

Recent Publications of the AIS Laboratory

Wing, M.G., J. Burnett, J. Sessions, J. Brungardt, V. Cordell, D. Dobler, and D. Wilson. 2013 . Eyes in the sky: Remote sensing technology development using small unmanned aircraft systems. (in press). *Journal of Forestry*

Frank, J. and M.G. Wing. 2013. Differential GPS effectiveness in measuring area and perimeter in forested settings. (in press). *Measurement Science and Technology*.

Wing, M.G., J. Burnett, and J. Sessions. 2013. Remote sensing and unmanned aerial system technology for monitoring and quantifying forest fire impacts. (in press) *International Journal of Remote Sensing*.

Wing, M.G., M. Craven, J. Sessions, and J. Wimer. 2013. LiDAR-derived DEM and raw height comparisons along profile corridor gradients within a forest. (in press) *Journal of Geographic Information System*.

Akay, A.E., M.G. Wing, and J. Sessions. 2013. Estimating sediment reduction cost for low-volume forest roads using a LiDAR-derived high-resolution DEM. (in press). *Baltic Journal of Road and Bridge Engineering*.

Edson, C. and M.G. Wing. 2012. Tree location measurement accuracy with a mapping-grade GPS receiver under forest canopy. *Forest Science* 58(6):567-576.

Akay, A.E., M.G. Wing, F. Sivrikaya, and D. Sakar. 2012. A GIS-based decision support system to determine the shortest and safest route to forest fires: A case study in the Mediterranean region of Turkey. *Environmental Monitoring and Assessment* 184:1391-1407.

Albers, H.J, A. W. Ando, M. Bu, and M.G. Wing. 2012. Road-network agglomeration, road density, and protected-area fragmentation. *Letters in Spatial and Resource Sciences* 5(3): 137-150.

Akay, A.E., M.G. Wing, and J. Sessions. 2012. Estimating structural properties of riparian forests with GIS and airborne LiDAR data. *International Journal of Remote Sensing* 33(22):7010-7023.

Wing, M.G. and D. Godwin. 2011. SWAMP GIS: A spatial decision support system for predicting and treating stormwater runoff. *Journal of Spatial Hydrology* 11(2):21-32.

Edson, C. and M.G. Wing. 2011. Airborne LiDAR for individual tree stem location, height, and biomass measurements. *Remote Sensing* 3(11):2494-2528.

Wing, M.G. and J. Frank. 2011. Vertical measurement accuracy and reliability of mapping-grade GPS receivers. *Computers and Electronics in Agriculture* 78(2):188-194.

Simwanda, M., M.G. Wing, and J. Sessions. 2011. Evaluating Global Positioning System accuracy for forest biomass transportation tracking within varying forest canopy. *Western Journal of Applied Forestry* 26(4):165-173.

Wing, M.G. 2011. Measurement differences resulting from analyzing natural resource spatial databases referenced to multiple map coordinate systems. *Mathematical and Computational Forestry & Natural Resource Sciences* 3(2):53-63.

Wing, M.G, and J. Frank. 2011. An examination of five identical mapping-grade GPS receivers in two forest settings. *Western Journal of Applied Forestry* 26(3):119-125.

Akay, A.E., M.G. Wing, F. Sivrikaya, and D. Sakar. 2011. A GIS-based decision support system to determine the shortest and safest route to forest fires: A case study in the Mediterranean region of Turkey. *Environmental Monitoring and Assessment* 184:1391-1407.

Wing, M.G. 2011. Consumer-grade GPS receiver measurement accuracy in varying forest conditions. *Research Journal of Forestry* 5(2):78-88.