

# Peer reviewed journals, electronic articles & databases



17.12.2014

<https://publikationen.uni-tuebingen.de/xmlui/handle/10900/53308>

AGAM N, BERLINER PR (2004) Diurnal water content changes in the bare soil of a coastal desert. *Journal of Hydrometeorology* 5(5): 922-933, [http://dx.doi.org/10.1175/1525-7541\(2004\)005<0922:DWCCIT>2.0.CO;2](http://dx.doi.org/10.1175/1525-7541(2004)005<0922:DWCCIT>2.0.CO;2).

AGAM N, BERLINER PR, ZANGVIL A, BEN-DOR E (2004) Soil water evaporation during the dry season in an arid zone. *Journal of Geophysical Research – Atmosphere* 109, D16103, <http://dx.doi.org/10.1029/2004JD004802>.

AGASSIM M, TARCHITZKY J, KEREN R, CHEN Y, GOLDSTEIN D, FIZIK E (2003) Effects of prolonged irrigation with treated municipal effluent on runoff rate. *Journal of Environment Quality* 32 (3): 1053-1057, <http://dx.doi.org/10.2134/jeq2003.1053>.

ALI-SHTAYEH MS, ALI WMD, JAMOUS RM (2010) Ecological investigations on terrestrial arthropod biodiversity under different grassland ecosystems in El-Fara'a area (Palestine). *Biodiversity and Environmental Sciences Studies* 5(1): 19-34, [http://www.berc-taphm.com/journals/pdf/BESSS%20V5%20\(1\)-19-34.pdf](http://www.berc-taphm.com/journals/pdf/BESSS%20V5%20(1)-19-34.pdf), accessed 23.07.2012.

ALI-SHTAYEH MS, SALAHAT AGM (2010) The impact of grazing on natural plant biodiversity in Al-Fara'a area. *Biodiversity and Environmental Sciences Studies* 5(1): 1-17, [http://www.berc-taphm.com/journals/pdf/BESSS%20V5%20\(1\)-1-17.pdf](http://www.berc-taphm.com/journals/pdf/BESSS%20V5%20(1)-1-17.pdf), accessed 23.07.2012.

ALMASRI MN, MCNEILL LS (2009) Optimal planning of wastewater reuse using the suitability approach: A conceptual framework for the West Bank, Palestine. *Desalination* 248(1-3): 428-435, <http://dx.doi.org/10.1016/j.desal.2008.05.070>.

AL-OMARI A, AL-QURAAN S, AL-SALIHI A, ABDULLA F (2009) A water management support system for Amman Zarqa Basin in Jordan. *Water Resources Management* 23(15): 3165-3189, <http://dx.doi.org/10.1007/s11269-009-9428-z>.

AL-OMARI A, SALMAN A, KARABLIEH E (2014) The Red Dead Canal project: an adaptation option to climate change in Jordan. *Desalination and Water Treatment* 52(13-15): 2833-2840, <http://dx.doi.org/10.1080/19443994.2013.819168>.

ALPERT P, BARKAN J, KISHCHA P (2006) A potential climatic index for total Saharan dust: the Sun insolation. *Journal of Geophysical Research - Atmospheres* 111, D01103, <http://dx.doi.org/10.1029/2005JD006105>.

ALPERT P, BEN-GAI T, BAHARAD A, BENJAMINI Y, YEKUTIELI D, COLACINO M, DIODATO L, RAMIS C, HOMAR V, ROMERO R, MICHAELIDES S, MANES A (2002) The paradoxical increase of Mediterranean extreme daily rainfall in spite of decrease in total values. *Geophysical Research Letters* 29(11): 1536, <http://dx.doi.org/10.1029/2001GL013554>.

ALPERT P, BEN-ZVI A (2001) Climate change impact on the availability of water resources in Israel. *Water – Water engineering (Mayim – Handasat Mayim)* 51: 10–15, in Hebrew.

ALPERT P, HALFON N, Z. LEVIN (2008) Does air pollution really suppress precipitation in Israel? *Journal of Applied Meteorology and Climatology* 47(4): 933-943,  
<http://dx.doi.org/10.1175/2007JAMC1803.1>.

ALPERT P, ILANI R, DA-SILVA A, RUDACK A, MANDEL M (2006) Seasonal prediction for Israel winter precipitation based on northern hemispheric EOF. *Merchavim* special issue in honour of Prof. Arie Bitan: 397-412, in Hebrew.

ALPERT P, KISHCHA P (2008) Quantification of the effect of urbanization on solar dimming. *Geophysical Research Letters* 35, L08801,  
<http://dx.doi.org/10.1029/2007GL033012>.

ALPERT P, KISHCHA P, KAUFMAN YJ, SCHWARZBARD R (2005) Global dimming or local dimming?: Effect of urbanization on sunlight availability. *Geophysical Research Letters* 32, L17802, <http://dx.doi.org/10.1029/2005GL023320>.

ALPERT P, KISHCHA P, SHTIVELMAN A, KRICHAK SO, JOSEPH JH (2004) Vertical distribution of Saharan dust based on 2.5- year model predictions. *Atmospheric Research* 70(2): 109–130, <http://dx.doi.org/10.1016/j.atmosres.2003.11.001>.

ALPERT P, KRICHAK SO, DAYAN M, SHAFIR H (2006) Climatic trends over the Eastern Mediterranean: past and future projections. *CLIVAR Exchanges* 11(2): 12–13,  
<http://eprints.soton.ac.uk/41285/01/Exchanges37.pdf>, accessed 23.07.2012.

ALPERT P, KRICHAK SO, SHAFIR H, HAIM D, OSETINSKY I (2008) Climatic trends to extremes employing regional modeling and statistical interpretation over the Eastern Mediterranean. *Global and Planetary Change* 63(2-3): 163-170,  
<http://dx.doi.org/10.1016/j.gloplacha.2008.03.003>.

ALPERT P, KRICHAK SO, SHAFIR H, OSETINSKY I, DAYAN M, HAIM D (2006) Trends toward climate extremity in Israel – Preliminary results from regional simulations over the Eastern Mediterranean. *Galileo* 98(October issue): 46–53,  
[http://www.tau.ac.il/~pinhas/papers/2006/Alpert\\_et\\_al\\_Galileo\\_2006.pdf](http://www.tau.ac.il/~pinhas/papers/2006/Alpert_et_al_Galileo_2006.pdf), accessed 26.07.2012, in Hebrew.

ALPERT P, NIYOGI D, PIELKE SR. RA, EASTMAN JL, XUE YK, RAMAN S (2006) Evidence for carbon dioxide and moisture interactions from the leaf cell up to global scales: Perspective on human-caused climate change. *Global and Planetary Change* 54(1-2): 202-208, <http://dx.doi.org/10.1016/j.gloplacha.2006.03.015>.

ALPERT P, OSETINSKY I, ZIV B, SHAFIR H (2003) A new definition to the seasons based on synoptic systems and example for Israel. *Judea and Samaria Research Studies* 12: 371–378, in Hebrew.

ALPERT P, OSETINSKY I, ZIV B, SHAFIR H (2004) A new seasons definition based on the classified daily synoptic systems: An example for the Eastern Mediterranean. *International Journal of Climatology* 24(8): 1013-1021,  
<http://dx.doi.org/10.1002/joc.1037>.

ALPERT P, OSETINSKY I, ZIV B, SHAFIR H (2004) Semi-objective classification for daily synoptic systems: Application to the Eastern Mediterranean climate change. *International Journal of Climatology* 24(8): 1001–1011,  
<http://dx.doi.org/10.1002/joc.1036>.

ALPERT P, PRICE C, KRICHAK S, ZIV B, SAARONI H, OSETINSKY I, BARKAN J, KISHCHA P (2005) Tropical tele-connections to the Mediterranean climate and weather. *Advances in Geosciences* 2: 157–160,  
<http://dx.doi.org/10.5194/adgeo-2-157-2005>.

ALPERT P, PRICE C, KRICHAK S, ZIV B, SAARONI H, OSETINSKY I, BARKAN J, KISHCHA P (2006) Mediterranean climate and some tropical teleconnections. II *Nuovo Cimento C* 29(1): 89–97, <http://dx.doi.org/10.1393/ncc/i2005-10225-y>.

ALPERT P, RABINOVICH-HADAR M (2003) Pre- and post-sea-breeze frontal lines - A meso-gamma-scale analysis over South Israel. *Journal of the Atmospheric Sciences* 60(24): 2994–3008,  
[http://dx.doi.org/10.1175/1520-0469\(2003\)060<2994:PAPFLM>2.0.CO;2](http://dx.doi.org/10.1175/1520-0469(2003)060<2994:PAPFLM>2.0.CO;2).

ALPERT P, SAVIJÄRVI H (2006) On the numerical asymmetry in calculating Coriolis terms through the splitting method in a mesoscale model. *International Journal of Environment and Pollution* 32(2): 139–148,  
<http://dx.doi.org/10.1504/IJEP.2008.017099>.

ANGERT A, WEINER T, MAZEH S, STERNBERG M (2012) Soil phosphate stable oxygen isotopes across rainfall and bedrock gradients. *Environmental Science and Technology* 46(4): 2156–2162, <http://dx.doi.org/10.1021/es203551s>.

ANGERT A, WEINER T, MAZEH S, TAMBURINI F, FROSSARD E, BERNASCONI SM, STERNBERG M (2011) Seasonal variability of soil phosphate stable oxygen isotopes in rainfall manipulation experiments. *Geochimica et Cosmochimica Acta* 75(15): 4216–4227, <http://dx.doi.org/10.1016/j.gca.2011.05.002>.

ANONYMOUS(2011) Future management of the Jordan River basin's water and land resources under climate change - A scenario analysis.  
[http://download.glowa-jordan-river.de/Final\\_Conference\\_Cyprus\\_2011/5\\_Marketplace/2ScenarioAnalysisDevelopment/TheGLOWAJordanRiverScenarioExercise.pdf](http://download.glowa-jordan-river.de/Final_Conference_Cyprus_2011/5_Marketplace/2ScenarioAnalysisDevelopment/TheGLOWAJordanRiverScenarioExercise.pdf).

ARIZA C, TIELBÖRGER K (2011) An evolutionary approach to studying the relative importance of plant–plant interactions along environmental gradients. *Functional Ecology* 25(4): 932–942, <http://dx.doi.org/10.1111/j.1365-2435.2011.01848.x>.

ARIZA C, TIELBÖRGER K (2012) Biomass explains the intensity of facilitative – not competitive – interactions: three intraspecific tests with annuals. *Web Ecology* 12: 49–55, <http://dx.doi.org/10.5194/we-12-49-2012>.

ASSOULINE S, BEN-HUR M (2006) Effects of rainfall intensity and slope gradient on the dynamics of interrill erosion during soil surface sealing. *CATENA* 66(3): 211–220, <http://dx.doi.org/10.1016/j.catena.2006.02.005>.

- ASSOULINE S, MUALEM Y (2002) Infiltration during soil sealing: The effect of areal heterogeneity of soil hydraulic properties. *Water Resources Research* 38(12), 1286, <http://dx.doi.org/10.1029/2001WR001168>.
- ASSOULINE S, MUALEM Y (2003) Effect of rainfall-induced soil seals on the soil water regime: Drying interval and subsequent wetting. *Transport in Porous Media* 53(1): 75–94, <http://dx.doi.org/10.1023/A:1023583808812>.
- AVIAD Y, KUTIEL H, LAVEE H (2004) Analysis of beginning, end, and length of the rainy season along a Mediterranean–arid climate transect for geomorphic purposes. *Journal of Arid Environments* 59(1): 189–204, <http://dx.doi.org/10.1016/j.jaridenv.2004.01.013>.
- BAREL-COHEN K, SHORE LS, SHEMESH M, WENZEL A, MUELLER J, KRONFELD-SCHOR N (2006) Monitoring of natural and synthetic hormones in a polluted river. *Journal of Environmental Management* 78(1): 16–23, <http://dx.doi.org/10.1016/j.jenvman.2005.04.006>.
- BARKAN J, ALPERT P (2008) Synoptic patterns associated with dusty and non-dusty seasons in the Sahara. *Theoretical and Applied Climatology* 94(3-4): 153–162, <http://dx.doi.org/10.1007/s00704-007-0354-9>.
- BARKAN J, ALPERT P (2010) Synoptic analysis of a rare event of Saharan dust reaching the Arctic region. *Weather* 65(8): 208–211, <http://dx.doi.org/10.1002/wea.503>.
- BARKAN J, ALPERT P, KUTIEL H, KISHCHA (2005) Synoptics of dust transportation days from Africa toward Italy and central Europe. *Journal of Geophysical Research* 110, D07208, <http://dx.doi.org/10.1029/2004JD005222>.
- BARKAN J, KUTIEL H, ALPERT P (2004) Climatology of dust sources in North African and the Arabian Peninsula, based on TOMS data. *Indoor and Built Environment* 13 (6): 407–419, <http://dx.doi.org/10.1177/1420326X04046935>.
- BARKAN J, KUTIEL H, ALPERT P, KISHCHA (2004) Synoptics of dust intrusion days from the African continent into the Atlantic Ocean. *Journal of Geophysical Research* 109, D08201, <http://dx.doi.org/10.1029/2003JD004416>.
- BEN-ASHER J, ALPERT P, BEN-ZVI A (2010) Dew is a major factor affecting vegetation water use efficiency rather than a source of water in the eastern Mediterranean area. *Water Resources Research* 46, W10532, <http://dx.doi.org/10.1029/2008wr007484>.
- BEN-ASHER J, TSUYUKI I, BRAVDO B, SAGIH M (2006) Irrigation of grapevines with saline water: I. Leaf area index, stomatal conductance, transpiration and photosynthesis. *Agricultural Water Management* 83(1-2): 13–21, <http://dx.doi.org/10.1016/j.agwat.2006.01.002>.
- BEN-ASHER J, VAN DAM J, FEDDES RA, JHORAR RK (2006) Irrigation of grapevines with saline water: II. Mathematical simulation of vine growth and yield. *Agricultural Water Management* 83(1-2): 22–29, <http://dx.doi.org/10.1016/j.agwat.2005.11.006>.
- BEN-ASHER J, YANO T, SHAINBERG I (2003) Dripper discharge rates and the hydraulic properties of the soil. *Irrigation and Drainage Systems* 17(4): 325–340, <http://dx.doi.org/10.1023/B:IRRI.0000004571.01651.52>.

BEN-GAI T, BITAN A, MANES A, ALPERT P (2001) Climatic variations in the moisture and instability patterns of the atmospheric boundary layer on the east Mediterranean coastal plain of Israel. *Boundary-Layer Meteorology* 100(2): 363–371, <http://dx.doi.org/10.1023/A:1018952406156>.

BEN-GAI T, BITAN A, MANES A, ALPERT P, KUSHNIR Y (2001) Temperature and surface pressure anomalies in Israel and the North Atlantic Oscillation. *Theoretical and Applied Climatology* 69(3-4): 171–177, <http://dx.doi.org/10.1007/s007040170023>.

BLUMBERG DG, LEHAHN Y, YACOBI YZ (2003) Utilizing fenyeng 1C (FY-1C) to monitor ocean colour and water quality: a demonstration experiment in the eastern Mediterranean. *International Journal of Remote Sensing* 24(6): 1393-1399, <http://dx.doi.org/10.1080/0143116021000047398>.

BÖHM U, KÜCKEN M, HAUFFE D, GERSTENGARBE F-W, WERNER PC, FLECHSIG M, KEULER K, BLOCK A, AHRENS W, NOCKE T (2004) Reliability of regional climate model simulations of extremes and of long-term climate. *Natural Hazards and Earth System Science* 4(3): 417-431, <http://dx.doi.org/10.5194/nhess-4-417-2004>.

BONZI C, JANINA ONIGKEIT, JOYCE B, HOFF H, TIELBÖRGER K (accepted) Combining socio-economic scenarios with a regional water management tool in the Jordan River Basin. *Springer Edited Volume "Integrated Water Resources Management: Concept, Research and Implementation"*.

BRAND-KLIBANSKI S, LITAOR MI, SHENKER M (2007) Overestimation of phosphorus adsorption capacity in reduced soils: An artifact of typical batch adsorption experiments. *Soil Science Society of America Journal* 71(4): 1128-1136, <http://dx.doi.org/10.2136/sssaj2006.0222>.

BURGHEIMER J, WILSKE B, MASEYK K, KARNIELI A, ZAADY E, YAKIR D, KESSELMEIER J (2006) Ground and space spectral measurements for assessing the semi-arid ecosystem phenology related to CO<sub>2</sub> fluxes of biological soil crusts. *Remote Sensing of Environment* 101(1): 1-12, <http://dx.doi.org/10.1016/j.rse.2005.03.003>.

BURGHEIMER J, WILSKE B, MASEYK K, KARNIELI A, ZAADY E, YAKIR D, KESSELMEIER J (2006) Relationships between Normalized Difference Vegetation Index (NDVI) and carbon fluxes of biologic soil crusts assessed by ground measurements. *Journal of Arid Environments* 64(4): 651-669, <http://dx.doi.org/10.1016/j.jaridenv.2005.06.025>.

CARMI G, BERLINER P (2008) The effect of soil crust on the generation of runoff on small plots in an arid environment. *CATENA* 74(1): 37-42, <http://dx.doi.org/10.1016/j.catena.2008.02.002>.

CARMONA I, ALPERT P (2009) Synoptic classification of moderate resolution imaging spectroradiometer aerosols over Israel. *Journal of Geophysical Research - Atmospheres* 114, D07208, <http://dx.doi.org/10.1029/2008JD010160>.

CESR (ed) (2009) GLOWA Jordan River Scenarios of Regional Development under Global Change. CESR (Centre for Environmental System Research) - Paper 3, <http://nbn-resolving.de/urn:nbn:de:0002-8018>.

CLAUS C, BRAUN A, SCHLOZ D, TIELBÖRGER K (eds) (2013) GLOWA JR Atlas:  
Results of the GLOWA Jordan River Project,

<http://nbn-resolving.de/urn:nbn:de:bsz:21-dspace-579413>,  
<http://hdl.handle.net/10900/57941>.

CLAUS C, TIELBÖRGER K (2011) Tagungsbericht: 10 Jahre erfolgreiche  
Klimawandelforschung im Jordangebiet. *Hydrologie und Wasserbewirtschaftung*  
55(6): 328-333, <http://www.hywa-online.de/hefte/2011/HyWaH62011.pdf>, accessed  
23.07.2012, in German.

DAVID N, ALPERT P, MESSER H (2009) Technical Note: Novel method for water vapour  
monitoring using wireless communication networks measurements. *Atmospheric  
Chemistry and Physics* 9(7): 2413-2418, <http://dx.doi.org/10.5194/acp-9-2413-2009>.

EBERHART A, TIELBÖRGER K (2012) Maternal fecundity does not affect offspring  
germination - An empirical test of the sibling competition hypothesis. *Journal of Arid  
Environments* 76: 23-29, <http://dx.doi.org/10.1016/j.jaridenv.2011.08.009>.

EVRENDELIK F, BEN-ASHER J, AYDIN M, ÇELIK I (2005) Spatial and temporal  
variations in diurnal CO<sub>2</sub> fluxes of different Mediterranean ecosystems in Turkey.  
*Journal of Environmental Monitoring* 7(2): 151-157,  
<http://dx.doi.org/10.1039/B415152F>.

FEINERMAN E, FLEISCHER A, SIMHON A (2004) Distributional welfare impacts of  
public spending: The case of urban vs. national parks. *Journal of Agricultural and  
Resource Economics* 29(2): 370–386, <http://purl.umn.edu/31105>.

FLEISCHER A, LICHTMAN I, MENDELSOHN R (2008) Climate change, irrigation, and  
Israeli agriculture: will warming be harmful? *Ecological Economics* 65(3): 508-515,  
<http://dx.doi.org/10.1016/j.ecolecon.2007.07.014>.

FLEISCHER A, MENDELSOHN R, DINAR A (2011) Bundling agricultural technologies to  
adapt to climate change. *Technological Forecasting and Social Change* 78(6):  
982-990, <http://dx.doi.org/10.1016/j.techfore.2011.02.008>.

FLEISCHER A, STERNBERG M (2006) The economic impact of global climate change on  
Mediterranean rangeland ecosystems: A Space-for-Time approach. *Ecological  
Economics* 59(3): 287-295, <http://dx.doi.org/10.1016/j.ecolecon.2005.10.016>.

FLEISCHER A, TSUR Y (2003) Measuring the recreational value of open spaces. *Journal of  
Agricultural Economics* 54(2): 269–283,  
<http://dx.doi.org/10.1111/j.1477-9552.2003.tb00063.x>.

GANOR E, OSETINSKY I, STUPP A, ALPERT P (2010) Increasing trend of African dust,  
over 49 years, in the eastern Mediterranean. *Journal of Geophysical Research* 115,  
D07201, <http://dx.doi.org/10.1029/2009JD012500>.

GANOR E, STUPP A, ALPERT P (2009) A method to determine the effect of mineral dust  
aerosols on air quality. *Atmospheric Environment* 43(34): 5463–5468,  
<http://dx.doi.org/10.1016/j.atmosenv.2009.07.028>.

GLEYZER A, DENISYUK M, RIMMER A, SALINGAR Y (2004) A fast recursive GIS algorithm for computing strahler stream order in braided and nonbraided networks.

*Journal of the American Water Resources Association* 40(4): 937-946,

<http://dx.doi.org/10.1111/j.1752-1688.2004.tb01057.x>.

GOPHEN M (2003) Water quality management in Lake Kinneret (Israel): hydrological and food web perspectives. *Journal of Limnology* 62(Suppl. 1): 91-101.

GOPHEN M (2004) Ecohydrological management of Lake Kinneret: a case study. *Ecohydrology and Hydrobiology* 4(4): 397-408.

GOPHEN M (2005) Seasonal rotifer dynamics in the long-term (1969-2002) record from Lake Kinneret (Israel). *Hydrobiologia* 546(1): 443-450,  
<http://dx.doi.org/10.1007/s10750-005-4287-y>.

GOPHEN M, TSIPRIS Y, MERON M, BAR-ILAN I (2003) The management of Lake Agmon Wetlands (Hula Valley, Israel). Shallow Lakes Conference, Lake Balaton, Hungary. *Hydrobiologia* 506(1-3): 803-809,  
<http://dx.doi.org/10.1023/B:HYDR.0000008602.77264.8c>.

GRABER ER, FINE P, LEVY GJ (2006) Soil stabilization in semiarid and arid land agriculture. *Journal of Materials in Civil Engineering* 18(2): 190-205,  
[http://dx.doi.org/10.1061/\(ASCE\)0899-1561\(2006\)18:2\(190\)](http://dx.doi.org/10.1061/(ASCE)0899-1561(2006)18:2(190)).

GRODEK T, JACOBY Y, MORIN E, KATZ O (2012) Effectiveness of exceptional rainstorms on a small Mediterranean basin. *Geomorphology* 159-160(0): 156-168,  
<http://dx.doi.org/10.1016/j.geomorph.2012.03.016>.

GRODEK T, LANGE J, LEKACH J, HUSARY S (2011) Urban hydrology in mountainous middle eastern cities. *Hydrology and Earth System Sciences* 15(3): 953-966,  
<http://dx.doi.org/10.5194/hess-15-953-2011>.

GRÜNZWEIG JM, HEMMING D, MASEYK K, LIN T, ROTENBERG E, RAZ-YASEEF N, FALLOON PD, YAKIR D (2009) Water limitation to soil CO<sub>2</sub> efflux in a pine forest at the semiarid “timberline” *Journal of Geophysical Research* 114, G03008,  
<http://dx.doi.org/10.1029/2008JG000874>.

GRÜNZWEIG JM, LIN T, ROTENBERG E, SCHWARTZ A, YAKIR D (2003) Carbon sequestration in arid-land forest. *Global Change Biology* 9(5): 791-799,  
<http://dx.doi.org/10.1046/j.1365-2486.2003.00612.x>.

GRÜNZWEIG JM, SPARROW SD, YAKIR D, CHAPING III FS (2004) Impact of agricultural land-use change on carbon storage in boreal Alaska. *Global Change Biology* 10(4): 452-472, <http://dx.doi.org/10.1111/j.1365-2486.2004.00738.x>.

GUNKEL A, LANGE J (2012) New insights into the natural variability of water resources in the Lower Jordan River Basin. *Water Resources Management* 26(4): 963-980,  
<http://dx.doi.org/10.1007/s11269-011-9903-1>.

HAIM D, SHECHTER M, BERLINER P (2008) Assessing the impact of climate change on representative field crops in Israeli agriculture: a case study of wheat and cotton. *Climate Change* 86(3-4): 425-440, <http://dx.doi.org/10.1007/s10584-007-9304-x>.

HALFON N, LEVIN Z, ALPERT P (2009) Temporal rainfall fluctuations in Israel and their possible link to urban and air pollution effects. *Environmental Research Letters* 4(2): 12, <http://dx.doi.org/10.1088/1748-9326/4/2/025001>.

HAMER U, MARSCHNER B (2005) Priming effects in different soil types induced by fructose, alanine, oxalic acid and catechol additions. *Soil Biology and Biochemistry* 37(3): 445–454, <http://dx.doi.org/10.1016/j.soilbio.2004.07.037>.

HAR-EDOM O-L, STERNBERG M (2010) Invasive species and climate change: Conyza canadensis (L.) Cronquist as a tool for assessing the invasibility of natural plant communities along an aridity gradient. *Biological Invasions* 12(7): 1953-1960, <http://dx.doi.org/10.1007/s10530-009-9640-z>.

HAREL D, HOLZAPFEL C, STERNBERG M (2011) Seed mass and dormancy of annual plant populations and communities decreases with aridity and rainfall predictability. *Basic and Applied Ecology* 12(8): 674-684, <http://dx.doi.org/10.1016/j.baae.2011.09.003>.

HARTMANN A, LANGE J, VIVÓ AGUADO A, MIZYED N, SMIATEK G, KUNSTMANN H (2012) A multi-model approach for improved predictions of future water availability at a large Mediterranean karst spring. *Journal of Hydrology* 468-469: 130-138, <http://dx.doi.org/10.1016/j.jhydrol.2012.08.024>.

HARTMANN A, LANGE J, WEILER M, ARBEL Y, GREENBAUM N (2012) A new approach to model the variability of karstic recharge. *Hydrology and Earth System Sciences* 16(7): 2219-2231, <http://dx.doi.org/10.5194/hess-16-2219-2012>.

HEMMING D, YAKIR D, AMBUS P, AURELA M, BESSON C, BLACK K, BUCHMANN N, BURLETT R, CESCATTI A, CLEMENT R, GROSS P, GRANIER A, GRÜNWALD T, HAVRANKOVA K, JANOUS D, JANSSENS IA, KNOHL A, ÖSTNER BK, KOWALSKI A, LAURILA T, MATA C, MARCOLLA B, MATTEUCCI G, MONCRIEFF J, MOORS EJ, OSBORNE B, PEREIRA JS, PIHLATIE M, PILEGAARD K, PONTI F, ROSOVA Z, ROSSI F, SCARTAZZA A, VESALA T (2005) Pan-European  $\delta$  13C values of air and organic matter from forest ecosystems. *Global Change Biology* 11(7): 1065-1093, <http://dx.doi.org/10.1111/j.1365-2486.2005.00971.x>.

HOFF H, BONZI C, JOYCE B, TIELBÖRGER K (2011) A water resources planning tool for the Jordan River Basin. *Water* 3(3): 718-736, <http://dx.doi.org/10.3390/w3030718>.

HOFF H, KÜCHMEISTER H, TIELBÖRGER K (2005) GLOWA Jordan River - Integrierte Forschung für Nachhaltiges Wassermanagement. *Hydrologie und Wasserbewirtschaftung* 49(1): 24–28, in German.

HOLZAPFEL C, TIELBÖRGER K, PARAG HA, KIGEL J, STERNBERG M (2006) Annual plant-shrub interactions along an aridity gradient. *Basic and Applied Ecology* 7(3): 268-279, <http://dx.doi.org/10.1016/j.baae.2005.08.003>.

- HYMUS GJ, MASEYK K, VALENTINI R, YAKIR D (2005) Large daily variation in  $^{13}\text{C}$ -enrichment of leaf-respired CO<sub>2</sub> in two Quercus forest canopies. *New Phytologist* 167(2): 377–384, <http://dx.doi.org/10.1111/j.1469-8137.2005.01475.x>.
- ILANI T, SCHULZ E, CHEFETZ B (2005) Interactions of organic compounds with wastewater dissolved organic matter. *Journal of Environmental Quality* 34(2): 552-562, <http://dx.doi.org/10.2134/jeq2005.0552>.
- JELTSCH F, MOLONEY KA, SCHURR FM, KÖCHY M, SCHWAGER M (2008) The state of plant population modelling in light of environmental change. *Perspectives in Plant Ecology, Evolution and Systematics* 9(3-4): 171-189, <http://dx.doi.org/10.1016/j.ppees.2007.11.004>.
- JIN F, KITO A, ALPERT P (2010) Water cycle changes over the Mediterranean: a comparison study of a super-high-resolution global model with CMIP3. *Philosophical Transactions of the Royal Society A* 368(1931): 5137-5149, <http://dx.doi.org/10.1098/rsta.2010.0204>.
- JIN F, KITO A, ALPERT P (2011) Climatological relationships among the moisture budget components and rainfall amounts over the Mediterranean based on a super-high-resolution climate model. *Journal of Geophysical Research - Atmospheres* 116, D09102, <http://dx.doi.org/10.1029/2010JD014021>.
- JONES C, MCCONNELL C, COLEMAN K, COX P, FALLOON P, JENKINSON D, POWLSON D (2005) Global climate change and soil carbon stocks; predictions from two contrasting models for the turnover of organic carbon in soil. *Global Change Biology* 11(1): 154–166, <http://dx.doi.org/10.1111/j.1365-2486.2004.00885.x>.
- JÜSCHKE E, MARSCHNER B (2005) Increase of bacterial activity through effluent irrigation in Israeli soils. *Mitteilungen der Deutschen Bodenkundlichen Gesellschaft* 107(1): 9–10.
- JÜSCHKE E, MARSCHNER B, TARCHITZKY J, CHEN Y (2008) Effects of treated wastewater irrigation on the dissolved and soil organic carbon in Israeli soils. *Water Science & Technology* 57: 727-733, <http://dx.doi.org/10.2166/wst.2008.173>.
- KADISHI N, ZEITOUNI N, SHAMIR S, SHECHTER M (2003) Economic aspects of the influence of climate change on agriculture in Israel. *Studies in Natural and Environmental Resources Management* b(1): 123–130 in Hebrew.
- KAMINSKI J, KAN I, FLEISCHER A (2013) A structural land-use analysis of agricultural adaptation to climate change: a proactive approach. *American Journal of Agricultural Economics* 95(1): 70-93, <http://dx.doi.org/10.1093/ajae/aas075>.
- KAN I, RAPAPORT-ROM M, SHECHTER M (2007) Assessing climate change impacts on water, land-use and economic return in agriculture. *Social Science Research Network (SSRN), Agricultural & Natural Resource Economics* 11 (67), <http://ssrn.com/abstract=1020562>, accessed 23.07.2012.

- KATRA I, BLUMBERG DG, LAVEE H, SARAH P (2007) Spatial distribution dynamics of topsoil moisture in shrub microenvironment after rain events in arid and semi-arid areas by means of high-resolution maps. *Geomorphology* 86(3-4): 455-464, <http://dx.doi.org/10.1016/j.geomorph.2006.09.020>.
- KATRA I, BLUMBERG DG, LAVEE H, SARAH P (2007) Topsoil moisture patterns on arid hillsides - Micro-scale mapping by thermal infrared images. *Journal of Hydrology* 334(3-4): 359 - 367, <http://dx.doi.org/10.1016/j.jhydrol.2006.10.023>.
- KATRA I, BLUMBERG DG, LAVEE H, SARAH P (2008) Soil moisture patterns in semiarid hillslopes: Linkage to surface water redistribution. *Israel Journal of Earth Sciences* 57(3-4): 281-289 <http://dx.doi.org/10.1560/IJES.57.3-4.281>.
- KHATIB I, GERSTENGARBE F-W, HAJ-DAOUD A (2007) East Mediterranean climate change trends in the last century. *Arab Water World (AWW)* 31(4): 96.
- KISHCHA P, ALPERT P, BARKAN J, KIRCHNER I, MACHENHAUER B (2003) Atmospheric response to Saharan dust deduced from ECMWF reanalysis (ERA) temperature increments. *Tellus* 55(4): 901–913, <http://dx.doi.org/10.1046/j.1435-6935.2003.00072.x>.
- KISHCHA P, ALPERT P, SHTIVELMAN A, KRICHAK SO, JOSEPH JH, KALLOS G, KATSAFADOS P, SPYROU C, GOBBI GP, BARNABA F, NICKOVIC S, PÉREZ C, BALDASANO JM (2007) Forecast errors in dust vertical distributions over Rome (Italy): Multiple particle size representation and cloud contributions. *Journal of Geophysical Research* 112, D15205, <http://dx.doi.org/10.1029/2006JD007427>.
- KISHCHA P, BARKAN J, ALPERT P (2003) Decadal variations in wind anomalies over the Eastern Mediterranean and precipitation in Israel. *Judea and Samaria Research Studies* 12: 379–389, in Hebrew.
- KISHCHA P, BARNABA F, GOBBI GP, ALPERT P, SHTIVELMAN A, KRICHAK SO, JOSEPH JH (2005) Vertical distribution of Saharan dust over Rome (Italy): Comparison between 3-year model predictions and lidar soundings. *Journal of Geophysical Research - Atmospheres* 110, D06208, <http://dx.doi.org/10.1029/2004JD005480>.
- KISHCHA P, NICKOVIC S, STAROBINETS B, DI SARRA A, UDISTI R, BECAGLI S, SFERLAZZO D, BOMMARITO C, ALPERT P (2011) Sea-salt aerosol forecasts compared with daily measurements at the island of Lampedusa (Central Mediterranean). *Atmospheric Research* 100(1): 28-35, <http://dx.doi.org/10.1016/j.atmosres.2010.12.021>.
- KISHCHA P, STAROBINETS B, ALPERT P (2007) Latitudinal variations of cloud and aerosol optical thickness trends based on MODIS satellite data. *Geophysical Research Letters* 34, L05810, <http://dx.doi.org/10.1029/2006GL028796>.
- KISHCHA P, STAROBINETS B, KALASHNIKOVA O, ALPERT P (2011) Aerosol optical thickness trends and population growth in the Indian subcontinent. *International Journal of Remote Sensing* 32(24): 9137-9149, <http://dx.doi.org/10.1080/01431161.2010.550333>.

- KISHCHA P, STAROBINETS B, KALASHNIKOVA O, LONG CN, ALPERT P (2009) Variations of meridional aerosol distribution and solar dimming. *Journal of Geophysical Research* 114, D00D14, <http://dx.doi.org/10.1029/2008JD010975>.
- KISHCHA P, STAROBINETS B, UDISTI R, BECAGLI S, SARRA AD, SFERLAZZO D, BOMMARITO C, ALPERT P (2012) Sea-salt aerosol mass concentration oscillations after rainfall, derived from long-term measurements in Lampedusa (Central Mediterranean). *ISRN Meteorology* 2012: 8, <http://dx.doi.org/10.5402/2012/679120>.
- KITO A, YATAGAI A, ALPERT P (2008) First super-high-resolution model projection that the ancient "Fertile Crescent" will disappear in this century. *Hydrological Research Letters* 2(1): 1-4, <http://dx.doi.org/10.3178/HRL.2.1>.
- KITO A, YATAGAI A, ALPERT P (2008) Reply to comment by Ben-Zvi and Givati on 'First super-high-resolution model projection that the ancient "Fertile Crescent" will disappear in this century. *Hydrological Research Letters* 2: 46-46, <http://dx.doi.org/10.3178/HRL.2.46>.
- KLEIN T, HEMMING D, LIN T, GRÜNZWEIG JM, MASEYK K, ROTENBERG E, YAKIR D (2005) Association between tree-ring and needle delta<sup>13</sup>C and leaf gas exchange in Pinus halepensis under semi-arid conditions. *Oecologia* 144(1): 45-54, <http://dx.doi.org/10.1007/s00442-005-0002-y>.
- KOCH J, SCHALDACH R, KÖCHY M (2008) Modeling the impacts of grazing land management on land-use change for the Jordan River region. *Global and Planetary Change* 64(3-4): 177-187, <http://dx.doi.org/10.1016/j.gloplacha.2008.09.005>.
- KÖCHY M (2006) Stochastic time series of daily precipitation for interior of Israel. *Israel Journal of Earth Sciences* 55(2): 103-109, [http://dx.doi.org/10.1560/IJES\\_55\\_2\\_103](http://dx.doi.org/10.1560/IJES_55_2_103).
- KÖCHY M (2008) Effects of simulated daily precipitation patterns on annual plant populations depend on life stage and climatic region. *BMC Ecology* 8:4, <http://dx.doi.org/10.1186/1472-6785-8-4>.
- KÖCHY M, MATHAJ M, JELTSCH F, MALKINSON D (2008) Resilience of stocking capacity to changing climate in arid to Mediterranean landscapes. *Regional Environmental Change* 8(2): 73-87, <http://dx.doi.org/10.1007/s10113-008-0048-6>.
- KÖCHY M, TIELBÖRGER K (2007) Hydrothermal time model of germination: parameters for 36 Mediterranean annual species based on a simplified approach. *Basic and Applied Ecology* 8(2): 171-182, <http://dx.doi.org/10.1016/j.baae.2006.04.002>.
- KRICHAK SO, ALPERT P (2002) A fractional approach to the factor separation method. *Journal of the Atmospheric Sciences* 59(14): 2243–2252, [http://dx.doi.org/10.1175/1520-0469\(2002\)059<2243:AFATTF>2.0.CO;2](http://dx.doi.org/10.1175/1520-0469(2002)059<2243:AFATTF>2.0.CO;2).
- KRICHAK SO, ALPERT P (2005) Decadal trends in the east Atlantic–west Russia pattern and Mediterranean precipitation. *International Journal of Climatology* 25(2): 183–192, <http://dx.doi.org/10.1002/joc.1124>.
- KRICHAK SO, ALPERT P (2005) Signatures of the NAO in the atmospheric circulation during wet winter months over the Mediterranean region. *Theoretical and Applied Climatology* 82(1-2): 27-39, <http://dx.doi.org/10.1007/s00704-004-0119-7>.

KRICHAK SO, ALPERT P, BASSAT K, KUNIN P (2007) The surface climatology of the eastern Mediterranean region obtained in a three-member ensemble climate change simulation experiment. *Advances in Geosciences* 12: 67-80, <http://dx.doi.org/10.5194/adgeo-12-67-2007>.

KRICHAK SO, ALPERT P, DAYAN M (2004) The role of atmospheric processes associated with hurricane Olga in December 2001 floods in Israel. *Journal of Hydrometeorology* 5(6): 1259–1270, <http://dx.doi.org/10.1175/JHM-399.1>.

KRICHAK SO, ALPERT P, DAYAN M (2006) An evaluation of the role of Hurricane Olga (2001) in an extreme rainy event in Israel using dynamic tropopause maps. *Meteorology and Atmospheric Physics* 98(1-2): 35-53, <http://dx.doi.org/10.1007/s00703-006-0230-7>.

KRICHAK SO, ALPERT P, DAYAN M (2007) A southeastern Mediterranean PV streamer and its role in December 2001 case with torrential rains in Israel. *Natural Hazards and Earth System Sciences* 7(1): 21–32, <http://dx.doi.org/10.5194/nhess-7-21-2007>.

KRICHAK SO, ALPERT P, KUNIN P (2010) Numerical simulation of seasonal distribution of precipitation over the Eastern Mediterranean with a RCM. *Climate Dynamics* 34(1): 47-59, <http://dx.doi.org/10.1007/s00382-009-0649-x>.

KRICHAK SO, BREITGAND JS, SAMUELS R, ALPERT P (2011) A double-resolution transient RCM climate change simulation experiment for near-coastal eastern zone of the Eastern Mediterranean region. *Theoretical and Applied Climatology* 103(1-2): 167- 205, <http://dx.doi.org/10.1007/s00704-010-0279-6>.

KRICHAK SO, KISHCHA P, ALPERT P (2002) Decadal trends of main Eurasian oscillations and the Eastern Mediterranean precipitation. *Theoretical and Applied Climatology* 72(3-4): 209–220, <http://dx.doi.org/10.1007/s007040200021>.

KRICHAK SO, TSIDULKO M, ALPERT P (2002) A study of an INDOEX period with aerosol transport to the eastern Mediterranean area. *Journal of Geophysical Research - Atmospheres* 107, 4582, <http://dx.doi.org/10.1029/2001JD001169>.

KUNSTMANN H, HECKL A, RIMMER A (2006) Physically based distributed hydrological modelling of the Upper Jordan catchment and investigation of effective model equations. *Advances in Geosciences* 9: 123–130, <http://dx.doi.org/10.5194/adgeo-9-123-2006>.

LADO M, BEN-HUR M, ASSOULINE S (2005) Effects of effluent irrigation on seal formation, infiltration, and soil loss during rainfall. *Soil Science Society of America Journal* 69(5): 1432-1439, <http://dx.doi.org/10.2136/sssaj2004.0387>.

LADO M, BEN-HUR M, SHAINBERG I (2004) Soil wetting and texture effects on aggregate stability, seal formation, and erosion. *Soil Science Society of America Journal* 68(6): 1992–1999, <http://dx.doi.org/10.2136/sssaj2004.1992>.

LAMPEI C, TIELBÖRGER K (2010) Evolvability of between-year seed dormancy in populations along an aridity gradient. *Biological Journal of the Linnean Society* 100(4): 924-934, <http://dx.doi.org/10.1111/j.1095-8312.2010.01453.x>.

- LANGE J, ARBEL Y, GRODEK T, GREENBAUM N (2010) Water percolation process studies in a Mediterranean karst area. *Hydrological Processes* 24(13): 1866-1879, <http://dx.doi.org/10.1002/hyp.7624>.
- LANGE J, GUNKEL A, BASTIAN D(2012) Hydrology in the Lower Jordan River Basin. About actual water resources and new water resources - an analysis based on the TRAIN-ZIN model. <http://nbn-resolving.de/urn:nbn:de:bsz:21-opus-62956>.
- LANGE J, HUSARY S, GUNKEL A, BASTIAN D, GRODEK T (2012) Potentials and limits of urban rainwater harvesting in the Middle East. *Hydrology and Earth System Sciences* 16(3): 715-724, <http://dx.doi.org/10.5194/hess-16-715-2012>.
- LEBRIJA-TREJOS E, LOBATO MCC, STERNBERG M (2011) Reproductive traits and seed dynamics at two environmentally contrasting annual plant communities: from fieldwork to theoretical expectations. *Israel Journal of Ecology and Evolution* 57(1-2): 73-90, <http://dx.doi.org/10.1560/ijee.57.1-2.73>.
- LEVIN Z, HALFON N, ALPERT P (2011) Reply to comment by Ben-Zvi, A., D. Rosenfeld and A. Givati on the paper: Levin, Z., N. Halfon and P. Alpert, "Reassessment of rain experiments and operations in Israel including synoptic considerations," *Atmos. Res.* 97, 513-525. DOI: 10.1016/j.atmosres.2010.06.011. *Atmospheric Research* 99(3-4): 593-596, <http://dx.doi.org/10.1016/j.atmosres.2010.12.004>.
- LEVY GJ, MAMEDOV AI (2002) High-Energy-Moisture-Characteristic aggregate stability as a predictor for seal formation. *Soil Science Society of America Journal* 66(5): 1603–1609, <http://dx.doi.org/10.2136/sssaj2002.1603>.
- LIANCOURT P, CHOLER P, GROSS N, THIBERT-PLANTE X, TIELBÖRGER K (2012) How facilitation May interfere with ecological speciation. *International Journal of Ecology* 2012, 725487, <http://dx.doi.org/10.1155/2012/725487>.
- LIANCOURT P, TIELBÖRGER K (2009) Competition and short growing season lead to ecotypic differentiation at the two extremes of the ecological range. *Functional Ecology* 23(2): 397-404, <http://dx.doi.org/10.1111/j.1365-2435.2008.01497.x>.
- LIANCOURT P, TIELBÖRGER K (2011) Ecotypic differentiation determines the outcome of positive interactions in a dryland annual plant species. *Perspectives in Plant Ecology, Evolution and Systematics* 13(4): 259–264, <http://dx.doi.org/10.1016/j.ppees.2011.07.003>.
- LIANCOURT P, TIELBÖRGER K, BANGERTER S, PRASSE R (2009) Components of ‘competitive ability’ in the LHS model: Implication on coexistence for twelve co-occurring Mediterranean grasses. *Basic and Applied Ecology* 10(8): 707–714, <http://dx.doi.org/10.1016/j.baae.2009.05.003>.
- LIONELLO P, MALANOTTE-RIZZOLI P, ALPERT P, ARTALE V, BOSCOLO R, LILL, LUTERBACHER J, MAY W, TRIGO R, TSIMPLIS M, ULRICH U, XOPLAKI E (2006) MedCLIVAR: Mediterranean climate variability. *CLIVAR Exchanges* 11(2): 3–5, <http://eprints.soton.ac.uk/41285/01/Exchanges37.pdf>, accessed 23.07.2012.

- LITAOR MI, ESHEL G, REICHMANN O, SHENKER M (2006) Hydrological control of phosphorus mobility in altered wetland soils. *Soil Science Society of America Journal* 70(6): 1975–1982, <http://dx.doi.org/10.2136/sssaj2005.0316>.
- LITAOR MI, ESHEL G, SADE R, RIMMER A, SHENKER M (2008) Hydrogeological characterization of an altered wetland. *Journal of Hydrology* 349(3-4): 333– 349, <http://dx.doi.org/10.1016/j.jhydrol.2007.11.007>.
- LITAOR MI, REICHMANN O, AUERSWALD K, HAIM A, SHENKER M (2004) The geochemistry of phosphorus in an altered wetland. *Soil Science Society of America Journal* 68(6): 2078–2085, <http://dx.doi.org/10.2136/sssaj2004.2078>.
- LITAOR MI, REICHMANN O, BELZER M, AUERSWALD K, NISHRI A, SHENKER M (2003) Spatial analysis of phosphorus sorption capacity in a semiarid altered wetland. *Journal of Environmental Quality* 32(1): 335–343, <https://www.crops.org/publications/jeq/abstracts/32/1/335>, accessed 23.07.2012.
- LITAOR MI, REICHMANN O, HAIM A, AUERSWALD K, SHENKER MJ (2005) Sorption characteristics of phosphorus in peat soils of a semi-arid altered wetland. *Soil Science Society of America Journal* 69(5): 1658–1665, <http://dx.doi.org/10.2136/sssaj2005.0068>.
- MALKINSON D, JELTSCH F (2007) Intraspecific facilitation: a missing process along increasing stress gradients - insights from simulated shrub populations. *Ecography* 30(3): 339–348, <http://dx.doi.org/10.1111/j.0906-7590.2007.04983.x>.
- MALKINSON D, TIELBÖRGER K (2010) What does the stress-gradient hypothesis predict? Resolving the discrepancies. *Oikos* 119(10): 1546-1552, <http://dx.doi.org/10.1111/j.1600-0706.2010.18375.x>.
- MARIOTTI A, ZENG N, YOON J-H, ARTALE V, NAVARRA A, ALPERT P, LI LZX (2008) Mediterranean water cycle changes: transition to drier 21st century conditions in observations and CMIP3 simulations. *Environmental Research Letter* 3(4), 044001, <http://dx.doi.org/10.1088/1748-9326/3/4/044001>.
- MASSADA AB, CARMEL Y, TZUR GE, GRÜNZWEIG JM, YAKIR D (2006) Assessment of temporal changes in aboveground forest tree biomass using aerial photographs and allometric equations. *Canadian Journal of Forest Research* 36(10): 2585-2594, <http://dx.doi.org/10.1139/x06-152>.
- MCNEILL LS, ALMASRI MN, MIZYED N (2009) A sustainable approach for reusing treated wastewater in agricultural irrigation in the West Bank – Palestine. *Desalination* 248(1-3): 315-321, <http://dx.doi.org/10.1016/j.desal.2008.05.070>.
- MENZEL L, KOCH J, ONIGKEIT J, SCHALDACH R (2009) Modelling the effects of land-use and land-cover change on water availability in the Jordan River region. *Advances in Geosciences* 21: 73-80, <http://dx.doi.org/10.5194/adgeo-21-73-2009>.
- MENZEL L, MATOVELLE A (2010) Current state and future development of blue water availability and blue water demand: A view at seven case studies. *Journal of Hydrology* 384(3-4): 245-263, <http://dx.doi.org/10.1016/j.jhydrol.2010.02.018>.

- MESSER H, GOLDSHTEIN O, RAYITSFELD A, ALPERT P (2008) Recent results of rainfall mapping from cellular network measurements. *Acoustics, Speech, and Signal Processing*: 5157-5160, <http://dx.doi.org/10.1109/ICASSP.2008.4518820>.
- MESSER H, ZINEVICH A, ALPERT P (2006) Environmental monitoring by wireless communication networks. *Science* 312(5774): 713, <http://dx.doi.org/10.1126/science.1120034>.
- METZ J, LIANCOURT P, KIGEL J, HAREL D, STERNBERG M, TIELBÖRGER K (2010) Plant survival in relation to seed size along environmental gradients: a long-term study from semi-arid and Mediterranean annual plant communities. *Journal of Ecology* 98(3): 697-704, <http://dx.doi.org/10.1111/j.1365-2745.2010.01652.x>.
- MORIN E, GABELLA M (2007) Radar-based quantitative precipitation estimation over Mediterranean and dry climate regimes. *Journal of Geophysical Research - Atmospheres* 112, D20108, <http://dx.doi.org/10.1029/2006JD008206>.
- MORIN E, HARATS N, JACOBY Y, ARBEL S, GETKER M, ARAZI A, GRODEK T, ZIV B, DAYAN U (2007) Studying the extremes: hydrometeorological investigation of a flood-causing rainstorm over Israel. *Advances in Geosciences* 12: 107–114, <http://dx.doi.org/10.5194/adgeo-12-107-2007>.
- NADAV I, ARYE G, TARCHITZKY J, CHEN YN (2012) Enhanced infiltration regime for treated-wastewater purification in soil aquifer treatment (SAT). *Journal of Hydrology* 420: 275-283, <http://dx.doi.org/10.1016/j.jhydrol.2011.12.013>.
- NADAV I, TARCHITZKY J, CHEN Y (2011) Induction of soil water repellency following irrigation with treated wastewater: effects of irrigation water quality and soil texture. *Irrig Sci.* 1-10, <http://dx.doi.org/10.1007/s00271-011-0316-y>.
- NADAV I, TARCHITZKY J, LOWENGART-AYCICEGI A, CHEN Y (2011) Soil surface water repellency induced by treated wastewater irrigation: physico-chemical characterization and quantification. *Irrig Sci.* 1-10, <http://dx.doi.org/10.1007/s00271-011-0291-3>.
- NINARI N, BERLINER PR (2002) The role of dew in the water and heat balance of bare loess soil in the Negev Desert: Quantifying the actual dew deposition on the soil surface. *Atmospheric Research* 64(1-4): 323-334, [http://dx.doi.org/10.1016/S0169-8095\(02\)00102-3](http://dx.doi.org/10.1016/S0169-8095(02)00102-3).
- OFIR M, KIGEL J (2003) Variation in onset of summer dormancy and flowering capacity along an aridity gradient in Poa bulbosa L., a geophytic perennial grass. *Annals of Botany* 91(3): 391-400, <http://dx.doi.org/10.1093/aob/mcg026>.
- OFIR M, KIGEL J (2006) Opposite effects of daylength and temperature on flowering and summer dormancy of Poa bulbosa. *Annals of Botany* 97(4): 659 - 666, <http://dx.doi.org/10.1093/aob/mcl021>.
- OFIR M, KIGEL J (2007) Regulation of summer dormancy by water deficit and ABA in Poa bulbosa ecotypes. *Annals of Botany* 99(2): 293-299, <http://dx.doi.org/10.1093/aob/mcl257>.

ONIGKEIT J, SIMON K-H, ALCAMO J, GRAMBERGER M, TIELEMAN K, TIELBÖRGER K (accepted) Strategic participative scenario development as a method to integrate science and IWRM– lessons learnt from a case study in the Jordan River region. *SPRINGER edited volume Integrated Water Resources Management: Concept, Research and Implementation.*

OROUD IM (2004) Urban encroachment on rain-fed agricultural lands in Jordan during the second half of the 20th Century. *The Arab World Geographer* 7(3): 165-180.

OROUD IM (2007) Spatial and temporal distribution of frost in Jordan. *The Arab World Geographer* 10(2): 81-91.

OROUD IM (2011) Evaporation estimates from the Dead Sea and their implications on its water balance. *Theoretical and Applied Climatology* 106(3-4): 523-530, <http://dx.doi.org/10.1007/s00704-011-0452-6>.

OROUD IM, SAGARAT O (2010) Dust storms in desert areas of Jordan (in Arabic). *Jordan Journal of Social Sciences* 3: 311-326, in Arabic.

OSEM Y, KONSENS I, PEREVOLOTSKY A, KIGEL J (2007) Soil seed bank and seedling emergence of *Sarcopoterium spinosum* as affected by grazing in a patchy semiarid shrubland. *Israel Journal of Plant Sciences* 55(1): 35-43, <http://dx.doi.org/10.1560/IJPS.55.1.35>.

OSEM Y, PEREVOLOTSKY A, KIGEL J (2002) Grazing effect on diversity of annual plant communities in a semi-arid rangeland: interactions with small-scale spatial and temporal variation in primary productivity. *Journal of Ecology* 90(6): 936-946, <http://dx.doi.org/10.1046/j.1365-2745.2002.00730.x>.

OSEM Y, PEREVOLOTSKY A, KIGEL J (2004) Site productivity and plant size explain the response of annual species to grazing exclusion in a Mediterranean semi-arid rangeland. *Journal of Ecology* 92(2): 297-309, <http://dx.doi.org/10.1111/j.0022-0477.2004.00859.x>.

OSEM Y, PEREVOLOTSKY A, KIGEL J (2005) Size traits and site conditions determine changes in seed bank structure caused by grazing exclusion in semiarid annual plant communities. *Ecography* 29(1): 11-20, <http://dx.doi.org/10.1111/j.2006.0906-7590.04283.x>.

OSEM Y, PEREVOLOTSKY A, KIGEL J (2006) Similarity between seed bank and vegetation in a semi-arid annual plant community: The role of productivity and grazing. *Journal of Vegetation Science* 17(1): 29-36, <http://dx.doi.org/10.1111/j.1654-1103.2006.tb02420.x>.

OSEM Y, PEREVOLOTSKY A, KIGEL J (2007) Interactive effects of grazing and shrubs on the annual plant community in semiarid Mediterranean shrublands. *Journal of Vegetation Science* 18(6): 869-878, [http://dx.doi.org/10.1658/1100-9233\(2007\)18\[869:IEOGAS\]2.0.CO;2](http://dx.doi.org/10.1658/1100-9233(2007)18[869:IEOGAS]2.0.CO;2).

OSETINSKY I, ALPERT P (2006) Calendaricities and multimodality in the Eastern Mediterranean cyclonic activity. *Natural Hazards and Earth System Sciences* 6(4): 587-596, <http://dx.doi.org/10.5194/nhess-6-587-2006>.

OSMOND B, ANANYEV G, BERRY J, LANGDON C, KOLBER Z, LIN G, MONSON R, NICHOL C, RASCHER U, SCHURR U, SMITH S, YAKIR D (2004) Changing the way we think about global change research: scaling up in experimental ecosystem science. *Global Change Biology* 10(4): 393-407,  
<http://dx.doi.org/10.1111/j.1529-8817.2003.00747.x>.

PETRŮ M, TIELBÖRGER K (2008) Germination behavior of annual plants under changing climatic conditions: separating local and regional environmental effects. *Oecologia* 155(4): 717-728, <http://dx.doi.org/10.1007/s00442-007-0955-0>.

PETRŮ M, TIELBÖRGER K, BELKIN R, STERNBERG M, JELTSCH F (2006) Life history variation in an annual plant under two opposing environmental constraints along an aridity gradient. *Ecography* 29(1): 66-74,  
<http://dx.doi.org/10.1111/j.2005.0906-7590.04310.x>.

PRASSE R, TIELBÖRGER K (2005) Global climate change induced changes in land-use strategy and its impact on vascular plant biodiversity on arable lands in Palestine. *Biodiversität und Klima - Vernetzung der Akteure in Deutschland* 131: 46-49.

PRICE C (2001) Weather forecast for 2100: hot and stormy - modeling global warming. *PC AI Magazine* 15(1): 34-37.

PUIGDEFÁBREGAS J (2005) The role of vegetation patterns in structuring runoff and sediment fluxes in drylands. *Earth Surface Processes and Landforms* 30(2): 133–147, <http://dx.doi.org/10.1002/esp.1181>.

RAVEH E, COHEN S, RAZ T, YAKIR D, GRAVA A, GOLDSCHMIDT EE (2003) Increased growth of young citrus trees under reduced radiation load in a semi-arid climate. *Journal of Experimental Botany* 54(381): 365-373,  
<http://dx.doi.org/10.1093/jxb/erg009>.

RAYITSFELD A, SAMUELS R, ZINEVICH A, HADAR U, ALPERT P (2012) Comparison of two methodologies for long term rainfall monitoring using a commercial microwave communication system. *Atmospheric Research* 104: 119-127, <http://dx.doi.org/10.1016/j.atmosres.2011.08.011>.

RAZ-YASEEF N, ROTENBERG E, YAKIR D (2010) Effects of spatial variations in soil evaporation caused by tree shading on water flux partitioning in a semi-arid pine forest. *Agricultural and Forest Meteorology* 150(3): 454-462,  
<http://dx.doi.org/10.1016/j.agrformet.2010.01.010>.

REBMANN C, GÖCKEDE M, FOKEN T, AUBINET M, AURELA M, BERBIGIER P, BERNHOFER C, BUCHMANN N, CARRARA A, CESCATTI A, CEULEMANS R, CLEMENT R, ELBERS JA, GRANIER A, GRÜNWALD T, GUYON D, HAVRÁNKOVÁ K, HEINESCH B, KNOHL A, LAURILA T, LONGDOZ B, MARCOLLA B, MARKKANEN T, MIGLIETTA F, MONCRIEFF J, MONTAGNANI L, MOORS E, NARDINO M, OURCIVAL J-M, RAMBAL S, RANNIK Ü, ROTENBERG E, SEDLAK P, UNTERHUBER G, VESALA T, YAKIR D (2005) Quality analysis applied on eddy covariance measurements at complex forest sites using footprint modeling. *Theoretical and Applied Climatology* 80(2-4): 121-141, <http://dx.doi.org/10.1007/s00704-004-0095-y>.

RIMMER A (2003) The mechanism of Lake Kinneret salinization as a linear reservoir.

*Journal of Hydrology* 281(3): 173–186,  
[http://dx.doi.org/10.1016/S0022-1694\(03\)00238-5](http://dx.doi.org/10.1016/S0022-1694(03)00238-5).

RIMMER A (2006) Modelling the discharge of the Dan Spring. *Water Engineering* 48: 24-27, in Hebrew.

RIMMER A (2007) Systems hydrology models for the Upper Catchments of the Jordan River and Lake Kinneret, Israel. *The Israel Journal of Earth Science* 56(1): 1-17, <http://dx.doi.org/10.1560/IJES.56.1.1>.

RIMMER A, BOGER M, AOTA Y, KUMAGAI M (2006) A lake as a natural integrator of linear processes: Application to Lake Kinneret (Israel) and Lake Biwa (Japan). *Journal of Hydrology* 319(1–4): 163–175, <http://dx.doi.org/10.1016/j.jhydrol.2005.07.018>.

RIMMER A, GAL G (2003) Estimating the saline springs component in the solute and water balance of Lake Kinneret, Israel. *Journal of Hydrology* 284(1-4): 228-243, <http://dx.doi.org/10.1016/j.jhydrol.2003.08.006>.

RIMMER A, GAL G, OPHER T, LECHINSKY Y, YACOBI YZ (2011) Mechanisms of long-term variations of the thermal structure in a warm lake. *Limnology Oceanography* 56(3): 974-988, <http://dx.doi.org/10.4319/lo.2011.56.3.0974>.

RIMMER A, GIVATI A, SAMUELS R, ALPERT P (2011) Using ensemble of climate models to evaluate future water and solutes budgets in Lake Kinneret, Israel. *Journal of Hydrology* 410(3-4): 248–259, <http://dx.doi.org/10.1016/j.jhydrol.2011.09.025>.

RIMMER A, SALINGAR Y (2006) Modelling precipitation-streamflow processes in karst basin: the case of the Jordan River sources, Israel. *Journal of Hydrology* 331(3–4): 524–542, <http://dx.doi.org/10.1016/j.jhydrol.2006.06.003>.

RIMMER A, SALINGAR Y (2006) Modelling precipitation-streamflow processes in Karst basin: The Jordan River sources (in Hebrew). *Water Engineering* 43: 12-17, in Hebrew.

ROTENBERG E, YAKIR D (2010) Contribution of semi-arid forests to the climate system. *Science* 327(5964): 451-454, <http://dx.doi.org/10.1126/science.1179998>.

RUSSO D (2005) Stochastic analysis of solute mass flux in gravity-dominated flow through bimodal heterogeneous unsaturated formations. *Vadose Zone Journal* 4(4): 939-953, <http://dx.doi.org/10.2136/vzj2004.0183>.

RUSSO D, ZAIDEL J, FIORI A, LAUFER A (2006) Numerical analysis of flow and transport from a multiple-source system in a partially saturated heterogeneous soil under cropped conditions. *Water Resources Research* 42, W06415, <http://dx.doi.org/10.1029/2006WR004923>.

RUSSO D, ZAIDEL J, LAUFER A (2004) Numerical analysis of transport of interacting solutes in a three-dimensional unsaturated heterogeneous soil. *Vadose Zone Journal* 3(4): 1286-1299, <http://vzj.geoscienceworld.org/content/3/4/1286.abstract>, accessed 23.07.2012.

- RUSSO D, ZAIDEL J, LAUFER A (2005) Numerical analysis of flow and transport from trickle sources on a spatially heterogeneous hillslope. *Vadose Zone Journal* 4(3): 838-847, <http://dx.doi.org/10.2136/vzj2004.0160>.
- SAARONI H, HALFON N, ZIV B, ALPERT P, KUTIEL H (2010) Links between the rainfall regime in Israel and location and intensity of Cyprus Lows. *International Journal of Climatology* 30(7): 1014-1025, <http://dx.doi.org/10.1002/joc.1912>.
- SAARONI H, ZIV B, ALPERT P (2005) The global warming and its indication in the Israeli summer. *Israel Meteorological Society* 1-2: 13–28, in Hebrew.
- SAARONI H, ZIV B, EDELSON J, ALPERT P (2003) Long-term variations in summer temperatures over the Eastern Mediterranean. *Geophysical Research Letters* 30(18): 1946, <http://dx.doi.org/10.1029/2003GL017742>.
- SAARONI H, ZIV B, OSETINSKY I, ALPERT P (2010) Factors governing the interannual variation and the long-term trend of the 850 hPa temperature over Israel. *Quarterly Journal of the Royal Meteorological Society Part B* 136(647): 305–318, <http://dx.doi.org/10.1002/qj.580>.
- SADE R, RIMMER A, SAMUELS R, SALINGAR Y, DENISYUK M, ALPERT P (accepted) Water management in a complex hydrological basin - Application of Water Evaluation and Planning Tool (WEAP) to the Lake Kinneret watershed, Israel. *Springer Edited Volume: "Integrated Water Resources Management: Concept, Research and Implementation"*.
- SALGUERO-GÓMEZ R, SIEWERT W, CASPER BB, TIELBÖRGER K (2012) A demographic approach to study effects of climate change in desert plants. *Philosophical Transactions of The Royal Society Biological Sciences* 367(1606): 3100-3114, <http://dx.doi.org/10.1098/rstb.2012.0074>.
- SALMAN A, AL-KARABLIEH E, REGNER H-J, WOLFF H-P, HADDADIN M (2008) Participatory irrigation water management in the Jordan Valley. *Water Policy* 10(4): 305-322, <http://dx.doi.org/10.2166/wp.2007.051>, <http://www.iwaponline.com/wp/01004/wp010040305.htm>, accessed 23.07.2012.
- SAMOCHA Y, SHKLAR G, KOROL L, STERNBERG M (2009) From mesic to arid environments: Morphological and genetic divergence in *Asphodelus aestivus* Brot. populations. *Israel Journal of Plant Sciences* 57(1-2): 91-102, <http://dx.doi.org/10.1560/IJPS.57.1-2.91>.
- SAMOCHA Y, STERNBERG M (2010) Herbivory by sucking mirid bugs can reduce nectar production in *Asphodelus aestivus* Brot. *Arthropod-Plant Interactions* 4(3): 153-158, <http://dx.doi.org/10.1007/s11829-010-9091-6>.
- SAMUELS R, RIMMER A, ALPERT P (2009) Effect of extreme rainfall events on the water resources of the Jordan River. *Journal of Hydrology* 375(3-4): 513-523, <http://dx.doi.org/10.1016/j.jhydrol.2009.07.001>.

- SAMUELS R, RIMMER A, HARTMANN A, KRICHAK S, ALPERT P (2010) Climate change impacts on Jordan River flow: downscaling application from a Regional Climate Model. *Journal of Hydrometeorology* 11(4): 860-879, <http://dx.doi.org/10.1175/2010JHM1177.1>.
- SAMUELS R, SMIATEK G, KRICHAK S, KUNSTMANN H, ALPERT P (2011) Extreme value indicators in highly resolved climate change simulations for the Jordan River area. *Journal of Geophysical Research - Atmospheres* 116, D24123, <http://dx.doi.org/10.1029/2011JD016322>.
- SCARTAZZA A, MATA C, MATTEUCCI G, YAKIR D, MOSCATELLO S, BRUGNOLI E (2004) Comparisons of  $\delta^{13}\text{C}$  of photosynthetic products and ecosystem respiratory  $\text{CO}_2$  and their responses to seasonal climate variability. *Oecologia* 140(2): 340-351, <http://dx.doi.org/10.1007/s00442-004-1588-1>.
- SCHACHT K, CHEN Y, TARCHITZKY J, LICHNER L, MARSCHNER B (2014) Impact of treated wastewater irrigation on water repellency of Mediterranean soils. *Irrig Sci*: 1-10, <http://dx.doi.org/10.1007/s00271-014-0435-3>.
- SCHACHT K, CHEN Y, TARCHITZKY J, MARSCHNER B (accepted) The use of treated wastewater for irrigation as a component of IWRM: Reducing environmental implications on soil and groundwater by evaluating site-specific soil suitabilities. *Springer Edited Volume "Integrated Water Resources Management: Concept, Research and Implementation"*.
- SCHACHT K, GÖNSTER S, JÜSCHKE E, CHEN Y, TARCHITZKY J, AL-BAKRI J, AL-KARABLIEH E, MARSCHNER B (2011) Evaluation of soil sensitivity towards the irrigation with treated wastewater in the Jordan River Region. *Water* 3(4): 1092-1111, <http://dx.doi.org/10.3390/w3041092>.
- SCHALDACH R, ALCAMO J, KOCH J, KOLKING C, LAPOLA DM, SCHUNGEL J, PRIESS JA (2011) An integrated approach to modelling land-use change on continental and global scales. *Environmental Modelling and Software* 26(8): 1041-1051, <http://dx.doi.org/10.1016/j.envsoft.2011.02.013>.
- SCHALDACH R, WIMMER F, KOCH J, VOLLAND J, GEIBLER K, KÖCHY M (2012) Model-based analysis of the environmental impacts of grazing management on Eastern Mediterranean ecosystems in Jordan. *Journal of Environmental Management*: 12, <http://dx.doi.org/10.1016/j.jenvman.2012.11.024>.
- SCHIFFERS K, TIELBÖRGER K (2006) Ontogenetic shifts in interactions among annual plants. *Journal of Ecology* 94(2): 336-341, <http://dx.doi.org/10.1111/j.1365-2745.2006.01097.x>.
- SEIFAN M, SEIFAN T, ARIZA C, TIELBÖRGER K (2010) Facilitating an importance index. *Journal of Ecology* 98(2): 356-361, <http://dx.doi.org/10.1111/j.1365-2745.2009.01621.x>.
- SEYFRIED MS, SCHWINNING S, WALVOORD MA, POCKMAN WT, NEWMAN BD, JACKSON RB, PHILLIPS FM (2005) Ecohydrological control of deep drainage in arid and semiarid regions. *Ecology* 86(2): 277-287, <http://dx.doi.org/10.1890/03-0568>.

- SHACHNOVICH Y, BERLINER PR, BAR P (2008) Rainfall interception and spatial distribution of throughfall in a pine forest planted in an arid zone. *Journal of Hydrology* 349(1-2): 168-177, <http://dx.doi.org/10.1016/j.jhydrol.2007.10.051>.
- SHADEED S, ALMASRI M (2010) Application of GIS-based SCS-CN method in West Bank catchments, Palestine. *Water Science and Engineering* 3(1): 1-13, <http://dx.doi.org/10.3882/j.issn.1674-2370.2010.01.001>.
- SHADEED S, LANGE J (2010) Rainwater harvesting to alleviate water scarcity in dry conditions: a case study in Faria Catchment, Palestine. *Water Science and Engineering* 3(2): 132-143, <http://www.waterjournal.cn:8080/water/EN/abstract/abstract118.shtml>, accessed 23.07.2012.
- SHADEED S, SHAHEEN H, JAYYOUSI A (2007) GIS-based KW-GIUH hydrological model of semiarid catchments: The case of Faria Catchment, Palestine. *Arabian Journal for Science and Engineering AJSE, Saudi Arabia* 32(1C), [http://ajse.kfupm.edu.sa/articles/321C\\_P.01.pdf](http://ajse.kfupm.edu.sa/articles/321C_P.01.pdf), accessed 23.07.2012.
- SHAFIR H, ALPERT P (2011) Regional and local climatic effects on the Dead-Sea evaporation. *Climatic Change* 105(3-4): 455-468, <http://dx.doi.org/10.1007/s10584-010-9892-8>.
- SHAMOUN-BARANES J, VAN LOON E, ALON D, ALPERT P, YOM-TOV Y, LESHEM Y (2006) Is there a connection between weather at departure sites, onset of migration and timing of soaring-bird autumn migration in Israel? *Global Ecology and Biogeography* 15(6): 541-552, <http://dx.doi.org/10.1111/j.1466-8238.2006.00261.x>.
- SHENKER M, SEITELBACH S, BRAND S, HAIM A, LITAOR MI (2005) Redox reactions and phosphorus release in re-flooded soils of an altered wetland. *European Journal of Soil Science* 56(4): 515-525, <http://dx.doi.org/10.1111/j.1365-2389.2004.00692.x>.
- SHENTSIS I, LARONNE JB, ALPERT P (2012) Red Sea Trough flood events in the Negev, Israel (1964-2007). *Hydrological Sciences Journal-Journal Des Sciences Hydrologiques* 57(1): 42-51, <http://dx.doi.org/10.1080/02626667.2011.636922>.
- SHNERB NM, SARAH P, LAVEE H, SOLOMON S (2003) Reactive glass and vegetation patterns. *Physical Review Letters* 90 (3), 038101, <http://dx.doi.org/10.1103/PhysRevLett.90.038101>.
- SHOHAMI D, DAYAN U, MORIN E (2011) Warming and drying of the eastern Mediterranean: Additional evidence from trend analysis. *Journal of Geophysical Research-Atmospheres* 116, D22101: 12, <http://dx.doi.org/10.1029/2011jd016004>.
- SHORE LS, REICHMANN O, SHEMESH M, WENZEL A, LITAOR MI (2004) Washout of accumulated testosterone in a watershed. *Science of the Total Environment* 332(1-3): 193-202, <http://dx.doi.org/10.1016/j.scitotenv.2004.04.009>.
- SHORE LS, SHEMESH M (2003) Naturally produced steroid hormones and their release into the environment. *Pure and Applied Chemistry* 75 (11-12): 1859-1871, <http://dx.doi.org/10.1351/pac200375111859>.

- SHTIRBERG I, DAYAN T, STERNBERG M, CHIKATUNOV V (2007) Biodiversity changes of beetles, mammals, and reptiles along a rainfall gradient in Israel. *Israel Journal of Ecology and Evolution* 53(1): 109.
- SIEWERT W, TIELBÖRGER K (2010) Dispersal-dormancy relationships in annual plants: Putting model predictions to the test. *The American Naturalist* 176(4): 490-500, <http://dx.doi.org/10.1086/656271>.
- SILBERBUSH M, BEN-ASHER J, EPHRATH JE (2005) A model for nutrient and water flow and their uptake by plants grown in a soilless culture. *Plant and Soil* 271(1-2): 309-319, <http://dx.doi.org/10.1007/s11104-004-3093-z>.
- SILBERBUSH M, EPHRATH JE, ALEKPEROV C, BEN-ASHER J (2003) Nitrogen and potassium fertilization interactions with carbon dioxide enrichment in Hippeastrum bulb growth. *Scientia Horticulturae* 98(1): 85-90, [http://dx.doi.org/10.1016/S0304-4238\(02\)00205-4](http://dx.doi.org/10.1016/S0304-4238(02)00205-4).
- SINAI G, JAIN PK (2005) Water management of irrigated-drained fields in the Jordan Valley South of Lake Kinneret. *Journal of Irrigation and Drainage Engineering* 131 (4): 364–374, [http://dx.doi.org/10.1061/\(ASCE\)0733-9437\(2005\)131:4\(364\)](http://dx.doi.org/10.1061/(ASCE)0733-9437(2005)131:4(364)).
- SIVAN I, SALINGAR Y, RIMMER A (2007) A WEAP model for the Sea of Galilee (Lake Kinneret) Basin – Water resources and consumers by sub-basins. *Water Engineering* 53: 50-58, <http://www.weap21.org/downloads/Kinneret.pdf>, accessed 23.07.2012, in Hebrew.
- SKUTELSKY O (2006) Reform of the Agricultural Support Policies in Europe: Promoting Environmental Conservation with Agri-environmental Schemes. [www.nekudat-hen.org.il](http://www.nekudat-hen.org.il), in Hebrew.
- SKUTELSKY O (2009) Planning and Management of ecological corridors in agricultural landscapes (scientific reviews and recommended policies). [www.nekudat-hen.org.il](http://www.nekudat-hen.org.il), in Hebrew.
- SMIATEK G, KUNSTMANN H, HECKL A (2011) High-resolution climate change simulations for the Jordan River area. *Journal of Geophysical Research - Atmospheres* 116, D16111, <http://dx.doi.org/10.1029/2010JD015313>.
- SMIATEK G, KUNSTMANN H, HECKL A (2014) High-Resolution Climate Change Impact Analysis on Expected Future Water Availability in the Upper Jordan Catchment and the Middle East. *Journal of Hydrometeorology* 15(4): 1517–1531, <http://dx.doi.org/10.1175/JHM-D-13-0153.1>.
- SPRINTSIN M, COHEN S, MASEYK K, ROTENBERG E, GRÜNZWEIG J, KARNIELI A, BERLINER P, YAKIR D (2011) Long term and seasonal courses of leaf area index in a semi-arid forest plantation. *Agricultural and Forest Meteorology* 151(5): 565-574, <http://dx.doi.org/10.1016/j.agrformet.2011.01.001>.
- STEINITZ H, DAYAN T, YOM-TOV Y (2007) Predicting distributions of Israeli mammals under different climate change scenarios at the species and assemblage levels. *Israel Journal of Ecology & Evolution* 53(1): 110, [http://dx.doi.org/10.1560/IJEE\\_53\\_1\\_85](http://dx.doi.org/10.1560/IJEE_53_1_85).

STUMPE B, MARSCHNER B (2007) Long-term sewage sludge application and wastewater irrigation effects on the mineralization and sorption of 17 $\beta$ -estradiol and testosterone in soils. *Science of the total environment* 374: 282-291,  
<http://dx.doi.org/10.1016/j.scitotenv.2006.12.025>.

TALMON Y, STERNBERG M, GRÜNZWEIG JM (2011) Impact of rainfall manipulations and biotic controls on soil respiration in Mediterranean and desert ecosystems along an aridity gradient. *Global Change Biology* 17(2): 1108-1118,  
<http://dx.doi.org/10.1111/j.1365-2486.2010.02285.x>.

TARCHITZKY J, LERNER O, SHANI U, ARYE G, LOWENGART-AYCICEGI A, BRENER A, CHEN Y (2006) Water distribution pattern in treated wastewater irrigated soils: hydrophobicity effect. *European Journal of Soil Science* 58(3): 573-588, <http://dx.doi.org/10.1111/j.1365-2389.2006.00845.x>.

TIELBÖRGER K, BILTON MC, METZ J, KIGEL J, HOLZAPFEL C, LEBRIJA-TREJOS E, KONSENS I, PARAG HA, STERNBERG M (2014) Middle-Eastern plant communities tolerate 9 years of drought in a multi-site climate manipulation experiment. *Nature Communications* 5, <http://dx.doi.org/10.1038/ncomms6102>.

TIELBÖRGER K, CLAUS C, SCHLOZ D, TWITE R, AL-KARABLIEH E, SALMAN A, JAYYOUSI A, ALPERT P (accepted) Sustainable Water and Land Management under Global Change – The GLOWA Jordan River Project. *SPRINGER Edited Volume: Integrated Water Resources Management: Concept, Research and Implementation.*

TIELBÖRGER K, FLEISCHER A, MENZEL L, METZ J, STERNBERG M (2010) The aesthetics of water and land: a promising concept for managing scarce water resources under climate change. *Philosophical Transactions of the Royal Society A* 368(1931): 5323-5337, <http://dx.doi.org/10.1098/rsta.2010.0143>.

TIELBÖRGER K, PETRŮ M (2010) An experimental test for effects of the maternal environment on delayed germination. *Journal of Ecology* 98(5): 1216-1223, <http://dx.doi.org/10.1111/j.1365-2745.2010.01682.x>.

TIELBÖRGER K, PETRŮ M, LAMPEI C (2012) Bet-hedging germination in annual plants: a sound empirical test of the theoretical foundations. *Oikos* 121(11): 1860-1868, <http://dx.doi.org/10.1111/j.1600-0706.2011.20236.x>.

TIELBÖRGER K, VALLERIANI A (2005) Can seeds predict their future? Germination strategies of density-regulated desert annuals. *Oikos* 111(2): 235-244, <http://dx.doi.org/10.1111/j.0030-1299.2005.14041.x>.

TIETJEN B, JELTSCH F (2007) Semi-arid grazing systems and climate change: a survey of present modelling potential and future needs. *Journal of Applied Ecology* 44(2): 425-434, <http://dx.doi.org/10.1111/j.1365-2664.2007.01280.x>.

TIETJEN B, ZEHE E, JELTSCH F (2009) Simulating plant water availability in dry lands under climate change: A generic model of two soil layers. *Water Resources Research* 45(W01418), <http://dx.doi.org/10.1029/2007WR006589>.

TÖRNROS T (2013) On the relationship between the Mediterranean Oscillation and winter precipitation in the Southern Levant. *Atmospheric Science Letters* 14(4): 287-293, <http://dx.doi.org/10.1002/asl2.450>.

TÖRNROS T, MENZEL L (2014) Addressing drought conditions under current and future climates in the Jordan River region. *Hydrology and Earth System Sciences* 18: 305-318, <http://dx.doi.org/10.5194/hess-18-305-2014>.

TÖRNROS T, MENZEL L (2014) Leaf Area Index as a function of precipitation within a hydrological model. *Hydrology Research* 45(4-5): 660-672, <http://dx.doi.org/10.2166/nh.2013.143>.

TSIDULKO M, KRICHAK SO, ALPERT P, KAKALIAGOU O, KALLOS G, PAPADOPoulos A (2002) Numerical study of a very intensive Eastern Mediterranean dust storm, 13–16 March 1998. *Journal of Geophysical Research - Atmospheres* 107(D21): 4581, <http://dx.doi.org/10.1029/2001JD001168>.

TSVIELI Y, ZANGVIL A (2005) Synoptic climatological analysis of ‘wet’ and ‘dry’ Red Sea Troughs over Israel. *International Journal of Climatology* 25(15): 1997 - 2015, <http://dx.doi.org/10.1002/joc.1232>.

TWITE R, KOELSCH V (2014) The Management of Water in the Jordan Basin in 2010. <http://nbn-resolving.de/urn:nbn:de:bsz:21-opus-73763>.

VOLLAND J, KOCH J, ONIGKEIT J, WIMMER F, SCHALDACH R (2014) Land-use Modeling in the GLOWA-Jordan River Project. Documentation of models and simulation results. CESR (Centre for Environmental System Research) - Paper 7, <http://nbn-resolving.de/urn:nbn:de:0002-35338>.

WEIß M, FLÖRKE M, MENZEL L, ALCAMO J (2007) Model-based scenarios of Mediterranean droughts. *Advances in Geosciences* 12: 145-151, <http://dx.doi.org/10.5194/adgeo-12-145-2007>.

WEIß M, MENZEL L (2008) A global comparison of four potential evapotranspiration equations and their relevance to stream flow modeling in semi-arid environments. *Advances in Geosciences* 18: 15-23, <http://dx.doi.org/10.5194/adgeo-18-15-2008>.

WILSKE B, BURGHEIMER J, MASEYK K, KARNIELI A, ZAADY E, ANDREAE MO, YAKIR D, KESSELMEIER J (2009) Modeling the variability in annual carbon fluxes related to biological soil crusts in a Mediterranean shrubland. *Biogeosciences Discussions* 6(4): 7295–7324, <http://dx.doi.org/10.5194/bgd-6-7295-2009>.

WOLFF H-P (2008) Social, economic and livelihood dimensions of wastewater use in agriculture. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources* 3(69): 12.

WU XB, ARCHER SR (2005) Scale-dependent influence of topography-based hydrologic features on patterns of woody plant encroachment in Savanna landscapes. *Landscape Ecology* 20(6): 733–742, <http://dx.doi.org/10.1007/s10980-005-0996-x>.

YATAGAI A, XIE P, ALPERT P (2008) Development of a daily gridded precipitation data set for the Middle East. *Advances in Geosciences* 12: 165-170, <http://dx.doi.org/10.5194/adgeo-12-165-2008>.

- YOSEF Y, SAARONI H, ALPERT P (2009) Trends in daily rainfall intensity over Israel 1950/1-2003/4. *The Open Atmospheric Science Journal* 3: 196-203,  
<http://dx.doi.org/10.2174/1874282300903010196>.
- YUVAL D, BRODAY M, ALPERT P (2012) Exploring the applicability of future air quality predictions based on synoptic system forecasts. 166: 65-74,  
<http://dx.doi.org/10.1016/j.envpol.2012.03.010>.
- ZANGVIL A, KARAS S, SASSON A (2003) Connection between Eastern Mediterranean seasonal mean 500 hPa height and sea-level pressure patterns and the spatial rainfall distribution over Israel. *International Journal of Climatology* 23(13): 1567-1576,  
<http://dx.doi.org/10.1002/joc.955>.
- ZANGVIL A, PORTIS DH, LAMB PJ (2004) Investigation of the large-scale atmospheric moisture field over the Midwestern United States in relation to summer precipitation. Part II: Recycling of local evapotranspiration and association with soil moisture and crop yields. *Journal of Climate* 17(17): 3283-3301,  
[http://dx.doi.org/10.1175/1520-0442\(2004\)017<3283:IOTLAM>2.0.CO;2](http://dx.doi.org/10.1175/1520-0442(2004)017<3283:IOTLAM>2.0.CO;2).
- ZEGADA-LIZARAZU W, BERLINER PR (2011) The effects of the degree of soil cover with an impervious sheet on the establishment of tree seedlings in an arid environment. *New Forests* 42(1): 1-17, <http://dx.doi.org/10.1007/s11056-010-9233-9>.
- ZEITOUNI N, SHAMIR S, SHECHTER M (2002) Economic Valuation of Irreversible Changes in Biodiversity. *Studies in Natural Resources and Environmental Management* 1(2): 97–108 in Hebrew.
- ZHANG X, AGUILAR E, SENSOY S, MELKONYAN H, TAGIYEVA U, AHMED N, KUTALADZE N, RAHIMZADEH F, TAGHIPOUR A, HANTOSH TH, ALPERT P, SEMAWI M, KARAM ALI M, AL-SHABIBI MHS, AL-OULAN Z, ZATARI T, KHELET IAD, HAMOUD S, SAGIR R, DEMIRCAN M, EKEN M, ADIGUZEL M, ALEXANDER L, PETERSON TC, WALLIS T (2005) Trends in Middle East climate extreme indices from 1950 to 2003. *Journal of Geophysical Research - Atmospheres* 110(D22104), <http://dx.doi.org/10.1029/2005JD006181>.
- ZINEVICH A, MESSER H, ALPERT P (2009) Frontal rainfall observation by a commercial microwave communication network. *Journal of Applied Meteorology and Climatology* 48(7): 1317–1334, <http://dx.doi.org/10.1175/2008JAMC2014.1>.
- ZIV B, ALPERT P (2003) Rotation of mid-latitude binary cyclones: A potential vorticity approach. *Theoretical and Applied Climatology* 76(3–4): 189–202,  
<http://dx.doi.org/10.1007/s00704-003-0011-x>.
- ZIV B, SAARONI H, ALPERT P (2004) The factors governing the summer regime of the eastern Mediterranean. *International Journal of Climatology* 24(14): 1859–1871,  
<http://dx.doi.org/10.1002/joc.1113>.
- ZIV B, SAARONI H, ALPERT P (2006) The summer climate in Israel and its connection to the Monsoon. *MERCHAVIM special issue* 315-331, in Hebrew.

ZIV B, SAARONI H, BAHARAD A, YEKUTIELI D, ALPERT P (2005) Indications for aggravation in summer heat conditions over the Mediterranean Basin. *Geophysical Research Letters* 32, L12706, <http://dx.doi.org/10.1029/2005GL022796>.

ZIV B, SAARONI H, PARGAMENT R, ALPERT P (2013) Trends in Rainfall Regime over Israel, 1975-2010, and their Relation to the Variations in the Synoptic Systems and Large-Scale Oscillations. *Regional Environmental Changes Journal*, <http://dx.doi.org/10.1007/s10113-013-0414-x>.

ZWIKEL S, LAVEE H, SARAH P (2007) The spatial differences in arylsulfatase enzyme activity on hillslopes along a climatic transect. *Soil Research* 45(4): 288-298, <http://dx.doi.org/10.1071/SR06150>.

ZWIKEL S, LAVEE H, SARAH P (2007) Temporal dynamics in arylsulfatase enzyme activity in various microenvironments along a climatic transect in Israel. *Geoderma* 140 (1-2): 30-41, <http://dx.doi.org/10.1016/j.geoderma.2007.03.008>.

ZWIKEL S, LAVEE H, SARAH P (2007) Temporal evolution of salts in Mediterranean soils transect under different climatic conditions. *Catena* 70(3): 282-295, <http://dx.doi.org/10.1016/j.catena.2006.09.004>.