Region and Channel Islands National Marine Sanctuary: Recommendations and Case Studies,” Marine Sanctuaries Conservation Services ONMS-11-01 (Silver Spring, MD: U.S. Department of Commerce, NOAA, 2011).



4. U.S. Department of Commerce, *Channel Islands National Marine Sanctuary Management Plan* 5–6.
5. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
6. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Florida Keys National Marine Sanctuary Revised Management Plan* (Key West, FL: NOAA, 2007), 13–16.
7. Chuck Adams, “Economic Activities Associated with the Commercial Fishing Industry in Monroe County, Florida,” Florida Sea Grant Program Report 92-006 (Gainesville, FL: University of Florida, 1992), accessed August 25, 2016, <http://nsgl.gso.uri.edu/flsgp/flsgpt92006.pdf>.
8. William O. Antozzi, “The Developing Live Spiny Lobster Industry,” NOAA Technical Memorandum NMFS-SEFSC-395 (Springfield, VA: National Technical Information Service, 1996), 1.
9. U.S. Department of Commerce, *Florida Keys National Marine Sanctuary Revised Management Plan*, 5.
10. U.S. Department of Commerce, *Florida Keys National Marine Sanctuary Revised Management Plan*, 17.
11. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Sanctuaries and Reserves Division, *Florida Keys National Marine Sanctuary, Final Management Plan/Environmental Impact Statement, Volume 1* (Silver Spring, MD: NOAA, 1996), 2.
12. John C. Ogden et al., “A Long-Term Interdisciplinary Study of the Florida Keys Seascape,” *Bulletin of Marine Science* 54 (1994): 1059–1071.
13. Brian D. Keller and Billy D. Causey, “Linkages between the Florida Keys National Marine Sanctuary and the South Florida Ecosystem Restoration Initiative,” *Ocean and Coastal Management* 48 (2005): 869–900.
14. “A Third Freighter Runs Aground Off Keys,” *New York Times*, November 12, 1989, accessed August 25, 2016, <http://www.nytimes.com/1989/11/12/us/a-third-freighter-runs-aground-off-keys.html>.
15. U.S. Department of Commerce, *Florida Keys National Marine Sanctuary, Final Management Plan/Environmental Impact Statement, Volume 1*, 2.
16. U.S. National Oceanic and Atmospheric Administration, National Marine Sanctuaries, “Galapagos of North America: Channel Islands National Marine Sanctuary,” *Sanctuary Watch* (Fall 2012), 6.
17. Quoted in U.S. National Oceanic and Atmospheric Administration, “Galapagos of North America: Channel Islands National Marine Sanctuary,” 6.
18. Quoted in U.S. National Oceanic and Atmospheric Administration, “Galapagos of North America: Channel Islands National Marine Sanctuary,” 6.
19. Testimony of Dante Fascell before the U.S. House Committee on Merchant Marine and Fisheries, May 10, 1990, reprinted in Hearing on HR 3719, To



- Establish the Florida Keys National Marine Sanctuary, Serial No. 101-94 (Washington, DC: Government Printing Office, 1990), 6.
20. K. Sleasman, "Coordination between Monroe County and the Florida Keys National Marine Sanctuary," *Ocean and Coastal Management* 52 (2009): 69–75.
  21. U.S. Department of Commerce, *Channel Islands National Marine Sanctuary Management Plan*, 42.
  22. U.S. Department of Commerce, *Channel Islands National Marine Sanctuary Management Plan*, 49.
  23. U.S. Department of Commerce, *Channel Islands National Marine Sanctuary Management Plan*, 48.
  24. U.S. Department of the Interior, National Park Service, *Channel Islands National Park, Final General Management Plan* (Santa Barbara, CA: NPS, April 2015), 22.
  25. "Co-Trustees Agreement for Cooperative Management," May 19, 1997, accessed March 26, 2016, [http://floridakeys.noaa.gov/mgmtplans/man\\_co\\_trust.pdf](http://floridakeys.noaa.gov/mgmtplans/man_co_trust.pdf).
  26. Keller and Causey, "Linkages between the Florida Keys National Marine Sanctuary and the South Florida Ecosystem Restoration Initiative."
  27. Keller and Causey, "Linkages between the Florida Keys National Marine Sanctuary and the South Florida Ecosystem Restoration Initiative."
  28. The Fish and Wildlife Conservation Commission is well known to anybody on the water; it is the issuing agency for more than two hundred licenses, permits, and certifications for a wide range of activities regarding fish, wildlife, or boating.
  29. Testimony of Doug Jones before the U.S. House Committee on Merchant Marine and Fisheries, May 10, 1990, reprinted in Hearing on HR 3719, To Establish the Florida Keys National Marine Sanctuary, Serial No. 101-94 (Washington, DC: Government Printing Office, 1990), 17.
  30. U.S. National Park Service, "The Birth of Biscayne National Park," accessed March 26, 2016, <http://www.nps.gov/bisc/historyculture/the-birth-of-biscayne-national-park.htm>.
  31. National Academy of Public Administration, Center for the Economy and the Environment, *Protecting Our National Marine Sanctuaries* (Washington, DC: NAPA, 2000), 22.
  32. Quoted in William Booth, "'Zoning' the Sea: New Plan for Florida Keys Arouses Storm," *Washington Post*, October 17, 1993, accessed August 24, 2016, [www.washingtonpost.com/archive/politics/1993/10/17/zoning-the-sea-new-plan-for-florida-keys-arouses-storm/ee55f0a0-ad00-413d-842d-ccb33f6befb1](http://www.washingtonpost.com/archive/politics/1993/10/17/zoning-the-sea-new-plan-for-florida-keys-arouses-storm/ee55f0a0-ad00-413d-842d-ccb33f6befb1).
  33. Channel Islands National Marine Sanctuary, Sanctuary Advisory Council, "Decision-Making and Operational Protocols," November 18, 2005, accessed March 26, 2016, [http://channelislands.noaa.gov/sac/pdfs/rev\\_prot.pdf](http://channelislands.noaa.gov/sac/pdfs/rev_prot.pdf).

34. Channel Islands National Marine Sanctuary, "Working Groups and Subcommittees," accessed March 26, 2016, [http://channelislands.noaa.gov/sac/working\\_groups.html](http://channelislands.noaa.gov/sac/working_groups.html).
35. U.S. Department of Commerce, *Florida Keys National Marine Sanctuary, Final Management Plan/Environmental Impact Statement, Volume 1*, 6.
36. National Academy of Public Administration, *Protecting Our National Marine Sanctuaries*, 22.
37. Partnership for Interdisciplinary Studies of Coastal Oceans, accessed March 26, 2016, [www.piscoweb.org](http://www.piscoweb.org).
38. Gary E. Davis, "Science and Society: Marine Reserve Design for the California Channel Islands," *Conservation Biology* 19 (2005): 1745–51.
39. California Department of Fish and Game, "Appendix 3. History of the Channel Islands Marine Reserves Working Group Process," *Final Environmental Document, Marine Protected Areas in NOAA's Channel Islands National Marine Sanctuary* (October 2002), A3-2, accessed March 27, 2016, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=30729&inline>.
40. California Department of Fish and Game, "Appendix 3. History of the Channel Islands Marine Reserves Working Group Process," A3-2.
41. The design criteria included considerations of "biogeographic representation, individual reserve size, human threats and natural catastrophes, habitat representation, vulnerable habitats and species, monitoring sites, and connectivity." Davis, "Science and Society: Marine Reserve Design for the California Channel Islands."
42. Davis, "Science and Society: Marine Reserve Design for the California Channel Islands."
43. California Department of Fish and Game. Master Plan for Marine Protected Areas, "Appendix H. Summary of Recent and Ongoing Processes Related to the MLPA Initiative" (January 2008), H-5, accessed March 26, 2016, <http://www.dfg.ca.gov/mlpa/pdfs/revisedmp0108h.pdf>.
44. Satie Airamé et al., "Applying Ecological Criteria to Marine Reserve Design: A Case Study from the California Channel Islands," *Ecological Applications* 13 (2003): 170–84.
45. John C. Jostes and Michael Eng, "Facilitators' Report Regarding the Channel Islands National Marine Sanctuary Marine Reserves Working Group," Interactive Planning and Management and U.S. Institute for Environmental Conflict Resolution, May 23, 2001, 13-14, accessed March 24, 2016, <http://media.law.stanford.edu/organizations/programs-and-centers/enrlp/doc/slspublic/channelislandstn-exp2.pdf>.
46. Lydia K. Bergen and Mark H. Carr, "Establishing Marine Reserves: How Can Science Best Inform Policy?" *Environment* 45 (2003): 8–19.
47. California Department of Fish and Game, "Appendix 3. History of the Channel Islands Marine Reserves Working Group Process," A3-14.

48. California Department of Fish and Game, "Appendix 3. History of the Channel Islands Marine Reserves Working Group Process," A3-14.
49. National Oceanic and Atmospheric Administration, "Marine Zones Now in Federal Waters of NOAA's Channel Islands National Marine Sanctuary" (August 9, 2007), accessed March 27, 2016, <http://www.publicaffairs.noaa.gov/releases2007/aug07/noaa07-r429.html>.
50. Quoted in Joshua Kweller, "Channel Islands National Marine Sanctuary Advisory Council," in Kathy Chen et al., eds., *Sanctuary Advisory Councils: A Study in Collaborative Resource Management* (Ann Arbor: University of Michigan, 2006), accessed March 27, 2016, <https://deepblue.lib.umich.edu/handle/2027.42/101680>.
51. U.S. Department of Commerce, *Florida Keys National Marine Sanctuary, Final Management Plan/Environmental Impact Statement, Volume 1*, 5.
52. James Murley and F. Stevens Redburn, *Ready to Perform? Planning and Management at the National Sanctuary Program* (Washington, DC: National Academy of Public Administration, October 2006), 21.
53. Suman et al., "Perceptions and Attitudes Regarding Marine Reserves," 1031.
54. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Sanctuaries and Reserves Division, *Florida Keys National Marine Sanctuary, Final Management Plan/Environmental Impact Statement, Volume 2* (Silver Spring, MD: NOAA, 1996), 134.
55. Tortugas 2000 Working Group, "Meeting Minutes of April 1998," unpublished.
56. Tortugas 2000 Working Group, "Meeting Minutes of June 1998," unpublished.
57. Tortugas 2000 Working Group, "Meeting Minutes of May 1999," unpublished.
58. Quoted in World Wildlife Fund, "Florida Residents Give Thumbs Up as Largest No-Fish Zone in the US Gets the Nod," April 25, 2001, accessed March 26, 2016, [http://wwf.panda.org/wwf\\_news/?2243/Florida-residents-give-the-thumbs-up-as-largest-no-fish-zone-in-the-US-gets-the-nod](http://wwf.panda.org/wwf_news/?2243/Florida-residents-give-the-thumbs-up-as-largest-no-fish-zone-in-the-US-gets-the-nod).

## Chapter 5

1. U.S. Environmental Protection Agency, "Community-Based Watershed Management: Lessons from the National Estuary Program" (February 2005), accessed March 30, 2016, [https://www.epa.gov/sites/production/files/2015-09/documents/2007\\_04\\_09\\_estuaries\\_nepprimeruments\\_srneprimer.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/2007_04_09_estuaries_nepprimeruments_srneprimer.pdf).
2. For example, President Ronald Reagan issued an executive order in 1981 that terminated six federally authorized river basin commissions, including the Pacific Northwest, Great Lakes, and New England River Basin Commissions. Exec. Order No. 12,319 (Sept. 9, 1981), 46 Fed. Reg. 45,591, 3 C.F.R. (1981) Comp, 175.

3. Jennifer Steel, ed., "Albemarle–Pamlico National Estuarine System: Analysis of the Status and Trends" (April 1991), Report No. 90-01, vii, accessed March 30, 2016, [http://www.apnep.org/c/document\\_library/get\\_file?uuid=36817de5-6891-4563-896f-f5235d3d8dd4&groupId=61563](http://www.apnep.org/c/document_library/get_file?uuid=36817de5-6891-4563-896f-f5235d3d8dd4&groupId=61563).
4. National Audubon Society, "Important Bird Areas: North Carolina," accessed March 30, 2016, <http://netapp.audubon.org/iba/Reports>.
5. APNEP, "Fast Facts," accessed March 30, 2016, <http://portal.ncdenr.org/web/apnep/fastfacts#26>.
6. Steel, "Albemarle–Pamlico National Estuarine System: Analysis of the Status and Trends."
7. North Carolina Coastal Resources Commission Science Panel, "North Carolina Sea Level Rise Assessment Report: 2015 Update to the 2010 Report" (March 31, 2015), 25, accessed March 30, 2016, <https://ncdenr.s3.amazonaws.com/s3fs-public/Coastal%20Management/documents/PDF/Science%20Panel/2015%20NC%20SLR%20Assessment-FINAL%20REPORT%20Jan%2028%202016.pdf>.
8. APNEP, "About the Partnership," accessed March 30, 2016, [http://portal.ncdenr.org/web/apnep/about?p\\_p\\_id=15&p\\_p\\_lifecycle=1&p\\_p\\_state=normal](http://portal.ncdenr.org/web/apnep/about?p_p_id=15&p_p_lifecycle=1&p_p_state=normal).
9. NBEP, "Currents of Change: Environmental Status & Trends of the Narragansett Bay Region, Final Technical Report" (August 2009), accessed March 30, 2016, <http://www.nbep.org/statusandtrends/CoC-finaltech-3aug09.pdf>.
10. Narragansett Bay National Estuarine Research Reserve, "An Ecological Profile of the Narragansett Bay National Estuarine Research Reserve," Kenneth B. Raposa and Malia L. Schwartz, eds. (2009), accessed March 30, 2016, <http://www.nbnerr.org/profile.htm>.
11. Frank Carini, "Narragansett Bay Watershed Feels the Heat," *ecoRI News* (May 14, 2014), accessed March 30, 2016, <http://www.ecori.org/natural-resources/2014/5/14/narragansett-bay-watershed-feels-the-heat.html>.
12. NBEP, "Currents of Change: Environmental Status & Trends of the Narragansett Bay Region."
13. Narragansett Bay National Estuarine Research Reserve, "An Ecological Profile of the Narragansett Bay National Estuarine Research Reserve."
14. David M. Bearden, *National Estuary Program: A Collaborative Approach to Protecting Coastal Water Quality*, CRS Report 97-644 ENR (Washington, DC: Congressional Research Service, Library of Congress, 2001), accessed August 25, 2016, [http://digital.library.unt.edu/ark:/67531/metacrs1411/m1/1/high\\_res\\_d/97-644enr\\_2001Jan12.pdf](http://digital.library.unt.edu/ark:/67531/metacrs1411/m1/1/high_res_d/97-644enr_2001Jan12.pdf).
15. NBEP, "About NBEP," accessed March 28, 2016, <http://www.nbep.org/about-theprogram.html>.
16. U.S. Environmental Protection Agency, "Comprehensive Conservation and Management Plans," accessed March 30, 2016, <https://www.epa.gov/nep/information-about-local-estuary-programs#tab-2>.

17. Steel, "Albemarle–Pamlico National Estuarine System: Analysis of the Status and Trends."
18. APNEP, "Comprehensive Conservation and Management Plan: Albemarle–Pamlico Estuarine Study" (November 1994), 22, accessed March 30, 2016, [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=40eead85-a903-4cac-b7aa-a249a94be3b3&groupId=61563](http://portal.ncdenr.org/c/document_library/get_file?uuid=40eead85-a903-4cac-b7aa-a249a94be3b3&groupId=61563).
19. APNEP, "Comprehensive Conservation and Management Plan," 1994, 86.
20. Katrina Smith Korfmacher, "Invisible Successes, Visible Failures: Paradoxes of Ecosystem Management in the Albemarle–Pamlico Estuarine Study," *Coastal Management* 26 (1998): 191–211.
21. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
22. Rhode Island Department of Administration, "Comprehensive Conservation and Management Plan for Narragansett Bay," accessed March 30, 2016, [http://www.planning.ri.gov/documents/guide\\_plan/ccmp715.pdf](http://www.planning.ri.gov/documents/guide_plan/ccmp715.pdf).
23. Rhode Island Department of Administration, "Comprehensive Conservation and Management Plan for Narragansett Bay."
24. APNEP, "CCMP 2012–2022: Collaborative Actions for Protecting the Albemarle–Pamlico Ecosystem," (March 14, 2012), accessed March 30, 2016, [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=e6600731-daed-4c5f-9136-253f23c9bbcf&groupId=61563](http://portal.ncdenr.org/c/document_library/get_file?uuid=e6600731-daed-4c5f-9136-253f23c9bbcf&groupId=61563).
25. Governor Beverly Eaves Perdue, "Albemarle–Pamlico National Estuary Partnership," State of North Carolina Executive Order #133, November 5, 2012.
26. APNEP, "CCMP 2012–2022," 1.
27. NBEP, "CCMP Update 2012: Revision to the Narragansett Bay Comprehensive Conservation and Management Plan" (December 2012), accessed March 28, 2016, <http://www.nbep.org/ccmp-guidance.html>.
28. NBEP, "CCMP Update 2012," 6.
29. Paul Cough, Director, EPA Oceans and Coastal Protection Division, letter to Richard Ribb, Director, Narragansett Bay Estuary Program, n.d.
30. NEPs across the nation have been found to facilitate networks and partnerships that are more extensive than in estuaries without NEPs, in that they span more levels of government, integrate more experts into policy discussions, and nurture stronger interpersonal ties between stakeholders, and thus lay the foundation for cooperative governance. See Mark Schneider et al., "Building Consensual Institutions: Networks and the National Estuary Program." *American Journal of Political Science* 47 (2003): 143–58.
31. "Narragansett Bay Water Quality Improving Thanks to Less Sewage Treatment Plant Discharges," *ecoRI News*, August 20, 2015, accessed August 25, 2016, <http://www.ecori.org/narragansett-bay/2015/8/20/narragansett-bay-water-quality-better-thanks-to-less-sewage-plant-discharges>.

32. APNEP, "APNEP Partners," accessed March 28, 2016, <http://www.apnep.org/web/apnep/partners>.
33. APNEP, "Albemarle–Pamlico Conservation and Communities Collaborative," accessed March 28, 2016, <http://portal.ncdenr.org/web/apnep/ap3c>.
34. U.S. Environmental Protection Agency, "Climate Ready Estuaries 2009 Progress Report," accessed March 30, 2016, 10, [https://www.epa.gov/sites/production/files/2014-04/documents/cre\\_progress\\_report\\_v20\\_singlepages\\_draft.pdf](https://www.epa.gov/sites/production/files/2014-04/documents/cre_progress_report_v20_singlepages_draft.pdf).
35. Korfmacher, "Invisible Successes, Visible Failures."
36. Richard Salit, "Environmental Journal: Narragansett Bay Estuary Program Gets a Top-to-Bottom Makeover," *Providence Journal*, December 29, 2013, accessed August 25, 2016, <http://www.providencejournal.com/article/20131228/NEWS/312289995>.
37. New England Interstate Water Pollution Control Commission, "Change in Direction: A Talk with the Narragansett Bay Estuary Program's New Leader," *iWR e-news* (February 2014), accessed March 28, 2016, <http://neiwpcc.org/e-news/iWR/2014-02/changeindirection.asp>.
38. NBEP, "Currents of Change: Environmental Status & Trends of the Narragansett Bay Region."
39. NBEP, "Currents of Change: Environmental Status & Trends of the Narragansett Bay Region."
40. APNEP, "APNEP's History," accessed March 30, 2016, <http://portal.ncdenr.org/web/apnep/about>.
41. APNEP, "Science and Technical Advisory Committee (STAC) Action Plan For the Period November 2012 through June 2014," accessed March 30, 2016, [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=d78f3655-f7da-48f7-82c5-600bfc94b9fa&groupId=61563](http://portal.ncdenr.org/c/document_library/get_file?uuid=d78f3655-f7da-48f7-82c5-600bfc94b9fa&groupId=61563).
42. APNEP, "Monitor," accessed March 28, 2016, <http://www.apnep.org/web/apnep/monitor>.
43. "Ferry-Based Monitoring of Surface Water Quality in North Carolina," accessed March 28, 2016, <http://www.unc.edu/ims/paerllab/research/ferrymon/images/index.html>.
44. Korfmacher, "Invisible Successes, Visible Failures."
45. Steven L. Yaffee, "Why Environmental Policy Nightmares Recur," *Conservation Biology* 11 (1997): 328–37.
46. Steven L. Yaffee, "Cooperation: A Strategy for Achieving Stewardship Across Boundaries," in Richard L. Knight and Peter Landes, eds., *Stewardship Across Boundaries* (Washington, DC: Island Press, 1998), 299–324.
47. NBEP, "Bay Journal," accessed March 30, 2016, <http://www.nbep.org/bayjournal-currentissue.html>.
48. In Korfmacher's review of the APES phase of APNEP's history, public participation was judged as a mixed success. Korfmacher, "Invisible Successes, Visible Failures."
49. Korfmacher, "Invisible Successes, Visible Failures."

50. Korfmacher, "Invisible Successes, Visible Failures."
51. Korfmacher, "Invisible Successes, Visible Failures."
52. Korfmacher, "Invisible Successes, Visible Failures."
53. Rhode Island Bays Rivers and Watersheds Coordination Team, "Systems Level Planning," accessed March 28, 2016, <http://www.coordinationteam.ri.gov/splanning.htm>.
54. Korfmacher, "Invisible Successes, Visible Failures."
55. Cough, letter to Ribb, n.d.
56. Cindy Cook, Adamant Accord, Inc., "Facilitator's Assessment: Narragansett Bay Estuary Program" (November 2012), accessed March 30, 2016, [http://docsfiles.com/pdf\\_cindy\\_cook\\_adamant\\_accord.html](http://docsfiles.com/pdf_cindy_cook_adamant_accord.html).
57. Salit, "Narragansett Bay Estuary Program Gets a Top-to-Bottom Makeover."
58. Salit, "Narragansett Bay Estuary Program Gets a Top-to-Bottom Makeover."

## Chapter 6

1. Pacific Marine Conservation Council and Golden Marine Consulting, "Integrating Stewardship, Access, Monitoring and Research: Port Orford Community Stewardship Area" (2008), prepared for POORT, accessed August 1, 2010, <http://www.oceanresourceteam.org/docs/StewardshipPlan.pdf>.
2. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
3. POORT, "Mission Statement," accessed March 30, 2016, <http://www.oceanresourceteam.org>.
4. San Juan County Marine Resources Committee, "Welcome to the San Juan County MSA," accessed March 30, 2016, <http://www.sjcmrc.org/Marine-Stewardship-Area/MSA-Overview.aspx>.
5. Dan Seimann, "Northwest Straits Marine Conservation Initiative: Five-Year Evaluation Report: submitted by the Northwest Straits Evaluation Panel" (April 6, 2004), 2, accessed March 30, 2016, <http://nwstraits.org/media/1257/nwsc-2004-evaluationrpt.pdf>.
6. Seimann, "Northwest Straits Marine Conservation Initiative: Five-Year Evaluation Report," 2.
7. Seimann, "Northwest Straits Marine Conservation Initiative: Five-Year Evaluation Report," 2.
8. San Juan Nature Institute and Marine Resources Committee, "Caring for Our Natural Resources: A Way of Life in the San Juans" (2008), personal copy. Original is available from the MRC.
9. San Juan County Marine Resources Committee, "2010 Annual report," accessed March 30, 2016, <http://www.sjcmrc.org/uploads/pdf/AnnualReports/2010AnnualReport.pdf>.



10. POORT, "Community Advisory Team," accessed August 27, 2016, <http://www.oceanresourceteam.org/about/advisors>.
11. Port Orford City Council, "Resolution 2006-41," June 29, 2006.
12. POORT, "Land-Sea Connection Workshop," accessed March 30, 2016, <http://www.oceanresourceteam.org/initiatives/land-sea-connection/>.
13. San Juan County Marine Resources Committee, "Who We Are," accessed March 30, 2016, <http://www.sjcmrc.org>.
14. POORT, "Successes," accessed March 30, 2016, <http://www.oceanresourceteam.org/initiatives/successes/>.
15. POORT, "Ecosystem Based Management," accessed March 30, 2016, <http://www.oceanresourceteam.org/about/operating-principles/ebm/>.
16. Surfrider Foundation, "Mission," accessed March 30, 2016, <http://www.surfrider.org/mission>.
17. POORT, "Port Orford Community Stewardship Area," accessed March 30, 2016, <http://www.oceanresourceteam.org/initiatives/posa/>.
18. Reprinted in "Memorandum of Understanding between Port Orford Ocean Resource Team and the Oregon Department of Fish and Wildlife" (September 17, 2008).
19. San Juan County Marine Resources Committee, "The San Juan County Marine Stewardship Area," accessed March 30, 2015, <http://www.sjcmrc.org/Marine-Stewardship-Area.aspx>.
20. Kirsten Evans and Jody Kennedy, "San Juan County Marine Stewardship Area Plan, Prepared by the San Juan County Marine Resources Committee" (July 2, 2007), 5, accessed March 30, 2016, <http://www.sjcmrc.org/uploads/pdf/MSA%20plan%2002-Jul-2007%20Final.pdf>.
21. Evans and Kennedy, "San Juan County Marine Stewardship Area Plan," 27.
22. Oregon Ocean Policy Advisory Council, "Oregon Marine Reserve Policy Recommendations," (2008), accessed March 30, 2016, [http://www.oregon.gov/LCD/OPAC/docs/resources/opac\\_mar\\_res\\_pol\\_rec\\_final.pdf](http://www.oregon.gov/LCD/OPAC/docs/resources/opac_mar_res_pol_rec_final.pdf).
23. POORT, "Redfish Rocks Marine Reserve & Marine Protected Area," accessed March 30, 2016, <http://www.oceanresourceteam.org/initiatives/successes/marine-reserve/>.
24. 75th Oregon Legislative Assembly, "House Bill 3013: An Act Relating to Ocean Resources; and Declaring an Emergency" (2009), accessed March 30, 2016, [http://www.oregon.gov/LCD/OPAC/docs/hb\\_3013.pdf](http://www.oregon.gov/LCD/OPAC/docs/hb_3013.pdf).
25. POORT, "Stormwater Ordinance," accessed March 30, 2016, <http://www.oceanresourceteam.org/initiatives/successes/stormwater-ordinance/>.
26. See, e.g., Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge UK: Cambridge University Press, 1990); Thomas Princen, "Monhegan Lobstering: Self-Management Meets Co-Management," in *The Logic of Sufficiency* (Cambridge MA: MIT Press, 2005), 223–90.

## Chapter 7

1. Jamie Alley, "The British Columbia–Washington Environmental Cooperation Council: An Evolving Model of Canada–United States Interjurisdictional Cooperation," in *Environmental Management on North America's Borders*, ed. Richard Kiy and John Wirth (College Station: Texas A&M University Press, 1998), 56.
2. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
3. Gulf of Maine Council, "Meeting Briefing Packet" (September 26, 2008), 17, accessed March 28, 2016, [http://www.gulfofmaine.org/council/internal/docs/gomc\\_wg\\_october\\_2008.pdf](http://www.gulfofmaine.org/council/internal/docs/gomc_wg_october_2008.pdf).
4. State of Oregon, "1994 Territorial Sea Plan Appendix G: Principal Policies of the Oregon Ocean Plan," accessed March 28, 2016, [http://www.oregon.gov/LCD/OCMP/docs/Ocean/otsp\\_app-g.pdf](http://www.oregon.gov/LCD/OCMP/docs/Ocean/otsp_app-g.pdf).
5. Gulf of Mexico Alliance, "Alliance Management," accessed March 28, 2016, <http://www.gulfofmexicoalliance.org/about-us/organization/alliance-management-team/>.
6. Channel Islands National Marine Sanctuary, "Working Group & Subcommittees," accessed March 28, 2016, [http://channelislands.noaa.gov/sac/working\\_groups.html](http://channelislands.noaa.gov/sac/working_groups.html).
7. "Ferry-Based Monitoring of Surface Water Quality in North Carolina," accessed March 28, 2016, <http://www.unc.edu/ims/paerllab/research/ferrymon/images/index.html>.
8. Albemarle–Pamlico National Estuary Program, "SAV Monitoring," accessed March 28, 2016, <http://www.apnep.org/web/apnep/sav-monitoring>.
9. Narragansett Bay Estuary Program, "Resolution 2014-01, Establishment of a Science Advisory Committee" (June 18, 2014), accessed March 28, 2016, <http://nbep.org/pdfs/Resolution%202014-01%20Science%20Advisory%20Committee.pdf>.
10. Gulf of Mexico Alliance, "Ecosystems Integration & Assessment: Priorities for Managing Ecosystem Data," accessed August 27, 2016, <http://www.gulfofmexicoalliance.org/our-priorities/former-our-priorities/ecosystems-integration-assessment>.
11. See chapter 2, note 21, for updated status of the Gulf of Maine Ocean Observing System.
12. Gulf of Mexico Alliance, "Power of Partnerships: Other Partners," accessed August 27, 2016, <http://www.gulfofmexicoalliance.org/about-us/alliance-partnerships/other-partners>.
13. Gulf of Mexico Alliance, "Power of Partnerships: Other Partners," accessed August 27, 2016, <http://www.gulfofmexicoalliance.org/about-us/alliance-partnerships/other-partners>.

14. Northwest Straits Commission, "Marine Resources Committees," accessed March 28, 2016, <http://www.nwstraits.org/get-involved/mrcs/>.
15. Gulf of Mexico Alliance, "Constitution," August 2012, accessed August 27, 2016, [http://www.gulfofmexicoalliance.org/pdfs/Alliance%20Constitution%20August%202012\\_final.pdf](http://www.gulfofmexicoalliance.org/pdfs/Alliance%20Constitution%20August%202012_final.pdf).
16. Channel Islands National Marine Sanctuary, Sanctuary Advisory Council, "Decision-Making and Operational Protocols" (November, 19, 2005), accessed March 28, 2016, [http://channelislands.noaa.gov/sac/pdfs/rev\\_prot.pdf](http://channelislands.noaa.gov/sac/pdfs/rev_prot.pdf).
17. Gulf of Maine Council, "Agreement on Conservation of the Marine Environment of the Gulf of Maine between the Governments of the Bordering States and Provinces," accessed August 27, 2016, <http://www.gulfofmaine.org/2/wp-content/uploads/2014/09/GOMC-Agreement-1989.pdf>.
18. "Co-Trustees Agreement for Cooperative Management," accessed August 27, 2016, [http://floridakeys.noaa.gov/mgmtplans/man\\_cotrult.pdf](http://floridakeys.noaa.gov/mgmtplans/man_cotrult.pdf).
19. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, "National Marine Sanctuary Program, Sanctuary Advisory Council Implementation Handbook" (May 2003), accessed March 28, 2016, [http://sanctuaries.noaa.gov/library/national/sachandbook\\_new.pdf](http://sanctuaries.noaa.gov/library/national/sachandbook_new.pdf).

## Chapter 8

1. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
2. Katrina Smith Korfmacher, "Invisible Successes, Visible Failures: Paradoxes of Ecosystem Management in the Albemarle–Pamlico Estuarine Study," *Coastal Management* 26 (1998): 191–212.
3. Laura Bowie, "10 Years of Building Partnerships for a Healthier Gulf," *Gulf of Mexico Alliance Newsletter* (June 10, 2014), accessed March 10, 2016, <http://www.gulfofmexicoalliance.org/2014/06/10-years-of-building-partnerships-for-a-healthier-gulf>.
4. San Juan Initiative, "Protecting Our Place for Nature and People" (December 2008), 5, accessed March 10, 2016, [http://sanjuanico.com/cdp/docs/CAO/SJI\\_Final\\_Report.pdf](http://sanjuanico.com/cdp/docs/CAO/SJI_Final_Report.pdf).
5. Governor Jeb Bush, "Letter to Governor Haley Barbour" (April 26, 2004), personal copy.
6. Tortugas 2000 Working Group, "Meeting Minutes" (May 1999), personal copy. See also Joanne M. Delaney, "Community Capacity Building in the Designation of the Tortugas Ecological Reserve," *Gulf and Caribbean Research* 14 (2003): 163–69; Benjamin Cowie-Haskell and Joanne M. Delaney, "Integrating Science into the Design of the Tortugas Ecological Reserve," *Marine Technology Society Journal* 37 (2003): 68–79.

## Chapter 9

1. See citations in chapter 1, note 2.
2. Roger Fisher, William Ury, and Bruce Patton, *Getting to YES: Negotiating Agreement without Giving In*, 2nd ed. (New York: Penguin Books, 1991); Lawrence Susskind, Sarah McKernan, and Jennifer Thomas-Larmer, *The Consensus Building Handbook: A Comprehensive Guide to Reaching Agreement* (Thousand Oaks, CA: Sage Publications, 1999.)
3. Morgan Gopnik, *From the Forest to the Sea: Public Land Management and Marine Spatial Planning* (New York: Routledge, 2014).
4. USDA-Forest Service, “Sierra Nevada Forest Plan Implementation,” accessed March 30, 2016, <http://www.fs.usda.gov/detail/r5/landmanagement/planning/?cid=stelprdb5349922>; USDA-Forest Service, “Northwest Forest Plan,” accessed March 30, 2016, [http://www.fs.usda.gov/detail/r6/landmanagement/planning/?cid=fsbdev2\\_026990](http://www.fs.usda.gov/detail/r6/landmanagement/planning/?cid=fsbdev2_026990).
5. Unless otherwise indicated, this quotation and all subsequent quotations in the chapter are taken from telephone interviews conducted with the named respondent by the authors or their research assistants, January 2009 to December 2010.
6. Steven L. Yaffee, “Collaborative Strategies for Managing Animal Migrations: Insights from the History of Ecosystem-Based Management,” *Environmental Law* 41 (2011): 655–79.
7. Testimony of Dante Fascell before the U.S. House Committee on Merchant Marine and Fisheries, May 10, 1990, reprinted in Hearing on HR 3719, To Establish the Florida Keys National Marine Sanctuary, Serial No. 101-94 (Washington: Government Printing Office, 1990), p. 6.
8. David Olinger, “Preserving the Keys: A Sanctuary within the Sea,” *St. Petersburg Times*, January 29, 1997.
9. Quoted in William Booth, “‘Zoning’ the Sea: New Plan for Florida Keys Arouses Storm,” *The Washington Post*, October 17, 1993, accessed August 24, 2016, [www.washingtonpost.com/archive/politics/1993/10/17/zoning-the-sea-new-plan-for-florida-keys-arouses-storm/ee55f0a0-ad00-413d-842d-ccb33f6befb1](http://www.washingtonpost.com/archive/politics/1993/10/17/zoning-the-sea-new-plan-for-florida-keys-arouses-storm/ee55f0a0-ad00-413d-842d-ccb33f6befb1).
10. Yaffee, “Collaborative Strategies for Managing Animal Migrations.”
11. See, e.g., Dale Goble, Michael J. Scott, and Frank W. Davis, eds., *The Endangered Species Act at Thirty: Renewing the Conservation Commitment* (Washington, DC: Island Press, 2006); C. M. Weible, “Caught in a Maelstrom: Implementing California Marine Protected Areas,” *Coastal Management* 36 (2008): 350–73; Steven L. Yaffee, *Prohibitive Policy: Implementing the Endangered Species Act* (Cambridge, MA: MIT Press, 1982).
12. Our prescription here is similar to Kai Lee’s compass and gyroscope analogy. See Kai N. Lee, *Compass and Gyroscope: Integrating Science and Politics for the Environment* (Washington, DC: Island Press, 1993).



## ABOUT THE AUTHORS

Julia M. Wondolleck is Associate Professor of Natural Resources at the University of Michigan. She is an expert in the theories and application of dispute resolution and collaborative planning processes, and is the author or co-author of three books: *Public Lands Conflict and Resolution: Managing National Forest Disputes* (Plenum, 1988), *Environmental Disputes: Community Involvement in Conflict Resolution* (Island Press, 1990), and *Making Collaboration Work: Lessons from Innovation in Natural Resource Management* (Island Press, 2000). Raised in the San Francisco Bay Area, she spent her youth sailing on the Bay and hiking in the Sierra. As a result, her research interests span both terrestrial and marine realms, most recently examining collaborative science in the NOAA National Estuarine Research Reserve System, contributions of Sanctuary Advisory Councils in the NOAA National Marine Sanctuary Program, and community engagement strategies for the NOAA Marine Protected Areas Center. She has an undergraduate degree in economics and environmental studies from the University of California, Davis, and a Master's and Ph.D. in environmental policy and planning from the Massachusetts Institute of Technology.

Steven L. Yaffee is Professor of Natural Resources and Environmental Policy at the University of Michigan. He has worked for more than forty years on federal endangered species, public lands and ecosystem management policy and is the author or co-author of four books: *Prohibitive Policy: Implementing the Federal Endangered Species Act* (MIT Press, 1982); *The Wisdom of the Spotted Owl: Policy Lessons for a New Century* (Island Press, 1994); *Ecosystem Management in the United States: An Assessment of Current Experience* (Island Press, 1996); and *Making Collaboration Work* (Island Press, 2000). A native of Washington D.C., he spent his youth hearing stories about public policy and politics while experiencing firsthand the loss of native habitat associated with urban sprawl; ultimately, that led to an interest in improving the process of decision making so that more environmentally sound decisions can be made. He has facilitated numerous collaborative processes across North America, and assisted a set of philanthropic foundations with ways to develop evaluation metrics for their conservation programs. He is currently working on a new book detailing the history and lessons of the California Marine Life Protection

Act marine protected areas designation process. Dr. Yaffee received his Ph.D. in environmental policy and planning from the Massachusetts Institute of Technology. His undergraduate and master's degrees are in natural resource management and policy from the University of Michigan. He has been a faculty member at the Kennedy School of Government at Harvard University, and a researcher at the Oak Ridge National Laboratory and the World Wildlife Fund.



## INDEX

- Figures are indicated by f.
- adaptive management, 3, 107, 222–223
- advice, for Marine Ecosystem-Based Management  
for funders, 223–227  
for policy makers, 227–231  
for practitioners, 218–223
- Airamé, Satie, 92–93, 203
- Alabama, 49, 51, 68, 188, 201
- Albemarle-Pamlico Estuary  
characteristics of, 100–101  
sea level rise in, 101, 113, 119  
stressors to, 101–102
- Albemarle-Pamlico National Estuary Program/Partnership (APNEP), 10f, 192, 202  
1994 management plan, 104–105  
2012 management plan revisions, 107
- action grants, 110
- Albemarle-Pamlico Conservation and Communities Collaborative (AP3C), 113
- Albemarle-Pamlico Estuarine Study (APES), 104, 116, 119  
Coastal Habitat Protection Plan, 113  
CCMPs for, 104–107, 123–124, 127  
creation of, 102  
ecosystem-based management approach, 107  
FerryMon Partnership, 116, 165  
funding for, 110–111  
funding and staffing constraints, 126–127  
jurisdictional issues in, 120  
management goals, 107  
niche, 130  
organizational issues in, 123–124  
participation in, 110–111  
science for, 115–117  
Science and Technical Advisory Committee, 105, 115, 188  
stakeholder opposition, 118–119  
Submerged Aquatic Vegetation Partnership, 112  
white papers, 117
- Alley, Jamie, 18–19, 21, 23, 36–37, 153–154
- Anderson, Laura, 136
- Andrews, Kacky, 48, 206
- APNEP. *See* Albemarle-Pamlico National Estuary Program/Partnership
- Association of Canadian Delegates to the Gulf of Maine Council, 173
- Auborn, Jim, 221
- Austin, Jane, 111, 122, 124–125
- Barbour, Haley, 46, 48, 201
- Barley, George, 231
- Bass, Phil, 199–201, 205  
on GOMA, 48–49, 55, 58, 61, 66, 69–71, 157
- Basta, Dan, 206
- Benguela Current Commission, 6
- Biscayne National Monument, 88
- Black, Diane, 85, 196
- Blanco, Kathleen, 46, 48, 201
- Borden, Tom, 126, 162
- Bowie, Laura, 73

- British Columbia, 18, 21, 29  
 ECC and, 16, 19, 31, 37  
 British Columbia-Washington Coastal  
 and Ocean Task Force, 31–33, 35  
 British Petroleum, 44–45, 227  
 Broadhurst, Ginny, 150, 167, 195,  
 201, 205  
 Brooks, Priscilla, 28, 192, 195, 197–  
 198  
 Bullitt Foundation, 152  
 Bush, George H. W., 81, 229  
 Bush, George W., 48–49, 66–67, 70,  
 217  
 Bush, Jeb, 44, 46–50, 66–67, 69–70,  
 201, 206
- California, 81–82, 85, 92–95, 226,  
 232. *See also* Channel Islands  
 National Marine Sanctuary  
 California Department of Fish and  
 Game, 84, 85, 94  
 California Fish and Game Commission,  
 84, 95  
 California Marine Life Protection Act,  
 7, 76, 215  
 Canada Oceans Act, 7, 207  
 Carpenter, Dean, 115, 117, 192  
 Carter, Jimmy, 81–82, 229  
 Cassano, Ed, 92, 206  
 Castille, Colleen, 48, 205–206  
 Causey, Billy, 1, 88  
 Caviness, Kim, 57, 64  
 CCMPs. *See* Comprehensive  
 Conservation and Management  
 Plans  
 Channel Islands Ecosystem  
 characteristics, 77  
 stressors in, 77–80  
 Channel Islands National Marine  
 Sanctuary, 10f, 76, 157, 191–192,  
 206. *See also* marine protected areas  
 ecosystem-based management of,  
 78, 84, 98  
 goals for, 158–159  
 history of, 77, 81–82  
 jurisdictional issues in, 83–85  
 Marine Reserves Working Group,  
 93–94, 202  
 leadership in, 81–82, 206, 230  
 oil spills in, 81  
 Sanctuary Advisory Council, 85,  
 89–95, 164–165, 176, 196, 203  
 workgroups for, 164–165  
 Channel Islands National Park, 81, 196  
 challenges in ecosystem-based  
 management, 34, 35, 36, 38–39,  
 116, 118–119, 120–122  
 side-of-the-desk problem, 34, 188,  
 223  
 competing initiatives 35, 227–231  
 political transitions, 35–36  
 funding, 38–39  
 overlapping jurisdictions, 67–72,  
 83–85, 86–87, 117–118, 120–122,  
 149, 170–171, 176–178, 233  
 relating science to management, 57,  
 116, 199–200  
 sustaining engagement, 118–119  
 conflicting agency missions, 120  
 Charter, Richard, 81–82  
 charters  
 for Channel Islands National Marine  
 Sanctuary, 176  
 GOMA constitution as, 175  
 Chiles, Lawton, 230  
 Chumash Indians, 77, 90  
 Clean Water Act, 20–21, 99, 103,  
 108–109, 120  
 Clinton, Bill, 216–217  
 Cobb, Leesa, 2, 136–138, 152, 162,  
 191, 193, 205, 221–222  
 advice by, 221–222  
 as leader, 2, 205  
 co-management agreements, 177–179  
 community outreach, 145–147, 150  
 community-based initiatives. *See also*  
 Port Orford Ocean Resource  
 Team; San Juan County Marine  
 Resources Committee  
 challenges for, 151–152

- community outreach for, 145–146
- creation of, 136–137
- credibility for, 140–146
- legitimacy for, 137–140
- MEBM and, 8–9, 131, 151–152
- MOUs for, 179–180
- partnerships for, 146–151
- Port Orford Community
  - Stewardship Area as, 141–143
  - San Juan County MRC as model for, 140
- Comprehensive Conservation and Management Plans (CCMPs)
  - for APNEP, 104–107, 123–124, 127
  - for NBEP, 105–109, 115, 127
  - for NEPs, 103–104, 108–109, 125
  - process for, 108–109
- Connaughton, James, 66–67
- constitutions. *See* charters
- contractors, 165, 170–171
- Cote, Mel, 25–27, 195, 198
- Cowan, Tom, 156, 183, 200–201
- Crowell, Bill, 112, 120, 130, 162, 192
  - on APNEP, 105, 107–108, 110–111, 123–124, 128, 202
- Dauphin Island Sea Lab, 174
- Davidson, Margaret, 58, 67–68, 70–71, 206
  - on funding, 47–48, 50
- Deacutis, Chris, 112, 116, 126–127, 171, 203, 206
- Deepwater Horizon well, 44–45
- Diers, Ted, 23, 33, 198
- Dohrmann, John, 21–22, 25–26, 30–31, 194
- Drew, Kathleen, 33, 37–38
- Eastern Scotian Shelf Integrated Management Initiative, 7, 154, 156, 190, 202, 207
- EBM. *See* Ecosystem-based Management
- ECC. *See* Environmental Cooperation Council
- Ecosystem-Based Management (EBM)
  - benefits, xi–xii
  - challenges, xi
  - history of, 216–218
  - incentives for, 220–221
  - leadership in, 229–231
  - life cycle of, 226
  - linkages for, 219–220
  - marine vs. terrestrial, xii, xv, 216–218, 232
  - policy for, 227–231
  - principles, xi
  - in POORT, 141, 143
  - research for, 225–226
  - stewardship areas compared to, 146
  - success for, 209, 231–233
- Ecotrust, 142, 147, 152, 165
- EEZs. *See* exclusive economic zones
- Endangered Species Act, 58, 84
- endowment funding, 227
- Enemark, Henning, 195
- Enemark, Jens, 156
- Environmental Cooperation Council (ECC), 16, 19, 31–33, 36–37, 171
- Environmental Defense Fund, 113, 152
- Environmental Protection Agency (EPA) role, 18, 218
  - in APNEP, 123
  - in Florida Keys National Marine Sanctuary, 86
  - in GMP, 44–47, 49–50, 69
  - in GOMA, 44–47, 49–50, 55, 61, 64, 66, 69–71, 73
  - in GOMC, 24
  - in MRCs, 135
  - in NBEP, 103, 120–121, 124–126
  - in NEPs, 99–100, 125–126
- exclusive economic zones (EEZs), 20
- Fagergren, Duane, 154, 167, 190
- Fascell, Dante, 81–82, 229–230
- Federal Workgroup. *See* workgroups
- Florida, 67–68, 71, 76, 78–83

- Florida Department of Environmental Protection, 86, 174
- Florida Fish and Wildlife Conservation Commission, 86–87, 97
- Florida Keys Ecosystem  
 characteristics of, 78  
 economic importance of, 79  
 fisheries, 78–79  
 ship-groundings in, 80  
 stressors in, 79–80
- Florida Keys National Marine Sanctuary, 10f, 76, 191, 200, 202.  
*See also* marine protected areas (MPAs)  
 co-management with Florida, 83, 86, 177–179  
 Co-Trustees Agreement for Cooperative Management, 86, 177–179  
 Dry Tortugas, 96  
 ecosystem-based management of, 82–83, 98  
 Florida Keys National Marine Sanctuary and Preservation Act, 81, 89  
 history of, 81–82  
 jurisdictional issues in, 86–87  
 leadership in, 81–82, 229–231  
 no-take zones in, 95–98  
 opposition to, 87–88  
 Sanctuary Advisory Council, 88–90, 96–97, 166, 199
- Ford Family Foundation, 152
- foundations, 173, 224–227
- Fromjeser, Kristin, 191
- funding  
 for APNEP, 110–111, 126–127  
 Davidson on, 47–48, 50  
 endowment funding, 227  
 foundations for, 224–227  
 for GMP, 47–49  
 for GOMA, 54, 60, 67–68, 227  
 for GOMC, 39, 173  
 for MEBM, 172–173, 218, 223–227  
 for NBEF, 109–111, 124–127  
 for NEPs, 109–114  
 for Northwest Straits, 213  
 for POORT, 147, 149  
 for PSGB Task Force, 38–39  
 research and, 225–226  
 seed funding, 224
- Galapagos Marine Reserve, Ecuador, 7
- Galipeau, Russell, 196
- Gardner, Booth, 18–19
- GMP. *See* Gulf of Mexico Program
- Golden, Jim, 147–148
- GOMA. *See* Gulf of Mexico Alliance
- GOMC. *See* Gulf of Maine Council
- Goodwin, Brianna, 145–146
- governance (*Bricks*) of Marine Ecosystem-Based Management, 153–155  
 authorities, 155–157  
 co-management agreements, 177–178  
 constitutions and charters, 175–176  
 core functions, 159–160  
 decision criteria, 183  
 funding mechanisms, 172–173  
 independent scientific reviews, 171–172  
 intergovernmental cooperative agreements, 176–179  
 leaders, 160–163  
 management and coordination, 162–165  
 memoranda of understanding, 179–181  
 mission statements, 157–159  
 organizational structures, 159–161, 166–167, 168–169  
 partnerships, 173–174  
 protocols, 181–183  
 science integration, 167–171  
 standing advisory councils, 166–167  
 volunteer programs, 174–175
- Graham, Bob, 81
- Great Barrier Reef Marine Park Authority, 7

- Great Lakes, 4, 8, 34, 45, 48, 77
- Griffiths, Brian, 48, 50, 69–70
- Gulf of Maine Association, 173
- Gulf of Maine Council on the Marine Environment (GOMC), 1, 10f, 13, 154, 192–193, 194, 195, 197–199, 203, 210. *See also* institutionalization, of transboundary initiatives
- authority for, 155–156
- common action plan for, 29–30
- contractors for, 165
- data systems for, 23–24, 172
- federal agency engagement, 17–18
- funding for, 33–34, 39, 173
- history of, 14–18
- incentives for participation, 28–29, 33–34, 195, 197–199, 221
- initiative-specific foundations for, 173
- intergovernmental agreement, 177–178
- jurisdiction issues for, 176–178
- leadership in, 40–41, 205–206, 229
- membership of, 17
- organization of, 34–35, 159–160, 161f, 163–164
- purpose for, 31–33
- science translation for, 170–171
- as transboundary initiative, 6, 13, 15, 19–27
- volunteers and, 24, 29, 174
- workgroups for, 164
- Gulf of Maine Ecosystem
- characteristics of, 15
- stressors in, 14
- transboundary conflicts in, 17, 21–22
- Gulf of Mexico Alliance (GOMA), 10f, 157, 172, 195, 201, 205, 220
- accountability in, 60–62
- adaptive approach, 60–61, 189
- all hands meetings, 188
- authority and, 52, 64–66
- British Petroleum and, 44–45, 227
- Bush, G. W., and, 48–49, 66–67, 70, 217
- Bush, Jeb, and, 44, 46–50, 66–67, 69–70, 201, 206
- Constitution for, 175
- creation of, 43–51
- data systems for, 63–65, 172
- Federal Workgroup with, 56, 67, 70, 167
- funding for, 54, 60, 67–68, 69–70, 227
- goals for, 51–52, 62, 73
- incentives for state involvement, 49–50
- jurisdiction issues for, 67–72
- leadership in, 205–206, 229–231
- NOAA's role in, 66, 70–71, 73
- organizational structure of, 52–57, 53f, 161–164, 169
- Alliance Coordination Teams, 54–55, 164
- Alliance Management Team, 53–55, 61, 63, 70–71, 162–163
- Federal Role, 55–56, 69–71
- Priority Issue Teams, 54, 164, 203–204
- participation, federal with, 55–56, 69–72
- political commitment for, 65–67
- priority issues for, 51–52, 69
- relationship to fisheries management, 58–59
- science committees for, 169
- scientist-manager interaction, 57, 199–200
- Gulf of Mexico Ecosystem
- characteristics of, 43–44
- hypoxia in, 44, 64
- Deepwater Horizon oil spill, 45
- economic importance of, 43–44
- stressors in, 44
- Gulf of Mexico Fishery Management Council, 97, 220
- Gulf of Mexico Program (GMP), 10f

- accomplishments of, 45
- EPA role, 44–47, 49–50, 69
- formation of, 45
- funding for, 47–49
- objective of, 45
- Harcourt, Mike, 18–19
- Harte Research Institute, 174
- Hastings, Sean, 78, 85, 91, 206
- Herbert, Glen, 154, 156, 202, 207
- Hewlett, William and Flora,
  - Foundation, 224
- Hunt, Jim, 123
- hypoxic conditions, 64, 112
- Iarocci, Tony, 97–98
- implementation strategies for Marine
  - Ecosystem-Based Management
    - action plans, 29–30, 59–61, 62, 66, 104–110
    - capacity-building, 99, 109–110, 127–128
    - common ecosystem identity, 28–29, 73, 117–118, 136–137
    - context specific action, 210–211
    - enabling vs. mandating processes, 25, 31–32, 100, 109–110, 111, 128–129, 152
    - new forums and networks, 25–27, 52–57, 65, 68–69, 104–106, 107, 129–130, 167, 212–214
    - partnerships, 111–114, 116, 127, 135, 146–149
    - scientific and technical assessments, 19, 104, 114, 140–141, 143
    - shared issues focus, 31, 51–52, 58–59
    - shared data systems and indicators, 22–25, 62–65, 172, 214–216
      - Ecosystem Indicator Partnership (ESIP), 24
      - Gulf Coast Ocean Observing System, 63, 172
      - Gulf of Maine Mapping Initiative (GOMMI), 23, 172, 198
      - Gulf of Maine Ocean Observing System (GoMOOS), 23, 172
      - Gulfwatch, 24
      - Narragansett Bay Estuary Program *Currents of Change*, 114–115
      - Narragansett Bay Data System, 171
    - stakeholder engagement, 104–105, 113, 132, 133, 140
    - standing advisory bodies, 88–95, 105, 110, 166–167
    - targets and deadlines, 57
  - incentives
    - in Channel Islands National Marine Sanctuary, 92–93, 196
    - for EBM, 220–221
    - in GOMA, 68–69, 195, 199–200, 221
    - in GOMC, 28–29, 33–34, 195, 197–199, 221
    - for MEBM, 79–80, 194–200
    - in MRCs, 195
    - in NBEP, 199
    - in NEPs, 100, 109–114, 221
    - in NMSs, 221
    - for nonregulatory initiatives, 99
    - ownership as, 221
    - in PSGB Task Force, 29–30
    - responsibility as, 195–196
    - for SACs, 199
    - in San Juan County MRC, 195–196
    - in Wadden Sea Cooperation, 195–196, 200
  - intangible enabling factors (*Mortar*)
    - in Marine Ecosystem-Based Management, 187–189
    - adaptability, 189–190
    - commitment, 205–207, 214
    - compelling process, 196–199
    - credibility, 201–203
    - individual motivations, 189–192
    - patience and civility, 190–192
    - ownership, 200–201
    - relationships, 192–194

- sense of place, 194–195  
 sense of purpose, 195–196  
 shared identity, 195  
 trust, 188  
 well-managed process, 196–197,  
 203–205
- John Pennekamp Coral Reef State  
 Park, 80
- Johnson, Jimmy, 113, 119, 126–127
- joint action plans. *See* common action  
 plans
- Jones, Doug, 88
- de Jong, Folkert, 170, 196, 200
- jurisdictional issues  
 in APNEP, 120  
 in Channel Islands National Marine  
 Sanctuary, 83–85  
 in Florida Keys National Marine  
 Sanctuary, 86–87  
 in GOMA, 67–72  
 in GOMC, 176–178  
 in MEBM, 67, 176–177, 233  
 in MPAs, 82–87, 98  
 in NBEP, 117–118, 120–122  
 in NEPs, 122–123  
 in POORT, 149
- Keeley, David, 1, 16–18, 30, 34, 39–  
 40, 154, 194, 197, 203, 205
- Keller, Brian, 200
- Kerr, Meg, 203
- Key Largo National Marine Sanctuary,  
 80
- Klinger, Terrie, 134, 139, 154
- Knudson, John, 88
- Kulongoski, Ted, 138, 147
- land-based ecosystem-based  
 management, 216–218, 232
- Landrieu, Mary, 50
- Laney, Wilson, 105, 128, 188
- Laurie, Tom, 22, 31, 171
- leadership  
 Bush, J., as, 201, 206  
 in Channel Islands National Marine  
 Sanctuary, 81–82, 206, 230  
 Cobb as, 2, 205  
 for EBM, 229–231  
 by Florida, 44, 46–51, 162, 174,  
 200–202  
 in Florida Keys National Marine  
 Sanctuary, 81–82, 229–231  
 in GOMA, 205–206, 229–231  
 in GOMC, 40–41, 205–206, 229  
 Keeley as, 16–18, 205  
 in MEBM, 205–207  
 for MPAs, 81–82  
 in NBEP, 206–207, 230  
 in Northwest Straits, 205  
 in POORT, 205  
 in PSGB Task Force, 206–207, 209  
 Ribb discussing, 207  
 Sochasky discussing, 206
- linkages, 214  
 for EBM, 219–220  
 in GOMA, 219–220  
 in GOMC, 212, 219  
 for MEBM, 165–166  
 in MRCs, 213  
 in POORT, 212–213  
 in San Juan County MRC, 220
- Longton, Aaron, 132, 133, 139, 145–  
 147, 151
- Louisiana, 44, 46, 49–51, 68, 174
- Louisiana Coastal Protection and  
 Restoration Authority, 174
- Lowry, Mike, 134–135
- Mafia Island Marine Park, Tanzania, 7
- Magnuson-Stevens Act, 95
- Marine Ecosystem-Based Management  
 (MEBM). *See also* challenges, in  
 Marine Ecosystem-Based Man-  
 agement; governance of Marine  
 Ecosystem-Based Management;  
 implementation strategies for  
 Marine Ecosystem-Based Manage-  
 ment; intangible enabling factors  
 of Marine Ecosystem-Based Man-



- agement; observations, for Marine Ecosystem-Based Management
- adaptive management for, 3, 222–223
- advice, for policy makers, 227–231
- advice, for practitioners, 218–223
- bricks and mortar for, 9, 153–155, 183–189, 207–208
- communication for, 153–155, 218–219
- community-based initiatives, 8–9, 131, 151–152
- consensus statement, 4
- data sets for, 226–227
- definitions for, 3–4
- EBM compared to, 216–218
- funding for, 172–173, 218, 223–227
- goals for, 12
- incentives for, 79–80
- institutionalization of transboundary initiatives for, 27–28
- jurisdiction issues for, 67, 176–177, 233
- land-based EBM compared to, 216–218
- management initiatives for, 7
- mandates for, 4, 227–228
- MPAs for, 75
- multistate initiatives, 43, 49–57, 64–65, 73–74
- nonregulatory initiatives, 8, 99–100, 103–109, 128–130
- policy for, 3–5
- for PSGB Task Force, 40–41
- questions for, 2–3
- regulatory initiatives, 7, 75–76
- science for, 167–168, 170–171, 214–216
- stakeholders and, 87–91, 98, 166–167
- standing advisory councils for, 166–167
- stewardship areas compared to, 146
- transboundary initiatives, 6, 13–14, 16
- types of, 6–9
- variations among, xiii–xiv
- Marine Mammal Protection Act, 84
- MarineMap, 215
- marine protected areas (MPAs), 75, 78, 95
- bottom-up approaches in, 91–98
- California Marine Life Protection Act for, 76
- Channel Islands National Marine Sanctuary as, 78, 93–95
- credibility for, 202
- establishment of, 79–83, 98
- Florida Keys National Marine Sanctuary as, 95–98
- jurisdiction issues for, 82–87, 98
- leadership for, 81–82
- mandates for, 75
- science for, 215
- stakeholders and, 87–91
- top-down approaches in, 91–98
- Marine Resources Committees (MRCs). *See also* San Juan County Marine Resource Committee
- challenges for, 152
- incentives for, 195
- linkages for, 213
- volunteers for, 136, 174–175
- Martin, James G., 123
- McCarron, Ellen, 71–72, 189
- McKenna, Dick, 90–91, 191–192
- McKernan, John R., 17
- McKinney, Larry, 46, 56, 60–61, 63, 67, 188, 204–205
- MEBM. *See* Marine Ecosystem-Based Management
- memoranda of understanding (MOUs)
- for community-based initiatives, 179–180
- for cooperation, 179–181
- for POORT, 179–181
- metrics. *See* data sets
- mission statements
- for NBEP, 158
- for POORT, 157–158

- Mississippi, 49, 51, 53, 61, 64–65, 68, 201
- Mississippi Department of Environmental Quality, 174
- Monroe County, Florida, 76, 83, 86, 87, 88
- Moore, Gordon and Betty, Foundation, 224
- Morton, Sean, 82–83, 87, 90, 166, 191
- motivation. *See* incentives
- MOUs. *See* memoranda of understanding
- MPAs. *See* marine protected areas
- MRCs. *See* Marine Resources Committees
- multistate partnerships, 43, 49–57, 64–65, 73–74
- Murphy, Mike, 136–137, 140, 146, 148–149, 179, 191, 222
- Murray, Patty, 205
- Narragansett Bay Estuary Program (NBEP), 10f, 103, 171, 189, 206, 228
- 1994 management plan, 105–106
- 2012 plan revisions, 107–108
- action grants, 110
- challenges for, 122, 124–125, 128–130
- Comprehensive Conservation and Management Plan, 105–109, 115, 121–122, 127, 183
- Currents of Change*, 121–122
- ecosystem-based management practices, 107
- EPA role, 103, 120–121, 124–126
- funding for, 109–111, 124–127
- history of, 100, 102–103
- jurisdictional issues for, 117–118, 120–122
- leadership in, 206–207, 230
- management goals, 107
- mission statement for, 158
- Narragansett Bay Journal, 118
- organizational challenges for, 124–126
- Rhode Island Bays, Rivers, and Watersheds Coordination Team (BRWCT), 121–122
- Rhode Island Land and Water Partnership (RILWP), 127–128
- science for, 114–116, 118, 215
- science advisory committees, 168–169
- science translation for, 171
- volunteers for, 112, 127–128
- Narragansett Bay Watershed
- characteristics of, 102
- climate change impacts in, 102
- hypoxia in, 112
- monitoring of, 116
- stressors in, 102–103, 106
- National Audubon Society, 101
- National Estuary Programs (NEPs). *See also* Albemarle-Pamlico National Estuary Program/Partnership; Narragansett Bay Estuary Program
- CCMPs for, 103–104, 108–109, 125
- challenges for, 128–130
- EPA role, 99–100, 125–126
- funding for, 109–114
- incentives for, 100, 109–114, 221
- jurisdiction issues for, 122–123
- mandates for, 119–122
- as nonregulatory initiatives, 99–100
- opposition to, 117–122
- organizational issues for, 122–128
- participation in, 110–111
- partnerships for, 111–114
- process for, 108–109
- programs for, 109–110
- science for, 114–117
- stakeholders in, 100, 117
- National Fish and Wildlife Foundation, 152
- National Marine Fisheries Service, 84
- national marine sanctuaries (NMSs)
- authority for, 156
- bottom-up approaches in, 75–76

- Channel Islands National Marine Sanctuary as, 76
- Florida Keys National Marine Sanctuary as, 1, 76
- incentives for, 221
- top-down approaches and, 75–76
- workgroups for, 164–165
- National Marine Sanctuaries Act (NMSA)
  - for Channel Islands National Marine Sanctuary, 77, 95
  - creation of, 81
  - for Florida Keys National Marine Sanctuary, 77
  - mandates by, 78, 95
  - NOAA role, 76–77
- National Oceanic and Atmospheric Administration (NOAA)
  - for Channel Islands National Marine Sanctuary, 77, 84, 93
  - co-management agreement for, 177–179
  - data sets for, 172
  - in Florida Keys National Marine Sanctuary, 86–88, 96–97
  - GOMA partnership with, 47, 54–55, 61, 66, 70–71, 73
  - GOMC partnership with, 34
  - NMSA with, 76–77
  - for Northwest Straits, 152–153
  - for SACs, 91
  - San Juan County MRC and, 134–135
- NBEP. *See* Narragansett Bay Estuary Program
- NEPs. *See* National Estuary Programs
- networking, 62–65, 193
- NMSA. *See* National Marine Sanctuaries Act
- NMSs. *See* national marine sanctuaries
- NOAA. *See* National Oceanic and Atmospheric Administration
- National Park Service, 84, 85
- New England Interstate Water Pollution Control Commission, 125
- non-profits, 137–139
- nonregulatory initiatives
  - challenges for, 128–130
  - incentives for, 99
  - NEPs as, 99–100
  - top-down approaches in, 99–100
- North Carolina Coastal Federation, 112
- North Carolina Department of Environment and Natural Resources, 112, 120, 123
- North Carolina Department of Transportation, 112
- North Carolina Wildlife Resources Commission, 112
- Northeast and Mid-Atlantic Regional Ocean Councils, 7, 215
- Northwest Straits Commission, 8, 167, 168, 183, 190, 195, 213
- Northwest Straits Foundation, 173
- Northwest Straits Marine Conservation Initiative, 140, 154, 156, 173, 174–175, 184, 200–201, 205
- no-take zones, 76, 95–98, 202
- Obama, Barack, 4, 217
- observations, for Marine Ecosystem-Based Management
  - context, importance of, 210–212
  - linkages, importance of, 212–214
  - people, importance of, 214, 223
  - science, importance of, 214–216
- Ocean Action Plan, U.S., 36, 49, 66, 70
- oil spills, 44–45, 81, 227
- Oregon, 9, 131–133, 140–141, 143, 147–149, 156, 210–211, 213. *See also* Port Orford Ocean Resource Team
- Oregon Department of Fish and Wildlife, 138–139, 180–181
- Oregon Department of Land Conservation and Development, 149
- Oregon Ocean Policy Advisory Council, 147–148

- Pacific Fishery Management Council, 84, 95
- Pacific North Coast Integrated Management Area Initiative, 181–183
- Packard, David and Lucile, Foundation, xv, 152, 223, 224
- partnerships. *See also* Albemarle-Pamlico National Estuary Program/Partnership (APNEP)
- for Channel Islands National Marine Sanctuary, 83
  - for community-based initiatives, 146–151
  - for Florida Keys National Marine Sanctuary, 83
  - for GMP, 43, 49–57, 64–65, 73–74
  - for GOMA, 173–174
  - for GOMC, 34
  - for MEBM, 173–174
  - multistate, 43, 49–57, 64–65, 73–74
  - for NBEP, 112
  - for NEPs, 111–114
  - for NOAA, 34, 47, 54–55, 61, 66, 70–71, 73
  - for POORT, 147–149, 165
- people skills
- in GOMA, 189
  - for MEBM initiatives, 189–190, 214
  - in NBEP, 189–190
- Perdue, Beverly, 107
- Perry, Rick, 46, 48, 201
- Pew Oceans Commission, 4
- Pickett, Matt, 84, 92
- Plybon, Charlie, 138–139, 142–143, 146, 193
- politics
- in APNEP, 118–119
  - in GOMA, 65–67
  - in GOMC, 20–21
  - in NOAA, 218
  - in PSGB Task Force, 21–22
  - in transboundary initiatives, 20–22, 27
  - in Washington, 18, 30, 143
- pollution
- in Albemarle-Pamlico Estuary, 101–102, 129
  - in Channel Islands National Marine Sanctuary, 77–78
  - Clean Water Act regulation of, 20–21, 99, 103, 108–109, 120
  - data sets for, 23–25
  - in Florida Keys National Marine Sanctuary, 79
  - issue for GMP, 44–45, 50–51, 58, 62
  - issue for GOMA, 44–45, 50–51, 58, 62
  - issue for GOMC, 14
  - in Mississippi, 51, 201
  - issue for NBEP, 102–103, 106, 129
  - issue for POORT, 132–133, 149
  - in PSGB, 15
- POORT. *See* Port Orford Ocean Resource Team
- Popham, Bruce, 199
- Port Orford Ocean Resource Team (POORT), 2, 10f, 191, 193, 211, 221, 222
- 501(c)(3) non-profit status, 137–138
- awards, 2
- City Council endorsement, 138
- challenges for, 151–152
- collaboration with scientists, 140–141
- community advisory team, 137, 149
- Community Fisheries Network, 152
- community outreach by, 145–147
- Community Stewardship Area, 139, 141, 142–143, 147, 148
- ecosystem-based management approach, 141–143, 182
- Ecotrust assistance, 142, 147, 152
- funding for, 136, 138, 147, 149
- goals, 158
- Golden Marine Consulting assistance, 147
- history of, 132–133, 136–137
- land-sea connection workshops, 139

- Leesa Cobb, leadership of, 133, 136  
 mission of, 133, 157–158  
 MOU with Oregon Department of Fish and Wildlife, 138–139, 180–181  
 MOU with Port Orford City Council, 149  
 organization of, 159, 161f  
 Port Orford Stormwater Ordinance, 145–146, 148–149  
 Redfish Rocks Marine Reserve, 140–141, 147–148  
 Surfrider Foundation support of, 138, 142, 146, 149, 152  
 principles for, 181–183  
 science for, 140–143  
 West Coast EBM Network support of, 152
- Pratt, Lovell, 187–188  
 priority issue teams. *See* Gulf of Mexico Alliance
- Pryor, Margherita, 106, 109, 121, 129–130, 230
- Puerto Penasco, Mexico, 9
- Puget Sound Georgia Basin Ecosystem characteristics, 15  
 stressors in, 15  
 transboundary conflicts in, 18, 20–21
- Puget Sound Georgia Basin International Task Force (PSGB Task Force), 10f, 13, 153–154, 194, 206.  
 common action plan for, 30  
 continuity in, 30–31  
 data sets for, 23–25  
 ECC and, 16, 32–33, 36–37  
 funding challenges, 38–39  
 history of, 15–16, 18–19  
 leadership in, 206–207, 209  
 Marine Science Panel, 19, 171  
 membership, 19  
 organization of, 35–38  
 purpose for, 31–33  
 sanctioning of, 19  
 as transboundary initiative, 6, 13, 19–27
- Puget Sound Partnership, 8, 152, 220
- Reagan, Ronald, 128  
 regional initiatives, 6–7  
 regulatory initiatives, 7
- Revella, Steve, 135–136
- Rhode Island Department of Environmental Management, 105, 124
- Rhode Island Foundation, 112
- Ribb, Richard, 106, 108–111, 117–118, 120, 122, 189, 199, 207, 228
- Riley, Bob, 46, 48, 201
- Ruckelshaus, Bill, 195–196
- Rylko, Michael, 22, 24–25, 35, 37–38
- Salish Sea, 135, 140
- Salish Sea Ecosystem Conference, 33
- San Juan County, Washington ecosystem characteristics, 134  
 ecosystem stressors, 143  
 national marine sanctuary proposal, 134–135
- San Juan County Marine Resources Committee (San Juan County MRC), 10f. *See also* Marine Resources Committees  
 accomplishments of, 135–136  
 advisory status of, 139–140  
 authority for, 139–140, 149–151  
 challenges for, 151–152  
 community outreach by, 145, 150  
 history of, 134–136, 135–137, 139  
 incentives for, 195–196  
 independent scientific and technical reviews for, 144, 171–172  
 Marine Managers Workshop, 145, 167  
 marine stewardship area for, 143, 149–151, 165  
 mission of, 135, 140  
 in Northwest Straits, 134, 140, 152

- partnerships, 135
- San Juan County Marine
  - Stewardship Area Plan, 143–145
  - TNC partnership, 144
  - voluntary approach, 150–151
- sanctuary advisory councils (SACs)
  - authority of, 90–91
  - bottom-up approaches in, 91–92
  - for Channel Islands National Marine Sanctuary, 85, 88–95, 98
  - for Florida Keys National Marine Sanctuary, 88–91, 96–98
  - incentives for, 199
  - stakeholders and, 90
- science
  - in APNEP, 115–117
  - committees for, 168–170
  - in GOMA, 169
  - in GOMC, 170–171
  - in MEBM, 167–168, 170–171, 214–216
  - in MPAs, 215
  - in NBEP, 114–116, 118, 171, 215
  - in NEPs, 114–117
  - in POORT, 140–143
  - in PSGB Task Force, 168
  - in San Juan County MRC, 143–144
  - for stakeholders, 215
  - translation for, 170–171
  - in Wadden Sea Cooperation, 169–170
- seed funding, 224
- ship groundings, 80
- Slocomb, Jim, 137, 194
- Smith, Bruce, 190
- Sochasky, Lee, 20, 23, 26–27, 157, 192–193, 197–199, 206
- stakeholders
  - for APNEP, 104, 116–119
  - in Channel Islands National Marine Sanctuary, 92–95
  - in Florida Keys National Marine Sanctuary, 87–88
  - MEBM and, 87–91, 98, 166–167
  - MPAs and, 87–91
  - for NBEP, 105, 124
  - in NEPs, 100, 117
  - SACs and, 90
- standing advisory councils, 166–167
- State Department, U.S., 1, 17–18
- Steele, Bruce, 93, 202
- stewardship areas
  - EBM compared to, 146
  - Port Orford Community Stewardship Area as, 141–143
  - San Juan County Marine Stewardship Area as, 143–145, 165
- Surfrider Foundation, 138, 142, 146, 149, 152, 165, 193
- Swann, LaDon, 195
- Taylor, Peter, 170–171
- terrestrial management. *See* land-based ecosystem-based management
- Texas, 49–51, 53, 67–68
- The Nature Conservancy, 112, 113, 140, 152, 165
- top-down approaches. *See also* National Estuary Programs; nonregulatory initiatives
  - bottom-up approaches compared to, 151
  - in California, 4, 7, 76–77
  - in GMP, 44–47, 49–50
  - in GOMA, 55, 67
  - in MPAs, 91–98
  - NMSs and, 75–76
  - in nonregulatory initiatives, 99–100
  - opposition to, 148, 200
  - for PSGB Task Force, 18–19, 31
  - for regulatory initiatives, 7
- Townsend, Chris, 33, 35, 39
- transboundary initiatives.
  - challenges for, 13–14
  - common action plans for, 29–30
  - communication in, 25–27, 35
  - continuity for, 30–31
  - data sets for, 22–25
  - for GOMC, 6, 13, 15, 19–27

- for MEBM, 6, 13–14, 16, 27–28
  - politics in, 20–22, 27
  - PSGB Task Force as, 6, 13, 19–27
  - role of shared ecosystem identity in, 29–33
- Tremblay, Michelle, 163–164, 197, 205
- Trilateral Cooperation on the
  - Protection of the Wadden Sea, 6, 170, 195, 196, 200
- Union Oil Company, 81
- U.S. National Ocean Policy, 8
- U.S. Coast Guard, 84, 85, 86
- U.S. Environmental Protection Agency,
  - 84, 86, 99, 104, 105, 120, 125, 126, 149
- U.S. Fish and Wildlife Service, 84
- Verheij, Herman, 156, 190–191
- voluntary initiatives. *See* nonregulatory initiatives
- volunteers
  - for Channel Islands National Marine Sanctuary, 85, 93
  - GOMC and, 24, 29, 174
  - for MEBM, 174–175
  - for MRCs, 136, 174–175
  - for NBEP, 112, 127–128
- Wadden Sea Cooperation, 6, 156, 166–168, 190–191
  - incentives for, 195–196, 200
  - science committees for, 169–170
- Warner, Robert, 93–94, 203
- Washington, 21–22, 36, 131–132, 196. *See also* San Juan County Marine Resources Committee (San Juan County MRC)
  - ECC and, 16, 19
  - organizational structures in, 31–33, 37
  - politics in, 18, 30, 143
- West Coast EBM Network, 152, 225
- West Coast Governors Alliance on Ocean Health, 7
- White, Jonathan, 144–145, 150–151
- Windrope, Amy, 187
- Wolfe, Steve, 55, 59, 74, 230–231
- workgroups
  - for Channel Islands National Marine Sanctuary, 164–165
  - federal, for GOMA, 56, 67, 70, 167
  - for GOMC, 164
  - for NMSs, 164–165



# Island Press | Board of Directors

**Katie Dolan**

*(Chair)*

Environmental Writer

**Merloyd Ludington Lawrence**

*(Secretary)*

Merloyd Lawrence, Inc.  
and Perseus Books

**Pamela B. Murphy**

*(Vice-Chair)*

**Anthony Everett**

*(Treasurer)*

---

**Decker Anstrom**

Board of Directors  
Discovery Communications

**Lisa A. Hook**

President and CEO  
Neustar Inc.

**Stephen Badger**

Board Member  
Mars, Inc.

**David Miller**

President  
Island Press

**Terry Gamble Boyer**

Author

**Alison Sant**

Cofounder and Partner  
Studio for Urban Projects

**Paula A. Daniels**

Founder  
LA Food Policy Council

**Ron Sims**

Former Deputy Secretary  
US Department of Housing  
and Urban Development

**Melissa Shackleton Dann**

Managing Director  
Endurance Consulting

**Sarah Slusser**

Principal  
emPower Partners, LLC

**Margot Paul Ernst**

**Alison Greenberg**

Programme Officer  
International Union  
for the Conservation  
of Nature

**Deborah Wiley**

Chair  
Wiley Foundation, Inc.



# About Island Press

Since 1984, the nonprofit organization Island Press has been stimulating, shaping, and communicating ideas that are essential for solving environmental problems worldwide. With more than 1,000 titles in print and some 30 new releases each year, we are the nation's leading publisher on environmental issues. We identify innovative thinkers and emerging trends in the environmental field. We work with world-renowned experts and authors to develop cross-disciplinary solutions to environmental challenges.

Island Press designs and executes educational campaigns in conjunction with our authors to communicate their critical messages in print, in person, and online using the latest technologies, innovative programs, and the media. Our goal is to reach targeted audiences—scientists, policymakers, environmental advocates, urban planners, the media, and concerned citizens—with information that can be used to create the framework for long-term ecological health and human well-being.

Island Press gratefully acknowledges major support of our work by The Agua Fund, The Andrew W. Mellon Foundation, The Bobolink Foundation, The Curtis and Edith Munson Foundation, Forrest C. and Frances H. Lattner Foundation, The JPB Foundation, The Kresge Foundation, The Oram Foundation, Inc., The Overbrook Foundation, The S.D. Bechtel, Jr. Foundation, The Summit Charitable Foundation, Inc., and many other generous supporters.

The opinions expressed in this book are those of the author(s) and do not necessarily reflect the views of our supporters.



*Marine Ecosystem-Based Management in Practice* offers new insights for collaborative approaches in marine conservation management. Drawing from ten keystone case studies, Wondolleck and Yaffee offer carefully researched, practical advice along with five different pathways for collaborating successfully from community to multinational levels.

### **Advance praise for *Marine Ecosystem-Based Management in Practice***

“Ecosystem-based approaches to management are about governance, people, and the social fabric in which they exist. The authors have superbly captured the essential approaches to ecosystem-based management in marine environments. Clear, concise, practical examples make this book an excellent reference for anyone involved in marine conservation management.”

—**BILLY D. CAUSEY**, Southeast Regional Director, NOAA, Office of National Marine Sanctuaries

“Wondolleck and Yaffee bring a practiced eye, honed on the study of terrestrial ecosystem-based management and collaborative approaches to conservation, to the analysis of marine ecosystem-based management. Built around a core set of case studies, the book demonstrates that such an approach can achieve meaningful, durable conservation benefitting ecosystems and people.”

—**BARRY D. GOLD**, Director, Environment Program, Walton Family Foundation

“This thoughtful analysis of marine ecosystem-based management offers what this field has been missing: confidence that MEBM can work, and practical guidance for scientists, practitioners, and policy wonks. The good news is that there is more than one way to successfully manage coastal systems. The fundamental element of success is people: leaders committed to working together and building the trust and common understanding to get things done.”

—**MARY RUCKELSHAUS**, Director, The Natural Capital Project

**JULIA M. WONDOLLECK** is Associate Professor of Natural Resources at the University of Michigan. **STEVEN L. YAFFEE** is Professor of Natural Resources and Environmental Policy at the University of Michigan.

Cover Design: Bruce Gore, Gore Studios  
Cover photo: *Garibaldi fish in giant kelp underwater*,  
by James Forte, National Geographic Collection,  
courtesy of Getty Images.



Washington | Covelo | London  
[www.islandpress.org](http://www.islandpress.org)

All Island Press books are printed on recycled, acid-free paper.