

Nikos Koutsias - Publication List

- I.68 T. Gschwantner, I. Alberdi, S. Bauwens, S. Bender, D. Borota, M. Bosela, O. Bouriaud, J. Breidenbach, J. Donis, C. Fischer, P. Gasparini, L. Heffernan, J.-C. Hervég, L. Kolozs, K. T. Korhonen, **N. Koutsias**, P. Kovácsevics, M. Kučera, G. Kulbokas, A. Kuliešis, A. Lanz, P. Lejeune, T. Lind, G. Marin, F. Morneau, T. Nord-Larsen, L. Nunes, D. Pantić, J. Redmond, F. C. Rego, T. Riedel, V. Seben, A. Sims, M. Skudnik, S. M. Tomter. 2021. Growing stock monitoring by European National Forest Inventories: historical origins, current methods and harmonization. *Forest Ecology and Management*, accepted
- I.67 F. J. Pérez-Invernón, H. Huntrieser, S. Soler, F. J. Gordillo-Vázquez, N. Pineda, J. Navarro-González, V. Reglero, J. Montanyà, O. van der Velde, **N. Koutsias**, 2021. Lightning-ignited fires and long-continuing-current lightning in the Mediterranean Basin: Preferential meteorological conditions. *Atmospheric Chemistry and Physics*, accepted.
- I.66 **N. Koutsias** and M. Pleniou. 2021. A rule-based semi-automatic method to map burned areas in Mediterranean using Landsat images – revisited and improved. *International Journal of Digital Earth*, accepted.
- I.65 A. Gemitzi and **N. Koutsias**. 2021. Assessment of properties of vegetation phenology in fire-affected areas from 2000 to 2015 in the Peloponnese, Greece. *Remote Sensing Applications: Society and Environment*. 23 (2021) 100535.
- I.64 P.C. Pandey, **N. Koutsias**, G.P. Petropoulos, P.K. Srivastava, E. B. Dor. 2021. Land use/land cover in view of earth observation: Data sources, input dimensions and classifiers -a review of the state of the art. *Geocarto International*, 36(9): 957-988
- I.63 E. Chuvieco, L. M. Pettinari, **N. Koutsias**, M. Forkel, S. Hantson, M. Turco. 2021. Human and climate drivers of global biomass burning variability. *Science of the Total Environment*, 779 (2021) 146361.
- I.62 Ruffault J., Curt T., Moron V., Trigo R.M., Mouillot F., **Koutsias N.**, Pimont F., Martin-StPaul N., Barbero R., Dupuy J-L., Russo A., and Belhadj-Kheder C. 2020. Increased likelihood of heat-induced large wildfires in the Mediterranean Basin. *Scientific Reports – Nature*, 10(1):13790.
- I.61 A. Krina, F. Xystrakis, K. Karantininis and **N. Koutsias**. 2020. Monitoring and projecting land use/land cover changes of eleven large deltaic areas in Greece from 1945 onwards. *Remote Sensing*, 12(8):1241
- I.60 F. Moreira , D. Ascoli, H. Safford, M.A. Adams, J.M. Moreno, J.M.C. Pereira, F.X. Catry, J. Armesto, W. Bond, M.E. González, T.Curt, **N. Koutsias**, L. McCaw, O. Price, J.G. Pausas, E. Rigolot, S. Stephens, C. Tavsanoğlu, V.R. Vallejo, B.W. Van Wilgen, G. Xanthopoulos, P.M. Fernandes. 2020. Wildfire management in Mediterranean-type regions: Paradigm change needed. *Environmental Research Letters*, 15 (1):011001
- I.59 E. Chuvieco, F. Mouillot, G. R. van der Werf, J. San Miguel, M. Tanasse, **N. Koutsias**, M. García, M. Yebra, M. Padilla, I. Gitas, A. Heil, T. J. Hawbaker and L. Giglio. 2019. Historical background and current developments for mapping burned area from satellite Earth observation. *Remote Sensing of Environment*, 225:45-64.
- I.58 C. B. Khedher, **N. Koutsias**, A. Karamitsou, T. El Melki, B. Ouelhazi, A. Hamdi, H. Nouri, and F. Mouillot. 2018. A revised historical fire regime analysis in Tunisia (1985-2010) from a critic analysis of the national fire database and remote sensing. *MDPI Forests*, 9(59):1-25
- I.57 S. Bajocco, **N. Koutsias**, C. Ricotta. 2017. Linking fire ignitions hotspots and fuel phenology: the

importance of being seasonal. *Ecological Indicators*, 82, 433-440.

- I.56 N. Alexandris, **N. Koutsias** and S. Gupta. 2017. Remote sensing of burned areas via PCA. Part 2: SVD-based PCA using MODIS and Landsat data, *Open Geospatial Data, Software and Standards*, 2 (1), 21.
- I.55 N. Alexandris, S. Gupta and **N. Koutsias**. 2017. Remote sensing of burned areas via PCA. Part 1: centering, scaling and EVD versus SVD, *Open Geospatial Data, Software and Standards*, 2 (1), 17.
- I.54 S. Ghimire, F. Xystrakis and **N. Koutsias**. 2017. Using terrestrial laser scanning to measure forest inventory parameters in a Mediterranean coniferous stand of western Greece. *PGF- Journal of Photogrammetry, Remote Sensing and Geoinformation Science*, 85(4): 213-225.
- I.53 F. Xystrakis, T. Psarras and **N. Koutsias**. 2017. A process-based land use/land cover change assessment on a mountainous area of Greece during 1945-2009: Signs of socio-economic drivers. *Science of the Total Environment*, 587–588: 360-370.
- I.52 M. Hirschmugl, H. Gallaun, M. Dees, P. Datta, J. Deutscher, **N. Koutsias**, M. Schardt. 2017. Review of methods for mapping forest disturbance and degradation from optical earth observation data. *Current Forestry Reports*, 3(1): 32-45.
- I.51 Z. Stamou, F. Xystrakis and **N. Koutsias***. 2016. The role of fire as a long-term landscape modifier: evidence from long-term fire observations (1922-2000) in Greece. *Applied Geography*, 74:47-55.
- I.50 M. Salis, B. Arca, F. Alcasena, M. Arianoutsou, V. Bacciu, P. Duce, B. Duguay, **N. Koutsias**, G. Mallinis, I. Mitsopoulos, J. M. Moreno, J. R. Pérez, I. Rodriguez, F. Xystrakis, G. Zavala, D. Spano. 2016. Predicting wildfire spread and behavior in Mediterranean landscapes. *International Journal of Wildland Fire*. 25:1015–1032.
- I.49 M. Tsianou, **N. Koutsias**, A.D. Mazaris, A.S. Kallimanis. 2016. Climate and landscape explain richness patterns depending on the type of species' distribution data, *Acta Oecologica*, 74:19-27.
- I.48 A. Benali, A. Russo, A. C.L. Sá, R. M.S. Pinto, O. Price, **N. Koutsias**, J. M.C. Pereira. 2016. Determining fire dates and locating ignition points with satellite data. *Remote Sensing*, 2016, 8, 326.
- I.47 C. M. Gouveia, I. Bistinas, M. L. R. Liberato, A. Bastos, **N. Koutsias** and R. Trigo. 2016. The outstanding synergy between drought, heatwaves and fuel on the 2007 Southern Greece exceptional fire season. *Agricultural and Forest Meteorology*, 218–219: 135-145.
- I.46 M. Turco, J. Bedia, F. Di Liberto, Paolo Fioruccid, J. von Hardenberg, **N. Koutsias**, M. Carmen. Llasat, F. Xystrakis, A. Provenzale. 2016. Decreasing fires in Mediterranean Europe. *PLOS ONE*, 11(3): e0150663.
- I.45 **N. Koutsias***, B. Allgöwer, K. Kalabokidis, G. Mallinis, P. Balatsos and J. G. Goldammer. 2016. Fire occurrence zoning from local to global scale in the European Mediterranean Basin: implications for multi-scale fire management and policy. *iForest - Biogeosciences and Forestry*, 9: 195-204.
- I.44 **N. Koutsias*** and M. Pleniou. 2015. Comparing the spectral signal of burned surfaces between Landsat-7 ETM+ and Landsat-8 OLI sensors. *International Journal of Remote Sensing*, 36(14): 3714-3732.
- I.43 F. Nioti, F. Xystrakis, **N. Koutsias** and P. Dimopoulos. 2015. A Remote Sensing and GIS Approach to Study the Long-Term Vegetation Recovery of a Fire-Affected Pine Forest in Southern Greece. *Remote Sensing*, 7(6): 7712-7731.
- I.42 E. Moussoulis, G. Mallinis, **N. Koutsias** and I. Zacharias. 2015. Modelling surface runoff to evaluate the effects of wildfires in multiple semi-arid, shrubland-dominated catchments.

Hydrological Processes. 29: 4427–4441.

- I.41 A. Christopoulou, N. M. Fyllas, P. Andriopoulos, **N. Koutsias**, P. G. Dimitrakopoulos, M. Arianoutsou. 2014. Post-fire regeneration patterns of *Pinus nigra* in a recently burned area in Mount Taygetos, Southern Greece: the role of unburned forest patches. *Forest Ecology and Management*. 327:148-156.
- I.40 G. Mallinis, **N. Koutsias** and M. Arianoutsou 2014. Monitoring land use/land cover transformations from 1945 to 2007 in two peri-urban mountainous areas of Athens metropolitan area, Greece. *Science of the Total Environment*. 490:262-278.
- I.39 A. Venäläinen, N. Korhonen, O. Hyvärinen, **N. Koutsias**, F. Xystrakis, I.R. Urbieta and J.M. Moreno. Temporal variations and change of forest fire danger in Europe in 1960-2012. *Natural Hazards and Earth System Sciences*. 14 (6):1477-1490.
- I.38 **N. Koutsias***, P. Balatsos, and K. Kalabokidis. 2014. Fire occurrence zones: kernel density estimation of historical wildfire ignitions at the national level, Greece. *Journal of Maps*. 10 (4):630-639.
- I.37 D. Sarris, A. Christopoulou, E. Angelonidi, **N. Koutsias**, P.Z. Fulé, M. Arianoutsou. 2014. Increasing extremes of heat and drought associated with recent severe wildfires in southern Greece. *Regional Environmental Change*. 14 (3):1257-1268.
- I.36 D. Sarris and **N. Koutsias**. 2014. Ecological adaptations of plants to drought influencing the recent fire regime in the Mediterranean. *Agricultural and Forest Meteorology*. 184:158-169.
- I.35. F. Xystrakis, A.S. Kallimanis, P. Dimopoulos, J.M. Halley and **N. Koutsias***. 2014. Precipitation dominates fire occurrence in Greece (1900-2010): its dual role in fuel build-up and dryness. *Natural Hazards and Earth System Sciences*. 14(1):21-32.
- I.34. J. Bedia, S. Herrera, D. San Martín, **N. Koutsias**, J.M. Gutiérrez. 2013. Robust projections of Fire Weather Index in the Mediterranean using statistical downscaling. *Climatic Change*. 120:229-247.
- I.33. **N. Koutsias***, M. Pleniou, G. Mallinis, F. Nioti and N.I. Sifakis. 2013. A rule-based semi-automatic method to map burned areas: exploring the USGS historical Landsat archives to reconstruct recent fire history. *International Journal of Remote Sensing*. 34(20): 7049-7068.
- I.32. **N. Koutsias***, Xanthopoulos G., Founda D., Xystrakis F., Nioti F., Pleniou M., Mallinis G. and Arianoutsou M. 2013. On the relationships between forest fires and weather conditions in Greece from long-term national observations (1894-2010). *International Journal of Wildland Fire*. 22(4):493-507.
- I.31. F. Xystrakis and **N. Koutsias**. 2013. Differences of fire activity and their underlying factors among vegetation formations in Greece. *iForest - Biogeosciences and Forestry*. 6:132-140.
- I.30. M. Pleniou and **N. Koutsias***. 2013. Sensitivity of spectral reflectance values to different burn and vegetation ratios: a multi-scale approach applied in a fire affected area. *ISPRS Journal of Photogrammetry and Remote Sensing*. 79:199-210.
- I.29. A.S. Kallimanis and **N. Koutsias***. 2013. Geographical patterns of Corine land cover diversity across Europe: the effect of grain size and thematic resolution. *Progress in Physical Geography*. 37(2): 161-177.
- I.28. J. Martínez-Fernández, E. Chuvieco and **N. Koutsias**. 2013. Modelling long-term fire occurrence factors in Spain: accounting for local variations with geographically weighted regression. *Natural Hazards and Earth System Sciences*. 13(2): 311–327.
- I.27. M. Pleniou, Xystrakis F., Dimopoulos P. and **Koutsias N.** 2012. Maps of fire occurrence – spatially explicit reconstruction of recent fire history using satellite remote sensing. *Journal of Maps*. 8(4):

499-506.

- I.26. Krebs, P., **Koutsias, N.**, Conedera, M. 2012. Modelling the eco-cultural niche of giant chestnut trees in southern Switzerland: new insights into landscape history through distribution analysis of a heritage. *Journal of Historical Geography*. 38: 372-386.
- I.25. N. E. Mitrakis, G. Mallinis, **N. Koutsias**, and J. B. Theocharis. 2012. Burned area mapping in Mediterranean environment using medium resolution multi-spectral data and a neuro-fuzzy classifier. *International Journal of Image and Data Fusion*. 3(4): 299-318.
- I.24. G. Mallinis and **N. Koutsias***. 2012. Comparing ten classification methods for burned area mapping in a Mediterranean environment using Landsat TM satellite data. *International Journal of Remote Sensing*. 33(14): 4408-4433.
- I.23. **N. Koutsias***, M. Arianoutsou, A.S. Kallimanis, G. Mallinis, J.M. Halley and P. Dimopoulos. 2012. Where did the fires burn in Peloponnisos, Greece the summer of 2007? Evidence for a synergy of fuel and weather. *Agricultural and Forest Meteorology*. 156: 41– 53.
- I.22. S. Moustakidis, G. Mallinis, **N. Koutsias**, J Theocharis, V Petridis. 2012. An SVM-based Fuzzy Decision Tree for Classification of Multispectral Remote Sensing Images. *IEEE Transactions on Geoscience and Remote Sensing*. 50(1): 149-169.
- I.21. M. Panitsa, **N. Koutsias**, I. Tsiripidis, A. Zotos and P. Dimopoulos. 2011. Species-based versus habitat-based evaluation for conservation status assessment of habitat types in the East Aegean islands (Greece). *Journal for Nature Conservation*. 19: 269-275.
- I.20. F. Moreira, O. Viedma, M. Arianoutsou, T. Curt, **N. Koutsias**, E. Rigolot, A. Barbati, P. Corona, P. Vaz, G. Xanthopoulos, F. Mouillot, E. Bilgili. 2011. Landscape – wildfire interactions in Southern Europe: implications for landscape management. *Journal of Environmental Management*. 92: 2389-2402.
- I.19. F. Nioti, P. Dimopoulos and **N. Koutsias***. 2011. Correcting the fire scar perimeter of a 1983 wildfire using USGS archived Landsat satellite data. *GIScience & Remote Sensing*. 48(4): 600-613.
- I.18. G. Mallinis, D. Emmanoloudis, V. Giannakopoulos, F. Maris and **N. Koutsias**. 2011. Mapping and interpreting historical land cover changes in a Natura 2000 site using earth observational data: the case of Nestos Delta, Greece. *Applied Geography*. 31: 312-320.
- I.17. A. Dounavi, **N. Koutsias**, M. Ziehe and H.H. Hattemer. 2010. Spatial patterns and genetic structures within beech populations (*Fagus sylvatica* L.) of forked and non-forked individuals. *European Journal of Forest Research*. 129: 1191-1202.
- I.16. **Koutsias N.***, J. Martínez-Fernández and B. Allgöwer. 2010. Do factors causing wildfires vary in space? Evidence from geographically weighted regression. *GIScience & Remote Sensing*. 47(2): 221-240.
- I.15. G. Mallinis, F. Maris, I. Kalinderis and **N. Koutsias**. 2009. Assessment of post-fire soil erosion risk in fire-affected watersheds using remote sensing and GIS. *GIScience & Remote Sensing*. 46(4): 388–410.
- I.14. **Koutsias, N.***, G. Mallinis, and M. Karteris. 2009. A forward/backward principal component analysis of Landsat-7 ETM+ data to enhance the spectral signal of burnt surfaces. *ISPRS Journal of Photogrammetry and Remote Sensing*. 64:37-46.
- I.13. Mayer, R., C. Plank, S. Kollarits, H. Siegel, S. Kreuzer, C. Liehr, C. Rachoy, N. Wergles, J. Papez, L. Noessing, U. Sulzenbacher, V. Mair, D. Tosoni, S. Cimarosto, A Zanco., A Corsini., P. Jindra, T. Toli, H. Haradalia, **N. Koutsias**, S. Todorov, L. Krastev, W. Gasperl, M. Mayerl, M. Moelk, F. Ronchetti. 2008. MONITOR - Hazard Monitoring for Risk Assessment and Risk Communication. *Georisk*. 2(4):193-220.

- I.12. G. Mallinis, and **N. Koutsias***. 2008. Spectral and Spatial-Based Classification for Broad-Scale Land Cover Mapping Based on Logistic Regression. *Sensors* 8:8067-8085.
- I.11. G. Mallinis, **N. Koutsias**, M. Tsakiri-Strati, and Michael Karteris. 2008. Object-based classification of a Quickbird high spatial resolution imagery for delineating forest vegetation polygons in a Mediterranean test site. *ISPRS Journal of Photogrammetry and Remote Sensing*. 63(2):237-250.
- I.10. K. Kalabokidis, **N. Koutsias**, P. Konstantinidis and C. Vasilakos. 2007. Multivariate Analysis of Landscape Wildfire Dynamics in a Mediterranean Ecosystem of Greece. *Area* 39(3):392-402.
- I.9. J. de la Riva, F. Pérez, N.L. Renault and **N. Koutsias**, 2004. Mapping forest fire occurrence at a regional scale. *Remote Sensing of Environment*. 92(3):363-369.
- I.8. **Koutsias, N.***, K. Kalabokidis, and B. Allgöwer, 2004. Fire occurrence patterns at landscape level: beyond positional accuracy of ignition points with kernel density estimation methods. *Natural Resource Modeling*. 17(4):359-375.
- I.7. Mallinis, G., **N. Koutsias**, A. Makras, and M. Karteris. 2004. Forest parameters estimation in a European Mediterranean landscape using remotely sensed data. *Forest Science*. 50(4):450-460
- I.6. **Koutsias, N.***, and M. Karteris, 2003. Classification analyses for mapping forest fire fuel complexes using satellite remote sensing technology and geographical information systems. *International Journal of Remote Sensing*. 24(15):3093-3104.
- I.5. **Koutsias, N.** 2003. An autologistic regression model for increasing the accuracy of burned surface mapping using Landsat Thematic Mapper data. *International Journal of Remote Sensing*. 24(10):2199-2204.
- I.4. Dounavi, K.D., **N. Koutsias**, K.P. Panetsos. 2001. Natural interspecific hybridization between *Pinus brutia* (Tenore) and *P. halepensis* (Miller) verified by using the logistic regression modelling on morphological character. *Forest Genetics*, 8(2):151-158.
- I.3. **Koutsias, N.***, M. Karteris, and E. Chuvieco, 2000. The use of intensity-hue-saturation transformation of Landsat-5 Thematic Mapper data for burned area mapping. *Photogrammetric Engineering and Remote Sensing*, 66(7):829-839.
- I.2. **Koutsias, N.***, and M. Karteris, 2000. Burned area mapping using logistic regression modeling of a single post-fire Landsat-5 Thematic Mapper image. *International Journal of Remote Sensing*, 21(4):673-688.
- I.1. **Koutsias, N.***, and M. Karteris, 1998. Logistic regression modeling of multitemporal Thematic Mapper data for burned area mapping. *International Journal of Remote Sensing*, 19(18):3499-3514.