

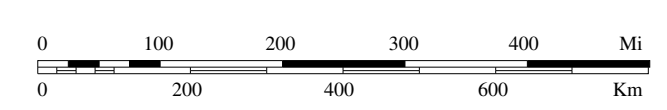
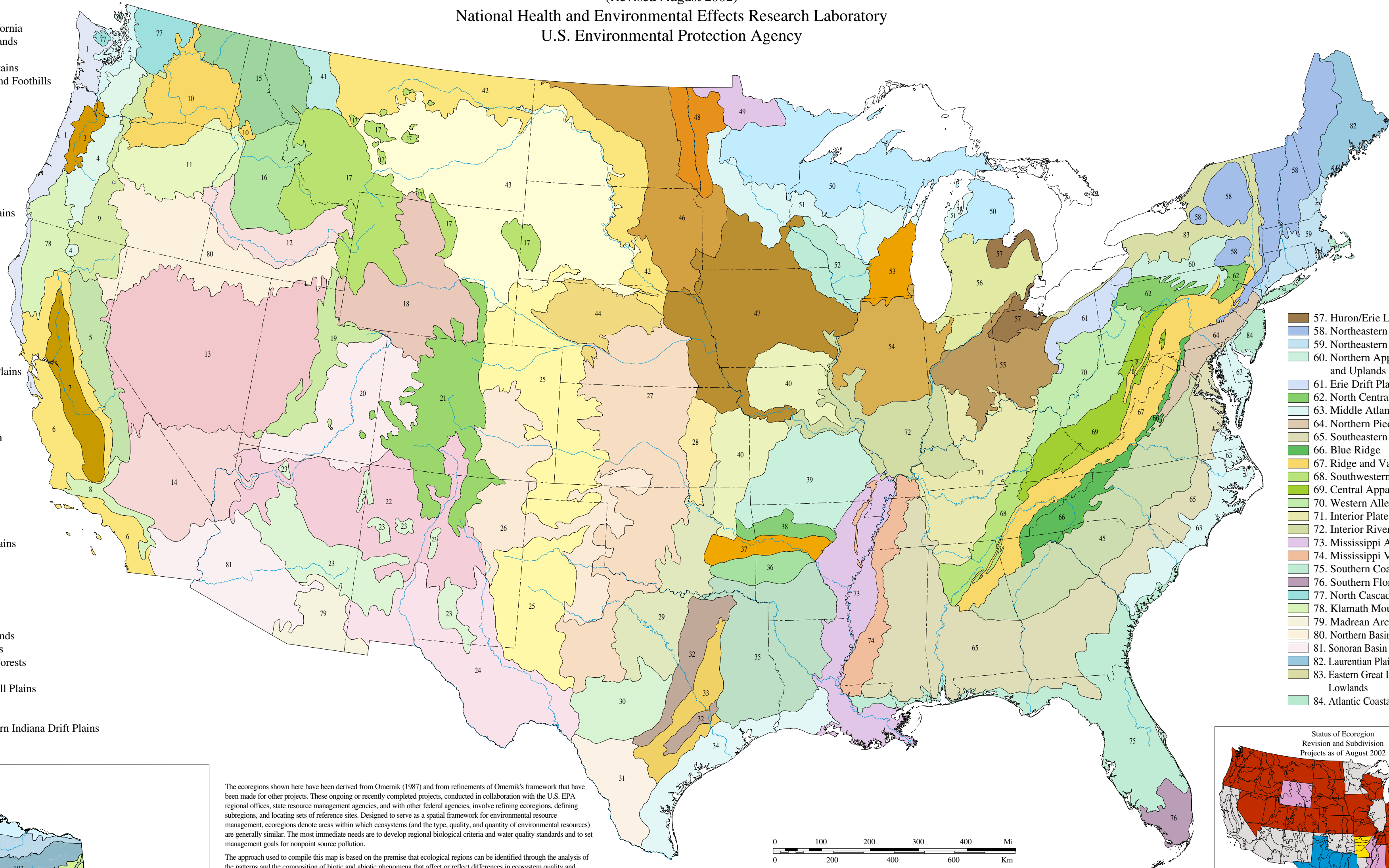
# Level III Ecoregions of the Continental United States

(Revised August 2002)

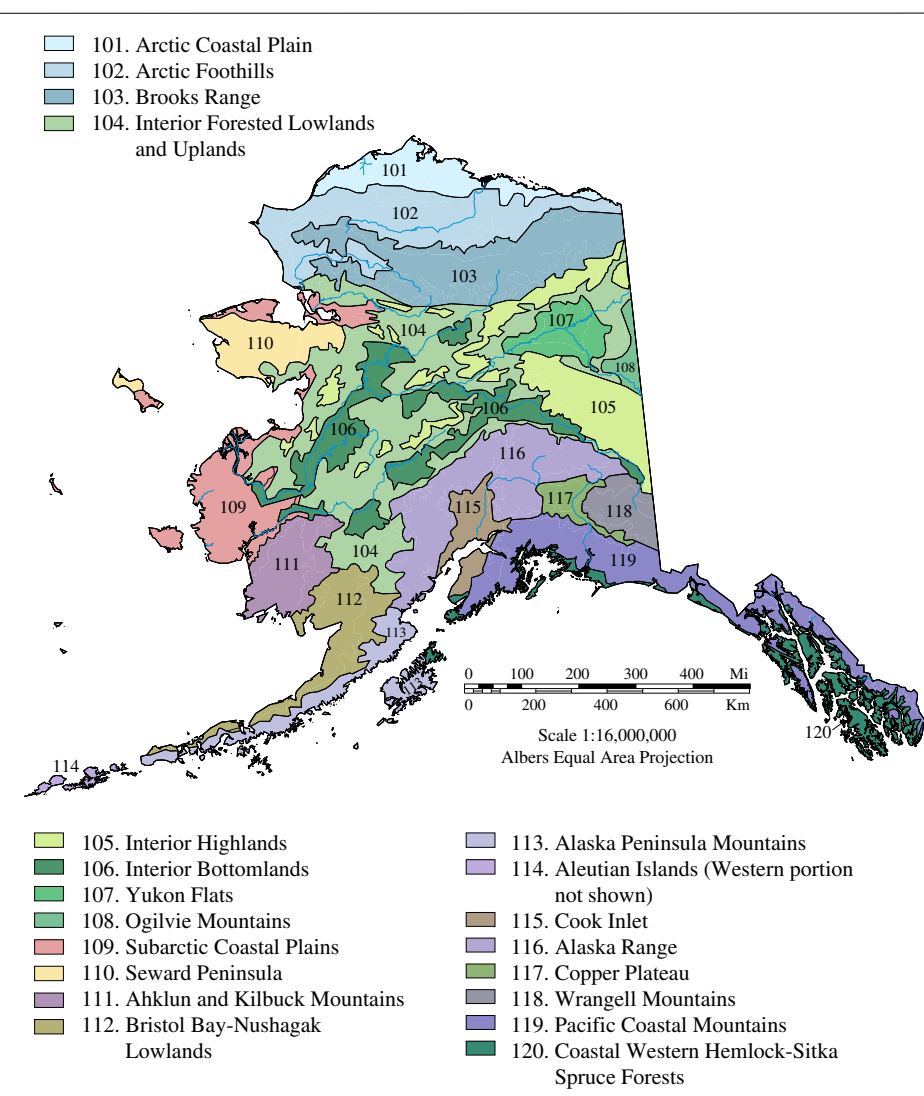
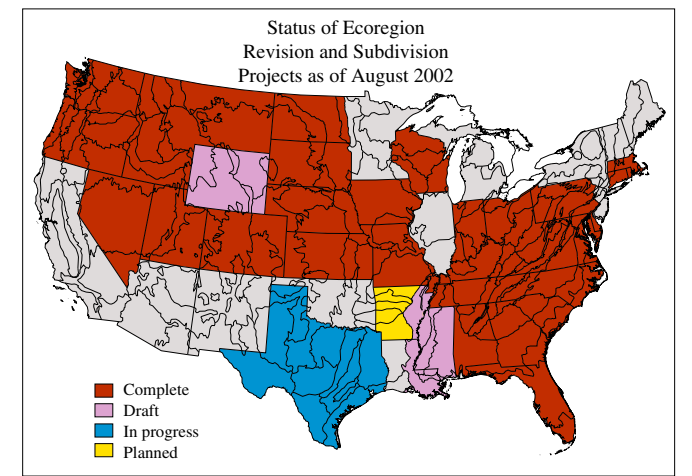
National Health and Environmental Effects Research Laboratory  
U.S. Environmental Protection Agency

- 1. Coast Range
- 2. Puget Lowland
- 3. Willamette Valley
- 4. Cascades
- 5. Sierra Nevada
- 6. Southern and Central California Chaparral and Oak Woodlands
- 7. Central California Valley
- 8. Southern California Mountains
- 9. Eastern Cascades Slopes and Foothills
- 10. Columbia Plateau
- 11. Blue Mountains
- 12. Snake River Plain
- 13. Central Basin and Range
- 14. Mojave Basin and Range
- 15. Northern Rockies
- 16. Idaho Batholith
- 17. Middle Rockies
- 18. Wyoming Basin
- 19. Wasatch and Uinta Mountains
- 20. Colorado Plateaus
- 21. Southern Rockies
- 22. Arizona/New Mexico Plateau
- 23. Arizona/New Mexico Mountains
- 24. Chihuahuan Deserts
- 25. Western High Plains
- 26. Southwestern Tablelands
- 27. Central Great Plains
- 28. Flint Hills
- 29. Central Oklahoma/Texas Plains
- 30. Edwards Plateau
- 31. Southern Texas Plains
- 32. Texas Blackland Prairies
- 33. East Central Texas Plains
- 34. Western Gulf Coastal Plain
- 35. South Central Plains
- 36. Ouachita Mountains
- 37. Arkansas Valley
- 38. Boston Mountains
- 39. Ozark Highlands
- 40. Central Irregular Plains
- 41. Canadian Rockies
- 42. Northwestern Glaciated Plains
- 43. Northwestern Great Plains
- 44. Nebraska Sand Hills
- 45. Piedmont
- 46. Northern Glaciated Plains
- 47. Western Corn Belt Plains
- 48. Lake Agassiz Plain
- 49. Northern Minnesota Wetlands
- 50. Northern Lakes and Forests
- 51. North Central Hardwood Forests
- 52. Driftless Area
- 53. Southeastern Wisconsin Till Plains
- 54. Central Corn Belt Plains
- 55. Eastern Corn Belt Plains
- 56. Southern Michigan/Northern Indiana Drift Plains

- 57. Huron/Erie Lake Plains
- 58. Northeastern Highlands
- 59. Northeastern Coastal Zone
- 60. Northern Appalachian Plateau and Uplands
- 61. Erie Drift Plain
- 62. North Central Appalachians
- 63. Middle Atlantic Coastal Plain
- 64. Northern Piedmont
- 65. Southeastern Plains
- 66. Blue Ridge
- 67. Ridge and Valley
- 68. Southwestern Appalachians
- 69. Central Appalachians
- 70. Western Allegheny Plateau
- 71. Interior Plateau
- 72. Interior River Valleys and Hills
- 73. Mississippi Alluvial Plain
- 74. Mississippi Valley Loess Plains
- 75. Southern Coastal Plain
- 76. Southern Florida Coastal Plain
- 77. North Cascades
- 78. Klamath Mountains
- 79. Madrean Archipelago
- 80. Northern Basin and Range
- 81. Sonoran Basin and Range
- 82. Laurentian Plains and Hills
- 83. Eastern Great Lakes and Hudson Lowlands
- 84. Atlantic Coastal Pine Barrens



Albers Equal Area Projection



The ecoregions shown here have been derived from Omernik (1987) and from refinements of Omernik's framework that have been made for other projects. These ongoing or recently completed projects, conducted in collaboration with the U.S. EPA regional offices, state resource management agencies, and with other federal agencies, involve refining ecoregions, defining subregions, and locating sets of reference sites. Designed to serve as a spatial framework for environmental resource management, ecoregions denote areas within which ecosystems (and the type, quality, and quantity of environmental resources) are generally similar. The most immediate needs are to develop regional biological criteria and water quality standards and to set management goals for nonpoint source pollution.

The approach used to compile this map is based on the premise that ecological regions can be identified through the analysis of the patterns and the composition of biotic and abiotic phenomena that affect or reflect differences in ecosystem quality and integrity (Wiken 1986; Omernik 1987, 1995). These phenomena include geology, physiography, vegetation, climate, soils, land use, wildlife, and hydrology. The relative importance of each characteristic varies from one ecological region to another regardless of the hierarchical level. Because of possible confusion with other meanings of terms for different levels of ecological regions, a Roman numeral classification scheme has been adopted for this effort. Level I is the coarsest level, dividing North America into 15 ecological regions, whereas at Level II the continent is subdivided into 52 classes (CEC 1997). Level III is the hierarchical level shown on this map. For portions of the United States (see map inset) the ecoregions have been further subdivided to Level IV. The applications of the ecoregions are explained in Gallant et al. (1989) and in reports and publications from the state and regional projects. For additional information, contact James M. Omernik, U.S. EPA National Health and Environmental Effects Research Laboratory (NHEERL), 200 SW 35th Street, Corvallis, OR 97333; phone: (541) 754-4458, email: omernik@mail.cer.epa.gov.

**BIBLIOGRAPHY**

Bryce, S.A., J.M. Omernik, D.E. Pater, M. Ulmer, J. Schaar, J. Freeouf, R. Johnson, P. Kuck, and S.H. Azevedo. 1998. Ecoregions of North Dakota and South Dakota. (Map poster). U.S. Geological Survey, Reston, VA.

Chapman, S.S., J.M. Omernik, J.A. Freeouf, D.G. Huggins, J.R. McCauley, C.C. Freeman, G. Steinauer, R.T. Angelo, and R.L. Schleppe. 2001. Ecoregions of Nebraska and Kansas (color poster with map, descriptive text, summary tables, and photographs): U.S. Geological Survey, Reston, VA (map scale 1:1,950,000).

Clarke, S.E. and S.A. Bryce. 1997. Hierarchical subdivisions of the Columbia Plateau and Blue Mountains ecoregions, Oregon and Washington. General Technical Report PNW-GTR-395. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR.

Commission for Environmental Cooperation. 1997. Ecological regions of North America: toward a common perspective. Commission for Environmental Cooperation, Montreal, Quebec, Canada. 71 pp. (Map scale 1:12,500,000).

Gallant, A.L., T.R. Whittier, D.P. Larsen, J.M. Omernik, and R.M. Hughes. 1989. Regionalization as a tool for managing environmental resources. EPA/600/3-89/060. U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR. 152p.

Gallant, A.L., E.F. Binnian, J.M. Omernik, and M.B. Shashy. 1995. Ecoregions of Alaska. U.S. Geological Survey Professional Paper 1567. U.S. Government Printing Office, Washington D.C. 73 p.

Griffith, G.E. and J.M. Omernik. 1991. Alabama/Mississippi Project. U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR. 27 p.

Griffith, G.E., J.M. Omernik, and S.H. Azevedo. 1998. Ecoregions of Tennessee. (Map poster). U.S. Geological Survey, Reston, VA.

Griffith, G.E., J.M. Omernik, S.M. Pierson, and C.W. Kilsgaard. 1994. Massachusetts ecological regions project. EPA/600/A-94/111. U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR. 58p.

Griffith, G.E., J.M. Omernik, C.M. Rohm, and S.M. Pierson. 1994. Florida regionalization project. EPA/600/Q-95/002. U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis OR. 83p.

Griffith, G.E., J.M. Omernik, T.F. Wilton, and S.M. Pierson. 1994. Ecoregions and subregions of Iowa: A framework for water quality assessment and management. The Journal of the Iowa Academy of Science 101(1):5-13.

Omernik, J.M. 1987. Ecoregions of the conterminous United States. Map (scale 1:7,500,000). Annals of the Association of American Geographers 77(1):118-125.

Omernik, J.M. 1995. Ecoregions: A spatial framework for environmental management. In: Biological Assessment and Criteria: Tools for Water Resource Planning and Decision Making. Davis, W.S. and T.P. Simon (eds.) Lewis Publishers, Boca Raton, FL. Pp. 49-62.

Omernik, J.M., S.S. Chapman, R.A. Lillie, and R.T. Dumke. 2000. Ecoregions of Wisconsin. Transactions of the Wisconsin Academy of Sciences, Arts, and Letters 88:77-103.

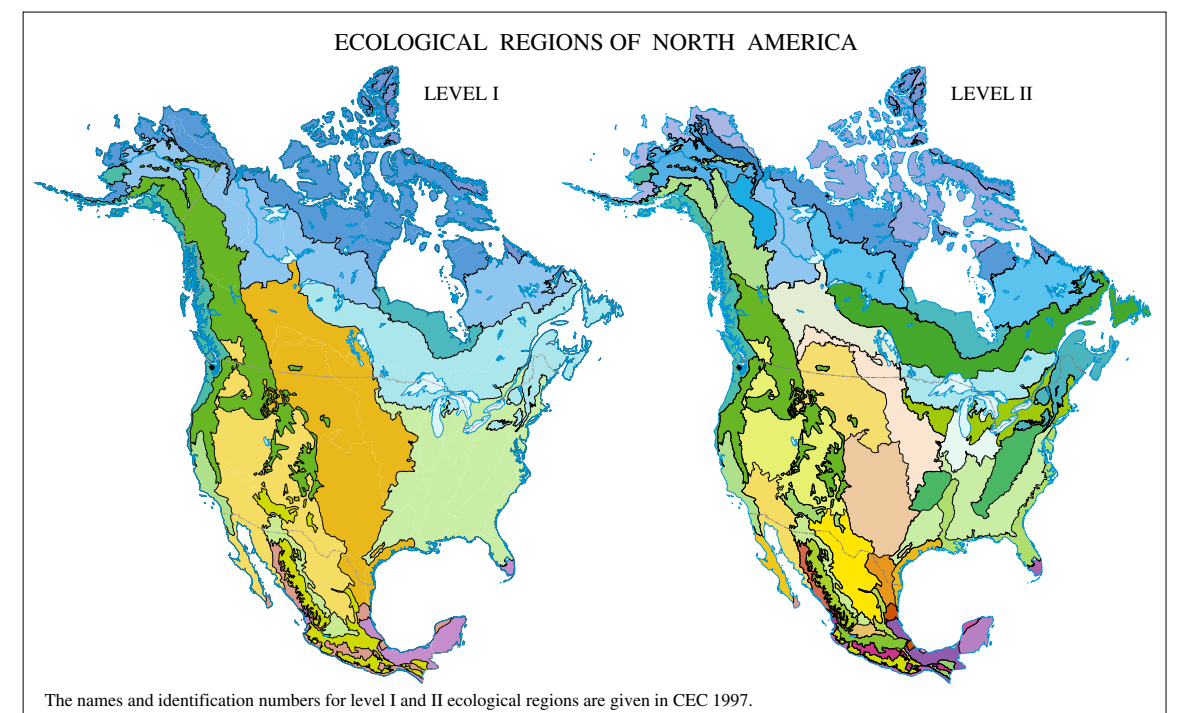
Pater, D.E., S.A. Bryce, T.D. Thorson, J. Kagan, C. Chappell, J.M. Omernik, S.H. Azevedo, and A.J. Woods. 1998. Ecoregions of Western Washington and Oregon. (Map poster). U.S. Geological Survey, Reston, VA.

Wiken, E. 1986. Terrestrial ecoregions of Canada. Environment Canada. Ecological Land Classification Series No. 19. Ottawa, Canada.

Woods, A.J., J.M. Omernik, C.S. Brockman, T.D. Gerber, W.D. Hosteter, and S.H. Azevedo. 1998. Ecoregions of Indiana and Ohio. (Map poster). U.S. Geological Survey, Reston, VA.

Woods, A.J., J.M. Omernik, J.A. Nesser, J. Sheldon, and S.H. Azevedo. 1999. Ecoregions of Montana (color poster with map, descriptive text, summary tables, and photographs): U.S. Geological Survey, Reston, VA (map scale 1:1,500,000).

Woods, A.J., J.M. Omernik, D.D. Brown, and C.W. Kilsgaard. 1996. Level III and IV ecoregions of Pennsylvania and the Blue Ridge Mountains, the Ridge and Valley, and Central Appalachians of Virginia, West Virginia, and Maryland. EPA/600/R-96/077. U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Corvallis, OR. 50p.



The names and identification numbers for level I and II ecological regions are given in CEC 1997.