

GEOGG065: Environmental GIS

View Online



1

Brewer CA. Designing better maps: a guide for GIS users. Redlands, Calif: ESRI Press 2005.

2

DeMers MN. Fundamentals of geographic information systems. 4th ed. Hoboken, NJ: Wiley 2009.

3

de Smith M, Longley P, Goodchild M. Geospatial Analysis. 2021.
<https://www.spatialanalysisonline.com/HTML/index.html>

4

Heywood I, Cornelius S, Carver S. An introduction to geographical information systems. 3rd ed. Harlow: Pearson Education 2006.

5

Longley P, et al. Geographic information systems & science. 3rd ed. Hoboken, N.J.: John Wiley & Sons 2011.

6

Baily B, Nowell D. Techniques for monitoring coastal change: a review and case study. Ocean & Coastal Management. 1996;32:85-95. doi: 10.1016/S0964-5691(96)00058-0

7

Barfoot PJ, Tucker JJ. Geomorphological changes at Blakeney Point. Transactions of the Norfolk and Norwich Naturalists Society. 1980;25:49–60.

8

Bernhardsen T. Geographic information systems: an introduction. 2nd ed. New York: Wiley 1999.

9

Bock M. Remote sensing and GIS-based techniques for the classification and monitoring of biotopes: Case examples for a wet grass- and moor land area in Northern Germany. Journal for Nature Conservation. 2003;11:145–55. doi: 10.1078/1617-1381-00050

10

Boteva D, Griffiths G, Dimopoulos P. Evaluation and mapping of the conservation significance of habitats using GIS: an example from Crete, Greece. Journal for Nature Conservation. ;12:237–50. doi: 10.1016/j.jnc.2004.09.002

11

Burningham H. Meso-scale morphological changes in the Loughros More estuary. Proceedings of Littoral 2002: The Changing Coast. 2002;265–70. <http://sheskinmore.wordpress.com/research/>

12

Dong Z, Wang X, Chen G. Monitoring sand dune advance in the Taklimakan Desert. Geomorphology. ;35:219–31. doi: 10.1016/S0169-555X(00)00039-8

13

Draper D, et al. Application of GIS in plant conservation programmes in Portugal. Biological Conservation. ;113:337–49. doi: 10.1016/S0006-3207(03)00125-3

14

Ekebom J, Erkkila A. Using aerial photography for identification of marine and coastal habitats under the EU's Habitats Directive. *Aquatic Conservation: Marine and Freshwater Ecosystems*. ;13:287–304. doi: 10.1002/aqc.553

15

Fromard F, Vega C, Proisy C. Half a century of dynamic coastal change affecting mangrove shorelines of French Guiana. A case study based on remote sensing data analyses and field surveys. *Marine Geology*. ;208:265–80. doi: 10.1016/j.margeo.2004.04.018

16

Leeks GJL, et al. The LOIS river monitoring network: strategy and implementation. *Science of The Total Environment*. ;194–195:101–9. doi: 10.1016/S0048-9697(96)05356-9

17

Letsinger SL. Evaluation of Riparian Buffer Zones using GIS and Remote Sensing to Target Watershed Restoration Efforts. 2004.
<http://igs.indiana.edu/WatershedHydrology/RiparianBuffers.cfm>

18

Koch T. The Map as Intent: Variations on the Theme of John Snow. *Cartographica*. 2004;39:1–15.

19

Maddrell RJ. Managed coastal retreat, reducing flood risks and protection costs, Dungeness Nuclear Power Station, UK. *Coastal Engineering*. ;28:1–15. doi: 10.1016/0378-3839(95)00035-6

20

Manson FJ, Loneragan NR, Phinn SR. Spatial and temporal variation in distribution of mangroves in Moreton Bay, subtropical Australia: a comparison of pattern metrics and

change detection analyses based on aerial photographs. *Estuarine, Coastal and Shelf Science*. ;57:653–66. doi: 10.1016/S0272-7714(02)00405-5

21

McGregor SJ. An integrated geographic information system approach for modeling the suitability of conifer habitat in an alpine environment. *Geomorphology*. ;21:265–80. doi: 10.1016/S0169-555X(97)00066-4

22

McKenna et al. J. Obsolete Maps and Coastal Management: Case Studies from Northwest Ireland. *Coastal Management*. 2003;31:229–46.

23

Moore T, et al. An Expert System for Integrated Coastal Zone Management: A Geomorphological Case Study. *Marine Pollution Bulletin*. ;37:361–70. doi: 10.1016/S0025-326X(99)00129-0

24

Nams VO, Mowat G, Panian MA. Determining the spatial scale for conservation purposes – an example with grizzly bears. *Biological Conservation*. ;128:109–19. doi: 10.1016/j.biocon.2005.09.020

25

Neilson B, Costello MJ. The Relative Lengths of Seashore Substrata Around the Coastline of Ireland as Determined by Digital Methods in a Geographical Information System. *Estuarine, Coastal and Shelf Science*. ;49:501–8. doi: 10.1006/ecss.1999.0507

26

Duane Nellis M, Harrington JA, Wu J. Remote sensing of temporal and spatial variations in pool size, suspended sediment, turbidity, and Secchi depth in Tuttle Creek Reservoir, Kansas: 1993. *Geomorphology*. ;21:281–93. doi: 10.1016/S0169-555X(97)00067-6

27

Pedersen ÅØ, Nyhuus S, Blindheim T, et al. Implementation of a GIS-based management tool for conservation of biodiversity within the municipality of Oslo, Norway. *Landscape and Urban Planning*. ;68:429–38. doi: 10.1016/S0169-2046(03)00148-8

28

Perotto-Baldiviezo HL, et al. GIS-based spatial analysis and modeling for landslide hazard assessment in steeplands, southern Honduras. *Agriculture, Ecosystems & Environment*. ;103:165–76. doi: 10.1016/j.agee.2003.10.011

29

Salem BB. Application of GIS to biodiversity monitoring. *Journal of Arid Environments*. ;54:91–114. doi: 10.1006/jare.2001.0887

30

Sear DA, Newson MD. Environmental change in river channels: a neglected element. Towards geomorphological typologies, standards and monitoring. *Science of The Total Environment*. ;310:17–23. doi: 10.1016/S0048-9697(02)00619-8

31

Thompson S, et al. Identifying potential breeding sites for the stone curlew (*Burhinus oedicnemus*) in the UK. *Journal for Nature Conservation*. ;12:229–35. doi: 10.1016/j.jnc.2004.07.002

32

Thorbjarnarson J, et al. Regional habitat conservation priorities for the American crocodile. *Biological Conservation*. ;128:25–36. doi: 10.1016/j.biocon.2005.09.013

33

Walsh SJ, Butler DR, Malanson GP. An overview of scale, pattern, process relationships in geomorphology: a remote sensing and GIS perspective. *Geomorphology*. ;21:183–205. doi: 10.1016/S0169-555X(97)00057-3

34

White K, El Asmar HM. Monitoring changing position of coastlines using Thematic Mapper imagery, an example from the Nile Delta. *Geomorphology*. ;29:93–105. doi: 10.1016/S0169-555X(99)00008-2

35

van der Meulen F, Witter JV, Arens SM. The use of a GIS in assessing the impacts of sea level rise on nature conservation along the Dutch coast: 1990–2090. *Landscape Ecology*. ;6:105–13. doi: 10.1007/BF00157750

36

Vitek JD, Giardino JR, Fitzgerald JW. Mapping geomorphology: A journey from paper maps, through computer mapping to GIS and Virtual Reality. *Geomorphology*. ;16:233–49. doi: 10.1016/S0169-555X(96)80003-1

37

Band LE. Topographic Partition of Watersheds with Digital Elevation Models. *Water Resources Research*. ;22:15–24. doi: 10.1029/WR022i001p00015

38

Carmona CP, Röder A, Azcárate FM, et al. Grazing management or physiography? Factors controlling vegetation recovery in Mediterranean grasslands. *Ecological Modelling*. ;251:73–84. doi: 10.1016/j.ecolmodel.2012.12.005

39

Chen C-Y, Yu F-C. Morphometric analysis of debris flows and their source areas using GIS. *Geomorphology*. ;129:387–97. doi: 10.1016/j.geomorph.2011.03.002

40

Dalton T, Thompson R, Jin D. Mapping human dimensions in marine spatial planning and management: An example from Narragansett Bay, Rhode Island. *Marine Policy*.

;34:309–19. doi: 10.1016/j.marpol.2009.08.001

41

Dartnell P, et al. Multibeam sonar mapping and modeling of a submerged bryophyte mat in Crater Lake, Oregon. 2008. <http://pubs.usgs.gov/ds/366/>

42

Kienzle S. The Effect of DEM Raster Resolution on First Order, Second Order and Compound Terrain Derivatives. *Transactions in GIS.* ;8:83–111. doi: 10.1111/j.1467-9671.2004.00169.x

43

Leonard PB, et al. Remote detection of small wetlands in the Atlantic coastal plain of North America: Local relief models, ground validation, and high-throughput computing. *Forest Ecology and Management.* ;284:107–15. doi: 10.1016/j.foreco.2012.07.034

44

Lundblad ER, et al. A Benthic Terrain Classification Scheme for American Samoa. *Marine Geodesy.* 2006;29:89–111. doi: 10.1080/01490410600738021

45

Miller SN, et al. The Automated Geospatial Watershed Assessment tool. *Environmental Modelling & Software.* ;22:365–77. doi: 10.1016/j.envsoft.2005.12.004

46

Naito AT, Cairns DM. Relationships between Arctic shrub dynamics and topographically derived hydrologic characteristics. *Environmental Research Letters.* ;6. doi: 10.1088/1748-9326/6/4/045506

47

Rozo MG, Nogueira ACR, Truckenbrodt W. The anastomosing pattern and the extensively

distributed scroll bars in the middle Amazon River. *Earth Surface Processes and Landforms*. ;37:1471–88. doi: 10.1002/esp.3249

48

Rumsby B. Vertical accretion rates in fluvial systems: -a comparison of volumetric and depth-based estimates. *Earth Surface Processes and Landforms*. ;25:617–31. doi: 10.1002/1096-9837(200006)25:6<617::AID-ESP99>3.0.CO;2-Z

49

Rumsby BT, Macklin MG. Channel and floodplain response to recent abrupt climate change: The tyne basin, Northern England. *Earth Surface Processes and Landforms*. ;19:499–515. doi: 10.1002/esp.3290190603

50

Sørensen R, Zinko U, Seibert J. On the calculation of the topographic wetness index: evaluation of different methods based on field observations. *Hydrology and Earth System Sciences*. ;10:101–12. doi: 10.5194/hess-10-101-2006

51

Tarboton DG, Bras RL, Rodriguez-Iturbe I. On the extraction of channel networks from digital elevation data. *Hydrological Processes*. ;5:81–100. doi: 10.1002/hyp.3360050107

52

Teng J, Vaze J, Tuteja NK, et al. A GIS-Based Tool for Spatial and Distributed Hydrological Modelling: CLASS Spatial Analyst. *Transactions in GIS*. ;12:209–25. doi: 10.1111/j.1467-9671.2008.01096.x

53

Wilson MFJ, et al. Multiscale Terrain Analysis of Multibeam Bathymetry Data for Habitat Mapping on the Continental Slope. *Marine Geodesy*. ;30:3–35. doi: 10.1080/01490410701295962

54

Chaaban F, et al. Using ArcGISH Modelbuilder and Aerial Photographs to Measure Coastline Retreat and Advance: North of France. *Journal of Coastal Research*. 2012;28:1567–79.

55

Hall ST, Post CJ. Advanced GIS Exercise: Estimating Beach and Dune Erosion in Coastal South Carolina. *Journal of Natural Resources and Life Sciences Education*. 2008;37:49–52.

56

Wright DJ, Heyman WD. Introduction to the Special Issue: Marine and Coastal GIS for Geomorphology, Habitat Mapping, and Marine Reserves. *Marine Geodesy*. ;31:223–30. doi: 10.1080/01490410802466306

57

Greco SE, Plant RE. Temporal mapping of riparian landscape change on the Sacramento river, miles 196–218, California, USA. *Landscape Research*. ;28:405–26. doi: 10.1080/0142639032000150149

58

Estes JE. *Some applications of aerial infrared imagery*. Lawrence, KS: Allen Press Inc 1966.

59

Sheppard CRC, et al. Habitat mapping in the Caribbean for management and conservation: Use and assessment of aerial photography. *Aquatic Conservation: Marine and Freshwater Ecosystems*. ;5:277–98. doi: 10.1002/aqc.3270050404

60

Taylor JC, Brewer TR, Bird AC. Monitoring landscape change in the National Parks of England and Wales using aerial photo interpretation and GIS. *International Journal of Remote Sensing*. ;21:2737–52. doi: 10.1080/01431160050110269

61

Kadmon R, Harari-Kremer R. Studying Long-Term Vegetation Dynamics Using Digital Processing of Historical Aerial Photographs. *Remote Sensing of Environment.* ;68:164–76. doi: 10.1016/S0034-4257(98)00109-6

62

Sutherland J. Error analysis of Ordnance Survey map tidelines, UK. *Proceedings of the ICE - Maritime Engineering.* ;165:189–97. doi: 10.1680/maen.2011.10