

PUBLICATIONS

PAPERS IN PEER-REVIEWED JOURNALS

- Levin N. and Saaroni H. (1999), "Fire weather in Israel - Synoptic climatological analysis", *Geo Journal*, Vol. 47, No. 4, 523-538.
- Ben-Dor E. and Levin N. , (2000), "Determination of surface reflectance from raw hyperspectral data without simultaneous ground data measurements: a case study of the GER 63-channel sensor data acquired over Naan, Israel", *International Journal of Remote Sensing*, 21:10, pp. 2053-2074.
- Ben-Dor E., Levin N. and Saaroni H. (2001), "A spectral based recognition of the urban environment using the visible and near-infrared spectral region (0.4-1.1 μm). A case study over Tel-Aviv, Israel", *International Journal of Remote Sensing*, 22:11, pp. 2193-2218.
- Levin N., Ben-Dor E. and Kidron G.J. (2003), "The influence of human factors on the temporal changes in the stabilization rate of the Ashdod-Nizzanim dunes", *Horizons in Geography*, 57-58, pp. 224-241 (in Hebrew; abstract in English in p. viii).
- Levin N., Ben-Dor E. and Karnieli A. (2004), "Topographic Information of Sand Dunes as Extracted from Shading Effects Using Landsat Images", *Remote Sensing of Environment*, 90, pp. 190-209.
- Levin N. and Ben-Dor E. (2004), "Monitoring sand dune stabilization along the coastal dunes of Ashdod-Nizanim, Israel, 1945-1999", *Journal of Arid Environments*, 58, pp. 335-355.
- Levin N., Ben-Dor E. and Singer A. (2005), "A digital camera as a tool to measure colour indices and related properties of sandy soils in semi-arid environments", *International Journal of Remote Sensing*, 26 (24), pp. 5475-5492.
- Ben-Dor E., Levin N., Singer A., Karnieli A., Braun O. and Kidron G. (2006), "Quantitative Mapping of the Soil Rubification Process on Sand Dunes Using an Airborne CASI Hyperspectral Sensor", *Geoderma*, 131, pp. 1-21.
- Levin N. (2006), "The Palestine Exploration Fund map (1871-1877) of the Holy Land as a tool for analyzing landscape changes: the coastal dunes of Israel as a case study", *The Cartographic Journal*, 43 (1), pp. 45-67.

- Levin N., Kidron G.J. and Ben-Dor E. (2006), "The spatial and temporal variability of sand erosion across a stabilizing coastal dune field", *Sedimentology*, 53, pp. 697-715.
- Holzapfel C., Levin N., Hatzofe O. and Kark S., (2006), "Colonisation of the Middle East by the invasive Common Myna *Acridotheres tristis* L., with special reference to Israel", *Sandgrouse*, 28 (1), pp. 44-51.
- Levin N., Lahav H., Ramon U., Heller A., Nizry G., Tsoar A., and Sagi Y. (2007), "Landscape continuity analysis: A new approach to conservation planning in Israel", *Landscape and Urban Planning*, 79, pp. 53-64.
- Kark S., Allnutt T.F., Levin N., Manne L.L. and Williams P.H., (2007), "The role of transitional areas as avian biodiversity centers", *Global Ecology and Biogeography*, 16, pp. 187-196.
- Levin N., Tsoar H., Maia L.P., Claudino-Sales V. and Herrmann H. (2007) "Dune whitening and inter-dune fresh water ponds in NE Brazil", *Catena*, 70, pp. 1-15.
- Levin, N., Lugassi, R., Ramon U., Braun O. and Ben-Dor E, (2007) "Remote sensing as a tool for monitoring plasticulture in agricultural landscapes", *International Journal of Remote Sensing*, 28 (1), pp. 183-202.
- Levin N., Kidron G.J. and Ben-Dor E., (2007) "Surface properties of stabilizing coastal dunes – combining spectral and field analyses", *Sedimentology*, 54, 771-788. doi: 10.1111/j.1365-3091.2007.00859.x.
- Levin N., Shmida A., Levanoni O., Tamari H. and Kark S., (2007) "Predicting mountain plant richness and rarity from space using satellite-derived vegetation indices", *Diversity and Distributions*, 13, 692-703. doi: 10.1111/j.1472-4642.2007.00372.x
- Levin N. and Shmida A., (2007) "Determining conservation hotspots across biogeographic regions using rainfall belts: Israel as a case study ", *Israel Journal of Ecology & Evolution*. 53, 33-58.
- Bino G., Levin N., Darawshi S., van der Hal N., Reich-Solomon A. and Kark S., (2008) "Landsat derived NDVI and spectral unmixing accurately predict bird species richness patterns in an urban landscape", *International Journal of Remote Sensing*, 29, 3675-3700. DOI: 10.1080/01431160701772534.
- Levin N., Kidron G.J. and Ben-Dor E. (2008) "A field quantification of the adaptations of costal dune plants to erosion and deposition of sand", *Sedimentology*. 55, 751-772. doi: 10.1111/j.1365-3091.2007.00920.x

- Levin N., Ben-Dor E., Kidron G.J. and Yaakov Y., (2008) "Prediction of surface roughness (z_0) over a stabilizing coastal dune field based on vegetation and topography", *Earth Surface Processes and Landforms*, 33, 1520-1541. Published article online. doi: 10.1002/esp.1621.
- Kark S., Levin N. and Phinn, S. (2008) "Global environmental priorities: making sense of remote sensing", *Trends in Ecology and Evolution*, 23, 181-182. doi:10.1016/j.tree.2008.01.001.
- Levin, N., McAlpine, C., Phinn, S., Price, P., Pullar, D., Law, B., and Kavanagh, R.P., (2009) "Mapping forest patches and scattered trees from SPOT images and testing their ecological importance for woodland birds in a fragmented agricultural landscape". *International Journal of Remote Sensing*, 30 (12), 3147-3169, doi: 10.1080/01431160802558782.
- Van Rensburg, B., Levin, N., and Kark, S. (2009) "Spatial congruence between ecotones and range restricted species: implications for conservation biogeography at the national scale". *Diversity and Distributions*, 15, 379-389.
- Levin N., Haim Tsoar, Hans Jürgen Herrmann, Vanda Claudino-Sales and Luis Parente Maia (2009) "Modeling the formation of arcuate vegetated dune ridges behind barchan dunes in NE Brazil", *Sedimentology*, 56, 1623-1641 doi: 10.1111/j.1365-3091.2009.01048.x .
- Levin N., Tsoar H., Maia L.P., Claudino-Sales V. and Herrmann H.J., (2008) "Lagoas costeiras interdunares e branqueamento de dunas no Nordeste do Brasil", *Mercator*, 14, 143-166.
- Tsoar H., Levin N., Porat N., Maia L.P., Herrmann H.J., Tatumi S.H., Claudino-Sales V.C. (2009) " The effect of climate change on the mobility and stability of coastal sand dunes in Ceará State (NE Brazil). *Quaternary Research*, 71, 217-226.
- Levin, N., Elron, E., and Gasith, A. (2009) "Decline of wetland ecosystems in the coastal plain of Israel during the 20th century: implications for wetland conservation and management". *Landscape and Urban Planning*, 92, 220-232, doi:10.1016/j.landurbplan.2009.05.009.
- Kark, S., Levin, N., Grantham, H. and Possingham, H. (2009) "Between-country collaboration and consideration of costs increase conservation planning efficiency in the Mediterranean Basin", *Proceedings of the National Academy of Sciences of the United States of America*, 106, 15360-15365.

- Levin, N., Kark, R. and Galili E., (2010) "Historical maps and GIS: mapping of southern Palestine 1799-1948, issues of scale and accuracy and possible applications", *Journal of Historical Geography*, 36, 1-18. doi: 10.1016/j.jhg.2009.04.001.
- Clavero, M., Hermoso, V., Levin, N., and Kark, S. (2010), "Geographical linkages between threats and imperilment in freshwater fish in the Mediterranean Basin", *Diversity and Distributions*, 16, 744-754.
- Rocchini, D., Balkenhol, N., Carter, G.A., Foody, G.M., Gillespie, T.W., He, K.S., Kark, S., Levin, N., Lucas, K., Luoto, M., Nagendra, H., Oldeland, J., Ricotta, C., Southworth, J., Neteler, M. (2010), "Remotely sensed spectral heterogeneity as a proxy of species diversity: Recent advances and open challenges", *Ecological Informatics*, 5, 318-329.
- Levanoni, A., Levin, N., Pe'er, g., Turbé, A., Kark, S. (2011), "Can we predict butterfly diversity along an elevation gradient from space?", *Ecography*, 34, 372-383. DOI: 10.1111/j.1600-0587.2010.06460.x
- Levin, N. (2011), "Climate-driven changes in tropical cyclone intensity shape dune activity on Earth's largest sand island", *Geomorphology*, 125, 239-252.
- Levin, N., Levental, S. and Morag, H. (2012), "The effect of wildfires on vegetation cover and dune activity in Australia's desert dunes: a multi-sensor analysis", *International Journal of Wildland Fire*, 21, 459-475. <http://dx.doi.org/10.1071/WF10150>
- Hugenholtz, C.H., Levin, N., Barchyn, T.E. and Baddock, M.C. (2012), "Remote sensing and spatial analysis of aeolian sand dunes: a review and outlook". *Earth-Science Reviews*, 111, 319-334.
- Levin, N. and Duke, Y. (2012), "High spatial resolution night-time light images for demographic and socio-economic studies". *Remote Sensing of Environment*, 119, 1-10.
- Levin, N., Legge, S., Price, B., Bowen, M., Litvack, E., Maron, M., McAlpine, C. (2012), "MODIS time series as a tool for monitoring fires and their effects on savanna bird diversity", *International Journal of Wildland Fire*, 21, 680-694. <http://dx.doi.org/10.1071/WF11031>
- Portman, M., Nathan, D., Levin, N. (2012), "From the Levant to Gibraltar: A Regional Perspective for Marine Conservation in the Mediterranean Sea", *Ambio*, 41, 670-681 doi: 10.1007/s13280-012-0298-x.

- Van Rensburg, B., Hugo, S., Levin, N., and Kark, S (2013), "Are environmental transitions more prone to biological invasions?", *Diversity and Distributions*, 19, 341-351.
- Giakoumi, S., Mazor, T., Frascchetti, S., Kark, S., Portman, M., Coll, M., Steenbeek, J., Possingham, H., Workshop Participants (2012), "Advancing marine conservation planning in the Mediterranean Sea", *Reviews in Fish Biology and Fisheries*, 22, 943-949.
- Kark, S., Levin, N., Shanas, U. (2012). The top research questions for nature conservation and biodiversity policy and horizon scanning. *Ecology and Environment*, 3, 132-133 (in Hebrew: שאלות המחקר החשובות למדיניות שמירת הטבע (והמגוון הביולוגי וסריקת אופקים)).
- Levin, N., Heimowitz, A. (2012). Mapping spatial and temporal patterns of Mediterranean wildfires from MODIS. *Remote Sensing of Environment*, 126, 12-26, doi: 10.1016/j.rse.2012.08.003.
- Levin, N., Watson, J.E.M., Joseph, L.N., Grantham, H.S., Hadar, L., Apel, N., Perevolotsky, a., DeMalach, N., Possingham, H.P., Kark, K. (2013). A framework for systematic conservation planning and management of Mediterranean landscapes. *Biological Conservation* , 158, 371-383.
- Mazor, T., Levin, N., Possingham, H.P., Levy, Y., Rocchini, D., Richardson, A.J., Kark, S. (2013). Can satellite-based night lights be used for conservation? The case of nesting sea turtles in the Mediterranean. *Biological Conservation*, 159, 63-72. DOI: <http://dx.doi.org/10.1016/j.biocon.2012.11.004>
- Micheli, F., Levin, N., Giakoumi, S., Katsanevakis, S., Abdulla, A., Coll, M., Frascchetti, S., Kark, S., Koutsoubas, D., Mackelworth, P., Maiorano, L., Possingham, H.P. (2013). Setting priorities for regional conservation planning in the Mediterranean Sea. *PLoS ONE* 8(4): e59038. doi:10.1371/journal.pone.0059038
- Levin, N., Tulloch, A., Gordon, A., Mazor, T., Bunnefeld, T., Kark, S. (2013) Incorporating socio-economic and political drivers of international collaboration into marine conservation planning. *BioScience*, 63, 547-563.
- Frantzman, S.J., Levin, N. Kark, R. (2014) Counting nomads: British census attempts and tent counts of the Negev Bedouin 1917-1948. *Population, Space and Place*, 20, 552-568 DOI: 10.1002/psp.1795.

- Yizhaq, H., Ashkenazya, Y., Levin, N., Tsoar, H. (2013) Spatiotemporal model for the progression of transgressive dunes. *Physica A*, 392, 4502-4515.
- Kirca, S., Altincekic, H., Levin, N. (2013) Landscape Continuity Analysis as a Tool for Landscape Planning: a Case Study in Istanbul. *Landscape Research*, doi: 10.1080/01426397.2013.824561
- Levin, N., Singer, M., Lai, P.C. (2013) Incorporating Topography into Landscape Continuity Analysis – Hong Kong Island as a Case Study. *Land*, 2(4), 550-572; doi:10.3390/land2040550.
- Levin, N., Johansen, K., Hacker, J.M., Phinn, S. (2014) A new source for high spatial resolution night time images - the EROS-B commercial satellite. *Remote Sensing of Environment*, 149, 1-12. doi: 10.1016/j.rse.2014.03.019
- Levin, N., Coll, M., Frascchetti, S., Gal, G., Giakoumi, S., Göke, C., Heymans, J.J., Katsanevakis, S., Mazor, T., Öztürk, B., Rilov, G., Gajewski, J., Steenbeek, J., Kark, S. (2014) Review of biodiversity data requirements for systematic conservation planning in the Mediterranean Sea. *Marine Ecology Progress Series*, 508, 261-281. doi: 10.3354/meps10857
- Levin, N., Neil, D., Syktus, J. (2014). Spatial variability of wind regime at Moreton Island, Australia, as reflected in coastal dune form, observing stations and reanalyses. *Aeolian Research*, 15, 289-300. doi: 10.1016/j.aeolia.2014.06.006
- Katsanevakis, S., Levin, N., Coll, M., Giakoumi, S., Shkedi, D., Mackelworth, P., Levy, R., Velegrakis, A., Koutsoubas, D., Caric, H., Brokovich, E., Ozturk, B., Kark, S. (2015). Marine conservation challenges in an era of economic crisis and geopolitical instability: The case of the Mediterranean Sea. *Marine Policy*, 51, 31-39. <http://dx.doi.org/10.1016/j.marpol.2014.07.013>
- Kark, S., Tulloch, A., Gordon, A., Mazor, T., Bunnefeld, N., Levin, N. (2015). Cross-boundary collaboration: key to the conservation puzzle. *Current Opinion in Environmental Sustainability*, 12, 12-24.
- Schaffer, G., Levin, N. (2014). Mapping human induced landscape changes in Israel between the end of the 19th century and the beginning of the 21th century. *Journal of Landscape Ecology*, 7 (1), 110-146.
- Zohar, I., Bookman, R., Teutsch, N., Levin, N., de Stigter, H. (2014). The contamination history of lead and other trace metals reconstructed from an urban winter pond in the Eastern Mediterranean coast (Israel). *Environmental Science & Technology*, 48, 13592–13600. Doi: 10.1021/es500530x

- Goldman, R., Biton, E., Brokovich, E., Kark, S., Levin, N. (2015). Oil spill contamination probability in the southeastern Levantine basin. *Marine Pollution Bulletin*, 91, 347-356. doi:10.1016/j.marpolbul.2014.10.050.
- Bruton, M.J., Maron, M., Levin, N., McAlpine, C. (2015) "Testing the relevance of binary, mosaic and continuous landscape conceptualisations to reptiles in regenerating dryland landscapes". *Landscape Ecology*, 30, 715-728. Awarded the US-IALE Awards Committee to receive the 2016 award for Outstanding Paper in Landscape Ecology.
- Schaffer, G., Peer, M., Levin, N. (2016) "Quantifying the completeness of and correspondence between two historical maps: a case study from 19th century Palestine". *Cartography and Geographic Information Science*, 43 (2), 154-175. <http://dx.doi.org/10.1080/15230406.2015.1029519>
- Levin, N., Mazor, T., Brokovich, E., Jablon, P.-E., Kark, S. (2015) "Sensitivity analysis of conservation targets in systematic conservation planning". *Ecological Applications*, 25 (7), 1997-2010.
- Levy, I., Levin, N., Yuval, Schwartz, J.D., Kark, J.D. (2015) "Back-extrapolating a land use regression model for estimating past exposures to traffic-related air pollution". *Environmental Science & Technology*, 49, 3603–3610 doi: 10.1021/es505707e .
- Levin, N., Kark, S., Crandall, D.J. (2015) "Where have all the people gone? Enhancing global conservation using night lights and social media". *Ecological Applications*, 25 (8), 2153–2167.
- Weil, G., Levin, N. (2015) "Can siting algorithms assist in prioritizing for conservation in a densely populated and land use allocated country? Israel as a case study". *Israel Journal of Ecology & Evolution*, 61(1), 50-60. Doi:10.1080/15659801.2015.1035858
- Kark, S., Brokovich, E., Mazor, T., Levin, N. (2015) "Emerging conservation challenges and prospects of offshore oil and natural gas production". *Conservation Biology*, 29 (6), 1573-1585. doi: 10.1111/cobi.12562
- Schaffer, G., Levin, N. (2016) "Reconstructing 19th century landscapes from historical maps – the Survey of Western Palestine as a case study". *Landscape Research*, 41 (3), 360-379. doi: 10.1080/01426397.2015.1078454
- Levin, N. (2016) "Human factors explain the majority of MODIS derived trends in vegetation cover in Israel - a densely populated country in the eastern

- Mediterranean”. *Regional Environmental Change*, 16, 1197-1211. doi: 10.1007/s10113-015-0848-4
- Schaffer, G., Levin, N. (2015) “Challenges and possible approaches for using GIS as a tool in historical geography landscape research: a meta-analysis review”. *e-Perimtron*, 10 (3), 94-123.
- Kark, S., Sutherland, W.J., Shanas, U., Klass, K., Achisar, H., Dayan, T., Gavrieli, Y., Justo-Hanani⁶, R., Mandelik, Y., Orion, N., Pargament, D., Portman, M., Reisman-Berman, O., Safriel, U., Schaffer, G., Steiner, N., Tauber, I., Levin, N. (2016) "Priority questions and horizon scanning for conservation: A comparative study", *PLoS One*, 11(1): e0145978. DOI:10.1371/journal.pone.0145978
- Katz, Y., Levin, N. (2016) Quantifying urban light pollution - a comparison between field measurements and EROS-B imagery. *Remote Sensing of Environment*, 177, 65-77. <http://dx.doi.org/10.1016/j.rse.2016.02.017>
- Levin, N., Phinn, S. (2016) Illuminating the capabilities of Landsat 8 for mapping night lights. *Remote Sensing of Environment*, 182, 27-38. <http://dx.doi.org/10.1016/j.rse.2016.04.021>
- Levin, N., Tessler, N., Smith, A.G., McAlpine, C. (2016) The human and physical determinants of wildfires and burnt areas in Israel. *Environmental Management*, 58, 549-562. DOI 10.1007/s00267-016-0715-1.
- Levin, N., Crandall, D.J., Kark, S. (in press) Scale matters: differences between local, regional and global analyses. *Ecological Applications*. doi: 10.1002/eap.1397
- Cohen, G., Levy, I., Yuval, Kark, J.D., Levin, N., Broday, D.M., Steinberg, D.M., Gerber, Y. (in press) Long-term exposure to traffic-related air pollution and cancer among survivors of myocardial infarction: a 20-year follow-up study. *European Journal of Preventive Cardiology* (accepted August 25th, 2016). DOI: 10.1177/2047487316669415
- Shafran-Nathan, R., Levy, I., Levin, N., & Broday, D. M. (2016). Ecological bias in environmental health studies: the problem of aggregation of multiple data sources. *Air Quality, Atmosphere & Health*, 1-10. doi:10.1007/s11869-016-0436-x
- Turco, M., Levin, N., Tessler, N., Saaroni, H. (in press). Recent changes and relations among drought, vegetation and wildfires in the eastern Mediterranean:

the case of Israel. *Global and Planetary Change* (accepted September 13th, 2016). doi: 10.1016/j.gloplacha.2016.09.002

BOOKS and BOOK CHAPTERS

- Levin N. (1999), *Fundamentals of Remote Sensing*, a book compiled using Internet resources, articles and personal knowledge. 225p.
- Lahav H., Levin N., Sagi Y. and Katz S. (1999), *Sustainable Development of Ramat HaNadiv and its Environs: Nature, Landscape and Landuse Resources*, SPNI – Open Landscape Institute (in Hebrew).
- Lahav H. and Levin N. (2001), *Tirat HaKarmel Coast: a Nature and Landscape Resources Survey*, Survey Unit of the SPNI (in Hebrew).
- Ramon U., Rapaport A., Mordi A., Shizer D., Dolev A., Alon D., Sagi Y., Yitzhaki G. and Levin N. (2001), *The Kinneret, its Beaches and Environs: Survey, Analysis and Evaluation of Nature and Landscape Resources*, Surveys Unit of the SPNI, 86p. (in Hebrew).
- Frumkin-Ahiron T., Frumkin R., Roudich R., Melloul A., Levin N. and Papay N. (2003), *Conservation of the Coastal Sand Dunes – a Policy Report*, The Surveys Unit – Open Landscape Institute – The Society for the Protection of Nature in Israel, The Ministry of Environment, The Nature and Parks Authority, The Jewish National Fund, The Water Commission and the Jerusalem Institute for Israel Studies, 126 p. (in Hebrew).
- Levin N., Ben-Dor E. and Kidron G.J. (2003), "The influence of human factors on the temporal changes in the stabilization rate of the Ashdod-Nizzanim dunes", in Greenbaum N., Lekach J. and Inbar M. (Eds.): *Asher Schick Volume: Current Aspects of Rainfall-Runoff-Sediment Relations in Israel*, published by the editorial of the *Horizons in Geography* Journal, Department of Geography and Environmental Studies, University of Haifa, Israel, pp. 224-241 (in Hebrew; abstract in English in p. viii).
- Frumkin R., Shmida A., Sapir Y., Fragman-Sapir O. and Levin N. (2004), Extinct species in Israel, in the Israeli version of the book *Vital Signs 2003* (ed. by Frumkin R., Khenin D. and Eidelman A.), Heschel Center and the Jerusalem Institute for Israel Studies, Israel, pp. 41-43.
- Shmida, A., Polak, G., Fragman-Sapir, O. and Levin, N. (2011). The red plants of Israel in numbers. In Shmida, A. and Polak, G., Fragman-Sapir, O. The Red

Book – Endangered Plants in Israel, Volume B. Israel Nature and Parks Authority (in Hebrew), pp. 509-566.

Kark, R., and Levin, N. (2012). The environment in Palestine in the late Ottoman period, 1798-1918. in Miller, C., Tal, A., Orenstein, D. (Eds.), *Between Ruin and Restoration: An Environmental History of Israel*, University of Pittsburgh Press, pp. 1-28.

Qingling, Z., Levin, N., Chalkias, C., Letu, H. (2015). Nighttime light remote sensing -- Monitoring human societies from outer space. Chapter 11 in *Remote Sensing Handbook*, Volume 3, pp. 289-310 (Edited by Thenkabail, P.S.). Taylor and Francis.

Published DATA SETS

- Levin, N; Heimowitz, A (2012): Landsat derived percent vegetation cover of Israel (as of 2003). Dataset #804209
<http://doi.pangaea.de/10.1594/PANGAEA.804209> Supplement to: **Levin, Noam; Heimowitz, Aliza (2012):** Mapping spatial and temporal patterns of Mediterranean wildfires from MODIS. *Remote Sensing of Environment*, **126**, 12-26, [doi:10.1016/j.rse.2012.08.003](https://doi.org/10.1016/j.rse.2012.08.003)
- Levin, N (2013): Survey of Western Palestine 1880, Palestine Exploration Fund 1:63,360 mosaicked map. doi:10.1594/PANGAEA.819656, Supplement to: Levin, Noam (2006): The Palestine Exploration Fund map (1871-1877) of the Holy Land as a tool for analyzing landscape changes: the coastal dunes of Israel as a case study. *The Cartographic Journal*, 43(1), 45-67, doi:10.1179/000870406X93508
- Schaffer, G; Levin, N (2015): Land cover layer, digitized from the PEF Survey of Western Palestine (1880). Dataset #846879
<http://doi.pangaea.de/10.1594/PANGAEA.846879> (DOI registration in progress), Supplement to: Schaffer, Gad; Levin, Noam (2015): Reconstructing 19th century landscapes from historical maps - the Survey of Western Palestine as a case study. *Landscape Research*, in press
- Schaffer, G et al. (2015): Land cover of the Galilee region, digitized from the Leves en Galilée (LG) map (1870). Dataset #846880
<http://doi.pangaea.de/10.1594/PANGAEA.846880> (DOI registration in

progress), In Supplement to: Schaffer, Gad; Peer, Mor; Levin, Noam (2015): Quantifying the completeness of and correspondence between two historical maps: a case study from nineteenth-century Palestine. *Cartography and Geographic Information Science*, online first, 22 pp,

doi:10.1080/15230406.2015.1029519

- Schaffer, G et al. (2015): Land cover of the Galilee region, digitized from the PEF Survey of Western Palestine (1880). Dataset #846881 <http://doi.pangaea.de/10.1594/PANGAEA.846881> (DOI registration in progress), In Supplement to: Schaffer, Gad; Peer, Mor; Levin, Noam (2015): Quantifying the completeness of and correspondence between two historical maps: a case study from nineteenth-century Palestine. *Cartography and Geographic Information Science*, online first, 22 pp, doi:10.1080/15230406.2015.1029519

REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEMS TEXTS

Levin N. (1999), [*Modtran 3 Hebrew Manual*](#), a manual written in Hebrew concerning the use of the Modtran atmospheric model for the atmospheric correction of satellite images (in Hebrew).

Levin N. (2000), [*Hydrographic Mapping – From Nautical Charts to Electronic Charts and Beyond*](#), prepared for a seminar given at the department of Geography, January 11th, 2000, 39p. (in Hebrew).

Levin N. (2000), [*Hydrographic Mapping – Processing Hydrographic Databases of Depths*](#), prepared for a presentation given at the Survey of Israel, January 31st, 2000, 25p. (in Hebrew).

Levin N. (2003), [*Basic Principles of GIS and Remote Sensing*](#), prepared for an intensive three days course given to students and members of the Department of Zoology, Tel Aviv University, October 2003, 43 p. (in Hebrew).

Levin N. (2003), [*A Basic Course for Using ArcGIS*](#), prepared for an intensive three days course given to students and members of the Department of Zoology, Tel Aviv University, October 2003, 85 p. (in Hebrew).

Levin N. and Nisanholtz N. (2011), [*A Basic Guide for Using Marxan*](#) (in Hebrew).