

The Marine Ecoregions of North America
Ed Wiken, CCEA Past Chair / Fellow, Canadian Plains Research Center

The Canadian Council on Ecological Areas (CCEA) has encouraged agencies and jurisdictions to develop a comprehensive system of protected areas. Importantly as well, the organization encouraged partners to improve the knowledge about what types of ecosystems and habitats the country possesses. An understanding of the ecological baseline has been fundamental in assessing the types of achievements that have been made in protecting representative ecosystems, in managing natural systems in an ecological manner and in efforts concerning how to retain ecological integrity. As contributions to ecological baseline knowledge, the CCEA: introduced the first combined Terrestrial and Marine Ecosystem classification in 1996; assisted many provincial/territorial/federal agencies in producing ecological classifications and assessments; and helped to coordinate the Commission on Environmental Cooperation's (CEC's) efforts to produce the Terrestrial Ecological Region report and maps for North America.

Marine Ecoregions of North America, a new report and set of maps produced through cooperative ventures sponsored by the Commission on Environmental Cooperation (www.cec.org), has built upon the vast body of previous efforts and literature. The initiative has attempted to depict natural and ecosystem based units for the continent's coastal and marine areas. The mapping and descriptions of marine ecosystems units represents a developing consensus on the marine ecoregions framework. American, Canadian, and Mexican ecologists, planners, geographers, and managers from governments (i.e. federal, state, provincial, territorial), universities, and environmental non-government organizations have contributed to this consensus. The resulting products (i.e. marine ecoregions report and maps) provide an improved basis on which to understand and care for what this continent holds in terms of marine biodiversity. The CCEA and Wildlife Habitat Canada have coordinated many of the Canadian inputs to this marine initiative with the assistance of agencies like Environment Canada (Canadian Wildlife Service), Parks Canada, Fisheries & Oceans Canada, World Wildlife Fund, etc.

The Marine Ecoregions of North America is one of several marine initiatives sponsored by the Commission of Environmental Cooperation (CEC) of North America as part of its Strategic Plan for North American Cooperation in the Conservation of Biodiversity. This particular marine report and its maps describe the process that was used to delineate the marine ecoregions (i.e. from level I to level III), and briefly outlines their key characteristics – in terms of their physical, oceanographic, biological, geographical properties as well as some of human activities that affect them.

Readers will obtain other information via Fact Sheets – these sheets will cover geographical, oceanographical, physical and biological information such as the size of the marine ecoregion, its sea surface temperature (SST), species at risk and human activities. Each fact sheet contains information on how the marine ecoregion was delineated (noted as “Rationale” within the Fact Sheets, and described within the text). Also, there will be four important sections at the back of the book that contain: 1) the scientific and common

names of species (in English, French and Spanish); 2) acronyms and abbreviations; 3) common conservation and scientific terms used throughout the pages of the book; as well as 4) a list of the significant number of people who contributed to the process of defining, delineating and describing these marine ecoregions.

The Marine Ecoregions of North America report and maps have several structural facets. The maps are scalable, have an ecosystem-orientation, and are linked with other maps and classification systems, such as the CCEA's 1996 Marine and Terrestrial Ecozone Report, WHC's 2001, Wildlife Habitat Status Report, etc. This CEC consensus marine framework, displayed on a set of ecoregion maps, provides a basis for the public and decision-makers to understand and analyze marine concerns. It is meant to complement, not replace, existing classification systems used internationally and/or within the three countries. The maps and report that result from this marine ecoregion initiative will help to: support the implementation, development and coordination of national and international mandates, conventions, policies and acts; support the conservation goals of nongovernmental organizations; and provide information to the public, nongovernmental organizations, industry and governments. The identification of Marine Ecoregions will also be able to support research and education, inventorying and monitoring, as well as planning, management, and priority setting. In addition, delineated ecoregions can serve as the basis for regional cooperative conservation efforts. They can be used as reference points for periodic assessments of the state of marine ecosystems and habitats, and conservation actions. Finally, the identification of marine ecoregions also helps to define both representative and important samples of the marine ecosystems that could be conserved through a network of marine protected areas and special conservation regions – key parts of an integrated and holistic system to help protect marine species, habitats, ecosystems, and the ecological processes and characteristics that link them.

Marine Ecoregions of North America: Level I Mapping



Ed Wiken and Moreno Padilla were the main country lead and main authors for Canadian sections. In addition to the CEC, the following organizations help to bring this project to fruition: Canadian Council on Ecological Areas (CCEA), Wildlife Habitat Canada (WHC), Parks Canada, Environment Canada and Nature Serve

In developing the classification, maps and report, the following are among many of the Canadian contributors: Jeff Ardron, Doug Ballam, Tom Beechey, James Birtch, Real Carpentier, Dan Chambers, Doug Chipczak, Jean Cinq-Mars, Mary Jean Comfort, John Crump, Rosemary Curley, Michael Dunn, Jean Gagnon, Robert Hélie, Helios Hernandez, Don Howes, Sabine Jessen, Tiina Kurvits, Josh Laughren, Jon Lien, Christopher Madden, Ian Marshall, Don McAllister, Kevin McCormick, John Meikle, Francine Mercier, Thomas Meredith, Claude Mondor, Harold Moore, Ken Morrison, Sebastian Oosenbrug, Moreno Padilla, John Roff, Dale Smith, Tony Turner, John Vandall, Herbert Vandermeulen, Leigh Warren, Doug Yurick, Mark Zacharias, and Vincent Zelazny.

