

Denis White ~ Publications

PEER-REVIEWED JOURNAL ARTICLES:

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Arnold, Nicholas D, Bernhard Jenny, Denis White. 2017. Automation and evaluation of graduated dot maps. *International Journal of Geographical Information Science* 31(12):2524-2542. doi 10.1080/13658816.2017.1359747

Hopton, Matthew E, Arunprakash T Karunanithi, Ahjond S Garmestani, Denis White, Jerry R Choate, Heriberto Cabezas. 2017. A supplementary tool to existing approaches for assessing ecosystem community structure. *Ecological Modelling* 354:64-69.

Waldick, Ruth, Livia Bizikova, Denis White, Kathryn Lindsay. 2016. An integrated decision-support process for adaptation planning: climate change as impetus for scenario planning in an agricultural region of Canada. *Regional Environmental Change* 17(1):187-200.

Šavrič, Bojan, Bernhard Jenny, Denis White. 2015. User preferences for world map projections. *Cartography and Geographic Information Science* 42(5):398–409.

Hoppe, Brenda, Denis White, Anna Harding, George Mueller-Warrant, Bruce Hope, Eric Main. 2014. High resolution modeling of agricultural nitrogen to identify private wells susceptible to nitrate contamination. *Journal of Water and Health* 12.4:702-714.

Hopton, Matthew E, Denis White. 2012. A simplified ecological footprint at a regional scale. *Journal of Environmental Management* 111:279-286.

White, Denis, Brenda Rashleigh. 2012. Effects of stream topology on ecological community results from neutral models. *Ecological Modelling* 231:20–24. [[PDF](#) 420 KB]

Bolte, John, Robert McKane, Donald Phillips, Nathan Schumaker, Denis White, Allen Brookes, David Olszyk. 2012. In Oregon, the EPA calculates nature's worth now and in the future. *Solutions* 2(6):35-41. [[PDF](#) 505 KB]

Radeloff, Volker C, Eric Nelson, Andrew J Plantinga, David J Lewis, Dave Helmers Dave, Joshua J Lawler Joshua J, John C Withey John C, Fred Beaudry Fred, Sebastian Martinuzzi, Van Butsic, Eric Lonsdorf, Denis White, Stephen Polasky. 2012. Economic-based projections of future land use in the conterminous United States under alternative policy scenarios. *Ecological Applications* 22(3):1036-1049.

Stepinski, Tomasz F, Jozue Salazar, Wei Ding, Denis White. 2010. ESTATE: Strategy for Exploring Labeled Spatial Datasets Using Association Analysis. *Discovery Science, Lecture Notes in Computer Science* 6332:326-340. [[PDF](#) 385 KB]

Hopton, Matthew E, Heriberto Cabezas, Daniel Campbell, Tarsha Eason, Ahjond S Garmestani, Matthew T Heberling, Arunprakash T Karunanithi, Joshua Templeton, Denis White, Marie Zanowick. 2010. Development of a multidisciplinary approach to assess regional sustainability. *The International Journal of Sustainable Development & World Ecology* 17(1):48-56.

Lawler, Joshua J, Sarah L Shafer, Denis White, Peter Kareiva, Edwin P Maurer, Andrew R Blaustein, Patrick J Bartlein. 2009. Projected climate-induced faunal change in the western hemisphere. *Ecology* 90(3):588-597. [[PDF](#) 1.5 MB]

Mahmoud, Mohammed, Yuqiong Liu, Holly Hartmann, Steven Stewart, Thorsten Wagener, Darius Semmens, Robert Stewart, Hoshin Gupta, Damian Dominguez, Francina Dominguez, David Hulse, Rebecca Letcher, Brenda Rashleigh, Court Smith, Roger Street, Jenifer Ticehurst, Mark Twery, Hedwig van Delden, Ruth Waldick, Denis White, Larry Winter. 2009. A formal framework for scenario development in support of environmental decision-making. *Environmental Modelling & Software* 24(7):798-808.

Lawler, Joshua J, Denis White. 2008. Assessing the mechanisms behind successful surrogates for biodiversity in conservation planning. *Animal Conservation* 11(4):270-280.

Nelson, Eric, Stephen Polasky, David J Lewis, Andrew J Plantinga, Eric Lonsdorf, Denis White, David Bael, Joshua J Lawler. 2008. Efficiency of incentives to jointly increase carbon sequestration and species conservation on a landscape. *Proceedings of the National Academy of Sciences* 105(27):9471-9476. [[PDF](#) 397 KB]

Polasky, Stephen, Eric Nelson, Jeffrey Camm, Blair Csuti, Paul Fackler, Eric Lonsdorf, Claire Montgomery, Denis White, Jeffrey Arthur, Brian Garber-Yonts, Robert Haight, Jimmy Kagan, Anthony Starfield, Claudine Tobalske. 2008. Where to put things? Spatial land management to sustain biodiversity and economic returns. *Biological Conservation* 141(6):1505-1524.

Gregory, Matthew J, A Jon Kimerling, Denis White, Kevin Sahr. 2008. A comparison of intercell metrics on discrete global grid systems. *Computers, Environment and Urban Systems* 32(3):188-203.

White, Denis, A Ross Kiestler. 2008. Topology matters: network topology affects outcomes from community ecology neutral models. *Computers, Environment and Urban Systems* 32(2):165-171; 32(4):327 (erratum). [[PDF](#) 135 KB]

Theobald, David M, Don L Stevens Jr., Denis White, N Scott Urquhart, Anthony Olsen, John B Norman. 2007. Using GIS to generate spatially-balanced random survey designs for natural resource applications. *Environmental Management* 40(1):134-146.

White, Denis. 2006. Display of pixel loss and replication in reprojecting raster data from the sinusoidal projection. *Geocarto International* 21(2):19-22. [[PDF](#) 356 KB]

Lawler, Joshua J, Denis White, Ronald P Neilson, Andrew R Blaustein. 2006. Predicting climate-induced range shifts: model differences and model reliability. *Global Change Biology* 12:1568-1584.

Culver, David C, Louis Deharveng, Anne Bedos, Julian J Lewis, Molly Madden, James R Reddell, Boris Sket, Peter Trontelj, Denis White. 2006. The mid-latitude biodiversity ridge in terrestrial cave fauna. *Ecography* 29:120-128.

Santelmann, Mary, Kathryn Freemark, Jean Sifneos, Denis White. 2006. Assessing effects of alternative agricultural practices on wildlife habitat in Iowa, U.S.A. *Agriculture, Ecosystems & Environment* 113:243-253.

- Freemark, Kathryn E, Mark Meyers, Denis White, Leanna D Warman, A Ross Kiester, Pago Lumbantobing. 2006. Species richness and biodiversity conservation priorities in British Columbia. *Canadian Journal of Zoology* 84(1):20-31.
- Wigington, Parker J Jr, Joseph L Ebersole, Michael E Colvin, Bruce Miller, Bruce Hansen, Henry Lavigne, Denis White, Joan P Baker, M Robbins Church, Scott G Leibowitz, j Renee Brooks, Michael A Cairns, Janet E Compton. 2006. Coho salmon dependence on intermittent streams. *Frontiers in Ecology and Environment* 4(10):514-519.
- Christman, Mary C, David C Culver, Molly Madden, Denis White. 2005. Patterns of endemism of the eastern North American cave fauna. *Journal of Biogeography* 32(8):1441-1452.
- Carr, Daniel B, Denis White, Alan M MacEachren. 2005. Conditioned choropleth maps and hypothesis generation. *Annals of the Association of American Geographers* 95(1):32-53. [[PDF](#) 742 KB]
- Santelmann, Mary V, Denis White, Kathryn Freemark, Joan I Nassauer, Joseph M Eilers, Kellie B Vache, Brent J Danielson, Robert C Corry, Mark E Clark, Stephen Polasky, Richard M Cruse, Jean Sifneos, Heather Rustigian, Colette Coiner, JunJie Wu, Diane Debinski. 2004. Assessing alternative futures for agriculture in Iowa, USA. *Landscape Ecology* 19(4):357-374.
- Lawler, Joshua J, Raymond J O'Connor, Carolyn T Hunsaker, K Bruce Jones, Thomas R Loveland, Denis White. 2004. The effects of habitat resolution on models of avian diversity and distributions: a comparison of two land-cover classifications. *Landscape Ecology* 19(5):515-530.
- Warman, Leanna D, David M Forsyth, Anthony RE Sinclair, Kathryn Freemark, Harold D Moore, Thomas W Barrett, Robert L Pressey, Denis White. 2004. Species distributions, surrogacy, and important conservation regions in Canada. *Ecology Letters* 7(5):374-379.
- Jackson, Laura E, Sandra L Bird, Ronald W Matheny, Robert V O'Neill, Denis White, Kristin C Boesch, Jodi L Koviach. 2004. A regional approach to projecting land-use change and resulting ecological vulnerability. *Environmental Monitoring and Assessment* 94(1-3):231-248.
- Cao, Yong, David P Larsen, Denis White. 2004. Estimating regional species richness using a limited number of survey units. *Ecoscience* 11(1):23-35.
- Baker, Joan P, David W Hulse, Stanley V Gregory, Denis White, John Van Sickle, Patricia A Berger, David Dole, Nathan H Schumaker. 2004. Alternative futures for the Willamette River Basin, Oregon. *Ecological Applications* 14(2):313-324. [[PDF](#) 695 KB]
- Schumaker, Nathan H, Ted Ernst, Denis White, Joan Baker, Patti Haggerty. 2004. Projecting wildlife responses to alternative future landscapes in Oregon's Willamette Basin. *Ecological Applications* 14(2):381-400.
- Lawler, Joshua J, Denis White, Larry L Master. 2003. Integrating representation and vulnerability: two approaches for prioritizing areas for conservation. *Ecological Applications* 13(6):1762-1772. Erratum 14(2):635-635. [[PDF](#) 627 KB]
- Lawler, Joshua J, Denis White, Jean C Sifneos, Larry L Master. 2003. Rare species and the use of indicator groups for conservation planning. *Conservation Biology* 17(3):875-882.

- Sahr, Kevin, Denis White, A Jon Kimerling. 2003. Geodesic discrete global grid systems. *Cartography and Geographic Information Science* 30(2):121-134. [[PDF](#) 3.3 MB]
- Shirazi, Mostafa A, Colleen Burch Johnson, James M Omernik, Denis White, Patricia K Haggerty, Glenn E Griffith. 2003. Quantitative soil descriptions for ecoregions of the United States. *Journal of Environmental Quality* 32:550-561.
- White, Denis, Jean C Sifneos. 2002. Regression tree cartography. *Journal of Computational and Graphical Statistics* 11(3):600-614. [[PDF](#) 1.1 MB]
- White, Denis. 2000. Global grids from recursive diamond subdivisions of the surface of an octahedron or icosahedron. *Environmental Monitoring and Assessment* 64(1):93-103. [[PDF](#) 438 KB]
- Hulse, David, Joseph Eilers, Kathryn Freemark, Cheryl Hummon, Denis White. 2000. Planning alternative future landscapes in Oregon: evaluating effects on water quality and biodiversity. *Landscape Journal* 19(2):1-19.
- Polasky, Stephen, Jeffrey D Camm, Andrew R Solow, Blair Csuti, Denis White, Rugang Ding. 2000. Choosing reserve networks with incomplete species information. *Biological Conservation* 94(1):1-10.
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- Montgomery, Claire A, Robert A Pollak, Kathryn E Freemark, Denis White. 1999. Pricing biodiversity. *Journal of Environmental Economics and Management* 38:1-19.
- Rathert, Daniel, Denis White, Jean Sifneos, Robert M Hughes. 1999. Environmental correlates of species richness in Oregon freshwater fishes. *Journal of Biogeography* 26(2):257-273. [[PDF](#) 655 KB]
- White, Denis, A Jon Kimerling, Kevin Sahr, Lian Song. 1998. Comparing area and shape distortion on polyhedral-based recursive partitions of the sphere. *International Journal of Geographical Information Science* 12(8):805-827. [[PDF](#) 1.3 MB]
- White, Denis, Priscilla G Minotti, Mary J Barczak, Jean C Sifneos, Kathryn E Freemark, Mary V Santelmann, Carl F Steinitz, A Ross Kiester, Eric M Preston. 1997. Assessing risks to biodiversity from future landscape change. *Conservation Biology* 11(2):349-360. [[PDF](#) 627 KB]
- O'Connor, Raymond J, Malcom T Jones, Denis White, Carolyn Hunsaker, Tom Loveland, Bruce Jones, Eric Preston. 1996. Spatial partitioning of environmental correlates of avian biodiversity in the conterminous United States. *Biodiversity Letters* 3(3):97-110.
- Kiester, A Ross, J Michael Scott, Blair Csuti, Reed F Noss, Bart Butterfield, Kevin Sahr, Denis White. 1996. Conservation prioritization using GAP data. *Conservation Biology* 10(5):1332-1342.
- Kimerling, A Jon, W Scott Overton, Denis White. 1995. Statistical comparison of map projection distortions within irregular areas. *Cartography and Geographic Information Systems* 22(3):205-221. [[PDF](#) 2.3 MB]
- Phillips, Donald L, Denis White, Colleen Burch Johnson. 1993. Implications of climate change scenarios for soil erosion potential in the USA. *Land Degradation and Rehabilitation* 4:61-72.

Carr, Daniel B, Anthony R Olsen, Denis White. 1992. Variations of hexagon mosaic maps for display of univariate and bivariate geographical data. *Cartography and Geographic Information Systems* 19(3):228-236. [[PDF](#) 3.3 MB]

White, Denis, A Jon Kimerling, W Scott Overton. 1992. Cartographic and geometric components of a global sampling design for environmental monitoring. *Cartography and Geographic Information Systems* 19(1):5-22. [[PDF](#) 2.1 MB]

Clarke, Sharon E, Denis White D, Andrew L Schaedel. 1991. Oregon, USA, ecological regions and subregions for water quality management. *Environmental Management* 15(6):847-856. [[PDF](#) 967 KB]

White, Denis. 1985. Relief modulated thematic mapping by computer. *The American Cartographer* 12(1):62-68. [[PDF](#) 940 KB]

White, Denis. 1984. Computer peripherals for mapping. US National Report to the International Cartographic Association, 1984, Judy M Olson, ed., (special issue of *The American Cartographer*), pp 56-58.

Reasenber, Robert D, Irwin I Shapiro, Denis White. 1975. The gravity field of Mars. *Geophysical Research Letters* 2(3):89-92. [[PDF](#) 412 KB]

PEER-REVIEWED BOOK CHAPTERS:

Campbell, Daniel E, Denis White, Carolyn Fonyo Boggess. 2013. Emergy of the occupations. *EMERGY SYNTHESIS 7: Theory and Applications of the Emergy Methodology, Proceedings from the Seventh Biennial Emergy Conference*. Mark T Brown, editor. Gainesville, Florida. pp. 381-404. [[PDF](#) 900 KB]

Liu, Yuqiong, Mohammed Mahmoud, Holly Hartmann, Steven Stewart, Thorsten Wagener, Darius Semmens, Robert Stewart, Hoshin Gupta, Damian Dominguez, David Hulse, Rebecca Letcher, Brenda Rashleigh, Court Smith, Roger Street, Jenifer Ticehurst, Mark Twery, Hedwig van Delden, Ruth Waldick, Denis White, Larry Winter. 2008. Formal scenario development for environmental impact assessment studies. *State of the Art and Futures in Environmental Modelling and Software*. Anthony A Jakeman, Alexey Voinov, Andrea E Rizzoli, Serena H Chen, editors. IDEA Book Series. Elsevier.

Freemark Lindsay, Kathryn, Mary V Santelmann, Jean C Sifneos, Denis White, David A Kirk. 2007. Wildlife habitat. *From the corn belt to the Gulf: societal and environmental implications of alternative agricultural futures*. Joan I Nassauer, Mary V Santelmann, Donald Scavia, editors. Washington DC: Resources for the Future. pp. 147-160.

Santelmann, Mary V, Jean C Sifneos, Denis White, Kathryn Freemark Lindsay. 2007. Plant diversity. *From the corn belt to the Gulf: societal and environmental implications of alternative agricultural futures*. Joan I Nassauer, Mary V Santelmann, Donald Scavia, editors. Washington DC: Resources for the Future. pp. 91-101.

Debinski, Diane M, Mary V Santelmann, Denis White, Kathryn Freemark Lindsay, Jean C Sifneos. 2007. Butterfly responses. *From the corn belt to the Gulf: societal and environmental implications of alternative agricultural futures*. Joan I Nassauer, Mary V Santelmann, Donald Scavia, editors. Washington DC: Resources for the Future. pp. 102-107.

Clark, Mark E, Brent J Danielson, Mary V Santelmann, Joan I Nassauer, Denis White, Kathryn Freemark Lindsay. 2007. Impacts on mammal communities: a spatially explicit model. *From the corn belt to the Gulf: societal and environmental implications of alternative agricultural futures*. Joan I Nassauer, Mary V Santelmann, Donald Scavia, editors. Washington DC: Resources for the Future. pp. 115-138.

Santelmann, Mary, Denis White, Kathryn Lindsay, Joan Nassauer, Joseph Eilers, Kellie Vache, Brent Danielson, Robert Corry, Mark Clark, Stephen Polasky, Richard Cruse, Jean Sifneos, Heather Rustigian, Collette Coiner, JunJie Wu, Diane Debinski. 2007. An integrated assessment of alternative futures for corn belt agriculture. *From the corn belt to the Gulf: societal and environmental implications of alternative agricultural futures*. Joan I Nassauer, Mary V Santelmann, Donald Scavia, editors. Washington DC: Resources for the Future. pp. 162-174.

White, Denis, Joan Baker, Terrestrial Wildlife, pp. 46-47; White, Denis, Patricia Haggerty, Joan Baker, Paul Adamus, Habitat and Biodiversity, pp. 124-125; Schumaker, Nathan, Ted Ernst, Patti Haggerty, Joan Baker, Denis White, Populations, pp. 126-127. 2002. *Willamette River Basin planning atlas: trajectories of environmental and ecological change*. David Hulse, Stan Gregory, Joan Baker, editors. Corvallis, Oregon State University Press. [<http://osupress.oregonstate.edu/book/willamette-river-basin-planning-atlas>]

Cablk, Mary, Denis White, A Ross Kiester. 2002. Assessment of spatial autocorrelation in empirical models in ecology. *Predicting species occurrences: issues of scale and accuracy*. J Michael Scott, Patricia J Heglund, Michael L Morrison, Jonathan B Haufler, Martin G Raphael, William A Wall, Fred B Samson, editors. Washington DC: Island Press. pp. 429-440.

Hill, Kristina, Denis White, Miranda Maupin, Barbara Ryder, James R Karr, Kathryn Freemark, Rebecca Taylor, Sally Schauman. 2002. In expectation of relationships: centering theories around ecological understanding. *Ecology and design: frameworks for learning*. Bart R Johnson, Kristina Hill, editors. Washington DC: Island Press. pp. 271-303.

Santelmann, Mary, Kathryn Freemark, Denis White, Joan Nassauer, Mark Clark, Brent Danielson, Joseph Eilers, Richard Cruse, Susan Galatowitsch, Stephen Polasky, JunJie Wu. 2001. Applying ecological principles to land-use decision- making in agricultural watersheds. *Applying ecological principles to land management*. Virginia H Dale, Richard A Haeuber, editors. New York: Springer-Verlag. pp. 226-252.

White, Denis, Eric M Preston, Kathryn E Freemark, A Ross Kiester. 1999. A hierarchical framework for conserving biodiversity. *Landscape ecological analysis: issues and applications*. Jeffrey M Klopatek, Robert H Gardner, editors. New York: Springer-Verlag. pp. 127-153. [[PDF](#) 270 KB]

PUBLISHED BOOK REVIEWS:

White, Denis. 1997. Book review, Hanna S, Folke C, Maeler KG, editors, 1996, *Rights to Nature*, Island Press. *Northwest Science* 71(2):157-158.

White, Denis. 1991. Book review, Kuechler AW, Zonneveld IS, 1988, *Vegetation Mapping*, Handbook of Vegetation Science, Vol. 10, Kluwer Academic Publishers. *Ecology* 72(1):362-363.

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PUBLISHED MAPS:

White, Denis, Carl Steinitz, Doug Johnston. 1982. 1980 land use of the Mount Monadnock region. Image published in Donald Greenberg, 1982, *The Computer Image*, Addison-Wesley, Reading, MA.

White, Denis. 1980. Land cover change, Massachusetts cities and towns, 1951/1952. Image published as Color Figure 28.1 in Robinson A et al, 1995, *Elements of Cartography, 6th Edition*, John Wiley & Sons, New York.

PUBLICATIONS IN PROCEEDINGS:

Freemark, Kathryn, Harold Moore, David Forsyth, Anthony Sinclair, Denis White, Thomas Barrett, Robert Pressey. 2000. Identifying sites for conserving biodiversity across Canadian landscapes using a complementarity approach. Proceedings of the 1st International Symposium on Landscape Futures. David J Brunckhorst, David A Mouat, editors. University of New England, Armidale, New South Wales, Australia.

Olsen, Anthony R, Don L Stevens Jr, Denis White. 1998. Applications of global grids in environmental sampling. Proceedings of the 30th Symposium on the Interface, Computing Science and Statistics 30, pp. 279-284.

Sahr, Kevin, Denis White. 1998. Discrete global grid systems. Proceedings of the 30th Symposium on the Interface, Computing Science and Statistics 30, pp. 269-278.

White, Denis, Jean C Sifneos. 1997. Mapping multivariate spatial relationships from regression trees by partitions of color visual variables. Proceedings, Auto-Carto 13, American Congress on Surveying and Mapping, pp. 86-95.

Kimerling, A Jon, Kevin Sahr, Denis White. 1997. Global scale data model comparison. Proceedings, Auto-Carto 13, American Congress on Surveying and Mapping, pp. 357-366.

Kimerling, A Jon, Denis White. 1995. The role of cartography in designing a global sampling framework for environmental monitoring. Proceedings of the 1995 International Cartographic Conference, International Cartography Association, pp 1673-1683.

Olsen, Anthony R, A Jon Kimerling, Denis White. 1994. GIS and national to global scale environmental monitoring and assessment - the EMAP approach. Proceedings of GIS/LIS Central Europe; Budapest, Hungary. GIS World Books.

Czaplewski, Raymond L, Douglas J Norton, Denis White. 1992. United States Environmental Monitoring and Assessment Program: landscape characterization and remote sensing. H Gyde Lund, Risto Paivinen, Songkram Thammincha, eds. Proceedings, Wacharakitti International Workshop on Remote Sensing and Permanent Plot Techniques for World Forest Monitoring. International Union of Forestry Research Organizations, pp. 109-117.

White, Denis, Margaret Maizel, Kelly K-L Chan, Jonathan Corson-Rikert. 1989. Polygon overlay to support point sample mapping: the National Resources Inventory. Proceedings, Auto-Carto 9, American Congress on Surveying and Mapping, pp. 384-390.

Chan, Kelly K-L, Denis White. 1987. Map algebra: an object oriented implementation. Proceedings, International Geographic Information Systems (IGIS) Symposium: The Research Agenda, Association of American Geographers, Vol. II, pp. 127-150.

White, Denis, Jonathan Corson-Rikert, Margaret Maizel. 1987. WYSIWYG map digitizing: real time geometric correction and topological encoding. Proceedings, Auto-Carto 8, American Congress on Surveying and Mapping, pp. 739-743.

White, Denis, Jonathan Corson-Rikert. 1987. Building geographic data bases for landscape analysis and planning in national parks. Proceedings, Workshop on Science and Resource Management in Northeast National Parks, US National Park Service, Boston, MA.

Corson-Rikert, Jonathan, Denis White. 1986. Comprehensive map input software. Proceedings, Urban and Regional Information Systems Association, 1986 Annual Conference.

Corson-Rikert, Jonathan, Denis White. 1986. Building large geographic data bases for planning: Minute Man National Historical Park. Proceedings, American Congress on Surveying and Mapping 1986 Annual Meeting, pp. 142-151.

White, Denis. 1985. A generalized cartographic data processing program. Proceedings, Auto-Carto 7, American Congress on Surveying and Mapping, pp. 560-569.

White, Denis. Interactive color mapping. 1980. Proceedings, Auto-Carto 4, American Congress on Surveying and Mapping, American Society of Photogrammetry, Vol. 1, pp. 272-277.

White, Denis. 1979. Odyssey design structure. Harvard Library of Computer Graphics, 1979 Mapping Collection, Vol. 2, pp. 207-215.

White, Denis. 1978. A design for polygon overlay. Proceedings of the First International Advanced Study Symposium on Topological Data Structures for Geographic Information Systems, G H Dutton, ed., Harvard Papers on Geographic Information Systems, Vol. VI.

MAJOR COMPUTER PROGRAMS:

Stream.net: functions with example data for creating, importing, attributing, analyzing, and displaying stream networks represented as binary trees; a contributed package for the R language. 2002-2007.

Maptree: functions for mapping and graphing statistical models created by classification trees, regression trees, and hierarchical clustering; a contributed package for the R language. 2000-2002.

Diamonds: graphic functions to illustrate hierarchical sampling and analysis grids developed on adjacent faces of octahedra or icosahedra; a contributed package for the R language. 1998-2002.

Roots: interactive map digitizing with real time geometric correction and topological encoding, in Pascal and C. (with Jonathan Corson-Rikert and Kelly K-L Chan) 1985-1988.

Imago Mundi and related programs: filtering and shaded relief display of terrain and overlay data, in FORTRAN with FLECS structured pre-processor. 1982-1984.

Picture: interactive vector graphics construction program with Odyssey-style command line interface, in FORTRAN with FLECS structured pre-processor. 1980-1982.

Harmony: Odyssey-style flat-file GIS data processing with functional transformations of coordinate and attribute data, in FORTRAN with FLECS structured pre-processor. 1979-1982.

Odyssey: multiple component vector-based geographic information system; memory management, polygon topology, and map projection modules; in FORTRAN with FLECS structured pre-processor. (design with Nick Chrisman, programming with Chrisman, James Dougenik, Scott Morehouse, and others) 1975-1980.

PEP module: application of Kalman Filter to Mariner 9 satellite signal-noise filtering, implemented for the Planetary Ephemeris Program, in FORTRAN. (guided by Robert Reasenber, Earth & Plan. Sci., MIT) 1973-1974.

Map projections: normal, polar, and oblique aspects of several common projections, in PL/1. (guided by Professor Clyde Patton, Geography, Univ. of Oregon) 1971.

Resolution theorem prover: Robinson's resolution principle in an interactive theorem proving program, in ALGOL and ASLIP. (with Larry Folts and guided by Professor Larry Travis, Computer Science, Univ. of Wisconsin) 1967-1969.

ASLIP. Weizenbaum's Symmetric List Processor, in ALGOL. (with Larry Folts and guided by Professor Larry Travis, Computer Science, Univ. of Wisconsin) 1967.

GOVERNMENT AND OTHER REPORTS:

White, Denis. 2020. Ecological Regions for Minnesota: Level III and IV maps, descriptions, state geography, methods discussion. Unpublished report. 22 pages of text plus 69 pages of appendices. URL: <http://ecologicalregions.info>

Leibowitz, Scott G, Denis White, Joan P Baker. 2003. Prototype watershed-stream network modeling approach for Pacific salmon. FY03 Annual Performance Measure. Internal Report. U.S. Environmental Protection Agency, Corvallis, Oregon. 106 pp.

Adamus, Paul R, Joan P Baker, Denis White, Mary Santelmann, Patricia Haggerty. 2001. Terrestrial vertebrate species of the Willamette River Basin: species-habitat relationships matrix. Internal Report. U.S. Environmental Protection Agency, Corvallis, Oregon. (Available at <http://www.orst.edu/dept/pnw-erc>)

Maizel, Margaret, Denis White, Stuart Gage, Leon Osborne, Ralph Root, Susan Stitt, George Muehlbach. 1999. Historical interrelationships between population settlement and farmland in the conterminous United States, 1790 to 1992. Perspectives on the land-use history of North America: a context for understanding our changing environment. Thomas D Sisk, editor. US Geological Survey, Biological Resources Division, Biological Science Report USGS/BRD/BSR 1998-0003, 104 pp. [[PDF](#) 532 KB]

Hulse, David, Lisa Goorjian, David Richey, Michael Flaxman, Cheryl Hummon, Denis White, Kathryn Freemark, Joseph Eilers, Joseph Bernert, Kellie Vache, Jolie Kaytes, David Diethelm. 1997. Possible futures for the Muddy Creek watershed, Benton County, Oregon. Institute for a Sustainable Environment, University of Oregon, Eugene. 90 pp.

Freemark, Kathryn E, Cheryl Hummon, Denis White, David Hulse. 1996. Modeling risks to biodiversity in past, present, and future landscapes. Technical Report No. 268, Canadian Wildlife Service, Headquarters, Environment Canada, Ottawa K1A 0H3. 60 pp.

Kimerling, A Jon, Denis White, Kevin Sahr, Lian Song. 1995. Mid-project report: Sampling design and statistics research for Environmental Monitoring and Assessment Program (EMAP) development of global sampling grid. Corvallis (OR): Oregon State University, Department of Geosciences. Technical Report 95-02.

Spence, Margaret H, Denis White. EMAP sampling grid technical report. 1992. ManTech Environmental Technology, Inc., US EPA Environmental Research Laboratory, Corvallis, Oregon 64 pp.

Overton, W Scott, Denis White, Don L Stevens Jr. 1991. Design Report for EMAP: Environmental Monitoring and Assessment Program, EPA/600/3-91/053, 43 pp.

White, Denis. 1985. Geographic information systems on microcomputers. LCGSA Report 85-11, Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

Corson-Rikert, Jonathan, Denis White. 1985. Issues in map digitizing. LCGSA Report 85-18, Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

Corson-Rikert, Jonathan, Denis White. 1985. The TRACE program for map input. LCGSA Report 85-17, Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

Antone, Susan, Denis White. 1978. Odyssey topological polygon cycling: the Cyclops program. Program reference manual, Laboratory for Computer Graphics and Spatial Analysis.

Chrisman, Nicholas R, Denis White. 1977. Programming for Transportability: A Guide to Machine Independent FORTRAN, Laboratory for Computer Graphics and Spatial Analysis.

Schmidt, Allen H, Nicholas R Chrisman, Denis White, James A Dougenik. 1976. Year Two Progress Report on NSF Grant MCS 74-14437-A01. Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

White, Denis, James A Dougenik, Nicholas R Chrisman. Polygon overlay. 1976. LCGSA Report 76-12, Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

White, Denis. Cyclops conventions and assumptions. 1976. LCGSA Report 76-4, Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

White, Denis, Allen H Schmidt. 1975. A report on the conversion of twelve urban atlas files to extended- DIME files and their use in the preparation of base-map files for computer mapping. LCGSA Report 75-6, Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

White, Denis. 1975. The conversion of urban atlas census tract files to DIME and chain file formats. LCGSA Report 75-5, Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design.

THESIS:

White, Denis. 1984. The structural analysis of multivariate maps in national atlases. Unpublished M.A. Thesis, Boston University.

INVITED SEMINARS:

Homage to Raymond O'Connor: biodiversity, neutral models, inspiration. 2007. Department of Biology, East Carolina University.

Modeling fish assemblages in stream networks. 2006. Department of Geography, University of Oregon.

Environmental assessments using alternative futures. 2005. US Environmental Protection Agency Research Laboratory, Duluth, Minnesota.

Alternative futures for biodiversity; using ecologically scaled landscape indices. 2004. Department of Wildlife Ecology, University of Maine.

Global alternative future scenarios. 2003. Environmental Sciences Graduate Program, Oregon State University.

Rich maps, a cartography of place. 2002. Department of Geography, University of Oregon.

Mapping and pruning regression trees. 1998. Department of Statistics, Oregon State University. (with Jean C Sifneos and N Scott Urquhart)

A hierarchical framework for biodiversity. 1998. Department of Geosciences, Oregon State University.

Analysis of ecoregion epistemologies: the idiotic and the pathetic. 1997. Department of Geography, University of Washington.

Continental scale controls on species richness, global sampling networks for environmental monitoring, and impacts of future landscape changes on biodiversity. 1994. Department of Geosciences, Oregon State University.

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